

Final Rule Change Report:  
Outage Planning Phase 2 – Outage Process  
Refinements (RC\_2013\_15)

Standard Rule Change Process

26 August 2019

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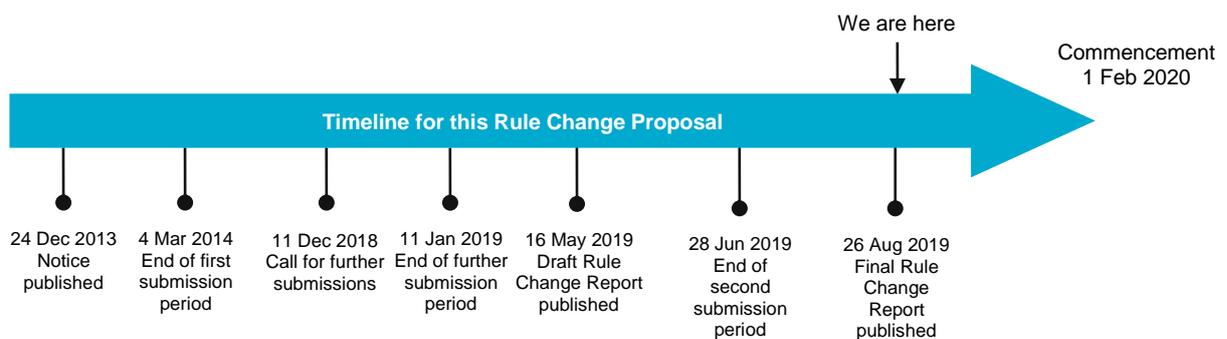
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# 1. Rule Change Proposal, Process and Timeline

On 24 December 2013, the Independent Market Operator (**IMO**) submitted a Rule Change Proposal titled “Outage Planning Phase 2 – Outage Process Refinements” (RC\_2013\_15). The Rule Change Proposal seeks to implement a number of reforms to the Wholesale Electricity Market (**WEM**) outage planning processes to improve their transparency, flexibility, consistency and efficiency.

The Rule Change Proposal is being processed using the Standard Rule Change Process, described in section 2.7 of the Market Rules. The timeframes for the first submission period and the preparation of the Draft Rule Change Report were extended by the IMO under clause 2.5.10; and the timeframes for the preparation of the Draft Rule Change Report, the second submission period and the preparation of the Final Rule Change Report were extended by the Rule Change Panel under clauses 1.18.3(b) and 2.5.10. Further details of the extensions are available on the Rule Change Panel’s website.

The key dates for progressing this Rule Change Proposal, as amended in the extension notices, are:



All documents related to this Rule Change Proposal can be found on the Rule Change Panel’s website at [Rule Change: RC\\_2013\\_15 - Economic Regulation Authority Western Australia](#).

## 2. The Rule Change Panel's Decision

The Rule Change Panel's final decision is to accept the Rule Change Proposal in a modified form, as set out in section 8 of this report.

### 2.1 Reasons for the Decision

The Rule Change Panel has made its decision on the basis that the Amending Rules:

- will clarify and refine the outage planning obligations of Rule Participants;
- will support the provision of more complete, timely and accurate outage information for use in Medium Term Projected Assessment of System Adequacy (**PASA**) studies, Short Term PASA and outage planning processes;
- will support the provision of more accurate Balancing Forecasts and Forecast Balancing Merit Orders (**BMOs**);
- will improve efficiency and reduce costs by removing unnecessary restrictions in the outage planning rules;
- will reduce administrative and compliance costs by removing unnecessary obligations on Rule Participants;
- will provide greater certainty to Rule Participants and reduce some of the risks associated with Planned Outages;
- is likely to encourage Rule Participants to schedule outages further in advance and to undertake an efficient level of maintenance that balances maintenance costs against the need to meet reliability obligations;
- will increase the clarity and consistency of the outage planning provisions of the Market Rules;
- have an estimated implementation cost and timeframe that will allow net benefits to be realised over the remaining period before the expected implementation of the Minister's proposed WEM reforms in October 2022;
- will allow the Market Rules to better achieve Wholesale Market Objectives (a), (b) and (d);
- are consistent with Wholesale Market Objectives (c) and (e);
- were generally supported by Market Advisory Committee (**MAC**) members and attendees at the MAC workshops held on 17 September 2018, 7 November 2018 and 10 June 2019 to discuss the Rule Change Proposal; and
- were generally supported (albeit with some suggestions for further enhancements) by the submissions received in response to the Rule Change Panel's call for further submissions on the Rule Change Proposal (**CFFS**) and the submissions received during the second submission period.

Additional detail outlining the analysis behind the Rule Change Panel's decision is provided in section 7 of this report.

### 2.2 Commencement

The Amending Rules will commence at **8:00 AM on 1 February 2020**.

## 3. Proposed Amendments

### 3.1 The Rule Change Proposal

The purpose of this Rule Change Proposal is to:

- clarify the obligations of Rule Participants around the outage planning processes;
- provide greater flexibility for Rule Participants in outage planning; and
- improve the transparency and consistency of outage planning and Balancing Market processes.

The issues addressed in the Rule Change Proposal relate to:

- obligations to participate in the outage planning process;
- interactions between Planned Outages and Balancing Submissions;
- timelines for Planned Outages;
- availability criteria for the approval of Planned Outages; and
- a number of minor enhancements to improve the integrity and clarity of the outage planning provisions in the Market Rules.

A summary of the proposed amendments is provided below. Full details of the Rule Change Proposal are available on the Rule Change Panel's website.

#### 3.1.1 Obligations to Participate in the Outage Planning Process

##### **Issue 1: Equipment List: Demand Side Programmes and Associated Loads, Dispatchable Loads and Interruptible Loads**

Clause 3.18.2(c)(ii) of the Market Rules requires all Registered Facilities holding Capacity Credits to be included on the Equipment List, except those to which clause 3.18.2A applies.<sup>1</sup> The clause 3.18.2(c)(ii) requirement applies not only to Scheduled Generators and Non-Scheduled Generators, but also to Demand Side Programmes and Interruptible Loads; and applied to Dispatchable Loads until 1 July 2019 when the Facility Class was removed from the Market Rules by Rule Change Proposal: Removal of Resource Plans and Dispatchable Loads (RC\_2014\_06).

In its Rule Change Proposal, the IMO considered that Demand Side Programmes, Associated Loads or Dispatchable Loads do not need to be included on the Equipment List.<sup>2</sup> The IMO also noted that, in practice, Interruptible Loads are only used to provide Spinning Reserve Service under an Ancillary Service Contract, and so are independently required to be included on the Equipment List under clause 3.18.2(c)(iii) (renumbered in the proposed amendments to clause 3.18.2(c)(iv)).

The IMO therefore proposed to restrict the Facilities that must be included on the Equipment List under clause 3.18.2(c)(ii) to Scheduled Generators and Non-Scheduled Generators holding Capacity Credits with a Standing Data nameplate capacity of at least 10 MW.<sup>3</sup>

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<sup>1</sup> The reference to clause 3.18.2A excludes Registered Facilities with a Standing Data nameplate capacity of less than 10 MW and generation systems that supply Intermittent Loads and have a nameplate capacity of less than 10 MW.

<sup>2</sup> See pages 4-5 of the Rule Change Proposal.

<sup>3</sup> Note that Interruptible Loads will continue to be included on the Equipment List under clause 3.18.2(c)(iv).

## Issue 2: Equipment List: Network equipment

Clause 3.18.2(c)(i) of the Market Rules requires “all transmission network Registered Facilities” to be included on the Equipment List. The IMO did not consider it was efficient to require System Management to schedule outages for all components of the transmission system, as only some components have the potential to affect power system security and reliability.

In contrast, clause 3.18.2(c) does not require the inclusion of any components of the distribution system on the Equipment List, except where System Management considers they “must be subject to outage scheduling to maintain Power System Security and Power System Reliability” under clause 3.18.2(c)(iv) (renumbered in the proposed amendments to be clause 3.18.2(c)(v)). However, there are situations where an outage in the distribution system can limit the output of a generation system on the Equipment List.

The IMO considered that if a generation system is required to be included on the Equipment List then it follows that any network equipment (whether transmission or distribution) that could limit that generation system’s output should also be on the Equipment List. However, the IMO also considered that other network equipment should only be included on the Equipment List if it is required by System Management under proposed clause 3.18.2(c)(v) to maintain Power System Security and Power System Reliability.

Accordingly, the IMO proposed to amend clause 3.18.2(c)(i) to require the Equipment List to include any transmission or distribution system equipment that could limit the output of a generation system that is on the Equipment List.

## Issue 3: Requirements to follow the outage planning process

The obligation on a Rule Participant to request or report (as applicable) a Planned Outage prior to undertaking discretionary maintenance is not explicit in the Market Rules. The IMO proposed to update clause 3.18.2A(b) and include proposed clause<sup>4</sup> 3.19.2A to clarify the requirement for a Market Participant to follow the outage scheduling processes.

Proposed clause 3.18.2A(b) requires a Market Participant to notify System Management of a proposed Planned Outage of a generation system to which clause 3.18.2A applies (**Small Outage Facility**)<sup>5</sup> if:

- the Market Participant intends to make some or all of the Small Outage Facility’s capacity unavailable; and
- the capacity would otherwise be available for the duration of the proposed outage.

Proposed clause 3.19.2A requires a Market Participant to request approval for a Planned Outage from System Management in accordance with sections 3.18 and 3.19 if:

- the Market Participant intends to make some or all of an Equipment List Facility’s capacity unavailable; and
- the capacity would otherwise be available for the duration of the proposed outage.

<sup>4</sup> In this report, ‘proposed clause’ means the clause as proposed in the Rule Change Proposal for RC\_2013\_15.

<sup>5</sup> ‘Small Outage Facility’ is the name proposed by the IMO for Scheduled Generators, Non-Scheduled Generators and generation systems serving Intermittent Loads that have a nameplate capacity of less than 10 MW and are not Equipment List Facilities. Clause 3.18.2A specifies the outage scheduling obligations for these generation systems.

## 3.1.2 Interactions between Planned Outages and Balancing Submissions

### Issue 4: Balancing Submission unavailability declarations

At the time the Rule Change Proposal was submitted some ambiguity existed in the Market Rules around how unavailable capacity was indicated in a Balancing Submission. While various clauses implied that a Balancing Submission must indicate how much of a Balancing Facility's Sent Out Capacity is unavailable for dispatch, clause 7A.2.4 and the Glossary definition of the term 'Balancing Submission' did not explain how this was to be done. Further, the Glossary definition suggested that for a Scheduled Generator the Balancing Price-Quantity Pairs should cover the full Sent Out Capacity of the Facility, regardless of whether any of that capacity was unavailable for dispatch.

The IMO proposed to amend the Glossary definition of a Balancing Submission and the requirements for a Balancing Submission in clause 7A.2.4, and include proposed clauses 7A.2.4A, 7A.2.4B and 7A.2.4C, to clarify how 'available' and 'unavailable' capacity are to be represented.

For a Balancing Facility that is a Scheduled Generator, the IMO proposed that for each Trading Interval the sum of the MW quantities in the Balancing Price-Quantity Pairs and the 'unavailable' quantity should equal the Sent Out Capacity of the Facility.

For a Non-Scheduled Generator, the IMO proposed that:

- the 'available' quantity provided in the single Balancing Price-Quantity Pair should reflect the Market Participant's estimate of its MW output at the end of the Trading Interval, assuming it is not dispatched down by System Management; and
- the 'unavailable' quantity should reflect any Outages but should not include that part of the Sent Out Capacity that is not expected to be reached because its fuel supply (e.g. wind or sunlight) is not at an optimal level.

The two quantities were not therefore expected to sum to the Sent Out Capacity of the Facility.

Similarly, the MW quantities in a Balancing Submission for the Balancing Portfolio were not expected to sum to the total Sent Out Capacity of the component Facilities, since these Facilities include some Non-Scheduled Generators.

The IMO proposed similar but not identical changes in Rule Change Proposal RC\_2014\_06. The Amending Rules for RC\_2014\_06 commenced on 1 July 2019.

### Issue 5: Deadline for approval of a Planned Outage

Currently the Market Rules do not set a deadline for System Management to make decisions on whether to approve a Planned Outage, although clause 3.19.2(b) sets a deadline for on-the-day Opportunistic Maintenance requests of one hour before the proposed start time. This creates a risk that a request could be rejected after Balancing Gate Closure, leaving the relevant capacity unavailable for dispatch in the BMO and the Market Participant obliged to log a Forced Outage.

The IMO proposed to amend clause 3.19.2 to set the deadline for requesting approval of an Opportunistic Maintenance request to 30 minutes before Balancing Gate Closure for the Trading Interval in which the outage is due to commence. The IMO also proposed to include a new clause 3.19.4A to prescribe that if System Management has not provided a Rule Participant with a decision on a request for approval of a Planned Outage (including a

Scheduled Outage or Opportunistic Maintenance) by this time, then the request is deemed to be rejected for the purposes of the Market Rules.

### **Issue 6: Clarification of requirements for Balancing Facilities (excluding the Balancing Portfolio)**

The Market Rules are unclear about how capacity subject to a Planned Outage request should be reflected in Balancing Submissions for a Balancing Facility. The IMO considered that any capacity subject to an approved Planned Outage or to an outstanding request for approval of a Planned Outage should generally be bid as 'unavailable' capacity in the relevant Balancing Submissions.

The IMO's rationale for requiring the relevant capacity of a Market Generator to be bid as unavailable prior to approval of an outage was that the IMO:

- expected that these requests will be approved more often than not, and so making the capacity unavailable in the BMO earlier would improve transparency and the likely accuracy of the forecast Balancing Price; and
- considered this approach removed any requirement on System Management to exercise discretion about the likelihood of a Balancing Facility being dispatched based on its position in the Forecast BMO.

The IMO also considered that any capacity declared as unavailable in a Balancing Submission (apart from minor temperature related de-ratings) should be subject to an Outage.

To achieve these outcomes, the IMO proposed clauses 7A.2.8A and 7A.2A.1 to clarify that for Balancing Facilities that are not part of the Balancing Portfolio (**non-Balancing Portfolio Balancing Facilities**):

- (1) a Market Generator must, for each of its Balancing Facilities and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times, any of the Facility's capacity that is:
  - subject to an approved Planned Outage; or
  - subject to an outstanding request for approval of a Planned Outage,is declared as unavailable in the Balancing Submission for the Facility and the Trading Interval, unless the Facility is undertaking a Commissioning Test in that Trading Interval; and
- (2) a Market Generator must, as soon as practicable after Balancing Gate Closure for each Trading Interval, for each of its Balancing Facilities that is either an Equipment List Facility or a Small Outage Facility (collectively referred to as an Outage Facility), ensure that it has notified System Management of a Forced Outage or Consequential Outage for any capacity declared unavailable in the Facility's Balancing Submission that:
  - was not subject to an approved Planned Outage or Consequential Outage at Balancing Gate Closure for the Trading Interval; and
  - is not attributable to a difference between the expected temperature at the site during the Trading Interval and the temperature at which the Sent Out Capacity for the Facility was determined.

Proposed clause 7A.2A.3 excludes from requirement (2) any capacity subject to a previously approved Planned Outage that was then rejected by System Management less than 30 minutes before Balancing Gate Closure.

On rare occasions, System Management may reject a previously approved Planned Outage under clause 3.19.5 before it commences. The IMO considered that in these situations the Market Participant should be required to update its Balancing Submission for any Trading Intervals in the Balancing Horizon for which Balancing Gate Closure has not yet occurred, to make the relevant capacity available for dispatch.

Similarly, where the SWIS is in an Emergency Operating State or High Risk Operating State, System Management may direct a Market Participant that a Facility be returned to service early from a Planned Outage under clause 3.20.1. In these situations, the IMO considered that the Market Participant should be required to update its Balancing Submission, to reflect the change in available capacity due to System Management's direction, for any Trading Intervals for which Balancing Gate Closure has not yet occurred.

The IMO therefore proposed to add new clauses to clarify a Market Participant's obligations around its Balancing Submissions in the event of a late rejection of a previously approved Planned Outage (proposed clause 7A.2.9B) or the recall of a Planned Outage that is underway (proposed clause 7A.2.9C). The proposed clauses apply to all Scheduled Generators and Non-Scheduled Generators, including those in the Balancing Portfolio.

#### **Issue 7: Clarification of requirements for the Balancing Portfolio**

Synergy has fewer opportunities to revise its Balancing Submissions (i.e. for the Balancing Portfolio) than other Market Participants, and the deadline for these Balancing Submissions (between 4 and 9.5 hours prior to the start of the Trading Interval) falls well before Balancing Gate Closure. To require final decisions on Planned Outage approval requests for Balancing Portfolio Facilities before the deadline for Balancing Portfolio Balancing Submissions (to allow Synergy time to amend its Balancing Submission to make capacity subject to a rejected request available) would significantly limit the time window available to Synergy for Opportunistic Maintenance requests, when compared with the current arrangements.

However, the IMO considered that allowing Synergy to make material changes to Balancing Portfolio Balancing Submissions after the normal deadlines would undermine the effectiveness of these deadlines in mitigating concerns around market power. The IMO also noted that the Balancing Portfolio provides Synergy with the opportunity to optimise the dispatch of its Facilities within the Balancing Portfolio without the same restrictions as Independent Power Producer (IPP) Facilities about updating Balancing Submissions.

To address these concerns, the IMO proposed that the requirements for the Balancing Portfolio should be similar to those for other Balancing Facilities (taking into account the different deadlines for Balancing Portfolio Balancing Submissions) with the following exceptions:

- capacity that is subject to an outstanding request for approval of a Planned Outage should be declared as 'available' in the Balancing Submissions for the relevant Trading Intervals; and
- if Synergy receives approval of an Opportunistic Maintenance request later than its usual gate closure time, it should be required to amend its Balancing Submission for the affected Trading Intervals to make the relevant capacity unavailable, but remove the capacity from its highest price Balancing Price-Quantity Pairs, leaving its lower price Balancing Price-Quantity Pairs unchanged.

The Balancing Portfolio's requirements are specified in proposed clauses 7A.2.9(g), 7A.2.9A and 7A.2A.2.

### 3.1.3 Timelines for Planned Outages

#### **Issue 8: Clarification of deadline for Scheduled Outage approval requests**

The exact deadline for Scheduled Outage approval requests is unclear. Clause 3.19.1 requires a Network Operator or Market Participant to request approval of a Scheduled Outage "no later than two days prior to the date of commencement" of the outage, but no time is specified. In practice, System Management requires requests to be made by 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the proposed outage is due to commence (**TD-2**).

The IMO proposed to amend clause 3.19.1 to clarify that approval of a Scheduled Outage must be requested no later than 10:00 AM on TD-2.

#### **Issue 9: Prohibition on Opportunistic Maintenance Outages spanning two Trading Days**

Currently, clauses 3.19.2(a) and 3.19.2(b)(iii) require an Opportunistic Maintenance outage to be completed by the end of the Trading Day in which it commences. Additionally, under clause 3.19.3A(b) System Management must not approve Opportunistic Maintenance requests on two consecutive days. The effect of these clauses is to restrict the period over which an Opportunistic Maintenance outage can occur to the Trading Day within which the outage commences.

The IMO considered there is no reason to require an Opportunistic Maintenance outage to take place within a single Trading Day and proposed to amend clause 3.19.2 to allow Opportunistic Maintenance requests to be for any period up to 24 hours in length.

#### **Issue 10: Restrictions on the timeframes for making Opportunistic Maintenance requests**

Currently an Opportunistic Maintenance request cannot be made between 10:00 AM on the Scheduling Day and the start of the Trading Day. The IMO considered that this restriction was unnecessary and removing it would improve the efficiency of the outage planning process.

The IMO therefore proposed to amend clause 3.19.2 to allow a Market Participant to submit an Opportunistic Maintenance request at any time between:

- the proposed deadline for Scheduled Outage requests, i.e. 10:00 AM on TD-2; and
- the proposed deadline for System Management's decisions on Opportunistic Maintenance requests (i.e. 30 minutes before Balancing Gate Closure for the Trading Interval in which the requested outage is due to commence).

#### **Issue 11: Restrictions on the timeframes for making consecutive Opportunistic Maintenance requests**

Clause 3.19.3A(b) states that System Management must not approve Opportunistic Maintenance for an Equipment List Facility "on two consecutive Trading Days". It is not clear from the wording whether the restriction applies to the approvals or the outages, but the clause has generally been interpreted as referring to the outages.

The IMO considered it appropriate that Rule Participants should not be able to request a series of consecutive Opportunistic Maintenance outages, effectively undertaking the equivalent of a Scheduled Outage without due notice. However, the current restriction would no longer be appropriate if Opportunistic Maintenance was allowed to span two Trading Days. The IMO therefore proposed to amend clause 3.19.3A(b) to require a 24-hour period to elapse between the end of one Opportunistic Maintenance outage for an Equipment List Facility and the start of the next.

### **Issue 12: Notification timelines for Small Outage Facilities**

Currently clause 3.18.2A(b) requires a Market Participant to notify System Management of proposed Planned Outages for a Small Outage Facility “not less than 2 Business Days prior to their commencement”. There are no provisions allowing for the equivalent of Opportunistic Maintenance for a Small Outage Facility.

The IMO considered that, for Small Outage Facilities, the notification deadlines for short Planned Outages (up to 24 hours in duration) should not exceed the Opportunistic Maintenance request deadline for Equipment List Facilities. Similarly, the IMO considered there is no necessity for the notification deadline for longer Planned Outages to exceed the deadline for Scheduled Outage approval requests for Equipment List Facilities.

The IMO therefore proposed to amend clause 3.18.2A to align the notification deadlines for Planned Outages of Small Outage Facilities with the approval request deadlines for Planned Outages of corresponding duration for Equipment List Facilities. The proposed amendments to clause 3.18.2A also clarify that a Market Participant must notify System Management if the timing of an outage changes or the outage is no longer required.

### **3.1.4 Criteria for Approval of Planned Outages**

#### **Issue 13: Availability declarations for Planned Outage approval requests**

The IMO proposed to strengthen and clarify the requirements in the Market Rules relating to Planned Outage approval requests by adding:

- proposed clause 3.19.2B, which prohibits a Market Participant from requesting approval of a Planned Outage for a Scheduled Generator or Non-Scheduled Generator if the Market Participant does not expect in good faith that, if System Management rejected the request, the capacity to which the request applies would be available for dispatch for the duration of the proposed outage;
- proposed clause 3.18.2A(h), which imposes a similar requirement on Market Participants around notifications of Planned Outages for Small Outage Facilities; and
- proposed clause 3.19.2C, which requires a Market Participant with a Planned Outage request that has not yet been approved or rejected by System Management to immediately notify System Management and withdraw the request if it ceases to expect that the capacity would be otherwise available (e.g. in the event of a Forced Outage of the Facility).

Two exceptions were proposed in clause 3.19.2D:

- where the proposed Planned Outage will immediately follow a Scheduled Outage of the relevant capacity (i.e. the outage is effectively an extension of a Scheduled Outage); and
- where the Market Participant reasonably expects that the capacity would be subject to a Consequential Outage if the proposed Planned Outage did not proceed.

The IMO also proposed to replace clause 3.19.3A(c) with proposed clause 3.19.3B, which allows System Management to decline to approve a Scheduled Outage or Opportunistic Maintenance for an Equipment List Facility where it considers that the capacity to which the request applies would not otherwise be available for dispatch for the duration of the proposed outage.

The IMO noted the following implications of the proposed amendments:

- Generally, there would be no requirement for Market Participants to provide written availability declarations to System Management, as these would be implicit in the request for approval of the outage.
- If a Facility experienced a Forced Outage after a Planned Outage had been approved but before the outage commenced, then this would not affect the status of the Planned Outage.
- Requests for extensions of Planned Outages would be managed as a request for a new, separate Planned Outage, and treated no differently from any other Planned Outage request except that the implicit availability declaration prescribed in proposed clause 3.19.2B would not be required. The extension outage could be either a Scheduled Outage or Opportunistic Maintenance.

The IMO did not propose any limit on the length of extension outages,<sup>6</sup> to avoid encouraging Market Participants to request Scheduled Outages that are longer than necessary. However, the IMO proposed to monitor outage extensions for any abuse of this flexibility and, if necessary, propose further amendments to the Market Rules in the future to set an overall time limit for these extensions.

### 3.1.5 Other Issues

The IMO also proposed the following enhancements to improve the clarity and integrity of the outage planning provisions in the Market Rules:

- Use of defined terms: the IMO proposed to create defined terms in the Glossary for Equipment List, Equipment List Facility, Small Outage Facility and Outage Facility to provide clarity and reduce unnecessary repetition in the drafting.
- Removal of unnecessary cross-references to clause 3.18.2A: the IMO proposed to amend clause 3.18.2(c) to replace two cross-references to clause 3.18.2A with their substantive meaning (i.e. that the generation systems in question must have a nameplate capacity of at least 10 MW).
- Removal of clause 3.18.5D: Planned Outage details by Facility became Public information under clause 10.5.1(zD) following the commencement of the Amending Rules for the Rule Change Proposal: Competitive Balancing and Load Following Market (RC\_2011\_10). The IMO therefore proposed to remove clause 3.18.5D, which allows System Management to provide a Network Operator with the Scheduled Outage information of a Market Participant's Facility, from the Market Rules on the basis that the clause was no longer required.
- Contents of System Management's outage schedule: the IMO proposed to amend clause 3.18.4 to clarify which Outage Plans are to be considered Scheduled Outages and included in System Management's outage schedule.

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<sup>6</sup> Apart from the usual timing requirements for Scheduled Outages and Opportunistic Maintenance.

The IMO also proposed several other minor and typographical changes to improve the clarity and integrity of the drafting.

### 3.2 Changes to the Market Rules Affecting the Rule Change Proposal

Since the formal submission of this Rule Change Proposal:

- the Market Rules have changed significantly;
- Verve Energy and Synergy have merged to form a single entity;
- the market operator function has transferred from the IMO to AEMO;
- several functions have transferred from the IMO to the Economic Regulation Authority (ERA); and
- the system management function has transferred to AEMO.

The Rule Change Panel has therefore applied the proposed changes to the current Market Rules, accounting where applicable for the changes made to the Market Rules since the submission of the Rule Change Proposal. A summary of the required changes to the original Rule Change Proposal drafting is provided in Appendix A of the Draft Rule Change Report.<sup>7</sup>

The Rule Change Panel notes that the rationale for the proposed changes is, in most cases, unaffected by changes made to the Market Rules since the submission of this Rule Change Proposal, the merger of Verve Energy and Synergy, and the transfer of functions to AEMO and the ERA.

### 3.3 The IMO's Initial Assessment of the Proposal

The IMO decided to progress this Rule Change Proposal on the basis that Rule Participants should be given an opportunity to provide submissions as part of the rule change process.

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<sup>7</sup> The Amending Rules for Rule Change Proposal: Removal of Market Operation Market Procedures (RC\_2015\_01) commenced after the publication of the Draft Rule Change Report for this Rule Change Proposal (RC\_2013\_15). The Amending Rules for RC\_2015\_01 have been reflected in the drafting in this Final Rule Change Report but did not require any additional changes to be made to the proposed Amending Rules.

## 4. Consultation

Although the Rule Change Panel has summarised the submissions received in the first, second and further submission periods and the views expressed by the MAC in accordance with clause 2.7.7 of the Market Rules, the Rule Change Panel has reviewed this information in its entirety and taken into account each matter raised by stakeholders and the MAC in making its decision on this Rule Change Proposal.

### 4.1 Consultation before the Publication of the Draft Rule Change Report

A summary of the consultation undertaken by the IMO and the Rule Change Panel in respect of this Rule Change Proposal before the publication of the Draft Rule Change Report is provided in Appendix A of this report. The summary covers:

- early consultation by the IMO on outage planning issues;
- MAC consultation by the IMO before the formal submission of the Rule Change Proposal;
- consultation by the IMO during the first submission period;
- the submissions received during the first submission period and the Rule Change Panel's response to those submissions;
- MAC consultation by the Rule Change Panel after the first submission period;
- MAC workshops for the Rule Change Proposal held by RCP Support on 17 September 2018 and 7 November 2018;
- the CFFS published by the Rule Change Panel on 11 December 2018;
- the submissions received in response to the CFFS and the Rule Change Panel's response to those submissions; and
- consultation undertaken by RCP Support following the close of the further submission period.

### 4.2 MAC Drafting Review Workshop

RCP Support held a third MAC workshop for this Rule Change Proposal on 10 June 2019. The purpose of the workshop was to review the drafting of the proposed Amending Rules in the Draft Rule Change Report and obtain early feedback from stakeholders regarding their concerns and suggestions for improvements.

A summary of the comments and suggestions provided at the workshop is provided in Appendix C of this report. The full minutes of the workshop are available on the Rule Change Panel's website.

Appendix C also provides a brief summary of the Rule Change Panel's response to the comments and suggestions received at the workshop. A more general discussion of the analysis undertaken by the Rule Change Panel on this Rule Change Proposal since the publication of the Draft Rule Change Report, which addresses the main issues raised in workshop, is available in section 7.2 of this report.

### 4.3 Submissions Received during the Second Submission Period

The second submission period for this Rule Change Proposal was held between 16 May 2019 and 28 June 2019. The Rule Change Panel received submissions from AEMO, Alinta Energy (**Alinta**), Bluewaters Power (**Bluewaters**), Perth Energy and Western Power.

The Rule Change Panel had sought stakeholder views on two specific issues in the Draft Rule Change Report:

- Materiality threshold for Non-Scheduled Generator outages:
  - whether System Management should be allowed under the Market Rules to reduce the MW materiality threshold for a Non-Scheduled Generator from the level specified in new clause 3.18.1A<sup>8</sup> if it considers it necessary to maintain power system security and reliability; and
  - if so, whether such decisions should be either Reviewable Decisions or subject to appeal to the ERA; and
- Clarification of ‘unavailable for service’:
  - whether the information listed in new clause 3.18.1B appropriately defines the normal operating limits of Outage Facilities and allows a practical distinction to be made between the normal operation of an Outage Facility and a state that should be regarded as unavailable for service.

No submitter provided a view on the first issue, although AEMO reiterated an earlier suggestion that a single materiality threshold may not be appropriate for all Non-Scheduled Generators given the need to cater for different technologies (e.g. hybrid Facilities), and that it may be preferable to define the thresholds in a Market Procedure.

Only AEMO commented on the second issue, suggesting two refinements to new clause 3.18.1B.

Western Power offered no comment on most aspects of the Rule Change Proposal, limiting its submission to support for:

- the updated provisions in the Draft Rule Change Report concerning the inclusion of network equipment on the Equipment List; and
- the proposed enhancements to the Opportunistic Maintenance process.

AEMO, Alinta, Bluewaters and Perth Energy were all generally supportive of the proposed Amending Rules. However, each submission raised one or more specific issues.

In its submission, AEMO:

- objected to the inclusion of the words ‘or ought to be aware’ in new clauses 3.18.10A and 3.19.3B;
- objected to the use of the term ‘otherwise aware’ in new clauses 3.18.10B(b) and 3.19.3C(b);
- raised concerns about the effect of new exemption clause 3.18.9C on AEMO’s ability to monitor a Rule Participant’s compliance with clause 3.18.9B;
- raised concerns about a lack of clarity regarding the self-assessment (by Synergy) of credible risks in accordance with new clause 7A.2.9(g)(iii), and suggested the Rule

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<sup>8</sup> In this report, ‘new clause’ means an additional clause that the Rule Change Panel proposes to include in the Amending Rules for this Rule Change Proposal.

Change Panel provide guidance on how Synergy would determine this risk to avoid doubt;

- expressed concern that new clause 3.19.2H creates an exception to the principle that an outage not approved by AEMO is a Forced Outage, by allowing a Facility to undergo maintenance that AEMO is not aware of and has not approved; and that enabling this exception may lead to the introduction of further exceptions in future, which over time may erode AEMO's ability to ensure that Power System Security is maintained;
- expressed its view that the Market Rules should refer to AEMO generally throughout, not specifically to System Management, as the references to System Management may have unintended implications for the market and its participants;
- suggested that references to 'Market Participants' in relation to outage scheduling obligations be replaced by references to 'Rule Participants', because Ancillary Service Providers, who are Rule Participants but not Market Participants, are not currently subject to outage scheduling obligations;
- considered that its power of direction to recall a Facility from a Planned Outage in an Emergency Operating State or High Risk Operating State should not be limited to Equipment List Facilities, but should also apply to Self-Scheduling Outage Facilities;
- suggested that the Rule Change Panel should consider the requirement for transitional arrangements for outage requests that have already been submitted, approved or are in progress at the time of the commencement of the proposed Amending Rules; and
- indicated that it had identified a number of specific drafting issues and suggested drafting adjustments, which were provided to the Rule Change Panel separately.

In its submission, Alinta

- suggested that the proposed materiality threshold for reporting Non-Scheduled Generator outages be modified from "min (0.1 x Nameplate\_Capacity, 10)" to "max (0.1 x Nameplate\_Capacity, 10)" to reduce the administrative burden on Market Generators with large wind farms;
- supported the inclusion of the concept of a '0 MW' outage in the Market Rules as an efficient mechanism to inform AEMO of facility restrictions that will not affect its output (e.g. an outage of Ancillary Service capability or situations where a dual-fuel generator is unable to run on one of its fuels);
- considered that the Market Rules should require either:
  - greater coordination of network outages where they are likely to unduly impact the operation of one or more Market Participant Registered Facilities (whether or not the participant wants or needs a corresponding outage); and/or
  - that the Network Operator should have to consider the Wholesale Market Objectives when planning network outages, to ensure that least cost and efficient outcomes are achieved for the market as a whole; and
- agreed with AEMO that the references to 'ought to be aware' in clauses 3.18.10A and 3.19.3B should be removed, because inclusion of 'ought to be aware' may require AEMO to undertake additional monitoring and/or investigations that are not warranted or justified.

Bluewaters expressed concern that proposed clause 7A.2.8A places an additional barrier to entry to Market Generators wishing to return early from a Planned Outage. Bluewaters

suggested that the requirement to update the System Management Market Information Technology System (**SMMITS**) in real time introduced administrative burden on Market Generators wishing to return to service earlier than expected, reducing the availability of low-cost generation to the market.

Perth Energy expressed concern about the Rule Change Panel’s draft decision to exclude distribution network equipment from the Equipment List.<sup>9</sup> Perth Energy highlighted the rapidly increasing impact of distribution network equipment on the market and expressed concern that the alternative approach proposed by Western Power will be insufficient to deliver consistent, equitable and transparent market outcomes over the longer term. For this reason, Perth Energy requested that more information on the costs and benefits of each of the feasible options be made available prior to a decision about the exclusion of distribution equipment from the Equipment List.

Perth Energy also:

- expressed concern that Western Power’s cost estimate to include distribution network equipment on the Equipment List was provided on a confidential basis without justification; and urged the Rule Change Panel to require Western Power to provide publicly available cost estimates for this Rule Change Proposal and those in the future; and
- reiterated the view expressed in its further submission on this Rule Change Proposal that the proposed materiality threshold for reporting Non-Scheduled Generator outages should be extended to Scheduled Generators.

The assessment by submitting parties as to whether the Rule Change Proposal would better achieve the Wholesale Market Objectives is summarised in Table 4.1.

**Table 4.1: Submitters’ Comments on the Wholesale Market Objectives (Second Submission Period)**

Submitter	Wholesale Market Objective Assessment
AEMO	No specific assessment provided.
Alinta	Subject to the consideration of the issues raised in its submission, Alinta agreed with the Rule Change Panel’s assessment that the proposed change will better achieve Wholesale Market Objectives (a), (b) and (d), and is consistent with the remaining Wholesale Market Objectives.
Bluewaters	Bluewaters considered that the effect of clause 7A.2.8A (as predicted in its submission) is at odds with Wholesale Market Objective (d). No specific assessments of other aspects of the proposal were provided.

<sup>9</sup> except where System Management requires its inclusion under revised clause 3.18.2(c)(vi) to maintain Power System Security and Power System Reliability.

Submitter	Wholesale Market Objective Assessment
Perth Energy	Perth Energy considered that the Rule Change Proposal as proposed to be amended in the Draft Rule Change Report is consistent with the Wholesale Market Objectives, and would better achieve Wholesale Market Objectives (a) and (d); with one exception, which is that the application of a materiality threshold for the reporting of outages only for Non-Scheduled Generators and not for Scheduled Generators is inconsistent with Wholesale Market Objective (c) because it discriminates between technologies.
Western Power	Western Power considered that the proposed rule changes regarding the Equipment List and enhancements to the Opportunistic Maintenance process would better facilitate the achievement of the Wholesale Market Objectives.

Copies of all submissions received during the second submission period are available on the Rule Change Panel's website.

#### 4.4 The Rule Change Panel's Response to Submissions Received during the Second Submission Period

The Rule Change Panel's response to each of the specific issues raised in the second submission period is presented in Appendix D of this report. A more general discussion of the analysis undertaken by the Rule Change Panel on this Rule Change Proposal since the publication of the Draft Rule Change Report, which addresses the main issues raised in submissions and the Rule Change Panel's response to these issues, is available in section 7.2 of this report.

#### 4.5 Consultation Following the Second Submission Period

Following the close of the second submission period, RCP Support:

- met with AEMO on several occasions to:
  - clarify issues raised by AEMO in its second period submission;
  - seek AEMO's views on issues raised by stakeholders during the 10 June 2019 workshop and in second period submissions; and
  - seek feedback on potential additional changes to the proposed Amending Rules;
- met with Perth Energy to seek further clarification on the materiality threshold issue raised in Perth Energy's further and second period submissions;
- sought additional information from Western Power regarding its cost estimate to support the inclusion of distribution network equipment on the Equipment List; and
- met with representatives of Bluewaters to discuss the concerns raised in Bluewaters' second period submission about proposed clause 7A.2.8A.

Further details relating to the matters discussed are available in section 7.2, Appendix C and Appendix D of this report.

## **4.6 Public Forums and Workshops**

The Rule Change Panel did not hold a public forum or workshop for this Rule Change Proposal.

## **5. The Rule Change Panel's Draft Assessment**

The Rule Change Panel's draft assessment against clauses 2.4.2 and 2.4.3 of the Market Rules and analysis of the Rule Change Proposal are provided in section 6 of the Draft Rule Change Report, available on the Rule Change Panel's website.

## **6. The Rule Change Panel's Proposed Decision as set out in the Draft Rule Change Report**

The Rule Change Panel's proposed decision in the Draft Rule Change Report was to accept the Rule Change Proposal in a modified form, as set out in section 7 of the Draft Rule Change Report.

The reasons for the Rule Change Panel's proposed decision are set out in section 2.1 of the Draft Rule Change Report.

## 7. The Rule Change Panel's Final Assessment

### 7.1 Assessment Criteria

In preparing its Draft Rule Change Report, the Rule Change Panel must assess the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3 of the Market Rules.

Clause 2.4.2 of the Market Rules states that the Rule Change Panel “*must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives*”. Additionally, clause 2.4.3 of the Market Rules states that, when deciding whether to make Amending Rules, the Rule Change Panel must have regard to:

- any applicable statement of policy principles the Minister has issued to the Rule Change Panel under clause 2.5.2 of the Market Rules;
- the practicality and cost of implementing the proposal;
- the views expressed in submissions and by the MAC; and
- any technical studies that the Rule Change Panel considers necessary to assist in assessing the Rule Change Proposal.

In making its draft decision, the Rule Change Panel has had regard to each of the matters identified in clauses 2.4.2 and 2.4.3 of the Market Rules as follows:

- the Rule Change Panel's assessment of the Rule Change Proposal against the Wholesale Market Objectives is available in section 7.4 of this report;
- the Rule Change Panel notes that there has not been any applicable statement of policy principles from the Minister in respect of this Rule Change Proposal;
- the Rule Change Panel's assessment of the practicality and cost of implementing the Rule Change Proposal is available in section 7.6 of this report;
- a summary of the views expressed in submissions and by the MAC is available in section 4 and Appendix A of this report, and Appendix C of the Draft Rule Change Report. The Rule Change Panel's response to these views is available in section 7.2, Appendix B, Appendix C and Appendix D of this report, and Appendix B and Appendix D of the Draft Rule Change Report; and
- the Rule Change Panel does not believe a technical study in respect of this Rule Change Proposal is required and therefore has not commissioned one.

The Rule Change Panel's assessment is presented in the following sections.

### 7.2 Assessment of the Proposed Changes

Sections 6.2, 6.3 and 6.4 of the Draft Rule Change Report (which are reproduced in Appendix B of this report) discuss:

- the objectives and assessment factors used by the Rule Change Panel in its assessment of this Rule Change Proposal;
- several factors that contributed to the identification of issues warranting additional consideration;

- the Rule Change Panel's draft assessment of the issues raised in the Rule Change Proposal and the amendments that were proposed by the IMO to address those issues; and
- several additional changes proposed by the Rule Change Panel to address new but related issues identified during the Rule Change Panel's assessment of the Rule Change Proposal.

Since the publication of the Draft Rule Change Report, the Rule Change Panel has undertaken further assessment of several aspects of the proposed amendments, mainly in response to issues raised by stakeholders at the 10 June 2019 drafting review workshop and in second period submissions.

This section 7.2 discusses the main issues considered since the publication of the Draft Rule Change Report and the rationale for any additional changes to the proposed Amending Rules. The Rule Change Panel's assessment of the remaining issues raised during the 10 June 2019 workshop and in second period submissions is available in Appendix C and Appendix D of this report.

Apart from where indicated in this section 7.2, the Rule Change Panel's assessment of the changes proposed in the Draft Rule Change Report is unaltered.

### 7.2.1 Issues Raised in the Rule Change Proposal

This section discusses a number of issues relating to the changes proposed in the Draft Rule Change Report to address the 13 issues raised in the Rule Change Proposal.

#### 7.2.1.1 *Concerns raised by Bluewaters regarding the proposed obligation to end a Planned Outage before returning to the Balancing Market (Rule Change Proposal Issue 6)*

Proposed clause 7A.2.8A clarifies how, for non-Balancing Portfolio Balancing Facilities, a Market Generator must represent capacity that is subject to an approved Planned Outage or an outstanding Opportunistic Maintenance request in its Balancing Submissions.

During the 10 June 2019 workshop, attendees discussed whether clause 7A.2.8A(a), which requires capacity subject to an approved Planned Outage to be declared unavailable in Balancing Submissions, was covered by existing 'good faith' bidding rules and therefore redundant; but concluded that this was not the case, in particular for Balancing Facilities that return early from a Planned Outage.

As noted by the IMO in the Rule Change Proposal, the intent of the clause is that if a Market Generator wishes to end an approved Planned Outage early, then it must notify System Management of the revised outage end time before amending its Balancing Submission for any affected Trading Intervals in the Balancing Horizon.

Bluewaters expressed a concern in its second period submission that clause 7A.2.8A would place an additional barrier to entry on Market Generators wishing to return early from a Planned Outage. Bluewaters suggested that the requirement to update SMMITS in real time will introduce administrative burden on Market Generators wishing to return to service earlier than expected, reducing the availability of low-cost generation to the market.

The Rule Change Panel notes that two earlier submissions also proposed to allow Market Generators to return to the Balancing Market while still subject to a Planned Outage. ERM Power proposed the following change to the end of clause 7A.2.8A in its first period submission:

*... is declared as unavailable in the Balancing Submission for the Facility and the Trading Interval, unless the Balancing Facility is undertaking a Commissioning Test in that Trading Interval or has returned to service earlier than the end time of the Planned Outage;*

Alinta expressed support for ERM Power's proposed change in its further submission on the Rule Change Proposal.

Following the second submission period, RCP Support held a phone discussion with representatives from Bluewaters to clarify the exact nature of Bluewaters' concerns. Bluewaters advised it had two main concerns with clause 7A.2.8A:

- (1) what might happen if SMMITS was unavailable when a Market Generator wanted to return to the Balancing Market early and needed to update its Planned Outage record to bring forward the end time; and
- (2) the risk faced by a Scheduled Generator returning from a Planned Outage that fails to comply with its Dispatch Instructions (e.g. by failing to synchronise properly at the required time) and is not protected by a Planned Outage from Capacity Cost Refunds.

RCP Support has since consulted with AEMO and the ERA's compliance team on (1), and:

- received advice from AEMO that if SMMITS is not available, Market Generators are to contact System Management Operations via phone or email, unless otherwise advised by AEMO;
- received confirmation from AEMO that these mechanisms provide an auditable backup system, with audit information that can be made available to the ERA on an ad-hoc basis to assist with any compliance investigations; and
- received confirmation from the ERA's compliance team that it is satisfied with the proposed backup mechanism.

The Rule Change Panel therefore considers that the implementation of clause 7A.2.8A will not prevent a Market Generator from returning early from a Planned Outage if SMMITS is unavailable at the time.

With respect to (2), Bluewaters acknowledged during the discussion with RCP Support that:

- while the baseload Bluewaters and NewGen Kwinana units usually only face this risk when returning from an outage, other mid-merit and peaking generators are regularly exposed to the risk of Capacity Cost Refunds if they fail to start up their units on time; and
- Bluewaters has not raised this specific concern previously, and given the extent of consultation on this Rule Change Proposal to date and the delays in progressing the Rule Change Proposal, it would be difficult to justify delaying the publication of the Final Rule Change Report to allow further consultation on this specific issue.

The Rule Change Panel sees no convincing reason why a Market Generator returning from an outage should be exempt from Capacity Cost Refunds if it is unable to comply with a Dispatch Instruction, when a Market Generator that is not returning from an outage has no such protection. Accordingly, the Rule Change Panel has not amended clause 7A.2.8A to include an exemption of this type.

The Rule Change Panel notes that the proposed Amending Rules explicitly clarify that Market Generators are permitted to conduct Commissioning Tests while subject to a Planned Outage or Forced Outage.

### 7.2.1.2 Request for guidance on how Synergy would determine what constitutes a 'credible risk' under revised clause 7A.2.9(g) (Rule Change Proposal Issue 7)

In the Draft Rule Change Report, the Rule Change Panel made additional changes to proposed clause 7A.2.9(g) to address concerns raised by Synergy and AEMO. The changes make Synergy responsible for updating its Balancing Submissions to reflect a loss of available capacity due to a Forced Outage or late approval of a Planned Outage, but only when Synergy is aware that there is a credible risk that not doing so would distort the operation of the Balancing Market.<sup>10</sup>

AEMO raised the following issue in its second period submission:

*AEMO is concerned about the lack of clarity regarding the self-assessment of credible risks in accordance with clause 7A.2.9(g)(iii) of the WEM Rules, as compliance with this clause is not measurable for similar reasons to those provided in AEMO's submission for AEMO's inability to monitor new clause 3.18.9C<sup>11</sup>, including that the assessment is subjective and independent information to assess compliance is not able to be readily obtained. AEMO suggests including some guidance on how Synergy would determine this risk to avoid doubt.*

In response to a request for clarification, AEMO advised RCP Support that it had no suggestions regarding the wording of such guidance and did not seek the inclusion of additional guidance in the Market Rules. Instead, AEMO requested that the Final Rule Change Report prescribe what the Rule Change Panel considers a 'credible risk' constitutes.

The Rule Change Panel notes that the concept of a credible risk in clause 7A.2.9(g)(iii) is similar to the concept of a credible contingency in the National Electricity Market. The National Electricity Rules (**NER**) define a credible contingency as "a contingency event the occurrence of which AEMO considers to be reasonably possible in the surrounding circumstances including the technical envelope".<sup>12</sup> Under clause 7A.2.9(g)(iii), the onus is on Synergy rather than AEMO; Synergy must update its Balancing Submission if it knows it is reasonably possible that a failure to do so could lead to one of the two outcomes specified in that clause.

The Rule Change Panel expects that the situations contemplated in clause 7A.2.9(g) will only occur very rarely, as they require the approval of Opportunistic Maintenance or the occurrence of a Forced Outage at a time when the reserve margin is unusually low. Synergy would be aware of these situations and the likely impact of its outage through several sources, including its own daily dispatch planning functions (for which it needs to consider which of its Facilities are likely to be dispatched the following Trading Day), Balancing Forecasts, Dispatch Advisories and its interactions with System Management, including when it notifies System Management of a Forced Outage under clause 3.21.4.

It is expected that compliance monitoring would focus on the periods when the adverse outcomes contemplated in clause 7A.2.9(g)(iii) eventuated because Synergy had not updated its Balancing Submission. In these situations, Synergy would need to be able to explain why it had not considered the risk to be credible given the information available to it.

The Rule Change Panel acknowledges that in some borderline situations Synergy and AEMO may have different views on whether a credible risk existed in respect of a specific Trading Interval. However, the Rule Change Panel notes that requiring Synergy to always

<sup>10</sup> See Appendix B.2.2.4 of this report for further details.

<sup>11</sup> See section 7.2.1.5 of this report for further details.

<sup>12</sup> See clause 4.2.3(b) of the National Electricity Rules available at <https://www.aemc.gov.au/regulation/energy-rules/national-electricity-rules/current>.

update its Balancing Submissions cannot at present be justified on efficiency grounds; and that AEMO opposed the only other alternative (for AEMO to direct Synergy to update its Balancing Submissions when AEMO considers the risk is credible) when it was suggested in discussions with RCP Support.

#### *7.2.1.3 Option to simplify the processing of material changes to an outage request or notification (Rule Change Proposal Issue 13)*

The proposed Amending Rules in the Draft Rule Change Report include new clause 3.18.9A, which clarifies that a revised Outage Plan will be deemed to be a new Outage Plan for the purposes of assessment and prioritisation if the revisions include:

- a new start time for the proposed outage that is earlier than the previous proposed start time;
- a new end time for the proposed outage that is later than the previous proposed end time; or
- any increase in the quantity of de-rating.

The Rule Change Panel also included corresponding changes for requests for Opportunistic Maintenance (new clause 3.19.2E) and notices of proposed Planned Outages for Self-Scheduling Outage Facilities (new clause 3.18.2A(h)).<sup>13</sup>

The need for some, but not all, modified outage requests to be treated as new requests for some, but not all, purposes complicates the drafting and implementation of the relevant provisions. The Rule Change Panel considers that the additional complexity could affect not only Planned Outages but the management of ex-ante Consequential Outages (as contemplated under Rule Change Proposal: Administrative Improvements to the Outage Process (RC\_2014\_03))<sup>14</sup>.

Prohibiting the changes listed in clauses 3.18.2A(h), 3.18.9A and 3.19.2E materially simplifies the outage rules, but requires Rule Participants wishing to amend their outages in these ways to either:

- submit an additional request/notice for the additional period or quantity of de-rating; or
- withdraw the original request/notice and submit a new one.

When the option to prohibit the changes was discussed at the 10 June 2019 workshop, attendees raised no concerns about a potential increase in administrative burden.

The Rule Change Panel has therefore made additional changes to clauses 3.18.2A(h), 3.18.9A and 3.19.2E to prohibit the three types of changes currently listed in those clauses. The Rule Change Panel has also made additional changes to clauses 3.18.2A(g), 3.18.9 and 3.19.2D (which require Rule Participants to advise System Management of changes to the details in their Planned Outage requests and notices), to clarify the prohibition by making those clauses subject to clauses 3.18.2A(h), 3.18.9A and 3.19.2E respectively.

#### *7.2.1.4 Concerns raised by AEMO about the inclusion of the words 'or ought to be aware in the circumstances' in new clauses 3.18.10A and 3.19.3B (Rule Change Proposal Issue 13)*

One of the aims of this Rule Change Proposal is to relieve Rule Participants from the administrative burden of providing written availability declarations in respect of their Planned

<sup>13</sup> See Appendix B.2.4.3 of this report for further details.

<sup>14</sup> The Rule Change Panel is currently progressing RC\_2014\_03, which the IMO submitted on 27 November 2014.

Outage requests. The Amending Rules achieve this by making the required availability declaration inherent in the relevant Planned Outage request, so that:

- clause 3.18.5D prohibits a Rule Participant from submitting an Outage Plan if it is aware, or ought to be aware in the circumstances, that the proposed outage does not meet the availability requirement;<sup>15</sup> and
- clause 3.19.2B prohibits a Rule Participant from submitting a request for approval of Opportunistic Maintenance if it aware, or ought to be aware in the circumstances, that the proposed outage does not meet the availability requirement.

Similar obligations apply to a Rule Participant who becomes aware after a request is submitted that its proposed outage no longer meets the availability requirement:

- clause 3.18.9B requires a Rule Participant to notify System Management if it becomes aware that its proposed Scheduled Outage does not meet the availability requirement, and to withdraw the Outage Plan if it has not yet been scheduled; and
- clause 3.19.2F requires a Rule Participant to notify System Management if it becomes aware that its proposed Opportunistic Maintenance does not meet the availability requirement, and to withdraw its request if System Management has not yet approved it.

In the Draft Rule Change Report, the Rule Change Panel included new clauses 3.18.10A and 3.19.3B to place similar obligations on System Management when it is considering an outage request, as follows:

- clause 3.18.10A prohibits System Management from accepting an Outage Plan if it is aware, or ought to be aware in the circumstances, that the proposed outage does not meet the availability requirement; and
- clause 3.19.3B prohibits System Management from approving a request for approval of Opportunistic Maintenance if it is aware, or ought to be aware in the circumstances, that the proposed outage does not meet the availability requirement.

The Rule Change Panel expects that the rejection of outage requests under clauses 3.18.10A and 3.19.3B will be infrequent, because it will be rare for System Management to have the necessary information for it to be aware that a proposed outage does not meet the availability requirement.

Usually, the only information that System Management has about a proposed Planned Outage is the outage request itself, so there is nothing to indicate to System Management that the proposed outage may not meet the availability requirement. In these situations, the Rule Change Panel does not consider it would be practical or efficient to require System Management to undertake a proactive investigation to verify the Rule Participant's inherent availability declaration. This is because in many, if not most cases, even the most extensive investigation (e.g. a detailed plant inspection) might not determine with any certainty that the relevant capacity would be unavailable during a future outage period. Further, even if some investigations did produce a firm outcome, the cost of conducting the investigations is unlikely to be efficient.

However, System Management might occasionally have reliable information that makes it aware that an outage request does not meet the availability requirement. In these situations,

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<sup>15</sup> In this report, the 'availability requirement' for a proposed Planned Outage (or an Outage Plan or request for Opportunistic Maintenance) is that if the proposed Planned Outage was not approved the relevant capacity or capability would be available for service for the duration of the proposed outage period.

the Rule Change Panel considers that System Management should have the ability, and the obligation, to refuse to accept/approve the outage request.

On other occasions, System Management might have reliable information that indicates that an outage request may not meet the availability requirement. If System Management also has access to other, readily available information that it could use to confirm that the proposed outage does not meet the availability requirement, then the Rule Change Panel considers that System Management should obtain that information and, if it is conclusive, refuse to accept/approve the outage request.

For example, consider a scenario where System Management is evaluating an Outage Plan for a Scheduled Generator with an outage period starting in three days' time; and a breaking television news report makes System Management aware of a serious fire at the relevant power station that makes it obvious that the plant has been damaged beyond repair and will need to be replaced.<sup>16</sup> In this scenario, System Management should not accept the Outage Plan because it would be aware that the Outage Plan does not meet the availability requirement.

In a slightly different scenario, the television footage might show that a fire has occurred but not clearly indicate the extent of the damage. In this scenario, if System Management has another source of readily available information to confirm the extent of the damage<sup>17</sup> (e.g. a reliable local eyewitness to the fire or its aftermath, such as an emergency services representative), then System Management should make the effort to obtain that information and take it into account. However, if no such information is available, or if the information provided is inconclusive as to whether the outage request meets the availability requirement, then System Management should accept/approve the outage request, subject to any technical evaluations.

In its second period submission, AEMO strongly objected to the inclusion of the words "or ought to be aware in the circumstances" in clauses 3.18.10A and 3.19.3B, considering that they imposed a compliance burden on AEMO that cannot be met; and would create an unnecessary, onerous obligation on AEMO that would require system changes and additional actions by AEMO, thereby increasing costs to Rule Participants.

AEMO had previously raised concerns about the clauses in several forums, including the 10 June 2019 workshop. Alinta raised similar concerns in its second period submission and during the 10 June 2019 workshop.

Following the second submission period, RCP Support held several discussions with AEMO to better understand its concerns regarding clauses 3.18.10A and 3.19.3B. The Rule Change Panel has made some additional changes to clauses 3.18.10A and 3.19.3B to address AEMO's main concern, that the clauses would impose an obligation on AEMO to undertake proactive investigations in respect of every outage request that it receives. The additional changes replace the expression "or ought to be aware in the circumstances" in the clauses with "or ought to be aware based on information that it has and any readily available confirmatory information". The changes are intended to clarify that:

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<sup>16</sup> System Management's ability to be aware may be dependent on the timing of the outage. For example, if AEMO concludes from the information available to it that it will take at least three weeks to repair a Scheduled Generator affected by a fire, then it would be aware that an outage proposed to start in three days' time does not meet the availability requirement, but it would be unsure about an outage proposed to start in more than three weeks' time.

<sup>17</sup> That is, to a level of accuracy that would make System Management aware that the capacity will not be available for service for at least some part of the proposed outage period.

- System Management is not expected to proactively investigate an outage request in situations where it has no reliable information to indicate that the proposed outage may not meet the availability requirement; and
- System Management is not expected to undertake extensive or high-cost investigations to determine whether an outage request meets the availability requirement.

AEMO has advised RCP Support that it finds the revised versions of clauses 3.18.10A and 3.19.3B acceptable; and that it can implement these clauses without any change to the cost and time estimates presented in the Draft Rule Change Report.

#### *7.2.1.5 Concerns raised by AEMO about the proposed provisions to support the optimal timing of Mandatory Routine Maintenance (Rule Change Proposal Issue 13)*

In the Draft Rule Change Report, the Rule Change Panel made additional changes to the proposed Amending Rules to address an issue in Synergy's further submission about the impact of the proposed availability requirement on Synergy's ability to schedule a Planned Outage for Mandatory Routine Maintenance<sup>18</sup> at the most efficient time.<sup>19</sup>

The Rule Change Panel considered that, in the interests of efficiency, a Rule Participant should be able to request a Planned Outage to conduct Mandatory Planned Maintenance at the optimal time, provided that the Rule Participant requests the Planned Outage early enough to allow it to be brought forward if required by System Management.

However, if an Outage Plan is scheduled for an outage period that falls as late as possible to meet the relevant maintenance obligation, then at some subsequent point in time it will become too late to reschedule the outage for an earlier period. To avoid perverse outcomes, the Rule Change Panel included new clause 3.18.9C to exempt a Rule Participant from having to declare to System Management under new clause 3.18.9B that its outage no longer met the availability requirement when that point in time is reached.

In its second period submission, AEMO expressed a concern that clause 3.18.9C identifies specific conditions where a Rule Participant is not required to comply with new clause 3.18.9B, which relate to knowledge known only by the Rule Participant. AEMO considered that it would not be able to monitor whether the Rule Participant is compliant with clauses 3.18.2(f) and 3.18.9B, as required by clause 2.13.9(g),<sup>20</sup> because it cannot objectively assess what the Rule Participant is aware of. AEMO also raised this concern about clause 3.18.9C at the 10 June 2019 workshop. No other stakeholder provided feedback on the clause during the 10 June 2019 workshop or in second period submissions.

The Rule Change Panel notes that several clauses in sections 3.18, 3.19, 3.20 and 3.21 (including both existing clauses and new clause 3.18.9B) require a Rule Participant to act based on what it is aware of. System Management and the ERA will often be unable to confirm that a Rule Participant is compliant with these obligations, because, as noted by AEMO, they will not have full visibility of what the Rule Participant is or was aware of. Compliance monitoring for these clauses is therefore likely to be restricted to investigating cases where information from another source indicates that a Rule Participant has not

<sup>18</sup> Mandatory Routine Maintenance means routine maintenance of the type discussed by Synergy in its further submission, which must be undertaken by a specific point in time (e.g. maintenance that must be undertaken every 12 months), or by the time that a specific measure of usage is reached (e.g. a specific number of starts or running hours), as required by applicable legislation or in accordance with the Facility's asset management plan.

<sup>19</sup> See Appendix B.2.4.4 and Appendix B.2.4.7 of this report for further details.

<sup>20</sup> Under clause 2.13.9(g), System Management is required to monitor Rule Participants for breaches of clause 3.18.2(f). Clause 3.18.2(f) requires a Rule Participant to schedule outages in accordance with sections 3.18, 3.19, 3.20 and 3.21.

complied with a relevant clause. The Rule Change Panel does not consider this means that AEMO is unable to comply with its obligations under clause 2.13.9(g).

However, the discussions with AEMO about its submission identified a lack of clarity in the proposed Amending Rules about the criteria for and operation of the proposed exemption. Accordingly, the Rule Change Panel, after further consultation with AEMO and Synergy, has made additional changes to the proposed Amending Rules to:

- create a Glossary definition for Mandatory Routine Maintenance;<sup>21</sup>
- remove new clause 3.18.9C;
- create new clause 3.18.5E to specify the previously implicit exemption from clause 3.18.5D for Mandatory Routine Maintenance and the eligibility criteria for that exemption;
- make revised clause 3.18.5D subject to new clause 3.18.5E;
- create new clause 3.10.10C to specify the exemptions applicable to Outage Plans for Mandatory Routine Maintenance;
- amend new clause 3.18.9B to remove the reference to clause 3.18.9C and instead make the clause subject to new clause 3.18.10C;
- amend clause 3.18.10A to also be subject to clause 3.18.10C; and
- amend revised clause 3.18.2A(b), and create new clause 3.18.2A(i), to clarify when a notice of a proposed Planned Outage of a Self-Scheduling Outage Facility should be submitted and allow an exemption for Mandatory Routine Maintenance similar to that allowed for Equipment List Facilities.

In the Draft Rule Change Report, new clause 3.18.9C(b) required that, at the time the Outage Plan was scheduled, the outage could have been brought forward if System Management had rejected the Outage Plan. However, after further reflection the Rule Change Panel considers that there is no need to prescribe a submission deadline for Outage Plans for Mandatory Routine Maintenance, because the Rule Participant already has a strong incentive to submit an Outage Plan for Mandatory Routine Maintenance early (i.e. to leave itself with options if its preferred time slot is unavailable). AEMO has advised RCP Support that it agrees that the obligation in new clause 3.18.9C(b) is unnecessary and supports its removal from the Amending Rules.

The Rule Change Panel has therefore removed the proposed submission deadline for Mandatory Routine Maintenance from the Amending Rules. The revised criteria for the exemption of an Outage Plan from clause 3.18.5D are that:

- the purpose of the proposed outage is to conduct Mandatory Routine Maintenance;
- the applicable deadline for the proposed maintenance falls within the proposed outage period;
- the Rule Participant is aware that the proposed outage fails to meet the availability requirement because if the maintenance is not undertaken before or during the proposed outage period, the available deadline for the maintenance will pass and the relevant capacity will become unavailable for service;

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<sup>21</sup> **“Mandatory Routine Maintenance:** Means Outage Facility Maintenance of a routine nature that must be undertaken by a specific point in time, or by the time that a specific measure of usage is reached, as required by applicable legislation or in accordance with the Outage Facility’s asset management plan.” RCP Support has confirmed with Synergy that this definition covers the types of maintenance that Synergy referred to in its further submission.

- the Rule Participant is not aware of any other reason why the outage does not meet the availability requirement; and
- the Rule Participant includes in the Outage Plan that the Outage Plan is submitted under new clause 3.18.5E (to inform System Management and provide an audit trail for compliance monitoring).

The Rule Change Panel notes that the Glossary definition of Mandatory Routine Maintenance may include some maintenance that, if not undertaken by the applicable deadline, would still leave a Facility able to operate and therefore available for service, (although the Rule Participant may find operating the Facility commercially undesirable). However, the Rule Change Panel notes that clause 3.18.5E will only be needed and used for that subset of Mandatory Routine Maintenance outages where the Facility will be unavailable for service if the applicable deadline for the maintenance is missed.

#### *7.2.1.6 Concerns with the exemption in proposed clause 3.19.2G(b) for capacity that is expected to be subject to a Consequential Outage (Rule Change Proposal Issue 13)*

Proposed clause 3.19.2G(b) states that various availability requirement obligations (including under clauses 3.18.2A(i), 3.18.5D, 3.18.9B, 3.18.10A, 3.19.2B, 3.19.2F and 3.19.3B) do not apply when the Market Participant or Network Operator reasonably expects that the relevant capacity or capability would be subject to a Consequential Outage if the proposed Planned Outage did not proceed.

Following the second submission period, the Rule Change Panel identified two concerns with the exemption set out in proposed clause 3.19.2G(b):

- The criterion for the proposed exemption is based on the reasonable expectation of a Market Participant or Network Operator. However, some of the clauses to which the exemption applies relate to obligations placed on System Management, who would not be in a position to know what the relevant Market Participant or Network Operator reasonably expects.
- The clause provides an exemption if the Rule Participant reasonably expects that the Equipment List Facility will be subject to a Consequential Outage, even if the proposed Planned Outage would not otherwise meet the availability requirement.

The Rule Change Panel notes that the original drafting for this Rule Change Proposal required a Market Participant seeking approval of a Planned Outage to (implicitly) declare its good faith expectation that, if System Management rejected the request, the capacity to which the request applied would be available for dispatch for the duration of the proposed Planned Outage. Clause 3.19.2G(b) was required because a Market Participant would not be able to make such a declaration if it had been advised by Western Power that its Facility was likely to be subject to a Consequential Outage during the relevant period.

However, given the changes made by the Rule Change Panel to the proposed availability requirement, clause 3.19.2G(b) is only needed in the comparatively rare circumstances where the occurrence of a Consequential Outage in a future period is certain (e.g. due to a major network Forced Outage where there is no reasonable doubt about the state of the network during the period of the proposed Planned Outage).

To address its concerns, the Rule Change Panel has made additional changes to clause 3.19.2G(b) to:

- base the exemption on what the relevant party (i.e. System Management, the Market Participant or the Network Operator, as applicable) is aware of; and

- limit the exemption to situations where the Consequential Outage is the only reason why the proposed Planned Outage does not meet the availability requirement.

## 7.2.2 Further Assessment of Additional Related Issues Identified by the Rule Change Panel in the Draft Rule Change Report

This section discusses the following issues relating to the additional issues raised by the Rule Change Panel in the Draft Rule Change Report:

- issues relating to the proposed materiality threshold for requesting or reporting Non-Scheduled Generator outages;
- concerns raised by AEMO regarding the proposed changes affecting short outages of offline, slow-starting Scheduled Generators;
- further clarification of the term ‘unavailable for service’;
- several suggestions relating to the proposed definition of ‘maintenance’; and
- several issues around the concept of ‘capacity or capability’ in relation to outage scheduling.

### 7.2.2.1 Materiality threshold for Non-Scheduled Generator outages

In the Draft Rule Change Report, the Rule Change Panel proposed changes to introduce a materiality threshold for requesting or reporting Non-Scheduled Generator outages.<sup>22</sup> The feedback received from stakeholders during the 10 June 2019 workshop and in second period submissions was generally supportive of the proposed materiality threshold.

This section discusses several matters concerning the proposed materiality threshold that the Rule Change Panel has considered since the publication of the Draft Rule Change Report.

#### Option to set a lower materiality threshold in some circumstances

In the Draft Rule Change Report, the Rule Change Panel sought stakeholder views on:

- whether System Management should be allowed under the Market Rules to reduce the MW materiality threshold for a Non-Scheduled Generator from the level specified in new clause 3.18.1A if it considers it necessary to maintain power system security and reliability; and
- if so, whether such decisions should be either Reviewable Decisions or subject to appeal to the ERA.

Neither AEMO nor any other stakeholder responded to this request in their second period submission. Based on the lack of feedback from stakeholders, the Rule Change Panel has concluded that an option for AEMO to reduce a materiality threshold from its default value is not required.

#### Nameplate capacity vs Sent Out Capacity

During the 10 June 2019 workshop, RCP Support sought the attendees’ views on whether the proposed materiality threshold should be based on the Sent Out Capacity of a Facility instead of its nameplate capacity.

<sup>22</sup> See Appendix B.3.1.3 of this report for further details.

There was general agreement that, for most existing Non-Scheduled Generators, Sent Out Capacity might provide a more appropriate basis for a materiality threshold than nameplate capacity, because:

- the use of Sent Out Capacity was more consistent with the proposed method for determining Non-Scheduled Generator outage quantities in RC\_2014\_03, that is as a MW reduction from the Sent Out Capacity of the Facility; and
- as noted by Alinta, the physical capacity of a Non-Scheduled Generator may decline over time, so that it may not remain capable of generating to its nameplate capacity level.

However, Alinta noted that if a Non-Scheduled Generator has restricted network access its Sent Out Capacity can be materially lower than its nameplate capacity. Alinta provided an example of a hybrid Non-Scheduled Generator with 150 MW of wind capacity, 50 MW of solar photovoltaic capacity, and a Declared Sent Out Capacity (and therefore Sent Out Capacity) of 150 MW. Alinta questioned whether the Market Generator should be required to report an outage if the solar capacity of the Facility was unavailable; and expressed concern that the Facility's Balancing Submission quantities might exceed its Sent Out Capacity.

Following the 10 June 2019 workshop, RCP Support held further discussions with Alinta on the treatment of outages for a Non-Scheduled Generator with a nameplate capacity greater than its Declared Sent Out Capacity. During these discussions, Alinta advised that it no longer had a concern regarding Balancing Submission quantities, because the Rule Change Panel had modified the Amending Rules for this Rule Change Proposal to remove a proposed requirement for Non-Scheduled Generator Balancing Submissions to include a declaration of unavailable capacity.<sup>23</sup>

In its second period submission, AEMO advised that it had reviewed the issue in the context of the 10 June 2019 workshop discussions and considered there was a need to review the appropriateness of having a single materiality threshold for all Non-Scheduled Generators to cater for different technologies (e.g. hybrid Facilities). AEMO suggested that dealing with specific thresholds may be better managed procedurally to allow for variation between Facilities.

The Rule Change Panel considers that the most appropriate materiality threshold will depend on what outage quantities need to be reported for a Non-Scheduled Generator, a question that is out of the scope of this Rule Change Proposal but within the scope of RC\_2014\_03. The Rule Change Panel has some concerns that limiting outage reporting obligations for Non-Scheduled Generators to when the total MW capacity of the remaining available equipment is less than Facility's Sent Out Capacity might, for Alinta's hybrid Facility and similar Non-Scheduled Generators:

- reduce the accuracy of System Management's forecasts of Non-Scheduled Generator output (as noted by AEMO at the 10 June 2019 workshop);
- reduce the accuracy of System Management's estimate of the unconstrained output of a Non-Scheduled Generator that is constrained by a Consequential Outage or an Out of Merit Dispatch Instruction; and
- distort the Planned Outage rates and Forced Outage rates used in the assignment of Certified Reserve Capacity under clause 4.11.1(h).

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<sup>23</sup> See Appendix B.2.2.1 of this report for further details.

Based on these concerns, the Rule Change Panel has decided to implement a materiality threshold based on nameplate capacity, as proposed in the Draft Rule Change Report. The Rule Change Panel considers this threshold will reduce the administrative burden on Market Generators without risking the loss of relevant outage information that a threshold based on Sent Out Capacity might cause.

However, the Rule Change Panel intends to reassess the materiality threshold and how it should be determined (including whether any aspects of the determination should be delegated to a Market Procedure) as part of its assessment of RC\_2014\_03, following a more thorough review of outage quantity reporting requirements for Non-Scheduled Generators.

### **Materiality threshold for large Non-Scheduled Generators**

In its second period submission, Alinta again proposed the implementation of a higher materiality threshold.

Alinta agreed with the Rule Change Panel's position that it would be difficult to justify allowing a materiality threshold for Non-Scheduled Generators to exceed 10% given the linkages through to clauses 4.11.1(h) and 4.11.1D of the Market Rules. However, Alinta considered that there was still justification to consider a materiality threshold of 10% for larger Non-Scheduled Generators, and suggesting replacing the proposed threshold of

*min (0.1 x Nameplate\_Capacity, 10) MW*  
with

*max (0.1 x Nameplate\_Capacity, 10) MW.*

Alinta suggested that good electricity industry practice for operating and maintaining wind farms means that at least one wind turbine generator (**WTG**) is offline daily for inspection and maintenance. This means that a larger wind farm would need to report an outage if an additional WTG went offline (10 MW in total assuming each WTG has a 5 MW capacity), which Alinta considered would create a significant administrative burden for both the Market Generator and AEMO.

The Rule Change Panel does not agree with Alinta's suggested formula and notes that it would:

- assign a materiality threshold exceeding 10% of nameplate capacity to any Non-Scheduled Generator with a nameplate capacity less than 100 MW (an outcome that Alinta agreed was difficult to justify);
- remove the obligation to report any outages at all for Non-Scheduled Generators with a nameplate capacity less than 10 MW; and
- be inconsistent with the widespread use of 10 MW as a boundary for determining the obligations of generators (e.g. to meet the Balancing Facility Requirements) based on the materiality of their impact on the WEM.

However, the Rule Change Panel acknowledges Alinta's concerns and will consider options to account for a level of routinely unavailable Non-Scheduled Generator capacity as part of its assessment of Non-Scheduled Generator outage quantity requirements for RC\_2014\_03.

### **Materiality threshold for Scheduled Generators**

In its second period submission, Perth Energy reiterated a suggestion from its further submission that the proposed materiality threshold should also apply to Scheduled Generator outages. Perth Energy considered that introducing a materiality threshold for Non-Scheduled

Generators without making the same accommodation for Scheduled Generators is discriminatory and therefore inconsistent with Wholesale Market Objective (c).

The Rule Change Panel does not agree that the proposed materiality threshold discriminates against Scheduled Generators. For Planned Outages, the proposed threshold is a practical measure that reflects the multi-unit nature of most Non-Scheduled Generators and the way in which their maintenance is typically managed (e.g. one wind turbine at a time). A similar threshold would provide little if any benefit to Scheduled Generators, which contain at most only a few distinct generating units and do not tend to have a small percentage of their total capacity unavailable for the purpose of planned maintenance at any time.

Further, the Rule Change Panel does not consider that a materiality threshold like the one proposed for Non-Scheduled Generators would resolve the Forced Outage-related concerns described by Perth Energy in meetings with RCP Support on 23 January 2019 and 5 July 2019. Perth Energy's concerns appear to relate primarily to the need to report a Forced Outage for a Scheduled Generator to account for non-compliance with a Dispatch Instruction.

Clause 7.10.1 requires a Market Participant to comply with the most recently issued Dispatch Instruction, Operating Instruction or Dispatch Order applicable to its Registered Facility. However, it is technically impossible for a Scheduled Generator to exactly comply with a Dispatch Instruction, because some upwards or downwards variation from its dispatch target is inevitable, even if only a few kW.

Clause 7.10.2(b) states that a Market Participant is not required to comply with clause 7.10.1 if its Facility was physically unable to maintain the ramp rate specified in the Dispatch Instruction but:

1. the actual output of the Facility did not, at any time the Dispatch Instruction applied, vary from the output specified in the Dispatch Instruction by more than the applicable Tolerance Range or Facility Tolerance Range (clause 7.10.2(b)(i)); and
2. the average output over a Trading Interval of the Facility was equal to the output specified in the Dispatch Instruction (clause 7.10.2(b)(ii)).

However, a Scheduled Generator is equally incapable of complying with clause 7.10.2(b)(ii) because its average output over a Trading Interval can never exactly equal the output specified in its Dispatch Instruction.

Given that it is effectively impossible to comply with either clause 7.10.1 or clause 7.10.2(b)(ii), a Market Generator that is being investigated for non-compliance with clause 7.10.1 will usually need to report a Forced Outage. A Forced Outage exempts the Market Generator from the requirement to comply with the Dispatch Instruction under clause 7.10.2(c) but may result in a very high Capacity Cost Refund for a very small deviation from the Scheduled Generator's dispatch target.

The Rule Change Panel notes that a materiality threshold for reporting outages would not assist a Market Generator in these situations, because the Market Generator needs to report a Forced Outage to obtain the necessary exemption from clause 7.10.1 under clause 7.10.2(c). Further, since Non-Scheduled Generators are not exposed to the same risk (as they are not required to meet dispatch targets in the same way), the proposed materiality threshold does not give them any advantage in terms of avoiding Capacity Cost Refunds for failures to comply with Dispatch Instructions.

The Rule Change Panel does not consider that the proposed materiality threshold should be extended to Scheduled Generators because this could allow a Market Generator to avoid its

Reserve Capacity Obligations by having a percentage of its certified capacity unavailable without consequence. However, the Rule Change Panel reiterates the invitation made to Perth Energy in the Draft Rule Change Report to discuss its concerns about the current obligations to comply with Dispatch Instructions (and specifically clauses 7.10.1 and 7.10.2) with the MAC.

#### *7.2.2.2 Allowance for short outages of slow-starting generators*

In the Draft Rule Change Report, the Rule Change Panel proposed a new clause 3.19.2H to allow a Market Generator with an offline, slow-starting Scheduled Generator to exclude any period for which it is already certain it will not be able to generate (because it has not commenced its start-up process) from the outage period in an Opportunistic Maintenance request.<sup>24</sup>

During the 10 June 2019 workshop, AEMO noted that clause 3.21.1 stated that a Forced Outage was maintenance that was not approved by System Management and suggested that the clause may need revision to account for Planned Outages of the type contemplated in clause 3.19.2H.

AEMO raised further concerns about new clause 3.19.2H in its second period submission. AEMO considered that the fundamental principle of outage planning and approval is enshrined in clause 3.21.1, which defines a Forced Outage as any outage that has not received AEMO's approval. AEMO considered that new clause 3.19.2H creates an exception to this principle, allowing a Facility to perform maintenance that AEMO is not aware of and has not approved.

AEMO suggested that enabling this exception to the general principle may lead to the introduction of further exceptions, which over time may erode AEMO's ability to ensure that Power System Security is maintained.

The Rule Change Panel does not agree that new clause 3.19.2H allows a Facility to perform maintenance that AEMO is not aware of and has not approved. The clause still requires a Market Generator to request approval of a Planned Outage that covers all the proposed work-time and subsequent start-up time except for the period for which it is already certain that the Facility will be unable to generate (because it is offline and has not commenced its start-up process).

During a discussion held with RCP Support after the second submission period, AEMO confirmed that it has not found any specific examples of how new clause 3.19.2H would produce undesirable outcomes. The Rule Change Panel has also reviewed the clause and its interaction with clause 3.21.1, and has not found any conflict between the clauses or any other potential undesirable outcomes.

No other stakeholder raised a concern about new clause 3.19.2H during discussion at the 10 June 2019 workshop or in second period submissions.

The Rule Change Panel has therefore made no further changes to new clause 3.19.2H.

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<sup>24</sup> See Appendix B.3.2.2 of this report for further details.

### 7.2.2.3 Clarification of ‘unavailable for service’

In the Draft Rule Change Report, the Rule Change Panel:

- proposed a new clause 3.18.1B to provide clarification on when an Outage Facility’s capacity or capability should (for the purposes of sections 3.18 and 3.19) be deemed to be unavailable for service;<sup>25</sup> and
- sought the views of stakeholders on whether the information listed in clause 3.18.1B appropriately defines the normal operating limits of Outage Facilities and allows a practical distinction to be made between the normal operation of an Outage Facility and a state that should be regarded as unavailable for service.

AEMO did not respond directly to the Rule Change Panel’s question in its second period submission, but instead suggested the following changes to clause 3.18.1B because “*the current drafting could lead to unintended outcomes and uncertainty in relation to what information should be taken into account to determine what an instruction or direction from AEMO must be consistent with, which would cause ambiguity and uncertainty in the market*”:

*For the purposes of this section 3.18 and section 3.19, capacity or capability associated with an Outage Facility is deemed to be unavailable for service in a Trading Interval if the capacity or capability could not, in response to an instruction or direction to the Market Participant or Network Operator from System Management that was consistent with the Outage Facility’s Equipment Limits, any relevant limits or information relating to the capacity or capability of an Outage Facility provided to System Management in accordance with the Power System Operation Procedure referred to in clause 2.28.3A(a), or any relevant limits specified in an Ancillary Service Contract (as applicable), be used to provide the relevant service expected from the capacity or capability of the Outage Facility...*

The Rule Change Panel sought clarification on AEMO’s suggested changes following the close of the second submission period. In response, AEMO:

- confirmed that its proposed addition to the clause (“relating to the capacity or capability of an Outage Facility”) is intended to restrict the relevant information for network equipment to the equivalent of Equipment Limits for Scheduled Generators and Non-Scheduled Generators; and
- after further discussion with RCP Support, agreed that the reference to limits specified in an Ancillary Service Contract should be retained, because some of the information needed to define the normal operating limits of a service provided under an Ancillary Service Contract may be contained in that contract.

The Rule Change Panel agrees with AEMO’s proposed addition to clause 3.18.1B and has updated the Amending Rules accordingly. The Rule Change Panel has also modified the structure of the clause to more clearly delineate the three potential sources of relevant limits on System Management instructions or directions.

No other stakeholders provided feedback on the appropriateness of the information listed in clause 3.18.1B, either during the 10 June 2019 workshop or in second period submissions.

<sup>25</sup> See Appendix B.3.3.2 of this report for further details.

#### 7.2.2.4 Definition of 'maintenance'

Attendees at the 10 June 2019 workshop provided two suggestions regarding the proposed new clause 3.18.1C, which sets out the meaning of 'maintenance' for the purposes of sections 3.18 and 3.19 of the Market Rules:

- that the term should be defined in the Glossary rather than a clause; and
- that some amendment be made to the definition to reflect that discretionary Facility upgrades may not always be "reasonably considered to be required in accordance with good electricity industry practice".

The Rule Change Panel agrees that using a defined term would improve the clarity of the Market Rules but notes that the word 'maintenance' is used throughout the Market Rules, not always with the same specific meaning as that specified in proposed new clause 3.18.1C.

The Rule Change Panel has therefore:

- replaced clause 3.18.1C with a new Glossary definition for 'Outage Facility Maintenance'; and
- updated clauses 3.18.2A(b), 3.18.2A(f), 3.18.6A, 3.18.7, 3.18.8, 3.18.14(c), 3.19.2(b)(i) and 3.19.2A(a) to replace the word maintenance with the new defined term.

The Rule Change Panel also agrees that Facility upgrades can be discretionary and so might not be considered reasonably required in accordance with good electricity practice. The Rule Change Panel has therefore restructured the definition of Outage Facility Maintenance to ensure that discretionary Facility upgrades are not unintentionally excluded from the definition.

#### 7.2.2.5 Capacity or capability

In the Draft Rule Change Report, the Rule Change Panel made several additional changes to clauses in sections 3.18 and 3.19 to replace the term 'capacity' with the more general term 'capacity or capability'. The changes were made in response to a concern raised by AEMO that references to the capacity of an Outage Facility might be misleading for Outage Facilities that do not provide capacity in the Reserve Capacity Mechanism (**RCM**) sense, such as items of network equipment.<sup>26</sup>

During the 10 June 2019 workshop, Alinta suggested that the meaning of 'capacity or capability' should be clarified. This suggestion led to a broader discussion that encompassed the following issues:

- what specific services should be subject to outage scheduling (e.g. what services do different items of network equipment provide), and how these services should be determined for each Outage Facility;
- whether a dual-fuel Scheduled Generator should be subject to outage scheduling in respect of each of its fuels;
- whether a Facility included on the Equipment List in relation to two different services (e.g. a Scheduled Generator with Capacity Credits that provides a System Restart Service under an Ancillary Service Contract) should be treated as a single Equipment List Facility or as two distinct Equipment List Facilities;

<sup>26</sup> See Appendix B.3.3.4 of this report for further details.

- the current use of ‘0 MW outages’<sup>27</sup> to report situations where a dual-fuel Scheduled Generator is unable to operate on one of its nominated fuels, and the potential impacts of this mechanism on Reserve Capacity Testing obligations; and
- the most efficient mechanism to manage outages relating to Ancillary Services provided under an Ancillary Service Contract.

In its second period submission, Alinta supported the inclusion of the concept of 0 MW outages in the Market Rules as an efficient mechanism to inform AEMO of Facility restrictions that do not impact the Facility’s output.

These issues, while worthy of consideration, are complex and have not been previously considered within the scope of this Rule Change Proposal. Addressing most of these issues would require additional public consultation and the Rule Change Panel does not consider that they are sufficiently urgent (e.g. they do not create a risk to Power System Security) to justify any further delay to the progression of this Rule Change Proposal.

The Rule Change Panel has therefore made only one minor change in relation to these issues, adding a new clause 3.18.2(g) to clarify that a Market Generator whose Scheduled Generator or Non-Scheduled Generator provides an Ancillary Service under an Ancillary Service Contract (and is therefore included on the Equipment List under revised clause 3.18.2(c)(v)) is required to schedule outages in respect of both sent out energy and each contracted Ancillary Service. RCP Support will seek the views of the MAC regarding options to progress the remaining issues at a future MAC meeting.

The Rule Change Panel has also modified clauses 2.34.4 and 3.18.11(b) to use the term ‘capacity or capability’, as suggested by Alinta at the 10 June 2019 workshop.

In discussions with RCP Support after the 10 June 2019 workshop, AEMO clarified that it considered ‘capability’ applied to services that were not assessed in terms of measured quantities (e.g. system restart capability or services provided by some network equipment). However, AEMO considered that there would be little value, and potentially some risk of unforeseen consequences, in including prescriptive definitions of the terms in the Market Rules. The Rule Change Panel agrees with AEMO and has not included a formal definition of capacity or capability in the Amending Rules.

### 7.2.3 Additional Related Issues Raised during the Second Submission Period

This section discusses the following additional related issues that were raised after the publication of the Draft Rule Change Report:

- a suggestion by AEMO to clarify the outage scheduling obligations of Ancillary Service Providers and other participants who are not Market Generators or Market Customers;
- a lack of clarity regarding System Management’s ability to reject or recall a Planned Outage of a Self-Scheduling Outage Facility under the Market Rules;
- the identification of undocumented changes to the compensation rules for the late rejection of Planned Outages; and
- a lack of clarity around the outage scheduling obligations for non-intermittent, Non-Scheduled Generators.

<sup>27</sup> A ‘0 MW outage’ is an outage request/notice submitted by a Market Generator with an outage quantity of 0 MW.

### 7.2.3.1 *Outage scheduling obligations of Ancillary Service Providers*

In its second period submission, AEMO noted that the obligations imposed by this Rule Change Proposal refer to Market Participants,<sup>28</sup> and therefore would not apply to participants not registered as Market Generators or Market Customers, such as Ancillary Service Providers.<sup>29</sup> As such, these parties would not be required to obtain approval for Planned Outages or meet the other obligations imposed on Market Participants in relation to Equipment List Facilities. AEMO advised that it was aware of at least one Rule Participant covered by this situation.<sup>30</sup>

AEMO suggested that, for the sake of completeness, the references to 'Market Participants' pertaining to obligations relating to outages be replaced by references to 'Rule Participants'.

The Market Rules currently require all Registered Facilities that are subject to an Ancillary Service Contract to be included on the Equipment List. This includes the Interruptible Loads that are used to provide Spinning Reserve Service.

However, the Market Rules do not explicitly state who is responsible for outage scheduling for Interruptible Loads. This is a problem because the counterparty to an Interruptible Load Ancillary Service Contract may be an Ancillary Service Provider, and not the Market Customer (usually the retailer) to whom the Interruptible Load is registered. As noted by AEMO, an Ancillary Service Provider is not subject to obligations placed on 'a Market Participant or Network Operator'; while the retailer for the Interruptible Load may not have any involvement with the Interruptible Load arrangement or the management of outages for that load.

The Rule Change Panel agrees with AEMO about the need for changes to the Market Rules to clearly identify the responsible Rule Participant in these situations. However, the Rule Change Panel considers that such changes should not be made without further public consultation; and that the issue is not sufficiently urgent to delay the progression of this Rule Change Proposal.

The Rule Change Panel agrees it would be simpler and more inclusive to assign outage obligations to a 'Rule Participant' instead of a 'Market Participant or Network Operator'. However, even though the Rule Change Panel does not consider that this change in itself would resolve the current uncertainty about responsibility for Interruptible Load outage scheduling, it is concerned that a change to use 'Rule Participant' could be taken to imply the allocation of that responsibility to the Ancillary Service Provider.

For these reasons, the Rule Change Panel has not made any changes to the references to a 'Market Participant or Network Operator' in the Amending Rules. RCP Support will seek the views of the MAC regarding options to clarify outage scheduling responsibilities for Interruptible Loads at a future MAC meeting.

### 7.2.3.2 *Direction of Self-Scheduling Outage Facilities*

Currently clause 3.18.2A(a) of the Market Rules states that a Market Participant is not required to schedule outages for a Self-Scheduling Outage Facility in accordance with sections 3.18, 3.19 and 3.20, other than as required by clause 3.18.2A. Neither the IMO (in

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<sup>28</sup> The Rule Change Panel notes that most of the obligations apply to Market Participants and Network Operators.

<sup>29</sup> Rule Participants include Network Operators, Market Generators, Market Customers, Ancillary Service Providers, System Management, System Operators and AEMO. A Market Participant is defined as a Rule Participant that is a Market Generator or Market Customer. An Ancillary Service Provider is a Rule Participant that provides an Ancillary Service under an Ancillary Service Contract and is not registered in any other Rule Participant Class.

<sup>30</sup> Simcoa Operations is currently the only Ancillary Service Provider registered in the WEM.

the Rule Change Proposal) nor the Rule Change Panel has proposed any change to this exemption.

Section 3.19 includes clause 3.19.5, which allows System Management to reject a Scheduled Outage or Opportunistic Maintenance that it has previously approved, if it finds that the outage is no longer approvable applying the criteria in clause 3.19.6. Section 3.20 (which deals exclusively with Planned Outage recall) includes clause 3.20.1, which allows System Management to recall a Planned Outage that is in progress, if the SWIS is in an Emergency Operating State or a High Risk Operating State.

In the Rule Change Proposal, the IMO proposed a minor change to clause 3.20.1 to use the proposed defined term Outage Facility:

*3.20.1. Where the SWIS is in an Emergency Operating State, or High-Risk Operating State, System Management may direct a Market Participant or Network Operator that ~~a Facility or item of equipment~~ an Outage Facility be returned to service from a Planned Outage in accordance with the relevant Outage Contingency Plan, or take other measures contained in the relevant Outage Contingency Plan.*

The Rule Change Panel made an additional change to proposed clause 3.20.1 in the Draft Rule Change Report, to replace 'Outage Facility' with 'Equipment List Facility'. The reason for the change was to reflect the exemption of Self-Scheduling Outage Facilities from obligations under section 3.20 in clause 3.18.2A(a).

In its second period submission, AEMO advised that after further review it considered its power to recall a Facility from outage in an Emergency Operating State or High Risk Operating State should not be limited to Equipment List Facilities; and as such, proposed that revised clause 3.20.1 should also apply to Self-Scheduling Outage Facilities. AEMO considered that an inability to direct all facilities in the SWIS, in the case of an emergency, may have adverse consequences for Power System Security and Power System Reliability.

In subsequent discussions with RCP Support, AEMO suggested that other clauses in the Market Rules already give System Management the authority to reject or recall a Planned Outage of any Outage Facility subject to certain conditions. For example:

- clause 3.4.3(b) states that when the SWIS is in a High Risk Operating State, System Management may require the return to service in accordance with the relevant Outage Contingency Plan of Network equipment undergoing Planned Outages, or take other measures contained in the relevant Outage Contingency Plan *for any Registered Facility*; and
- clause 3.4.4 states that in a High Risk Operating State, System Management may take any other actions as it considers are required, consistent with good electricity practice, to ensure the SWIS returns to a Normal Operating State (provided that it acts with as little disruption to electricity supply and seeks to return to issuing Dispatch Instructions in the priority set out in clause 7.6.1C as soon as is reasonably practicable in the circumstances).

The Rule Change Panel agrees with AEMO that clauses 3.4.3(b) and 3.4.4 may allow System Management to reject or recall a Planned Outage of a Self-Scheduling Outage Facility; and notes that other clauses also have this effect. For example:

- clause 3.4.3(a) states that when the SWIS is in a High Risk Operating State, System Management may cancel or defer Planned Outages that have not yet commenced; and

- clause 3.5.5(c) states that when the SWIS is in an Emergency Operating State, System Management may cancel or defer Planned Outages, require the return to service in accordance with the relevant Outage Contingency Plan of Registered Facilities undergoing Planned Outages or take other measures contained in the relevant Outage Contingency Plans.

The Rule Change Panel notes that an apparent conflict exists in the Market Rules between clauses that appear to allow the rejection or recall of Planned Outages of Self-Scheduling Outage Facilities (e.g. clauses 3.4.3(a), 3.4.3(b), 3.4.4 and 3.5.5(c)) and clauses that appear to exempt Planned Outages of Self-Scheduling Outage Facilities from rejection or recall, such as:

- clause 3.18.2A(a), which explicitly exempts Self-Scheduling Outage Facilities from obligations under section 3.20;
- clause 3.19.5, which allows System Management to reject an approved Scheduled Outage or Opportunistic Maintenance but fails to mention Planned Outages of Self-Scheduling Outage Facilities (which are neither Scheduled Outages nor Opportunistic Maintenance); and
- clause 3.19.6(d), which sets out a priority order for System Management to consider when it determines which previously approved Planned Outage to reject, but does not include any reference to Planned Outages of Self-Scheduling Outage Facilities.

The Rule Change Panel considers that further analysis and consultation is needed to resolve this issue and remove the ambiguity from the Market Rules. However, the Rule Change Panel does not consider that this existing issue is sufficiently urgent to warrant any further delay to the progression of this Rule Change Proposal. The Rule Change Panel has therefore made no additional changes to the proposed Amending Rules in relation to this issue, apart from reversing the additional change to clause 3.20.1 that was proposed in the Draft Rule Change Report. RCP Support will seek the views of the MAC regarding options to remove this ambiguity from the Market Rules.

### *7.2.3.3 Changes to compensation rules for late rejection of Planned Outages*

Clause 3.19.12 deals with the payment of compensation to Rule Participants if an Outage Plan previously scheduled in System Management's outage schedule is rejected within 48 hours of the scheduled start time for the outage.<sup>31</sup>

The proposed Amending Rules in the Rule Change Proposal include a change to clause 3.19.12(a) that restricts compensation to cases where System Management informs the Rule Participant that its previously scheduled Outage Plan has been rejected "under clause 3.19.5". Since clause 3.19.5 relates to the rejection of previously approved Planned Outages, the change acts to make Outage Plans that have been accepted, but not yet approved, ineligible for compensation.

The Rule Change Proposal does not include a reason for the change, and its potential effect on Rule Participants was not discussed in either the CFFS or the Draft Rule Change Report.

The Rule Change Panel can identify no valid reason to disallow compensation for Outage Plans that have been accepted but not yet approved. The Rule Change Panel has therefore made an additional change to clause 3.19.12(a) to remove the proposed reference to clause 3.19.5.

<sup>31</sup> It should be noted that this is not the only eligibility requirement for compensation, e.g. clause 3.19.12(aA) requires the Outage Plan to have been submitted to System Management at least one year in advance of the time when the outage would have commenced.

Attendees at the 10 June 2019 workshop raised no concerns with the removal of the reference to clause 3.19.5 in proposed clause 3.19.12(a), although AEMO noted that most Scheduled Outages are either approved or rejected before the 48-hour deadline specified in clause 3.19.12(a).

#### *7.2.3.4 Outage scheduling obligations for non-intermittent Non-Scheduled Generators*

Following the publication of the Draft Rule Change Report, the Rule Change Panel found a potential issue regarding the outage scheduling obligations of a non-intermittent, Non-Scheduled Generator. RCP Support briefly discussed this issue with attendees at the 10 June 2019 workshop.

Under the Market Rules:

- a non-intermittent generation system with a rated capacity between 0.2 MW and 10 MW may be registered as Non-Scheduled Generator; and
- a non-intermittent generation system with a rated capacity less than 0.2 MW can only be registered as a Non-Scheduled Generator.

To date, no non-intermittent generation systems have been registered as Non-Scheduled Generators. However, if a non-intermittent, Non-Scheduled Generator was registered it would be able to apply for Capacity Credits, and if assigned Capacity Credits would also be assigned a non-zero Reserve Capacity Obligation Quantity (**RCOQ**).

While this would make the Non-Scheduled Generator subject to the same RCOQ-related Scheduling Day obligations as a Scheduled Generator, the Non-Scheduled Generator's Balancing Market obligations are more uncertain and were not considered in the development of this Rule Change Proposal. The Balancing Submissions for a Non-Scheduled Generator comprise a single Balancing Price-Quantity Pair with a MW quantity equal to the Market Generator's "best estimate of the Facility's output at the end of the Trading Interval". There is no clear obligation to make the Facility's RCOQ available for dispatch or to report an outage for capacity not made available, because proposed section 7A.2A, which clarifies these obligations for Scheduled Generators, does not apply to Non-Scheduled Generators.

Further amendments to the outage scheduling and Balancing Market provisions to explicitly account for non-intermittent, Non-Scheduled Generators with Capacity Credits would create significant additional complexity in the Market Rules, which may not be warranted given the questionable value of such Facilities to the WEM and the absence of any such Facilities to date. The Rule Change Panel also notes that:

- there has been no public consultation to date on the outage scheduling obligations of non-intermittent, Non-Scheduled Generators beyond the very brief discussion of the issue at the 10 June 2019 workshop; and
- one of the recommendations of the Electricity Market Review's (**EMR's**) Energy Market Operations and Processes (**EMOP**) project was to make non-intermittent, Non-Scheduled Generators ineligible for Capacity Credits.

For these reasons, the Rule Change Panel has not made any additional changes to the proposed Amending Rules to account for non-intermittent, Non-Scheduled Generators. The Rule Change Panel intends to seek the views of the Energy Transformation Implementation Units (**ETIU**) on the future of such Facilities before deciding whether to consider any further changes as part of RC\_2014\_03.

## 7.3 Additional Changes to the Proposed Amending Rules

### 7.3.1 Additional Amendments following the First and Further Submission Periods

Following the first and further submission periods, the Rule Change Panel made some additional changes to the proposed Amending Rules. A summary of these changes is available in section 6.5 of the Draft Rule Change Report.

### 7.3.2 Additional Amendments following the Second Submission Period

The Rule Change Panel has made some further changes to the proposed Amending Rules following the second submission period. These changes, which are shown in Appendix E of this report, include:

- the changes described in section 7.2 of this report; and
- the following minor and administrative changes:
  - clause 3.18.1: use consistent language to refer to items of equipment;
  - clause 3.18.2(a): clarify that the Equipment List is published on the Market Web Site;
  - clause 3.18.2(c)(v): replace 'Ancillary Services Contract' with the correct term 'Ancillary Service Contract';
  - clause 3.18.2(f): remove superfluous wording from the clause;
  - clause 3.18.2A(b): clarify that the clause only applies to Self-Scheduling Outage Facilities;
  - clause 3.18.2A(d): remove the clarification (to read references to Equipment List Facilities as references to Self-Scheduling Outage Facilities) as it is no longer required given the changes made to clause 3.18.6 (described below);
  - clause 3.18.2A(g): move the location of the phrase "as soon as practicable" to improve the readability of the clause;
  - clause 3.18.3(d): amend to explicitly require System Management, when directed by the ERA to remove an Equipment List Facility from the Equipment List, to publish an updated Equipment List on the Market Web Site as soon as practicable;
  - clause 3.18.4(b): amend the structure of the clause to clarify that it is the ERA's direction that occurs under clause 3.18.15(f);
  - clause 3.18.6: amend to improve the readability of the clause and more clearly reflect that it is used not just for Outage Plans but also for notices of proposed Planned Outages for Self-Scheduling Outage Facilities and requests for approval of Opportunistic Maintenance;
  - clause 3.18.6A: change "it will not be possible to complete" to "it would not be able to complete" to clarify the meaning of the clause;
  - clause 3.18.15(a): replace 'Participant' with the correct term 'Market Participant';
  - clause 3.18.15: use standard terminology for the references to clause 3.18.15(b) in clauses 3.18.15(d) and 3.18.15(e);
  - clause 3.18.17: use standard terminology for the reference to section 3.18;

- clause 3.18.20: use standard terminology for the reference to section 2.10;
- clause 3.19.2(b)(ii): replace “will” with “does” because the duration of the proposed outage is specified at the time the request is submitted;
- clause 3.19.2(b)(iv): remove the words “all of” because they are unnecessary and could be perceived to conflict with clause 3.18.6(h) for non-network Equipment List Facilities;
- clause 3.19.2A(b): update the wording of the clause to more clearly specify the conditions under which a Rule Participant must request approval for a Planned Outage from System Management;
- clause 3.19.4: clarify that the clause is subject to clause 3.19.3C (which can delay the assessment and approval of a request for Opportunistic Maintenance);
- clause 3.19.4: clarify that the clause relates to the approval or rejection of requests for approval of a Scheduled Outage or Opportunistic Maintenance;
- clause 3.19.4A: remove the unnecessary phrase “for the purposes of the Market Rules”;
- clause 3.19.6(d): correct a minor punctuation error (“scheduled” should be lower case);
- clause 3.19.13: use standard terminology for the reference to section 3.19;
- clause 3.20.1: insert “a” before High Risk Operating State and remove an unnecessary comma;
- 7A.2.8A and 7A.2.9A(a): clarify that the exemption only applies to Commissioning Tests that are approved;
- section 7A.2A heading: change section name to make it more reflective of the contents of the section; and
- clauses 7A.2A.1 and 7A.2A.2: minor drafting changes to clarify the intent of the third criterion in each clause and avoid any confusion caused by having one sub-clause start with “was declared unavailable” and another start with “was not declared unavailable”.

## 7.4 Wholesale Market Objectives

The Wholesale Market Objectives are:

- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
- (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

The Rule Change Panel considers that the Market Rules as a whole, if amended as proposed in section 8 of this report, will better achieve Wholesale Market Objectives (a), (b) and (d) and be consistent with the remaining Wholesale Market Objectives.

The Rule Change Panel's assessment is presented below.

### **Obligations to participate in the outage planning process**

The removal of the requirement to include Demand Side Programmes with Capacity Credits and non-essential transmission equipment on the Equipment List, and the introduction of a materiality threshold for the reporting of Non-Scheduled Generator outages, will promote economic efficiency and contribute to minimising the long-term cost of electricity by removing unnecessary administrative burdens on System Management and other Rule Participants.

Clarification of the requirement to request (or to report for a Self-Scheduling Outage Facility) a Planned Outage before undertaking discretionary maintenance will promote the reliable supply of electricity in the WEM by ensuring that System Management has accurate information about whether an Outage Facility is actually available for service. The change will also promote economic efficiency by providing Market Participants with more accurate and complete information about the actual availability of Scheduled Generators and Non-Scheduled Generators, as will extending the scope of clause 3.18.2A to include any larger Scheduled Generators or Non-Scheduled Generators without Capacity Credits.

The mandatory inclusion of small Scheduled Generators with Capacity Credits on the Equipment List will promote the reliable supply of electricity by increasing the value of these Facilities as a source of reliable capacity.

### **Interactions between Planned Outages and Balancing Submissions**

The removal of the requirement to include declared MW quantities of unavailable Non-Scheduled Generator capacity in Balancing Submissions will promote economic efficiency and contribute to minimising the long-term cost of electricity by removing an unnecessary administrative burden on Market Generators.

The establishment of a firm deadline for the approval or rejection of Opportunistic Maintenance (30 minutes before Balancing Gate Closure for the Trading Interval in which the outage is due to commence) will promote economic efficiency and contribute to minimising the long-term cost of electricity by providing as much time as possible for the processing of

requests, while still ensuring that Market Generators have sufficient time to adjust their final Balancing Submissions (if necessary) to reflect the approval or rejection of a request.

The establishment of a firm deadline for the approval or rejection of Scheduled Outages (2:00 PM on TD-2) will promote economic efficiency and contribute to minimising the long-term cost of electricity by:

- providing an efficient balance between the need for certainty and the flexibility benefits of a later deadline; and
- providing a Market Generator with a decision on a Scheduled Outage in a timeframe that allows it to reflect that decision in its STEM Submissions and Balancing Submissions, thereby avoiding potentially inefficient STEM outcomes and improving the accuracy of Balancing Forecasts and Forecast BMOs.

The amendments relating to the interactions between Planned Outages and Balancing Submissions will promote economic efficiency by improving the transparency and likely accuracy of Balancing Forecasts and Forecast BMOs.

The clarification of obligations to return capacity to the Balancing Market after the late rejection or recall of a Planned Outage, or the late cancellation/rejection of a Consequential Outage or Commissioning Test Plan, will promote economic efficiency by ensuring that the required capacity is returned to the Balancing Market as soon as practicable in these situations, while avoiding the imposition of unachievable obligations on Market Generators.

### **Timelines for Planned Outages**

The proposed Planned Outage timelines will increase flexibility for Rule Participants while respecting the need to provide transparency, and will encourage participants to undertake an efficient level of maintenance that balances maintenance costs against the need to meet reliability obligations.

The removal of prohibitions on:

- Opportunistic Maintenance outages spanning two Trading Days; and
- the submission of Opportunistic Maintenance requests between 10:00 AM on the Scheduling Day and the start of the Trading Day,

will promote economic efficiency and contribute to minimising the long-term cost of electricity by removing unnecessary timing restrictions that may interfere with the efficient use of Opportunistic Maintenance.

The requirement for a 24-hour gap between Opportunistic Maintenance outages will ensure that Rule Participants cannot use Opportunistic Maintenance to effectively avoid the required notice period for a Scheduled Outage. This will:

- promote economic efficiency through the provision of timely information to the market about longer outages; and
- promote the reliable supply of electricity by encouraging participants to forward-plan their outages and reduce the need for last-minute maintenance.

The changes to the notification deadlines for Planned Outages of Self-Scheduling Outage Facilities will promote economic efficiency by removing an unnecessary restriction on the timing of decisions to undertake maintenance on these Outage Facilities.

## **Criteria for approval of Planned Outages**

The clarification of the obligations on Rule Participants to notify System Management of changes to details of proposed Planned Outages will promote the reliable supply of electricity by ensuring that System Management has access to up to date information about proposed Planned Outages.

The revised approach to the submission of outage requests will facilitate economic efficiency by reducing the incentive for a Rule Participant to prolong the duration of proposed Planned Outages.

The proposed availability declaration framework will promote economic efficiency and the reliable supply of electricity, and is likely to contribute to minimising the long-term cost of electricity, by:

- replacing the current availability requirement (that the relevant capacity is available, or capable of being made available, immediately prior to the commencement of the proposed outage) with a requirement (that the relevant capacity would otherwise be available for the duration of the proposed outage period) which provides a more accurate indication of whether the proposed maintenance is discretionary;
- reducing the incentives to apply for outages that are longer than needed, thereby improving the accuracy of outage information and PASA forecasts, and increasing the availability of outage slots for other Rule Participants;
- removing the need for System Management to request written availability declarations in most cases, as these will be implicit in outage requests;
- facilitating extensions of Scheduled Outages that overrun their original timeframe by relaxing the availability requirement for a Planned Outage that immediately follows another Planned Outage (subject to certain safeguards);
- encouraging the early submission of Outage Plans through the protection of an accepted Outage Plan from subsequent rejection due to a Forced Outage of the Equipment List Facility, which will lead to timelier and more accurate outage information and improve PASA forecasts;
- improving flexibility by allowing a Rule Participant to start a Scheduled Outage a day early using an Opportunistic Maintenance Outage; and
- providing more appropriate mechanisms to prevent the acceptance or approval of disingenuous outage requests.

## **Other issues identified by the Rule Change Panel**

The ability to reduce the effective outage period for a short maintenance task on an offline, slow-starting Scheduled Generator will promote economic efficiency by providing greater flexibility to Market Generators with slow-starting Facilities, without creating any adverse impacts on transparency or system reliability.

The clarification that a Market Generator is permitted to undertake a Commissioning Test under a Planned Outage will promote economic efficiency by allowing a Market Generator to undertake tests that involve synchronising to the grid and exporting energy as required, without the risk and inflexibility of having to request multiple Planned Outages.

## Effects on competition

The proposed amendments will encourage competition among generators by reducing the costs and risks of participation in the market, through:

- the provision of more accurate outage information, PASA forecasts, Balancing Forecasts and Forecast BMOs;
- the clarification of outage planning processes and the increased flexibility of those processes;
- the clarification of outage planning obligations and the removal of unnecessary obligations; and
- increased certainty about the timing of some key decisions (e.g. deadlines for approval of Scheduled Outages).

Additionally, the removal of the need for System Management to exercise discretion in making some decisions (such as decisions on eligibility for an extension outage, what constitutes minor maintenance, whether an Opportunistic Maintenance outage requires any change in scheduled energy or ancillary services, or on whether it should reject an outage that it is aware does not meet the availability requirement) will encourage competition among generators by avoiding perceptions of bias and increasing confidence in the outage planning process.

## 7.5 Protected Provisions, Reviewable Decisions and Civil Penalties

The proposed Amending Rules do not affect any Protected Provisions or Reviewable Decisions.

The following civil penalty provisions are proposed to be amended. However, the Rule Change Panel considers that the proposed amendments do not alter the intent of the provisions and so no amendments to the current civil penalties are required.

- Clause 3.18.7: Good faith intention for Planned Outage requests – the proposed amendments are to improve clarity and remove any implication that an Outage Facility must be available for service immediately prior to the start of a Planned Outage. However, the amendments do not affect the general meaning or the intent of the clause.
- Clause 3.18.8: Requirement on a participant to provide notification where it wishes to cancel a Planned Outage – the proposed amendments are to clarify that the Rule Participant must withdraw its Outage Plan (not just notify System Management) and remove any implication that an Outage Facility must be available for service immediately prior to the start of a Planned Outage. However, the amendments do not affect the general meaning or intent of the clause.
- Clause 3.18.9: Requirement to notify System Management of changes to an Outage Plan – the proposed amendments extend the scope of the clause to cover any changes to the information provided in an Outage Plan, not just changes to the outage period. The Rule Change Panel considers that the amendments should not affect the classification of this clause as a civil penalty provision.
- Clause 3.19.1: Requirement to seek approval of a Scheduled Outage – the proposed amendments clarify the deadline for Scheduled Outage approval requests, move the definition of Scheduled Outage to the Glossary, and remove the requirement for a Rule

Participant to re-specify the outage period in an approval request. However, the amendments do not affect the general meaning or intent of the clause.

- Clause 7A.2.9: Synergy Balancing Submission obligations – the proposed amendments are to:
  - qualify that Synergy’s reasonable expectation of the capability of its Balancing Portfolio to be dispatched in a Trading Interval is subject to the requirement on Synergy to declare any capacity subject to an outstanding Opportunistic Maintenance request as available in its Balancing Submission; and
  - oblige Synergy to update its Balancing Submissions to reflect a Forced Outage or the late approval of a Planned Outage, if there is a credible risk that the excess capacity will distort the operation of the Balancing Market.

The Rule Change Panel considers that the amendments should not affect the classification of this clause as a civil penalty provision.

The Rule Change Panel suggests that the following clauses be considered for inclusion as civil penalty provisions.

- Clause 3.18.5D: the proposed amendments (which completely replace the current contents of this clause) prohibit a Rule Participant from submitting an Outage Plan if it is aware, or ought to be aware in the circumstances, that the proposed outage does not meet the availability requirement.
- Clause 3.18.6A: this new clause prohibits a Rule Participant from submitting an Outage Plan for an outage period when it is aware, or ought to be aware in the circumstances, that it would not be able to complete the proposed maintenance and make the capacity available for service by the end of that outage period.
- Clause 3.18.9B: this new clause prescribes the action(s) that a Rule Participant must take if, after submitting an Outage Plan, it becomes aware, or ought to have become aware in the circumstances, that the proposed outage no longer meets the availability requirement.
- Clause 3.19.2A: this new clause requires a Rule Participant to request approval for a Scheduled Outage or Opportunistic Maintenance from System Management in accordance with sections 3.18 and 3.19 of the Market Rules if:
  - the Rule Participant intends that some or all of an Equipment List Facility’s capacity or capability will be unavailable for service for a period for the purpose of Outage Facility Maintenance; and
  - the Rule Participant is not prohibited from submitting an Outage Plan under clause 3.18.5D or a request for approval of Opportunistic Maintenance under clause 3.19.2B (as applicable) for the proposed outage.
- Clause 3.19.2B: this new clause prohibits a Rule Participant from requesting approval of Opportunistic Maintenance if it is aware, or ought to be aware in the circumstances that the proposed outage does not meet the availability requirement.
- Clause 3.19.2C: this new clause requires a Rule Participant that no longer intends to proceed with an Opportunistic Maintenance outage to inform System Management and withdraw its Opportunistic Maintenance request as soon as practicable. (Note that clause 3.18.8, which applies a similar obligation in respect of Scheduled Outages, is a civil penalty provision.)

- Clause 3.19.2D: this new clause requires a Rule Participant to notify System Management of changes to the information provided in a request for approval of Opportunistic Maintenance. (Note that clause 3.18.9, which applies a similar obligation in respect of Outage Plan changes, is a civil penalty provision.)
- Clause 3.19.2F: this new clause prescribes the action(s) that a Rule Participant must take if, after submitting a request for approval of Opportunistic Maintenance, it becomes aware, or ought to have become aware in the circumstances, that the proposed outage no longer meets the availability requirement.
- Clauses 7A.2.8A and 7A.2.9A: these new clauses require Market Participants to ensure their Balancing Submissions correctly reflect approved outages and outstanding outage requests.
- Clauses 7A.2.9B and 7A.2.9C: these new clauses require Market Participants to update their Balancing Submissions to reflect the late rejection of an approved Planned Outage or the recall of a Planned Outage that is underway.
- Clauses 7A.2A.1 and 7A.2A.2: these new clauses require Market Participants to notify System Management of a Forced Outage or Consequential Outage for capacity declared unavailable in a Balancing Submission that is not otherwise accounted for.

Stakeholders provided no specific feedback on whether these clauses should be classified as civil penalty provisions during the 10 June 2019 workshop or in second period submissions. However, during the 10 June 2019 workshop Alinta noted, in respect of the Rule Change Panel's suggestion that clause 7A.2.8A be considered for inclusion as a civil penalty provision, that civil penalty payments for breaches of the surrounding clauses (7A.2.8 and 7A.2.9) were distributed to Market Participants in accordance with clause 7A.2.19.

The Rule Change Panel has provided the comments and suggestions set out in this section 7.5 to the Public Utilities Office for its further consideration.

## 7.6 Practicality and Cost of Implementation

### 7.6.1 Cost

Following the further submission period, AEMO advised the Rule Change Panel that, due to the delay in progressing this Rule Change Proposal, it intends to implement the required system changes as part of its System Management System Transition (**SMST**) project. As this may result in a near-zero development/testing cost, AEMO provided an updated cost estimate of between \$30,000 and \$70,000 to implement the Rule Change Proposal. This estimate comprises overheads for use of AEMO's subject matter experts to support delivery (\$30,000) and an allowance for unforeseen variations in development/testing effort (\$40,000).

In its second period submission, AEMO anticipated that it would incur further costs to implement system changes required to comply with its obligations, as described by the Market Auditor, under proposed new clauses 3.18.10A and 3.19.3B. AEMO also considered that similar system changes might be required for AEMO to comply with its obligations under proposed new clauses 3.18.10B(b) and 3.19.3C(b). AEMO advised that these costs had not yet been quantified because AEMO had only recently become aware of the required changes after receiving the Market Auditor's advice regarding these obligations.

However, following further discussion with RCP Support about the intent of clauses 3.18.10A, 3.18.10B(b), 3.19.3B and 3.19.3C(b); and consideration of the additional changes to those clauses discussed in sections 7.2.1.4 and 7.2.1.5 of this report; AEMO advised that

it did not expect the revised clauses would require any material change to the cost estimate presented in the Draft Rule Change Report.

AEMO has also indicated that it expects to incur some costs in relation to new clause 3.18.5E but expects those costs to be relatively immaterial. AEMO has not advised the Rule Change Panel of any other costs arising from the additional changes set out in section 7.3.2 of this report.

While the Rule Change Panel has not conducted a formal cost-benefit analysis for this Rule Change Proposal, it is of the view that AEMO's costs to implement the proposed amendments are justified by:

- the likely cost savings for Market Participants due to the increased flexibility of the outage planning processes (e.g. through the ability to undertake Opportunistic Maintenance spanning two Trading Days, conduct a Commissioning Test under a Planned Outage or obtain an extension of a Scheduled Outage);
- the likely efficiency benefits resulting from the provision of more complete, timely and accurate outage information, and more accurate Balancing Forecasts and Forecast BMOs;
- the likely administrative and compliance cost savings due to the removal of unnecessary obligations on AEMO and other Rule Participants; and
- the overall improvement to the clarity and integrity of the Market Rules.

In other second period submissions:

- Western Power advised that, while it needed to make changes to its IT systems and internal outage process to implement its suggested alternative approach for distribution-connected generators, these changes could be undertaken as part of Western Power's business-as-usual activities.
- Alinta advised that the proposed amendments will have both IT and business system implications for Alinta; however, the changes can largely be progressed within its current IT changes program and do not represent significant additional cost or require additional resources to complete.

Alinta also advised it will need to update its internal procedures and training documentation and undertake specific outages training for some staff. Alinta expected that this work will be incorporated into its business-as-usual activities.

- Bluewaters advised that it did not anticipate any substantial implications or costs as a result of implementing the proposed amendments.
- Perth Energy advised that while some of the proposed amendments will require minor changes to its systems and processes, on the basis of the drafting in the Draft Rule Change Report it did not expect the cost of these changes to be material.

Synergy did not provide a submission in the second submission period, but indicated in its further submission that, subject to the resolution of the issues it raised in that submission, it did not expect to incur costs for the Rule Change Proposal.

Stakeholders provided no other information regarding implementation costs.

## 7.6.2 Practicality

As mentioned above, AEMO will implement the required system changes for this Rule Change Proposal as part of the SMST project.

Following the second submission period, AEMO advised that while the indicative completion date for the SMST project is late November 2019, there is a risk that the completion date will be delayed due to the complexity of the systems involved. In addition, there are implementation risks due to the availability of resources over the Christmas break. Therefore, AEMO recommended a commencement date of 1 February 2020.

In its second period submission, AEMO advised that the 1 February 2020 commencement date did not take into account the additional changes likely to be required to enable AEMO to meet its obligations under proposed new clauses 3.18.10A, 3.18.10B(b), 3.19.3B and 3.19.3C(b). AEMO noted that it intended to conduct a system impact assessment to determine the extent of the changes and might need to revise the commencement date proposed.

However, following further discussion with RCP Support about the intent of clauses 3.18.10A, 3.18.10B(b), 3.19.3B and 3.19.3C(b) and consideration of the additional changes to those clauses discussed in sections 7.2.1.4 and 7.2.1.5 of this report, AEMO advised that it was still able to meet the recommended 1 February 2020 commencement date.

In their second period submissions, Alinta, Bluewaters, Perth Energy and Western Power all advised that they would be able to meet a 1 February 2020 commencement date. Synergy indicated in its further submission that it did not require time to implement the proposed changes.

The Rule Change Panel received no other relevant comments about the practicality of implementing the Rule Change Proposal. The Rule Change Panel therefore still considers that 1 February 2020 is an appropriate commencement date for the Amending Rules.

### **7.6.3 Amendments to Associated Market Procedures**

The Rule Change Panel notes that the proposed changes will require amendments to the Power System Operation Procedure (**PSOP**): Facility Outages.

## 8. Amending Rules

The Rule Change Panel has decided to implement the following Amending Rules (~~deleted text~~, added text, clauses that are included for context but not amended):

- 2.34.4. Notwithstanding clauses 2.34.2 and 2.34.3, a Rule Participant is not required to notify AEMO of changes to Standing Data where the changes reflect a temporary change in the capacity or capability of a Registered Facility resulting from a Planned Outage, Forced Outage or Consequential Outage.

...

### 3.18. Outage Scheduling

- 3.18.1. Where a reference is made to an outage of a Facility or item of equipment in ~~clauses 3.18, 3.19, 3.20 and 3.24~~ this section 3.18 and sections 3.19, 3.20 and 3.21, this includes partial and complete outages and de-ratings of the Facility or item of equipment.

- 3.18.1A. The obligations specified in this section 3.18 and sections 3.19 and 3.21 to request or report Outages do not apply to Market Participants in respect of an outage of a Non-Scheduled Generator if the average MW de-rating over the relevant Trading Interval is less than:

$$\min(0.1 \times \text{Nameplate Capacity}, 10)$$

where Nameplate Capacity is the MW quantity provided for the Non-Scheduled Generator under Appendix 1(e)(ii).

- 3.18.1B. For the purposes of this section 3.18 and section 3.19, capacity or capability associated with an Outage Facility is deemed to be unavailable for service in a Trading Interval if the capacity or capability could not, in response to an instruction or direction to the Market Participant or Network Operator from System Management that was consistent with:

- (a) the Outage Facility's Equipment Limits;
- (b) any relevant limits or information relating to the capacity or capability of an Outage Facility provided to System Management in accordance with the Power System Operation Procedure referred to in clause 2.28.3A(a); or
- (c) any relevant limits specified in an Ancillary Service Contract.

(as applicable), be used to provide the relevant service expected from the capacity or capability of the Outage Facility. To avoid doubt, capacity of a Non-Scheduled Generator is not deemed to be unavailable for service because of a shortfall of the intermittent energy source used by the Non-Scheduled Generator to generate electricity.

- 3.18.2.

- ~~(a) System Management must compile, and publish, a list of all equipment on the SWIS that is required to be subject to outage scheduling by System~~

~~Management. The list must also include equipment for which System Management requires notice of partial outages or de-ratings.~~

- ~~(a) System Management must maintain and publish on the Market Web Site a list of all equipment on the SWIS that it determines should be subject to outage scheduling in accordance with this section 3.18 and sections 3.19, 3.20 and 3.21 (“Equipment List”).~~
- ~~(b) System Management must review the list described in clause 3.18.2(a) from time to time and may update the list. System Management must publish any such updates.~~
- ~~(b) System Management must, as soon as practicable after it becomes aware of an error relating to the Equipment List, or otherwise determines that a change is required to the Equipment List, update the Equipment List to address the error or reflect the change and publish the updated Equipment List on the Market Web Site.~~
- ~~(c) The list described in clause 3.18.2(a) Equipment List must include:
  - ~~i. all transmission network Registered Facilities;~~
  - ~~i. any part of a transmission system (however defined by System Management) that could limit the output of a generation system that System Management has included on the Equipment List;~~
  - ~~ii. all Registered Facilities holding Capacity Credits, except those to which clause 3.18.2A applies;~~
  - ~~ii. all Scheduled Generators holding Capacity Credits;~~
  - ~~iii. all Non-Scheduled Generators holding Capacity Credits with a Standing Data nameplate capacity that equals or exceeds 10 MW;~~
  - ~~ii-iv. all generation systems to which clause 2.30B.2(a) relates, except those to which clause 3.18.2A applies with a nameplate capacity that equals or exceeds 10 MW;~~
  - ~~iii-v. all Registered Facilities subject to an Ancillary Services Service Contract; and~~
  - ~~iv-vi. any other equipment that System Management determines must be subject to outage scheduling to maintain Power System Security and Power System Reliability.~~~~
- ~~(d) The list described in clause 3.18.2(a) Equipment List may specify that a piece of equipment on the list an Equipment List Facility is subject to outage scheduling by System Management only at certain times of the year.~~
- ~~(e) [Blank]~~
- ~~(f) If a Market Participant’s or Network Operator’s Facility (or an item of equipment forming part of that Facility) is on the list described in clause 3.18.2(a), then the Market Participant or Network Operator, as applicable,~~

~~must schedule outages for the equipment in accordance with this clause 3.18 and clauses 3.19, 3.20 and 3.21.~~

- ~~(f) A Market Participant or a Network Operator must schedule outages for each of its Equipment List Facilities in accordance with this section 3.18 and sections 3.19, 3.20 and 3.21.~~
- ~~(g) A Market Generator who provides an Ancillary Service under an Ancillary Service Contract must schedule outages in respect of both:
  - ~~i. the capacity of the Facility to provide sent out energy; and~~
  - ~~ii. for each applicable Ancillary Service Contract, the capacity or capability of the Facility to provide the contracted Ancillary Service.~~~~

### 3.18.2A.

- ~~(a) Except where clause 3.18.2(c)(iv) applies, Registered Facilities with a Standing Data nameplate capacity of less than 10 MW and generation systems to which clause 2.30B.2(a) relates and which have a nameplate capacity of less than 10 MW are not required to schedule outages for that equipment in accordance with this clause 3.18 and clauses 3.19 and 3.20 other than as required by this clause 3.18.2A.~~

- ~~(a) If a generation system:
  - ~~i. is a Scheduled Generator, a Non-Scheduled Generator or a generation system to which clause 2.30B.2(a) relates; and~~
  - ~~ii. is not required to be included on the Equipment List under clause 3.18.2(c),~~~~

~~then the relevant Market Participant is not required to schedule outages in accordance with this section 3.18 and sections 3.19 and 3.20 for that generation system (“**Self-Scheduling Outage Facility**”) other than as required by this clause 3.18.2A.~~

- ~~(b) If clause 3.18.2A(a) applies to a Market Participant’s Facility or generation system then that Market Participant must notify System Management of proposed Planned Outages of that Facility or generation system not less than 2 Business Days prior to their commencement and must specify the duration of the Planned Outage;~~

- ~~(b) Subject to clause 3.18.2A(i), a Market Participant must notify System Management of a proposed Planned Outage of its Self-Scheduling Outage Facility if, and only if, the Market Participant intends that some or all of the capacity of its Self-Scheduling Outage Facility will be unavailable for service for a period for the purpose of Outage Facility Maintenance.~~

- ~~(c) Where System Management is advised of a proposed Planned Outage in accordance with clause 3.18.2A(b) then System Management must record that outage as an approved Planned Outage.~~

- ~~(c) The notice under clause 3.18.2A(b) must be given:~~

- i. for an outage exceeding 24 hours in duration, no later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the proposed Planned Outage is due to commence; and
  - ii. for an outage of up to 24 hours in duration, no later than 30 minutes before Balancing Gate Closure for the Trading Interval in which the proposed Planned Outage is due to commence.
- (d) The notice under clause 3.18.2A(b) must include the information specified in clause 3.18.6.
- (e) System Management is deemed to have approved each proposed Planned Outage for a Self-Scheduling Outage Facility that is notified under clauses 3.18.2A(b) or 3.18.2A(g) and in accordance with clauses 3.18.2A(c) and 3.18.2A(d). The deemed approval takes effect when System Management receives the notice.
- (f) Where a Market Participant no longer intends that the relevant capacity of its Self-Scheduling Outage Facility will be unavailable for service for the purpose of Outage Facility Maintenance it must inform System Management and withdraw the notice of the proposed Planned Outage as soon as practicable.
- (g) Subject to clause 3.18.2A(h), if a Market Participant becomes aware of any changes to the information provided to System Management in a notice of a proposed Planned Outage for a Self-Scheduling Outage Facility, then the Market Participant must, as soon as practicable, submit a revised notice to System Management for the Self-Scheduling Outage Facility that complies with the requirements of a notice of a proposed Planned Outage for a Self-Scheduling Outage Facility in this clause 3.18.2A.
- (h) A Market Participant must not submit a revised notice of a proposed Planned Outage to System Management for a Self-Scheduling Outage Facility that proposes:
  - i. a new start time for the proposed Planned Outage that is earlier than the previous proposed start time;
  - ii. a new end time for the proposed Planned Outage that is later than the previous proposed end time; or
  - iii. an increase in the quantity of de-rating.
- (i) Subject to clause 3.19.2G, a Market Participant must not notify System Management of a proposed Planned Outage of its Self-Scheduling Outage Facility in accordance with clause 3.18.2A(b) if the Market Participant is aware, or ought to be aware in the circumstances that, if the proposed Planned Outage did not proceed, any of the relevant capacity would be unavailable for service for any part of the proposed outage period for any reason other than that a deadline for completion of Mandatory Routine Maintenance would pass before the end of the proposed outage period.

### 3.18.3.

- (a) If a Market Participant's or Network Operator's Facility (or an item of equipment forming part of a Facility or an item of equipment which is a generation system to which clause 2.30B.2(a) relates) is on the ~~list described in clause 3.18.2(a)~~ Equipment List, then the Market Participant or Network Operator may request that the Economic Regulation Authority reassess the inclusion of the Facility or item of equipment on the ~~list~~ Equipment List in accordance with this clause 3.18.3.
- (b) Following a request by a Market Participant or Network Operator under clause 3.18.3(a), the Economic Regulation Authority must consult with System Management and the Market Participant or Network Operator concerning whether the ~~Facility or item of equipment~~ Equipment List Facility should remain on the ~~list~~ Equipment List.
- (c) The Economic Regulation Authority may give a direction to System Management that ~~a Facility or item of equipment~~ an Equipment List Facility should not remain on the ~~list~~ Equipment List where it finds that:
  - i. System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.18.21 in ~~compiling~~ determining the ~~list under clause 3.18.2~~ Equipment List; and
  - ii. if the Market Rules and the Power System Operation Procedure specified in clause 3.18.21 had been followed, then the ~~Facility or item of equipment~~ Equipment List Facility would not have been on the ~~list~~ Equipment List.
- (d) ~~Whereif~~ the Economic Regulation Authority gives a direction to System Management ~~that the Facility or item of equipment does not need to remain on the list, under clause 3.18.3(c), then~~ System Management must, as soon as practicable, remove the ~~Facility or item~~ relevant Equipment List Facility from the ~~list~~ Equipment List and publish the updated Equipment List on the Market Web Site.

~~3.18.4. System Management must maintain an outage schedule, containing information on all Scheduled Outages.~~

3.18.4. System Management must maintain an outage schedule that contains details of each Outage Plan:

- (a) that System Management has accepted under clause 3.18.13; or
- (b) that the Economic Regulation Authority has directed System Management under clause 3.18.15(f) to include in the outage schedule.

3.18.4A. A proposal submitted to System Management in accordance with this ~~clause~~ section 3.18 by a Market Participant or Network Operator in which permission is sought from System Management for ~~the scheduling of the removal from service (or derating) of an item of equipment~~ some or all of the capacity or capability of an

Equipment List Facility to be unavailable for service for a period is a proposed outage plan (“**Outage Plan**”).

3.18.5. Market Participants:

- (a) must, subject to clause 3.18.5A, submit to System Management details of a proposed Outage Plan at least one year but not more than three years in advance of the proposed outage, where:
  - i. the outage relates to ~~a Facility or item of equipment~~ an Equipment List Facility in respect of which a Market Participant holds Capacity Credits at any time during the proposed outage;
  - ii. the ~~Facility or item of equipment~~ Equipment List Facility has a nameplate capacity greater than 10 MW; and
  - iii. the proposed outage has a duration of more than one week; and
- (b) otherwise may submit an Outage Plan to System Management not more than three years and not less than two days in advance of the proposed outage.

3.18.5A. Market Participants may submit an Outage Plan to which clause 3.18.5(a) relates to System Management less than one year, but not less than two days, in advance of the proposed outage, but in such instances:

- (a) System Management must give priority to Outage Plans to which clause 3.18.5(a) relate and which were received more than one year in advance of the commencement of the proposed outage;
- (b) System Management must give priority to Outage Plans to which this clause 3.18.5A relates in the order they are received; and
- (c) System Management must give no special priority to Outage Plans to which this clause 3.18.5A relates relative to Outage Plans to which clause 3.18.5(a) does not relate.

3.18.5B. Network Operators may submit an Outage Plan to System Management not more than three years and not less than two days in advance of the proposed outage.

3.18.5C. Where a Network outage is likely to unduly impact the operation of one or more Market Participant Registered Facilities, System Management may require that, in developing their Outage Plans, the relevant Network Operator and affected Market Participants coordinate the timing of their outages so as to minimise the impact of the Network outage on the operation of the Market Participant Registered Facilities.

~~3.18.5D. Notwithstanding the requirements in chapter 10, in exercising the obligation set out in clause 3.18.5C, System Management may make such information in the outage schedule maintained in accordance with clause 3.18.4 available to a Network Operator to coordinate outage timing.~~

3.18.5D. Subject to clauses 3.18.5E and 3.19.2G, a Market Participant or Network Operator must not submit an Outage Plan to System Management if it is aware or ought to be aware in the circumstances that, if System Management rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the relevant outage period.

3.18.5E. A Market Participant or Network Operator is not required to comply with clause 3.18.5D in respect of an Outage Plan provided that:

- (a) the purpose of the proposed outage is to conduct Mandatory Routine Maintenance;
- (b) the applicable deadline for the proposed Mandatory Routine Maintenance falls within the proposed outage period;
- (c) the Market Participant or Network Operator is aware that if the Mandatory Routine Maintenance is not undertaken before or during the proposed outage period then some or all of the capacity or capability to which the Outage Plan applies will be unavailable for service for part of the proposed outage period because the applicable deadline for the Mandatory Routine Maintenance will have passed;
- (d) the Market Participant or Network Operator is not aware of any other reason why, if System Management rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period; and
- (e) the Market Participant or Network Operator includes in the Outage Plan that the Outage Plan is submitted under this clause 3.18.5E.

3.18.6. The information submitted in an Outage Plan, a notice of a proposed Planned Outage of a Self-Scheduling Outage Facility submitted in accordance with clause 3.18.2A, or a request for approval of Opportunistic Maintenance must include:

- (a) the identity of the ~~Facility or item of equipment~~ Outage Facility that will be unavailable;
- (b) the quantity of any de-rating where, if the Outage Facility is a generating system, this quantity is in accordance with clause 3.21.5;
- (c) the reason for the outage;
- (d) the proposed start and end times of the outage;
- (e) an assessment of risks that might extend the outage;
- (f) details of the time it would take the ~~Facility or item of equipment~~ Outage Facility to return to service, if required;
- (g) contingency plans for the early return to service of the ~~Facility or item of equipment~~ Outage Facility ("**Outage Contingency Plans**"); and
- (h) if the Outage Plan is submitted by a Network Operator, if a Network Operator submits either an Outage Plan or a request for approval of Opportunistic Maintenance, a confirmation that the Network Operator has

used its best endeavours to inform any Market Generator with a Scheduled Generator or Non-Scheduled Generator impacted by the unavailability of the relevant ~~item of equipment~~ Outage Facility of the proposed outage.

- 3.18.6A. A Market Participant or Network Operator must not submit an Outage Plan if it is aware or ought to have been aware in the circumstances that it would not be able to complete the proposed Outage Facility Maintenance and make the relevant capacity or capability available for service by the end of the proposed outage period.
- 3.18.7. Outage Plans submitted by a Market Participant or Network Operator must represent the good faith intention of the Market Participant or Network Operator ~~to remove from service, or de-rate, the relevant Facility or item of equipment, for maintenance~~ that the relevant capacity or capability of its Equipment List Facility will be unavailable for service for the duration of the outage period described in clause 3.18.6(d) for the purpose of Outage Facility Maintenance.
- 3.18.7A. System Management may reject an Outage Plan first submitted within 6 weeks of the commencement time of the outage without evaluating that Outage Plan if, in the opinion of System Management, the submitting party has not allowed adequate time for the Outage Plan to be assessed.
- 3.18.8. Where a Market Participant or Network Operator no longer ~~plans to remove from service, or de-rate, the relevant Facility or item of equipment, for maintenance~~ intends that the relevant capacity or capability of its Equipment List Facility will be unavailable for service for the purpose of Outage Facility Maintenance it must inform System Management and withdraw the relevant Outage Plan as soon as practicable.
- 3.18.9. ~~Where a Market Participant or Network Operator intends to remove from service, or de-rate, the relevant Facility or item of equipment, for maintenance at a different time than indicated in an Outage Plan, it must submit a revised Outage Plan to System Management as soon as practicable.~~ Subject to clause 3.18.9A, if a Market Participant or Network Operator becomes aware of any changes to the information provided to System Management in an Outage Plan, then the Market Participant or Network Operator must as soon as practicable submit a revised Outage Plan to System Management for the relevant Equipment List Facility that complies with the requirements of an Outage Plan in this section 3.18.
- 3.18.9A. A Market Participant or Network Operator must not submit a revised Outage Plan to System Management that proposes:
- (a) a new start time for the proposed outage that is earlier than the previous proposed start time;
  - (b) a new end time for the proposed outage that is later than the previous proposed end time; or
  - (c) an increase in the quantity of de-rating.

3.18.9B. Subject to clauses 3.18.10C and 3.19.2G, if a Market Participant or Network Operator becomes aware, or ought to have become aware in the circumstances, that, if System Management rejected an Outage Plan for its Equipment List Facility, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period, then the Market Participant or Network Operator must either:

(a) as soon as practicable, submit a revised Outage Plan to System Management for the Equipment List Facility that amends the proposed outage period or reduces the quantity of de-rating (or both) to meet the requirements of clause 3.18.5D; or

(b) as soon as practicable:

i. notify System Management; and

ii. if System Management has not yet scheduled the Outage Plan for the Equipment List Facility in its outage schedule, withdraw the Outage Plan.

3.18.10. Subject to clauses 3.18.10A and 3.18.10B, System Management must use a risk assessment process using the criteria set out in clause 3.18.11 to evaluate Outage Plans:

(a) when an Outage Plan is received or revised; and

(b) on an ongoing basis as part of the Medium Term PASA and Short Term PASA studies.

3.18.10A. Subject to clauses 3.18.10C and 3.19.2G, System Management must not schedule a new Outage Plan in its outage schedule if it is aware, or ought to be aware based on information that it has and any readily available confirmatory information, that, if it rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period.

3.18.10B.If, at the time System Management begins its evaluation of a new Outage Plan:

(a) the relevant capacity or capability is subject to a Planned Outage for which System Management has received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i);

(b) the relevant capacity or capability is subject to a Planned Outage for which System Management is aware that it should have received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) from the Market Participant or Network Operator; or

(c) the relevant capacity or capability is subject to a Forced Outage, then System Management must delay its evaluation of the Outage Plan until:

(d) the relevant capacity or capability is returned to service; or

(e) System Management receives evidence to its satisfaction from the Market Participant or Network Operator that the relevant capacity or capability would be capable of being made available for service before the start of the proposed outage period in the Outage Plan.

3.18.10C. If a Market Participant or Network Operator submits an Outage Plan under clause 3.18.5E then:

(a) System Management must not refuse to schedule the Outage Plan in its outage schedule under clause 3.18.10A because the Mandatory Routine Maintenance will not be completed before the applicable deadline for that Mandatory Routine Maintenance; and

(b) the Market Participant or Network Operator is not required to take action under clause 3.18.9B because the Mandatory Routine Maintenance will not be completed before the applicable deadline for that Mandatory Routine Maintenance.

3.18.11. System Management must apply the following criteria when evaluating Outage Plans:

- (a) the capacity of the total generation and Demand Side Management Facilities remaining in service must be greater than the second deviation load forecast published in accordance with clause 3.16.9(a)(iii) or clause 3.17.9(a)(iii), as applicable;
- (aA) the total capacity of the generation Facilities remaining in service, and System Management's reasonable forecast of the total available Demand Side Management, must satisfy the Ready Reserve Standard described in clause 3.18.11A;
- (b) the transmission system and distribution system capacity or capability remaining in service must be capable of allowing the dispatch of the capacity referred to in clause 3.18.11(a);
- (c) the Facilities remaining in service must be capable of meeting the applicable Ancillary Service Requirements;
- (d) the Facilities remaining in service must allow System Management to ensure the power system is operated within the Technical Envelope; and
- (e) notwithstanding the criteria set out in clause 3.18.11(a) to (d), System Management may allow an outage to proceed if it considers that preventing the outage would pose a greater threat to Power System Security or Power System Reliability over the long term than allowing the outage.

3.18.11A. The Ready Reserve Standard requires that the available generation and demand-side capacity at any time satisfies the following principles:

- (a) Subject to clause 3.18.11A(c), the additional energy available within fifteen minutes must be sufficient to cover:

- i. 30% of the total output, including Parasitic Load, of the generation unit synchronized to the SWIS with the highest total output at that time;
      - ii. plus the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).
    - (b) Subject to clause 3.18.11A(c), and in addition to the additional energy described in clause 3.18.11A(a), the additional energy available within four hours must be sufficient to cover:
      - i. 70% of the total output, including Parasitic Load, of the generation unit synchronized to the SWIS with the second highest total output at that time;
      - ii. less the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).
    - (c) System Management may relax the requirements in clause 3.18.11A(a) and (b) in the following circumstances:
      - i. where System Management expects that the load demand will be such that it exceeds the second standard deviation peak load forecast level, as described in clause 3.17.9(a), used in the most recently published Short Term PASA for that Trading Interval;
      - ii. during the four hours following an event that has caused System Management to call on additional energy maintained in accordance with clauses 3.18.11A(a) or (b).
- 3.18.12. Except to the extent required by the criteria in clause 3.18.11 and to the extent allowed by clause 3.18.5A, in evaluating Outage Plans, System Management must not show bias towards a Market Participant or Network Operator in regard to its Outage Plans.
- 3.18.13. Following an evaluation of a new Outage Plan or an Outage Plan or group of Outage Plans that System Management has previously accepted fully or subject to conditions:
- (a) System Management may find that an Outage Plan, or group of Outage Plans, when considered together, are acceptable, unacceptable or are acceptable under certain circumstances. If System Management finds that a group of Outage Plans when considered together are acceptable, unacceptable or acceptable under certain circumstances, then all the Outage Plans in that group have that status.
  - (b) Where System Management finds that an Outage Plan is acceptable, then it must schedule the Outage Plan in System Management's outage schedule accordingly and inform the Market Participants or Network Operators that submitted the Outage Plans.
  - (c) Where System Management finds that an Outage Plan is acceptable under certain circumstances, then it must inform the Market Participant or

Network Operator that submitted the Outage Plan of its finding and the circumstances under which the Outage Plan would be acceptable. System Management must:

- i. consult with the Market Participant or Network Operator about those circumstances;
  - ii. determine a date by which it expects to have sufficient information on those circumstances to reassess the Outage Plan;
  - iii. inform the Market Participant or Network Operator of the date; and
  - iv. reassess the outage plan using the criteria under clause 3.18.11 following the date specified in accordance with clause 3.18.13(c)(ii);
- (d) Where System Management finds that an Outage Plan is unacceptable, then System Management must inform all Market Participants and Network Operators affected and must negotiate with the affected Market Participants and Network Operators to attempt to reach agreement as to System Management's outage schedule, and:
- i. If agreement is reached, then the affected Market Participants and Network Operators must resubmit Outage Plans to System Management; or
  - ii. If no agreement is reached within 15 Business Days, System Management must:
    1. decide which of the Outage Plans are acceptable and schedule these Outages Plans into System Management's outage schedule where they are not already scheduled;
    2. decide which of the Outage Plans are unacceptable and remove these Outages Plans from the System Management's outage schedule where they were previously scheduled; and
    3. notify each affected Market Participant whether its Outage Plan has been scheduled.
- (e) Where, as a result of an evaluation, the status of an Outage Plan that was previously acceptable or acceptable under certain conditions changes then System Management must modify its outage schedule accordingly.

3.18.14. System Management must use the following criteria when making a decision referred to in clause 3.18.13(d)(ii), in descending order of priority:

- (a) System Management must give priority to the criteria in clause 3.18.11;
- (b) System Management must give priority to Outage Plans that have previously been scheduled in System Management's outage schedule, in the order in which they were entered into the schedule. ~~For the purposes of this clause an Outage Plan which has been entered into the outage schedule and has subsequently been revised in accordance with clause~~

~~3.18.9 is considered to have been entered into the schedule on the date the most recent revision of the Outage Plan was submitted under that clause;~~

- (c) System Management must have regard to the technical reasons for the requested ~~maintenance~~ Outage Facility Maintenance, the technical implications for the relevant equipment if the ~~maintenance~~ Outage Facility Maintenance is not carried out and a reasonable duration for ~~maintenance~~ Outage Facility Maintenance carried out for those reasons; and
- (d) System Management must give priority to Outage Plans that would be more difficult to reschedule, including considering the amount of capacity or capability that would be taken out of service and the duration of the outage.

3.18.15. Where System Management informs a Market Participant or Network Operator that an Outage Plan has not been scheduled or has been removed from System Management's outage schedule under clause 3.18.13(d)(ii), the Market Participant or Network Operator may apply to the Economic Regulation Authority to reassess the decision in accordance with the following procedures:

- (a) A Market Participant or Network Operator can only apply for the Economic Regulation Authority to reassess a decision on the grounds that System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.18.21;
- (b) The Market Participant or Network Operator must submit a written application to the Economic Regulation Authority, and forward a copy to System Management, stating the reasons why it considers that System Management's decision under clause 3.18.13(d)(ii) should be reassessed and providing any supporting evidence:
  - i. within ten Business Days of being informed of System Management's decision; and
  - ii. no later than five Business Days prior to the date when the outage would have commenced.
- (c) Until the Economic Regulation Authority completes its reassessment, System Management's decision continues to have effect and System Management and the Market Participant or Network Operator must continue to plan their operations on this basis.
- (d) System Management must submit records relating to System Management's outage schedule around the date of the relevant outage to the Economic Regulation Authority within two Business Days of being informed of the Market Participant's or Network Operator's application under ~~paragraph (b)~~ clause 3.18.15(b).
- (e) The Economic Regulation Authority must consult with System Management and the Market Participant or Network Operator concerning the Outage Plan, and must make a complete reassessment by the earlier of:
  - i. ten Business Days of receiving the application under ~~paragraph (b)~~ clause 3.18.15(b); or

- ii. two Business Days prior to the date when the outage would have commenced.
  - (f) The Economic Regulation Authority may give a direction to System Management that the Outage Plan should be scheduled in System Management's outage schedule where it finds that:
    - i. System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.18.21; and
    - ii. if the Market Rules and the Power System Operation Procedure specified in clause 3.18.21 had been followed, then the Outage Plan would have been scheduled; and
  - (g) Where the Economic Regulation Authority gives a direction to System Management that the Outage Plan should be scheduled in System Management's outage schedule, System Management must schedule it into the outage schedule in accordance with the direction.
- 3.18.16. Where System Management informs a Market Participant or Network Operator that an Outage Plan is unacceptable, and the Economic Regulation Authority does not give System Management a direction under clause 3.18.15(f), then System Management and the Market Participant or Network Operator must use their best endeavours to agree an alternative time for the relevant outage, and System Management must schedule the alternative time in its outage schedule.
- 3.18.17. System Management must keep records of all of its outage evaluations and decisions made in accordance with this ~~clause~~ section 3.18, together with the reasons for each outage evaluation and decision.
- 3.18.18. From time to time, and at least once in every five year period starting from Energy Market Commencement, the Economic Regulation Authority, with the assistance of System Management, must conduct a review of the outage planning process against the Wholesale Market Objectives. The review must include a technical study of the effectiveness of the criteria in clause 3.18.11 and a broad consultation process with Rule Participants.
- 3.18.19. At the conclusion of a review under clause 3.18.18, the Economic Regulation Authority must publish a report containing:
- (a) the inputs and results of the technical study;
  - (b) the submissions made by Rule Participants in the consultation process and any responses to issues raised in those submissions;
  - (c) any recommended changes to the outage planning process, formulated as one or more Market Rule changes or Market Procedure changes.
- 3.18.20. If the Economic Regulation Authority recommends any changes in the report in clause 3.18.19, the Economic Regulation Authority must either submit a Rule

Change Proposal in accordance with clause 2.5.1 or initiate a Procedure Change Process in accordance with ~~clause section~~ 2.10, as the case may be.

- 3.18.21. System Management must document the procedure it follows in conducting outage planning in a Power System Operation Procedure.

### 3.19. Outage Approval

- ~~3.19.1. No later than two days prior to the date of commencement of any outage (“Scheduled Outage”) in System Management’s outage schedule, the Market Participant or Network Operator involved must request that System Management approve the Scheduled Outage proceeding, specifying the Trading Day and Trading Intervals during which the Scheduled Outage will occur.~~
- 3.19.1. No later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which a Scheduled Outage is due to commence, the relevant Market Participant or Network Operator must request that System Management approve the Scheduled Outage to proceed.
- 3.19.2. Subject to clause 3.19.2B, Market Participants and Network Operators may request that System Management approve an outage of a Facility or item of equipment an Equipment List Facility that is not a Scheduled Outage (“Opportunistic Maintenance”) ~~to be carried out during a Trading Day;~~
- ~~(a) at any time between 10:00 AM on the day prior to the Scheduling Day and 40:00 AM on the Scheduling Day for that Trading Day, where the request relates to an outage to occur at any time and for any duration during the following Trading Day; or~~
- (a) at any time between:
- i. 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the requested outage is due to commence; and
- ii. 30 minutes before Balancing Gate Closure for the Trading Interval in which the requested outage is due to commence, and
- (b) ~~at any time on the Trading Day not later than 1 hour prior to the commencement of the Trading Interval during which the requested outage is due to commence, where;~~
- i. the requested outage must be is to allow minor maintenance Outage Facility Maintenance to be performed;
- ~~ii. the outage must not require any changes in scheduled energy or ancillary services; and~~
- ~~iii. the outage may be for any duration and must end before the end of the Trading Day;~~
- ii. the duration of the requested outage does not exceed 24 hours;

iii. the outage period is separated by at least 24 hours from any other Opportunistic Maintenance outage period for the Equipment List Facility; and

iv. the request includes the information specified in clause 3.18.6.

~~where the request must include all of the information specified in clause 3.18.6, and must specify the Trading Intervals during which the Opportunistic Maintenance will occur.~~

3.19.2A. If:

(a) a Market Participant or Network Operator intends that some or all of an Equipment List Facility's capacity or capability will be unavailable for service for a period for the purpose of Outage Facility Maintenance; and

(b) the Market Participant or Network Operator is not prohibited from submitting an Outage Plan under clause 3.18.5D or a request for approval of Opportunistic Maintenance under clause 3.19.2B (as applicable) for the proposed outage,

then the Market Participant or Network Operator must request approval for a Scheduled Outage or Opportunistic Maintenance from System Management in accordance with section 3.18 and this section 3.19.

3.19.2B. Subject to clause 3.19.2G, a Market Participant or Network Operator must not request approval of Opportunistic Maintenance under clause 3.19.2 if the Market Participant or Network Operator is aware or ought to be aware in the circumstances that, if System Management rejected the request, any of the capacity or capability to which the request applies would be unavailable for service for any part of the relevant outage period.

3.19.2C. Where a Market Participant or Network Operator no longer intends to proceed with Opportunistic Maintenance that was requested under this section 3.19, it must inform System Management and withdraw the request as soon as practicable.

3.19.2D. Subject to clause 3.19.2E, if a Market Participant or Network Operator becomes aware of any changes to the information provided to System Management in a request for approval of Opportunistic Maintenance, then the Market Participant or Network Operator must submit a revised request to System Management for the relevant Equipment List Facility as soon as practicable in accordance with the requirements of a request for approval of Opportunistic Maintenance in this section 3.19.

3.19.2E. A Market Participant or Network Operator must not submit a revised request for approval of Opportunistic Maintenance that proposes:

(a) a new start time for the Opportunistic Maintenance that is earlier than the previous proposed start time;

(b) a new end time for the Opportunistic Maintenance that is later than the previous proposed end time; or

(c) an increase in the quantity of de-rating.

3.19.2F. Subject to clause 3.19.2G, if a Market Participant or Network Operator becomes aware, or ought to have become aware in the circumstances, that, if System Management rejected a request for approval of Opportunistic Maintenance for its Equipment List Facility, any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period, then the Market Participant or Network Operator must either:

(a) as soon as practicable, submit a revised request to System Management for the Equipment List Facility that amends the proposed outage period or reduces the quantity of de-rating (or both) to meet the requirements of clause 3.19.2B; or

(b) as soon as practicable:

i. notify System Management; and

ii. withdraw the request for approval of Opportunistic Maintenance if System Management has not yet approved it.

3.19.2G. Clauses 3.18.2A(i), 3.18.5D, 3.18.9B, 3.18.10A, 3.19.2B, 3.19.2F and 3.19.3B do not apply where:

(a) the proposed Planned Outage will immediately follow a Planned Outage of the relevant capacity or capability, and System Management has not received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) in respect of the earlier Planned Outage; or

(b) System Management or the Market Participant or Network Operator (as applicable):

i. is aware that the relevant capacity or capability would be subject to a Consequential Outage if the proposed Planned Outage did not proceed; and

ii. is not aware of any other reason why any part of the relevant capacity or capability would be unavailable for service for any part of the relevant outage period if the proposed Planned Outage did not proceed.

3.19.2H. If, at the time a Market Generator submits a request for approval of Opportunistic Maintenance for a Scheduled Generator:

(a) the Facility is not synchronised; and

(b) the proposed start time for the maintenance work that is the subject of the request is before the time when the Facility could be synchronised in accordance with its relevant Equipment Limits,

then the Market Generator may exclude from the start of the proposed outage period in its request any Trading Intervals during which the Facility could not be synchronised in accordance with its Equipment Limits, provided that the Market Generator:

- (c) does not start the maintenance work that is the subject of the request until the request is approved by System Management; and
- (d) immediately withdraws the request if System Management has not approved the request prior to the Trading Interval in which the maintenance work that is the subject of the request is intended to commence.

3.19.3. Subject to clauses 3.19.3A, 3.19.3B and 3.19.3C, System Management must assess the request for approval of a Scheduled Outage or Opportunistic Maintenance, based on the information available to System Management at the time of the assessment, and applying the criteria set out in clause 3.19.6.

3.19.3A. In assessing whether to grant a request for Opportunistic Maintenance, System Management:

- (a) must not grant permission for Opportunistic Maintenance to begin prior to the first Trading Interval for which Opportunistic Maintenance is requested; and
- (b) ~~[Blank] must not approve Opportunistic Maintenance for a Facility or item of equipment on two consecutive Trading Days;~~
- (c) ~~[Blank] may decline to approve Opportunistic Maintenance for a Facility or item of equipment where it considers that the request has been made principally to avoid exposure to Capacity Cost Refunds as described in clause 4.26 rather than to perform maintenance; and~~
- (d) may decline to approve Opportunistic Maintenance for a facility where it considers that inadequate time is available before the proposed commencement time of the outage to adequately assess the impact of that outage.

3.19.3B. Subject to clause 3.19.2G, System Management must not approve an Opportunistic Maintenance request for an Equipment List Facility if it is aware, or ought to be aware based on information that it has and any readily available confirmatory information, that, if it rejected the request, any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period.

3.19.3C. If, at the time a Market Participant or Network Operator submits a request for approval of Opportunistic Maintenance under clause 3.19.2:

- (a) the relevant capacity or capability is subject to a Planned Outage for which System Management has received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i);
- (b) the relevant capacity or capability is subject to a Planned Outage for which System Management is aware that it should have received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) from the Market Participant or Network Operator; or
- (c) the relevant capacity or capability is subject to a Forced Outage,

then System Management must delay its assessment of the request until:

- (d) the relevant capacity or capability becomes available for service; or
- (e) System Management receives evidence to its satisfaction from the Market Participant or Network Operator that the relevant capacity or capability would be capable of being made available for service before the start of the proposed Opportunistic Maintenance.

3.19.4. System Management must either approve or reject ~~the~~ a request for approval of a Scheduled Outage or Opportunistic Maintenance, subject to clause 3.19.3C, and inform the Market Participant or Network Operator of its decision as soon as practicable.

3.19.4A. If System Management does not provide a Market Participant or Network Operator with its decision on a request for approval of a Scheduled Outage or Opportunistic Maintenance:

- (a) for Scheduled Outages, by 2:00 PM on the day prior to the Scheduling Day for the Trading Day in which the Scheduled Outage is proposed to commence; or
- (b) for Opportunistic Maintenance, by 30 minutes before Balancing Gate Closure for the Trading Interval during which the Opportunistic Maintenance is proposed to commence,

then the request for approval of the Scheduled Outage or Opportunistic Maintenance is deemed to be rejected.

3.19.5. Where a change in power system conditions after System Management has approved a Scheduled Outage or Opportunistic Maintenance means that the Scheduled Outage or Opportunistic Maintenance is no longer approvable applying the criteria in clause 3.19.6, System Management may decide to reject the Scheduled Outage or Opportunistic Maintenance. Where System Management makes such a decision, it must inform the relevant Market Participant or Network Operator of its decision immediately.

3.19.6. System Management must use the following criteria when considering approval of Scheduled Outages or Opportunistic Maintenance:

- (a) the capacity of the generation Facilities remaining in service, and System Management's reasonable forecast of the total available Demand Side Management, must be greater than the load forecast for the relevant time period;
- (b) the Facilities remaining in service must be capable of meeting the Ancillary Service Requirements;
- (c) the Facilities remaining in service must allow System Management to ensure the power system is operated within the Technical Envelope;

- (d) where a group of outages when considered together, do not meet the criteria set out in clause 3.19.6(a) to (c), then System Management should give priority:
- i. to outages ~~Scheduled~~ scheduled in System Management's outage schedule more than one month ahead; then
  - ii. to previously Scheduled Outages that have been deferred in accordance with clauses 3.19.4 or 3.19.5, but were originally scheduled in System Management's outage schedule more than one month ahead; then
  - iii. to outages scheduled in System Management's outage schedule less than one month ahead; then
  - iv. to previously Scheduled Outages that have been deferred in accordance with clause 3.19.4 or 3.19.5, but were originally scheduled in System Management's outage schedule less than one month ahead; then
  - v. to Opportunistic Maintenance; and
- (e) notwithstanding the criteria set out in clause 3.19.6(a) to (d), System Management may allow a Scheduled Outage to proceed if it considers that rejecting it would pose a greater threat to Power System Security or Power System Reliability than accepting it.

3.19.7. Where System Management informs a Market Participant or Network Operator that an outage is rejected, then System Management and the Market Participant or Network Operator must use their best endeavours to find an alternative time for the relevant outage.

3.19.8. Subject to clause 3.19.9, Market Participants and Network Operators must comply with System Management's decision to reject an outage, and the relevant Market Participant or Network Operator must ensure that the outage is not taken.

3.19.9. Compliance with clause 3.19.8 is not required if such compliance would endanger the safety of any person, damage equipment, or violate any applicable law. Where a Rule Participant cannot comply with such a decision it must inform System Management as soon as practicable.

3.19.10. Where a Market Participant or Network Operator has reason to believe that System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.19.14 in its decision to reject an outage it may report the decision to the Economic Regulation Authority as a potential breach of the Market Rules in accordance with clause 2.13.4.

~~3.19.11. An outage, including Opportunistic Maintenance, that is approved by System Management under clause 3.19.4 is a Planned Outage.~~

3.19.11. An outage, including a Scheduled Outage or Opportunistic Maintenance, is a Planned Outage if it is:

- (a) approved by System Management under clause 3.19.4; or
- (b) deemed to be approved by System Management under clause 3.18.2A(e).

3.19.12.

- (a) Where System Management informs a Market Participant or Network Operator that an Outage Plan previously scheduled in System Management's outage schedule is rejected within 48 hours of the time when the outage would have commenced in accordance with the Outage Plan, the Market Participant or Network Operator may apply to AEMO for compensation.
- (aA) Compensation will only be paid where details of the relevant Outage Plan have been submitted to System Management at least one year in advance of the time when the outage would have commenced.
- (b) Compensation will only be paid for the additional maintenance costs directly incurred by a Market Participant or Network Operator in the deferment or cancellation of the relevant outage.
- (c) Compensation will not be paid for Opportunistic Maintenance.
- (d) The Market Participant or Network Operator must submit a written request for compensation to AEMO within three months of System Management's decision, including invoices and other documents demonstrating the costs referred to in ~~paragraph (b)~~ clause 3.19.12(b).
- (e) AEMO must determine the amount of compensation within one month of the submission of the application for compensation, and must notify the Market Participant or Network Operator of the amount determined and the reasons for its determination.

...

3.19.13. System Management must keep records of all of its outage evaluations and decisions made in accordance with this ~~clause~~ section 3.19, together with the reasons for each outage evaluation and decision.

3.19.14. System Management must document the procedure it follows in conducting final approval of outages in a Power System Operation Procedure.

### **3.20. Outage Recall**

3.20.1. Where the SWIS is in an Emergency Operating State, or ~~High-Risk~~ a High Risk Operating State, System Management may direct a Market Participant or Network Operator ~~that a Facility or item of equipment be returned to return an Outage Facility~~ to service from a Planned Outages in accordance with the relevant Outage Contingency Plan, or take other measures contained in the relevant Outage Contingency Plan.

- 3.20.2. Subject to clause 3.20.3, Market Participants and Network Operators must comply with directions from System Management under clause 3.20.1.
- 3.20.3. Rule Participants are not required to comply with directions issued by System Management under clause 3.20.1 if such compliance would endanger the safety of any person, damage equipment, or violate any applicable law. Where a Rule Participant cannot comply with such a direction it must inform System Management as soon as practicable.

...

3.21A.14. A Commissioning Test under an approved Commissioning Test Plan for an Outage Facility may cover periods in which some or all of the capacity or capability of the Outage Facility is subject to a Planned Outage or Forced Outage.[Blank]

...

## 7.1. Data Used in the Non-Balancing and Out of Merit Dispatch Process

- 7.1.1. System Management must maintain and, in accordance with section 7.6, use the following data set when issuing Dispatch Instructions to Demand Side Programmes, when issuing Dispatch Instructions to Balancing Facilities dispatched Out of Merit, and when providing Operating Instructions:
- (a) Standing Data for Registered Facilities determined in accordance with section 2.34;
  - (b) Loss Factors determined in accordance with section 2.27;
  - (c) expected Scheduled Generator and Non-Scheduled Generator capacities by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;
  - (d) ~~transmission~~-network configuration and capacity by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;
  - (e) forecasts of load and non-scheduled generation by Trading Interval determined in accordance with section 7.2;
  - (f) Ancillary Service Requirements for each Trading Interval determined in accordance with clause 7.2.4;
  - (g) schedules of approved Planned Outages ~~for generating works and transmission equipment~~ by Trading Interval determined in accordance with section 3.19;
  - (h) ~~transmission~~-Forced Outages and Consequential Outages by Trading Interval received from Network Operators in accordance with section 3.21;
  - (i) Scheduled Generator, Non-Scheduled Generator and Interruptible Load Forced Outages and Consequential Outages by Trading Interval received from Market Participants in accordance with section 3.21;
  - (j) [Blank]

- (k) the Non-Balancing Dispatch Merit Order;
- (l) Supplementary Capacity Contract data, if any; and
- (m) Network Control Service Contract data, if any, received from a Network Operator in accordance with clauses 5.3A.3 and 5.3A.4.

...

## **7A.2. Balancing Submissions**

7A.2.1. A Market Participant must at all times ensure that it has made a Balancing Submission in accordance with clause 7A.2.4 for each Trading Interval in the Balancing Horizon for each of its Balancing Facilities.

7A.2.2. A Market Participant may submit a subsequent Balancing Submission in accordance with clause 7A.2.4 in respect of any of its Balancing Facilities, excluding Facilities in the Balancing Portfolio, and:

- (a) the Balancing Submission may be for one or more Trading Intervals in the Balancing Horizon; and
- (b) the Balancing Submission must be made before Balancing Gate Closure for any Trading Interval in the submission.

7A.2.3. A Market Participant with a Balancing Facility that is:

- (a) the subject of an Operating Instruction; or
- (b) undergoing a Test that has an approved Test Plan,

must ensure that a Balancing Submission submitted under this section 7A.2 is consistent with the proposed operation of the Balancing Facility for each Trading Interval specified in the Operating Instruction or the Test Plan. The provisions of this clause 7A.2.3 do not apply to the Balancing Portfolio.

7A.2.4. A Balancing Submission must:

- (a) be in the manner and form prescribed and published by AEMO;
- (b) constitute a declaration by an Authorised Officer;
- (c) have Balancing Price-Quantity Pair prices within the Price Caps;
- (d) specify, for each Trading Interval covered in the Balancing Submission, whether the Balancing Facility is to use Liquid Fuel or Non-Liquid Fuel;
- (e) specify the Ramp Rate Limit or the Portfolio Ramp Rate Limit (as applicable) for each Trading Interval covered in the Balancing Submission; and
- (f) specify the available capacity and the unavailable capacity as determined under clause 7A.2.4A, 7A.2.4B or 7A.2.4C (as applicable) for each Trading Interval covered in the Balancing Submission.

- 7A.2.4A. A Balancing Submission for a Balancing Facility that is a Scheduled Generator must specify the following details for each Trading Interval covered in the Balancing Submission:
- (a) a ranking of Balancing Price-Quantity Pairs covering available capacity; and
  - (b) a declaration of the MW quantity that will be unavailable for dispatch, where the sum of:
  - (c) the quantities in the Balancing Price-Quantity Pairs; and
  - (d) the declared MW quantity of unavailable capacity,
- must be equal to the Scheduled Generator's Sent Out Capacity.
- 7A.2.4B. A Balancing Submission for a Balancing Facility that is a Non-Scheduled Generator must specify, for each Trading Interval covered in the Balancing Submission, a single Balancing Price-Quantity Pair with a MW quantity equal to the Market Participant's best estimate of the Facility's output at the end of the Trading Interval (based on an assumption, for the purposes of this clause 7A.2.4B, that the Facility will not be subject to a Dispatch Instruction that limits its output during that Trading Interval).
- 7A.2.4C. A Balancing Submission for the Balancing Portfolio must specify the following details for each Trading Interval covered in the Balancing Submission:
- (a) a ranking of Balancing Price-Quantity Pairs covering available capacity in the Balancing Portfolio; and
  - (b) a declaration of the MW quantity of capacity of Scheduled Generators in the Balancing Portfolio that will be unavailable for dispatch ~~(excluding any unavailable capacity to the extent that it relates to a temporary limitation in the intermittent energy source used by a Non-Scheduled Generator in the Balancing Portfolio to generate electrical energy).~~
- 7A.2.5. For the purposes of clause 7A.2.4(b), where AEMO accepts a Balancing Submission from a Market Participant that complies with clause 7A.2.4(a), the submission will be deemed to constitute a declaration by an Authorised Officer of the Market Participant.
- 7A.2.6. A subsequent Balancing Submission made under clauses 7A.2.2, 7A.2.9(d), 7A.2.9(e), ~~or~~ 7A.2.9(f), 7A.2.9B, 7A.2.9C, 7A.2.10 or 7A.3.5 in respect of the same Balancing Facility covering the same Trading Interval as an earlier Balancing Submission, overrides the earlier Balancing Submission for, and has effect in relation to, that Trading Interval.
- 7A.2.7. Where a subsequent Balancing Submission is made under clause 7A.2.6, a Market Participant must create and maintain internal records of the reasons for submitting the subsequent Balancing Submission, including details of any changed

circumstances and the impacts of those circumstances that gave rise to the new Balancing Submission.

- 7A.2.8. A Market Participant (other than Synergy in relation to the Balancing Portfolio) must ensure that, for each Trading Interval in the Balancing Horizon for which Balancing Gate Closure has not occurred, its most recently submitted Balancing Submission in respect of its Balancing Facility and that Trading Interval accurately reflects:
- (a) all information reasonably available to the Market Participant, including Balancing Forecasts published by AEMO, the information provided by AEMO under clause 7A.3.1(c) and the latest information available to it in relation to any Internal Constraint or External Constraint;
  - (b) the Market Participant's reasonable expectation of the capability of its Balancing Facilities to be dispatched in the Balancing Market; and
  - (c) the price at which the Market Participant submitting the Balancing Submission intends to have the Balancing Facility participate in the Balancing Market.

7A.2.8A. A Market Participant (other than Synergy in respect of the Balancing Portfolio) must, for each of its Balancing Facilities, and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times, any of the Facility's capacity that is:

- (a) subject to an approved Planned Outage; or
- (b) subject to an outstanding request for approval of Opportunistic Maintenance.

is declared as unavailable in the Balancing Submission for the Facility and the Trading Interval, unless the Balancing Facility is expected to generate in accordance with an approved Commissioning Test in that Trading Interval.

- 7A.2.9. Synergy, in relation to the Balancing Portfolio:
- (a) must, subject to clauses 7A.2.9(d) to 7A.2.9(f), ensure that for each Trading Interval in the Balancing Horizon the most recently submitted Balancing Submission in respect of that Trading Interval accurately reflects:
    - i. all information reasonably available to Synergy, including Balancing Forecasts published by AEMO and the latest information available to Synergy in relation to any Forced Outage for a Facility in the Balancing Portfolio;
    - ii. subject to clause 7A.2.9A(b), Synergy's reasonable expectation of the capability of its Balancing Portfolio to be dispatched in the Balancing Market for that Trading Interval; and
    - iii. the price at which Synergy intends to have the Balancing Portfolio participate in the Balancing Market;
  - (b) must indicate in a manner and form prescribed by AEMO:

- i. which of the Balancing Price-Quantity Pairs that it has priced at the Minimum STEM Price are for Facilities that are to provide LFAS;
  - ii. which Facilities are likely to provide LFAS; and
  - iii. for each completed Trading Interval, which Facilities actually provided the LFAS in the Trading Interval;
- (c) must:
- i. ensure that quantities in the Balancing Price-Quantity Pairs in its Balancing Submissions that are required for the provision of Ancillary Services, other than LFAS, are priced at the Price Caps;
  - ii. advise AEMO in a manner and form prescribed by AEMO, the Facilities which are likely to provide the quantities specified in clause 7A.2.9(c)(i); and
  - iii. for each completed Trading Interval, advise AEMO which Facilities actually provided the Ancillary Services referred to in clause 7A.2.9(c)(i) in the Trading Interval;
- (d) may submit a new, updated Balancing Submission in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure is more than two hours in the future:
- i. by submitting its updated Balancing Submission to AEMO immediately before 1:00 PM; or
  - ii. otherwise by submitting its updated Balancing Submission to AEMO within one hour after LFAS Gate Closure;
- (e) may submit a new, updated Balancing Submission in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure is more than two hours in the future if a Facility in the Balancing Portfolio has experienced a Forced Outage since the last Balancing Submission;  
~~and~~
- (f) may after the time specified in clause 7A.2.9(d), submit a new, updated Balancing Submission to reflect the impact of a Forced Outage which Synergy expects will cause a Facility to run on Liquid Fuel, where the Facility would not have run on Liquid Fuel but for the Forced Outage, in order to meet Synergy's Balancing Market obligations in relation to the Balancing Portfolio under this Chapter 7A.; and
- (g) must, as soon as it becomes aware that:
- i. either:
    - 1. a Facility in the Balancing Portfolio has experienced a Forced Outage; or
    - 2. System Management has approved a request for Opportunistic Maintenance for a Facility in the Balancing Portfolio; and

- ii. the outage will reduce the available capacity of the Balancing Portfolio in a Trading Interval in the Balancing Horizon from the quantity reported as available in the current Balancing Submission for that Trading Interval; and
- iii. there is a credible risk that representation of the relevant capacity as available in the Balancing Submission might, in the circumstances:
  - 1. affect any expected EOI Quantity provided to another Market Participant for the Trading Interval under clause 7A.3.1(c); or
  - 2. cause System Management to dispatch Balancing Facilities Out of Merit under clauses 7.6.1C(b) or 7.6.1C(c),submit a new, updated Balancing Submission for the Trading Interval to:
- iv. make any relevant Scheduled Generator capacity subject to the outage unavailable; and
- v. unless otherwise permitted under clauses 7A.2.9(d) to 7A.2.9(f), remove or reduce the quantity of the highest price Balancing Price-Quantity Pair or Balancing Price-Quantity Pairs (excluding any Balancing Price-Quantity Pairs that are required to be offered at the Price Caps under clause 7A.2.9(c)) to remove the capacity subject to the outage from its Balancing Price-Quantity Pairs.

7A.2.9A. Synergy must, to the extent it is able to update its Balancing Submissions subject to clauses 7A.2.9(d) to 7A.2.9(g) (as applicable), for each Scheduled Generator in the Balancing Portfolio, and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times:

- (a) any of the Scheduled Generator's capacity that is subject to an approved Planned Outage is declared as unavailable in the Balancing Submission for the Balancing Portfolio and that Trading Interval, except where that Scheduled Generator is expected to generate in accordance with an approved Commissioning Test; and
- (b) any of the Scheduled Generator's capacity that is subject to an outstanding request for approval of Opportunistic Maintenance is declared as available in the Balancing Submission for the Balancing Portfolio and that Trading Interval.

7A.2.9B. If System Management rejects a previously approved Planned Outage of a Balancing Facility (or a Facility in the Balancing Portfolio) under clause 3.19.5, then the relevant Market Participant must, as soon as practicable, update its Balancing Submission for any relevant Trading Intervals in the Balancing Horizon for which:

- (a) the Market Participant can make the relevant capacity available for dispatch, taking into account any relevant Equipment Limits; and
- (b) Balancing Gate Closure has not yet occurred,

to reflect that the capacity will not be subject to a Planned Outage in those Trading Intervals.

7A.2.9C. If System Management directs a Market Participant to return a Balancing Facility or a Facility in the Balancing Portfolio from a Planned Outage in accordance with an Outage Contingency Plan under clause 3.20.1, then the Market Participant must, as soon as practicable, update its Balancing Submission for any relevant Trading Intervals in the Balancing Horizon for which Balancing Gate Closure has not yet occurred, to reflect the impact of System Management's direction on the proposed end time of the Planned Outage.

7A.2.10. A Market Participant (other than Synergy in relation to the Balancing Portfolio) as soon as it becomes aware that a Balancing Submission for a Trading Interval for which Balancing Gate Closure has occurred is inaccurate:

- (a) if the inaccuracy is due to an Internal Constraint, must make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available Sent Out Capacity of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval as soon as reasonably practicable;
- (b) if the inaccuracy is due to an External Constraint, may make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available Sent Out Capacity of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval, as soon as reasonably practicable;
- (c) if the inaccuracy is due to the Market Participant receiving an Operating Instruction, may make a new, accurate Balancing Submission that reflects the Operating Instruction; or
- (d) if the inaccuracy is due to a variation of the availability of the intermittent energy source used by a Non-Scheduled Generator, may make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the Market Participant's best estimate of the Facility's output at the end of the Trading Interval and the Ramp Rate Limit is accurate but the price is not altered, in respect of that Trading Interval.

7A.2.10A. A Market Participant (other than Synergy in relation to the Balancing Portfolio) must not submit a new, updated Balancing Submission in respect of a Trading Interval for which Balancing Gate Closure has occurred except in accordance with clause 7A.2.10.

7A.2.11. Where a Market Participant has submitted a Balancing Submission in accordance with clauses 7A.2.10(a) or 7A.2.10(b) after Balancing Gate Closure, the Market Participant must, as soon as reasonably practicable, provide AEMO with written details of the nature of the Internal Constraint or External Constraint, when it occurred and its duration.

7A.2.12. Where Synergy has submitted an updated Balancing Submission for the Balancing Portfolio in accordance with clauses 7A.2.9(e) or 7A.2.9(f) because of a Forced Outage of one of the Facilities in the Balancing Portfolio after the time specified in the applicable clause it must, as soon as reasonably practicable, provide AEMO with written details of:

- (a) the nature of the Forced Outage;
- (b) when the Forced Outage occurred;
- (c) the duration of the Forced Outage; and
- (d) information substantiating the commercial impact, if any, of the Forced Outage.

7A.2.13. A Market Participant must:

- (a) make a Balancing Submission under this section 7A.2 in good faith;
- (b) not act in a manner that:
  - i. is intended to lead; or
  - ii. the Market Participant should have reasonably known is likely to lead,

to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the Balancing Market; and

- (c) not include information in a Balancing Submission relating to prices for a purpose of influencing the determination of the Constrained Off Compensation Price, the Constrained Off Quantity which the Facility may provide, the Constrained On Compensation Price or the Constrained On Quantity which the Facility may provide.

...

## **7A.2A. Accounting for Unavailable Capacity in a Balancing Submission**

7A.2A.1. Subject to clauses 7A.2A.3 and 7A.2A.4, a Market Participant (other than Synergy in respect of the Balancing Portfolio) must, as soon as practicable after each Trading Interval, for each of its Balancing Facilities that is an Outage Facility, ensure that it has notified System Management of a Forced Outage or Consequential Outage that relates to any capacity for which the Market Participant holds Capacity Credits that:

- (a) was declared unavailable in the Facility's Balancing Submission for that Trading Interval; and
- (b) was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval,

unless the relevant capacity was declared unavailable in the Facility's Balancing Submission because the Market Participant reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the

maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

7A.2A.2. Subject to clauses 7A.2A.3 and 7A.2A.4, Synergy must, as soon as practicable after each Trading Interval, for each Facility in the Balancing Portfolio that is an Outage Facility, ensure that it has notified System Management of a Forced Outage or Consequential Outage that relates to any capacity for which Synergy holds Capacity Credits that:

(a) was declared unavailable in the Balancing Portfolio's Balancing Submission for that Trading Interval; and

(b) was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval,

unless the relevant capacity was declared unavailable in the Balancing Portfolio's Balancing Submission because Synergy reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

7A.2A.3. Clauses 7A.2A.1 and 7A.2A.2 do not apply in respect of a Trading Interval if:

(a) the relevant capacity was previously subject to an approved Planned Outage for the Trading Interval; and

(b) System Management notified the Market Participant of the rejection of the Planned Outage under clause 3.19.5:

i. less than 30 minutes before Balancing Gate Closure for the Trading Interval; or

ii. at a time when the Facility was not synchronised and could not be synchronised by the start of the Trading Interval given the Facility's relevant Equipment Limits.

7A.2A.4. Clauses 7A.2A.1 and 7A.2A.2 do not apply in respect of a Trading Interval if:

(a) the relevant capacity was previously subject to an approved Consequential Outage or Commissioning Test Plan for the Trading Interval; and

(b) System Management notified the Market Participant that the capacity was no longer subject to the Consequential Outage or Commissioning Test Plan for the Trading Interval:

i. less than 30 minutes before:

1. Balancing Gate Closure for the Trading Interval, for a Facility that is not in the Balancing Portfolio; or

2. the latest time specified in clause 7A.2.9(d) for the Trading Interval, for a Facility in the Balancing Portfolio; or

- ii. at a time when the Facility was not synchronised and could not be synchronised by the start of the Trading Interval given the Facility's relevant Equipment Limits.

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## Glossary

**Equipment List:** Means the list maintained by System Management under clause 3.18.2(a).

**Equipment List Facility:** Means a Facility or item of equipment that is included on the Equipment List.

**Mandatory Routine Maintenance:** Means Outage Facility Maintenance of a routine nature that must be undertaken by a specific point in time, or by the time that a specific measure of usage is reached, as required by applicable legislation or in accordance with the Outage Facility's asset management plan.

**Outage Facility:** Means an Equipment List Facility or a Self-Scheduling Outage Facility.

**Outage Facility Maintenance:** Means:

- (a) an upgrade of Outage Facility equipment; or
- (b) all maintenance in respect of an Outage Facility, including but not limited to preventative maintenance, corrective maintenance, plant inspections and tests, that would reasonably be required in accordance with good electricity industry practice.

that requires some or all of the capacity or capability associated with an Outage Facility being unavailable for service.

**Scheduled Outages:** ~~Has the meaning given in clause 3.19.1.~~ Means an outage that has an Outage Plan that is included in System Management's outage schedule.

**Self-Scheduling Outage Facility:** Has the meaning given in clause 3.18.2A(a).

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# Appendix A. Summary of Consultation prior to the Publication of the Draft Rule Change Report

## A.1 Early Consultation on Outage Planning Issues

In 2011 the IMO, in accordance with clause 3.18.18 of the Market Rules, completed the first five-year review of the outage planning process as described in the Market Rules and supported by the PSOP: Facility Outages (**2011 Outage Planning Review**).<sup>32</sup>

PA Consulting conducted the review, which assessed the performance of the outage planning process since market start against the Wholesale Market Objectives. The review included an assessment of the need for, and the nature of, reforms to the outage planning process. The final report for the review was published in October 2011.

Extensive consultation informed the review, including an initial round of stakeholder consultation at the start of the review, a public workshop held on 24 August 2011 and a request for submissions on the draft report.

Overall, PA Consulting concluded that the WEM outage planning process was working well but could benefit from some fine-tuning in the areas of outage planning information transparency and the technical functioning of the outage planning process.

Following the completion of the 2011 Outage Planning Review, the IMO considered the recommendations made by PA Consulting as well as several other outage planning issues that were:

- internally identified;
- raised by members of the MAC in response to a request made by the IMO in June 2012; or
- subsequently raised by System Management.

The IMO adopted a phased approach to the implementation of reforms to the outage planning process. The first set of reforms was progressed through the Rule Change Proposal: Transparency of Outage Information (RC\_2012\_11). RC\_2012\_11, which commenced on 1 October 2013, introduced new standards for the disclosure of information relating to outages of Scheduled Generators and Non-Scheduled Generators, aimed at improving transparency in the market.

This Rule Change Proposal represents the second phase of the IMO's outage planning reforms.

## A.2 MAC Consultation by the IMO before the Formal Submission of the Rule Change Proposal

### 7 August 2013 MAC meeting

The IMO presented a Concept Paper: Outage Planning Phase 2 – Outage Process Refinements (CP\_2013\_04) to the MAC, noting the following points:

- In mid-2012, the IMO circulated a list of outstanding recommendations from the 2011 Outage Planning Review to the MAC. This list had since been updated to include new

<sup>32</sup> Documents related to the 2011 Outage Planning Review are available on the ERA's website at <https://www.erawa.com.au/electricity/wholesale-electricity-market/methodology-reviews/5-year-outage-planning-review-review-undertaken-by-imo>.

issues raised by MAC members, the IMO and System Management. Some of the issues in the list had been addressed through other Rule Change Proposals.

- Generally the package of work in CP\_2013\_04 contained technical changes to streamline the outage planning process and clarification of the obligations of Rule Participants around outage planning.

Ms Jenny Laidlaw outlined the major issues addressed in the Concept Paper. The following points were discussed:

- Mrs Jacinda Papps questioned whether the IMO had considered a longer time span for Opportunistic Maintenance, such as 36 hours. Ms Laidlaw replied that the IMO had not considered a longer period, as to date it had not been presented with a good reason for such a change.
- Mr Andrew Stevens suggested it should be possible to request an outage of any length at any time, provided that sufficient margin was available. Ms Laidlaw noted that the IMO disagreed with this concept, as it would reduce the forward planning and transparency of outages, and would make it easier for Market Participants to use Planned Outages to avoid capacity refunds.
- Mr Phil Kelloway agreed that the proposal to make capacity unavailable in the BMO before requesting an outage is good; but noted some potential complexities. In particular, he considered that it would be necessary for System Management to make sure that the BMO reflected a request for an outage, which currently it is not required to do. The Chair proposed that the obligation should be placed on the Market Participant to ensure that capacity is unavailable in the BMO before requesting an outage, rather than being on System Management to ensure that the availability matched.
- Mr Kelloway questioned how long System Management would have to assess a late Opportunistic Maintenance request. Ms Laidlaw confirmed that the intention was to retain the current arrangements for approval, which provide System Management with the ability to reject a request if it has insufficient time to adequately consider it.
- Mrs Papps questioned whether Verve Energy would be required to request Opportunistic Maintenance four and a half hours before gate closure. Ms Laidlaw agreed that this could be the case if the time limit for Opportunistic Maintenance requests was linked to gate closure times; but committed to working through the three request deadline options presented in the Concept Paper to confirm that they worked appropriately for Verve Energy Facilities.
- Ms Laidlaw asked members to provide their views to the IMO on the appropriate deadline for Opportunistic Maintenance requests, and noted that there was a trade-off between flexibility for generators to request Opportunistic Maintenance and transparency of information for others to respond based on the BMO.
- Mr Stevens suggested that the Concept Paper only indicated that Market Participants had asked for an ex post conversion from a Forced Outage to a Planned Outage, rather than the ability to apply, while on a Forced Outage, to have a Planned Outage after a certain timeframe. Ms Laidlaw confirmed that both options had been requested by Market Participants. The Chair added that the proposed framework will allow for the latter option.
- Mr Andrew Sutherland questioned what limit was proposed for an extension of an outage. The Chair confirmed that initially no time limit would be imposed.

- Mr Sutherland sought to clarify how the extension of an outage would work given that Market Participants are required to submit a request two days in advance. Mr Stevens discussed the benefits of reducing the incentive to overstate the length of an outage. Ms Laidlaw agreed to review the interaction of Opportunistic Maintenance and outage extensions, and proposed to discuss further the practicalities with Mr Sutherland.
- Dr Paul Troughton supported the IMO's approach to the treatment of Demand Side Programmes. He noted that moving to a dynamic baseline in the future may raise the requirement to log outages. The Chair suggested that real-time telemetry for Demand Side Programmes will provide the data required to assess the situation further. Ms Laidlaw confirmed that Demand Side Programmes would not be included on the Equipment List and therefore would not need to follow the outage planning process.
- Mr Shane Duryea questioned what problem the IMO was trying to address with the addition of distribution network equipment to the Equipment List. Ms Laidlaw noted that the intent was to provide visibility of network outages for distribution-connected generators. Mr Kelloway also noted that the IMO may wish to review the discretion that System Management currently has in relation to the inclusion of equipment on the Equipment List. He noted that the rules allow but do not require System Management to require the Network Operator to coordinate the timing of an outage with the affected generator.
- Ms Laidlaw sought feedback on the need for proactive reporting of Forced Outages by the Network Operator for both distribution-connected generators that are on the Equipment List and those that are not. Mr Duryea noted that Planned Outages are more problematic because of their nature. Ms Laidlaw noted that if only very short notice is available for a Planned Outage then perhaps it is not a Planned Outage.
- Mrs Papps questioned how the approval process would work for Consequential Outages that were requested before their start time. Mr Kelloway replied that he agreed it should be possible to gain approval of a Consequential Outage in advance, but would need to check the details with his team.

Ms Laidlaw noted the IMO's intention to present a Pre-Rule Change Proposal to the October 2013 MAC meeting and invited further comment from members in the interim.

### **Consultation between the 7 August 2013 and 11 December 2013 MAC meetings**

Following the 7 August 2013 MAC meeting the IMO:

- consulted with Verve Energy on how the proposed changes to the Opportunistic Maintenance process could work appropriately with Verve Energy's different bidding timeframes;
- consulted with ERM Power regarding the possibility of allowing short extensions to Scheduled Outages;
- on 29 August 2013, requested the views of MAC members regarding the appropriate deadlines for Opportunistic Maintenance requests and approvals, and the extent to which a Network Operator should be required to proactively report Forced Outages of its distribution system (the IMO received no responses to this request);
- undertook further consultation with System Management on the timing of approvals for Planned Outages; and

- undertook further consultation with System Management and Western Power on the obligations on a Network Operator to notify affected participants about outages, agreeing that Network Operators should follow the normal outage processes for any network equipment on the Equipment List and noting that Network Operators already have obligations to notify affected participants of Planned Outages.

### **11 December 2013 MAC meeting**

The IMO presented a Pre-Rule Change Proposal: Outage Planning Phase 2 – Outage Process Refinements (PRC\_2013\_15) and provided an update to MAC members on the changes made by the IMO since the Concept Paper CP\_2013\_04 was presented at the 7 August 2013 meeting.

The following key points were discussed.

- Mr Brendan Clarke noted the proposal stated that Demand Side Programmes would no longer be required to log Forced Outages, and queried whether this meant that Demand Side Programmes would not be liable for Capacity Cost Refunds. Ms Laidlaw responded that it was already the case that Demand Side Programmes do not log Forced Outages. Demand Side Programmes would continue to incur Capacity Cost Refunds if they either failed to secure sufficient Associated Loads to meet their Relevant Demand requirement or else failed to reduce their consumption sufficiently in response to a Dispatch Instruction.
- Mr Stevens noted that the current deadline for requesting approval of a Scheduled Outage in the SMMITS is 10:00 AM on the day before the Scheduling Day. Mr Stevens suggested that this time should be retained and not changed to 8:00 AM as suggested in the proposal. Ms Laidlaw responded that if Market Participants preferred the 10:00 AM deadline and this time was already used in SMMITS then the IMO would amend the proposal to use this time instead of 8:00 AM.
- Mr Sutherland queried why the IMO had proposed not to allow Market Participants to request a series of consecutive Opportunistic Maintenance outages. Ms Laidlaw responded that the rationale was to encourage Market Participants to plan their outages and to provide maximum transparency to the market of an upcoming Planned Outage.
- Mr Sutherland suggested that if during the course of an Opportunistic Maintenance outage it was realised that a slightly longer than 24 hour Opportunistic Maintenance outage would be beneficial, the IMO's proposal to restrict Opportunistic Maintenance outages to 24 hours would mean that the relevant Market Participant would be required to return the Facility to service and then undertake another outage if it wished to complete the work. Ms Laidlaw responded that as Planned Outages were for discretionary maintenance, it should be possible (and would be more appropriate) for the Market Participant to apply for a Scheduled Outage in the scenario described. Mr Sutherland responded that if something happened to a Facility on a Friday, it may be better for work to be done on that Facility over the weekend rather than delay the work until a Scheduled Outage can begin on the following Monday or Tuesday. Ms Laidlaw suggested that if the outage was truly discretionary then it should be able to be delayed until the following weekend.
- Mr Stevens considered that if System Management has enough time to assess an outage request and can accommodate the outage, then that outage should be allowed. The Chair responded that if consecutive Opportunistic Maintenance outages were allowed this would reduce the incentive for Market Participants to plan their outages.

Mr Sutherland disagreed, suggesting that there are sufficient commercial incentives on Market Participants to ensure that they plan their outages. Mr Sutherland also suggested that the proposed rules were arbitrary. The Chair reiterated that the proposed rules would provide an incentive for Market Participants to plan outages and would also provide transparency and notice to the market of events that could affect prices.

- Mr Dean Sharafi warned that Market Participants should not assume that an Opportunistic Maintenance outage request will be approved.
- Ms Laidlaw observed that to date no good reason had been presented as to why Opportunistic Maintenance outages should be longer than 24 hours. Mr Stevens suggested 48 hours might be an appropriate time limit for Opportunistic Maintenance outages as it would allow a pre-accepted Planned Outage to back directly on to an Opportunistic Maintenance outage. Ms Laidlaw noted that this would be equivalent to removing the concept of Opportunistic Maintenance and simply reducing the lead time required for a Scheduled Outage.
- The Chair sought and received the support of MAC members for the progression of the proposal into the formal rule change process.

Further details of the 7 August 2013 and 11 December 2013 MAC meetings are available in the MAC meeting papers and minutes available on the Rule Change Panel's website at <https://www.erawa.com.au/rule-change-panel/market-advisory-committee/market-advisory-committee-meetings>.

### A.3 Consultation during the First Submission Period

On 12 February 2014, Alinta, Bluewaters, ERM Power and Synergy met with the IMO to discuss several issues, including the IMO's proposed amendments in this Rule Change Proposal. During the meeting the Market Participants proposed an alternative outage planning mechanism, which was then further detailed in each of those Market Participant's first period submissions, albeit slightly differently in each.

The meeting was held on an informal basis and minutes of the discussion are not available to the Rule Change Panel for assessment.

### A.4 Submissions Received during the First Submission Period

The first submission period for this Rule Change Proposal was held between 27 December 2013 and 4 March 2014. The IMO received submissions from Alinta, Community Electricity, ERM Power, Synergy, System Management and Western Power during the first submission period; and also received out of session submissions from Bluewaters and Perth Energy. Additionally, the Rule Change Panel received an out of session submission on 14 January 2019 from Collgar Wind Farm (**Collgar**).<sup>33</sup>

Alinta, in its 11 January 2019 submission to the CFFS, advised that this submission superseded the submission provided to the IMO by Alinta during the first submission period. The Rule Change Panel has therefore excluded Alinta's earlier submission from its assessment of this Rule Change Proposal.

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<sup>33</sup> While Collgar's submission was received just after the close of the further submission period, the Rule Change Panel decided to consider it as a late submission on the Rule Change Proposal as it addresses the original issues raised in the Rule Change Proposal rather than the questions raised in the CFFS.

Community Electricity supported all aspects of the Rule Change Proposal, considering that the proposed amendments are incremental in nature, and clarify and rationalise the Market Rules without materially impacting their intent.

Perth Energy also supported the proposed amendments, and suggested further amendments in relation to Issue 1 (Equipment List: Demand Side Programmes and Associated Loads, Dispatchable Loads and Interruptible Loads) to implement a less formal process to inform System Management about maintenance and other significant activities at major loads.

Collgar explicitly supported the IMO's solutions for Issue 4 (Balancing Submission unavailability deadlines), Issue 5 (Deadline for approval of a Planned Outage), Issue 9 (Prohibition on Opportunistic Maintenance Outages spanning two Trading Days) and, in relation to outage extension requests, Issue 13 (Availability declarations for Planned Outage approval requests). However, Collgar:

- in relation to Issue 4, raised a question about how Non-Scheduled Generators should estimate their MW output for a Trading Interval for inclusion in Balancing Price-Quantity Pairs in Balancing Submissions; and
- in relation to Issue 13, suggested that a participant should be able to verbally notify System Management to enable the extension of an existing approved Planned Outage.

Collgar disagreed with the IMO's proposal for Issue 6 to require IPP capacity that is subject to an outstanding Opportunistic Maintenance request to be declared as unavailable in the IPP's Balancing Submissions. Collgar considered that the proposed requirement was unnecessary (because System Management was already aware of the potential unavailability of the Facility from the outage request) and unduly onerous on the IPP.

Collgar also:

- suggested that the term 'as soon as practicable' (in the context of a Market Generator notifying System Management of a Forced Outage or Consequential Outage under proposed clause 7A.2A.1) should be defined in the Market Rules;
- raised general concerns that the current outage planning, management and lodgement process is too complicated; and
- raised several other issues around Forced Outages and Consequential Outages that fall outside the scope of this Rule Change Proposal.

Bluewaters considered that the proposed outage planning arrangements were an improvement on the current arrangements but could be improved further in some areas.

Bluewaters:

- suggested that a revised definition of 'Forced Outage' was central to this Rule Change Proposal, and as another Rule Change Proposal under development by the IMO (Outages and the Application of Availability and Constraint Payments to Non-Scheduled Generators (PRC\_2013\_16)) was expected to provide such a definition, the progression of the two Rule Change Proposals should be coordinated;
- used an analogy of a taxi requiring a tyre change to argue that identifying an issue in advance that needs attention, and identifying the time frame it should be addressed in, should not by default define that task as a Forced Outage;
- noted its perception that the IMO was prioritising the deterrence of Market Participants from hiding Forced Outages ahead of incentivising the best economic outcomes of outage planning and maintenance activities;

- considered that the incentives to avoid excessive Planned Outages in the Rule Change Proposal: Incentives to Improve Availability of Scheduled Generators (RC\_2013\_09)<sup>34</sup>, combined with the technical criteria for approval of an outage request, provide adequate protection to the market from Market Participants hiding a material level of Forced Outage under the guise of a Planned Outage;
- proposed changes to the Opportunistic Maintenance rules to:
  - allow a Market Participant to submit a request for approval of an 'Opportunistic Outage' at any time between 6:00 AM and 6:00 PM each day;
  - set the deadline for decisions on Opportunistic Outage requests to 1 hour before the outage is due to begin;
  - require the outage period to begin at least 6 hours after the time the request is submitted, and allow it to continue until the time when a 'pre-accepted Planned Outage'<sup>35</sup> could, if approved, begin (i.e. a maximum period of around 44 hours);
  - potentially require the issue of a Dispatch Advisory when an Opportunistic Outage request is approved; and
  - potentially place a limit on the number of Opportunistic Outage equivalent days that a Market Participant could take (e.g. 8 per year, or 20 per 1000 days);
- in relation to Issue 2 (Equipment List: Network Equipment), suggested that network equipment should not be required on the Equipment List, even if an outage of that equipment can affect a generator on the Equipment List;
- supported the IMO's proposed solutions for Issues 1 (Equipment List: Demand Side Programmes and Associated Loads, Dispatchable Loads and Interruptible Loads), 3 (Requirements to follow the outage planning process), 6 (Clarification of requirements for Balancing Facilities (excluding the Balancing Portfolio)), 7 (Clarification of requirements for the Balancing Portfolio), 12 (Notification timelines for Small Outage Facilities) and 13 (Availability declarations for Planned Outage approval requests);
- proposed removal of the requirement for Opportunistic Maintenance to be for 'minor' maintenance only, on the basis that its proposed Opportunistic Outage rules would allow the commencement of a larger piece of work under an Opportunistic Outage; and
- proposed amendments to clause 3.19.3A to allow System Management, where it did not have time to assess a request for approval of Opportunistic Maintenance, to:
  - take the additional time needed to assess the request;
  - add this additional time to the start and end times of the proposed outage period; and
  - offer the revised outage to the requesting Market Participant, who could choose whether to take up the revised outage being offered.

<sup>34</sup> RC\_2013\_09 was rejected by the Minister for Energy on 19 May 2014. However, most of the proposed amendments were later implemented by the Minister through the Amending Rules in Schedule B, Part 1 of the *Wholesale Electricity Market Rules Amending Rules 2016*, published in Gazette 2016/89.

<sup>35</sup> A 'pre-accepted Planned Outage' was a Scheduled Outage for which the initial submission and acceptance steps were managed verbally rather than through SMMITS. During a meeting of the AEMO Procedure Change Working Group on 26 June 2018, AEMO advised stakeholders of its decision to discontinue the pre-accepted Planned Outage process because it had identified that the process did not fully comply with the Market Rules. References to pre-accepted Planned Outages were removed from the PSOP: Facility Outages on 7 January 2019.

ERM Power's submission was limited to two specific matters:

- in relation to Issue 6, ERM Power considered that, to the extent a Balancing Facility returns to service prior to the end of a Planned Outage, its capacity should be allowed to return to the BMO as available; and
- in relation to Issues 9 and 11, while acknowledging that this Rule Change Proposal improves the current outage planning timing, ERM Power agreed with Bluewaters that Opportunistic Maintenance outages should be allowed to exceed 24 hours and continue until the start of a pre-accepted Planned Outage.

Synergy expressed support for any proposal that aims to reduce complexity and increase flexibility in a process. However, Synergy suggested that this Rule Change Proposal could be further developed to fully realise the benefits of a more flexible and simple outage planning process. Synergy:

- described its asset management approach, which involves a combination of proactive and reactive maintenance;
- considered that addressing emergent plant issues as soon as possible leads to the most economically efficient and reliable outcomes for the market;
- considered that other incentives exist for Market Generators to request Planned Outages early; to not apply for too many Planned Outages; and to return to service from their Planned Outages as soon as possible;
- proposed that consideration be given to removing all time constraints with respect to applying for Opportunistic Maintenance, and that the consideration should only be system security and availability;
- reiterated the suggestions for Opportunistic Maintenance changes made by Market Participants during their 12 February 2014 meeting with the IMO, including:
  - allowing any planned preventative and/or corrective maintenance to be considered a Planned Outage, provided it was approved by System Management;
  - replacing the current on-the-day and day-ahead Opportunistic Maintenance outage types with a single outage type; and
  - allowing, if sufficient reserve margin exists, Opportunistic Maintenance to take effect immediately (or with an appropriate lead time to signal an outage to the market) until the point a pre-accepted Planned Outage could (if approved) begin; and
- considered that any amendments to the definition of an outage should be progressed as part of this Rule Change Proposal, rather than separately through PRC\_2013\_16.

System Management supported the Rule Change Proposal and suggested the following additional changes:

- amendment of proposed clause 7A.2.9 to require Synergy to update its Balancing Submissions as soon as it is aware of any outages (including Forced Outages) that reduce the available capacity of the Balancing Portfolio;
- amendment of proposed clause 3.18.2(b) to require System Management to review and update the Equipment List not from time to time, as proposed, but whenever Facilities or items of equipment need to be added, updated or removed from the Equipment List; and
- amendment of clause 7.13.1D (which specified what real-time outage information System Management was required to provide to the IMO for publication on the Market

Web Site) to extend the information requirements to cover all Outages, not just those of Scheduled Generators and Non-Scheduled Generators.

Western Power considered that any generation system with a nameplate capacity of less than 10 MW should not be included on the Equipment List, noting that its particular concern was in relation to generation systems connected to shared distribution networks. Western Power advised that the inclusion of distribution system equipment (that could limit the output of a generation system) on the Equipment List would present some challenges for the Network Operator to manage in the future; and questioned whether the change would materially benefit the market and Western Power.

However, Western Power did support the IMO's proposals to:

- restrict the Facilities that must be included on the Equipment List under clause 3.18.2(c)(ii) to Scheduled Generators and Non-Scheduled Generators holding Capacity Credits with a nameplate capacity of at least 10 MW (Issue 1);
- clarify the timing for Scheduled Outage approvals under clause 3.19.1 (Issue 8); and
- amend clause 3.18.7 to replace “relevant Facility or item of equipment” with “Equipment List Facility”, which Western Power considered clarifies the Network Operator’s obligations regarding Outage Plans that will impact on Facilities on the Equipment List.

The assessment by submitting parties as to whether the Rule Change Proposal would better achieve the Wholesale Market Objectives is summarised below.

Submitter	Wholesale Market Objective Assessment
Bluewaters	Bluewaters believed the proposed changes are an improvement on the current rules and will better facilitate achieving the Wholesale Market Objectives; but believed there are additional opportunities (as outlined in the comments in its submission) within the Rule Change Proposal to more effectively achieve the Wholesale Market Objectives.
Collgar	No specific assessment provided.
Community Electricity	Community Electricity considered that all aspects of the proposed changes are consistent with all the Wholesale Market Objectives and Wholesale Market Objectives (a) and (d) are especially promoted.
ERM Power	No specific assessment provided of the proposed amendments. However, ERM Power considered that eliminating the gap between Opportunistic Maintenance and Scheduled Outages would better achieve Wholesale Market Objective (a).
Perth Energy	Perth Energy considered that in aggregate the amendments are likely to improve efficiency in the outage planning process and lower long-term costs associated with outages, which would positively impact Wholesale Market Objectives (a) and (d).
Synergy	No specific assessment provided.

Submitter	Wholesale Market Objective Assessment
System Management	System Management considered the proposed amendments would better address the Wholesale Market Objectives.
Western Power	No specific assessment provided.

Copies of all submissions on the Rule Change Proposal received during and after the first submission period are available on the Rule Change Panel's website.

## A.5 The Rule Change Panel's Response to Submissions Received during the First Submission Period

The Rule Change Panel's response to each of the specific issues raised in the first submission period is presented in Appendix B of the Draft Rule Change Report for this Rule Change Proposal. A more general discussion of the proposal, which addresses the main issues raised in submissions and the Rule Change Panel's response to these issues, is available in section 7.2 and Appendix B of this report.

## A.6 MAC Consultation by the Rule Change Panel after the First Submission Period

On several occasions the IMO extended the publication date for the Draft Rule Change Report to allow the IMO to consider the outcomes of the EMR and any potential impacts on the Rule Change Proposal.

In May 2015, the Minister asked the IMO to exercise its discretion under clause 2.5.10 of the Market Rules to extend the normal timeframes for processing all Rule Change Proposals in progress (except for those relating to the deferral of Reserve Capacity Cycles) until the new rule change approval body was established as part of the EMR reforms.

The rule making functions of the IMO were transferred to the Rule Change Panel on 26 November 2016. The Rule Change Panel commenced its rule making functions on 3 April 2017.

The Rule Change Panel further extended the timeframe for the publication of the Draft Rule Change Report in extension notices published on 10 April 2017 and 21 December 2017. The purpose of the extensions was to allow the Rule Change Panel enough time to assess the Draft Rule Change Report against the recent changes to the Market Rules, while managing competing priorities of other Rule Change Proposals.

During July-August 2017 the Rule Change Panel, in consultation with the MAC, assigned urgency ratings to the open Rule Change Proposals in accordance with its new Rule Change Proposal Prioritisation and Scheduling Framework. There was general agreement that the Rule Change Panel was, at the time, unable to assess this Rule Change Proposal due to uncertainty about the scope of the EMR.

### 8 November 2017 MAC meeting

During a review of candidate issues for inclusion on the MAC Market Rules Issues List, the MAC agreed to place Bluewaters' candidate Issue 15 (Changes to the rules for approving Planned Outage Extensions) on hold pending the progression of this Rule Change Proposal, which includes amendments related to the issue.

Mr Matthew Martin noted that the scope of the Minister's energy market reforms was not expected to include material changes to the WEM outage provisions, and so should not prevent the progression of this Rule Change Proposal by the Rule Change Panel on a business-as-usual basis.

Ms Laidlaw noted the Rule Change Panel had not yet assigned an urgency rating to the Rule Change Proposal, due to uncertainties about its interdependencies with the Minister's reform program. MAC members and observers were requested to email their suggested urgency ratings for the Rule Change Proposal to RCP Support by 15 November 2017.

The MAC agreed to delete ERM Power's candidate Issue 34 (Applications to extend Planned Outages) as it was covered by Issue 15.

### **Urgency rating feedback received from MAC members and observers**

In the feedback received before the 15 November 2017 deadline, two submitters suggested a High urgency rating, one suggested a Medium urgency rating, one considered the urgency rating was still unclear, and two provided no view.

The Rule Change Panel agreed to assign a Medium urgency rating to this Rule Change Proposal at its 16 November 2017 meeting.

RCP Support received three further emails after the 16 November 2017 Rule Change Panel meeting. One suggested a Medium urgency rating, one suggested a Low urgency rating, and the third provided no specific rating but suggested that the Rule Change Proposal should be progressed as soon as feasible.

### **13 June 2018 MAC meeting**

The Chair led a discussion about the order of business for progressing the open Rule Change Proposals and a request from Perth Energy that the urgency rating of the Rule Change Proposal: Implementation of 30-Minute Balancing Gate Closure (RC\_2017\_02) be increased from Medium to High.

After some discussion, the MAC agreed that the Rule Change Proposal: Administrative Improvements to the Outage Process (RC\_2014\_03) and this Rule Change Proposal (RC\_2013\_15) should be assigned the next highest priority after Removal of Resource Plans and Dispatchable Loads (RC\_2014\_06), subject to clarification of the interactions with the WEM Reform Program; and that RC\_2017\_02 should retain its current Medium urgency rating.

### **8 August 2018 MAC meeting**

Ms Laidlaw and Mr Clayton James gave a presentation to the MAC on the work being undertaken by RCP Support and AEMO to determine what components of this Rule Change Proposal and RC\_2014\_03 can be progressed without conflict with AEMO's SMST project and the WEM Reform Program.

The following points were discussed.

- Mr Patrick Peake considered the terms 'outage' and 'de-rating' needed to be defined in the Market Rules. Mr Peake noted that Perth Energy had been asked to report full Forced Outages in situations where it was late to start up its generating unit. Mr Peake considered that a full Forced Outage should not be required in these cases.
- In response to a question from Ms Wendy Ng, Mr James clarified that the WEM Reform Program's proposed review of outage definitions applied to both current and future

market arrangements. AEMO's intention was to consider what was needed to support a constrained network access environment in Tranche 1 of the WEM Reform Program, and then bring forward any parts that can be implemented before 2022. Ms Ng suggested that the definition of a Consequential Outage might change with the implementation of constrained network access.

- Mrs Papps suggested that an Opportunistic Maintenance request spanning two Trading Days could be recorded in SMMITS as two separate requests, if this made implementation of the changes easier. Ms Laidlaw advised that AEMO would be looking at how the validation of Opportunistic Maintenance requests worked in SMMITS, to help determine how and whether the proposed changes to Opportunistic Maintenance in RC\_2013\_15 can be progressed.
- Ms Ng asked whether any further workshops were planned in respect of the two proposals. Ms Laidlaw replied that RCP Support was planning to hold a workshop for RC\_2013\_15 either before or after a CFFS. There was general support for holding the workshop before the CFFS and as soon as practicable.

### **12 September 2018 MAC meeting**

Ms Laidlaw noted that AEMO was yet to advise when it could make resources available to consider the IT implementation options for RC\_2014\_03. AEMO had however contacted Western Power about exploring options to do minor work on SMMITS to support the implementation of this Rule Change Proposal (RC\_2013\_15) before the transfer of SMMITS to AEMO as part of the SMST project.

RCP Support intended to prioritise development of a CFFS, in the expectation that this would allow AEMO sufficient time to undertake the investigation of IT options for RC\_2014\_03.

Further details of the 8 November 2017, 13 June 2018, 8 August 2018 and 12 September 2018 MAC meetings are available in the MAC meeting papers and minutes available on the Rule Change Panel's website at <https://www.erawa.com.au/rule-change-panel/market-advisory-committee/market-advisory-committee-meetings>.

## **A.7 MAC Workshops**

RCP Support held MAC workshops for this Rule Change Proposal on 17 September 2018 and 7 November 2018. A summary of the workshops is provided below. Further details, including workshop discussion notes and minutes, are available on the Rule Change Panel's website.

### **17 September 2018 MAC workshop**

The aims of the 17 September 2018 workshop were to:

- review changes affecting the Rule Change Proposal since its submission in 2013;
- seek stakeholder input on potential problems and refinements;
- provide an opportunity for stakeholders to raise new questions or concerns; and
- provide input to the development of a CFFS.

Attendees raised no concerns about the amendments proposed in this Rule Change Proposal to address:

- Issue 1 (Equipment List: Demand Side Programmes and Associated Loads, Dispatchable Loads and Interruptible Loads);

- Issue 3 (Requirements to follow the outage planning process);
- Issue 7 (Clarification of requirements for the Balancing Portfolio);
- Issue 8 (Clarification of deadline for Scheduled Outage approval requests);
- Issue 9 (Prohibition on Opportunistic Maintenance requests spanning two Trading Days); and
- Issue 12 (Notification timelines for Small Outage Facilities).

In relation to Issue 2 (Equipment List: Network equipment):

- Mr Dean Frost noted that Western Power would like to discuss options to implement sustainably efficient processes and systems to provide the required information to AEMO, given the likely future increase in distribution-connected facilities. Mr James noted that the proposed change was very broad and should allow AEMO and Western Power to define the most appropriate process to capture the required information.
- Mr Frost indicated that capturing the information would come at a cost for Western Power and take time to implement. Ms Laidlaw noted that in discussions with the IMO in 2013-14, Western Power had agreed that the changes could be implemented quickly and inexpensively using existing systems for the current small number of distribution-connected generators.
- Attendees agreed that Western Power, AEMO and RCP Support should discuss these issues outside of the workshop.

In relation to Issue 4 (Balancing Submission unavailability declarations), attendees agreed that unavailable capacity details were not required in Balancing Submissions for Non-Scheduled Generators and the proposed introduction of such a requirement in this Rule Change Proposal should be rejected.

In relation to Issue 5 (Deadline for approval of a Planned Outage):

- Attendees raised no concerns about the proposed deadline for approving Opportunistic Maintenance (30 minutes before Balancing Gate Closure for the Trading Interval in which the outage is due to commence), or the proposal to deem a request for Opportunistic Maintenance to be rejected if System Management has not made a decision on the request by the approval deadline. Attendees agreed that the Market Rules should not specify a different deadline for requesting Opportunistic Maintenance.
- However, attendees agreed that the proposed approval deadline would not leave Market Generators enough time to make the necessary arrangements for commencing a Scheduled Outage. Attendees agreed that 2:00 PM on TD-2 was an appropriate deadline for System Management to approve Scheduled Outages.

In relation to Issue 6 (Clarification of requirements for Balancing Facilities (excluding the Balancing Portfolio)):

- There was some discussion about the proposed requirements for reporting capacity that is subject to Planned Outage requests in Balancing Submissions, and about how clause 3.19.2(b)(ii) has been interpreted since the implementation of the Balancing Market.
- Attendees raised no concerns about the requirements in proposed clause 7A.2A.1 for the logging of a Forced or Consequential Outage for capacity declared unavailable in a Balancing Submission.

- There was some discussion about whether a Market Generator should be obliged to request or report an Outage if it is not undertaking maintenance on its Scheduled Generator but does not wish to offer some or all of the Facility's capacity that is not associated with Capacity Credits into the Balancing Market.

Mr James indicated that AEMO used information about the availability of capacity that is not subject to Capacity Credits in its system planning functions. There was some discussion about whether AEMO should take the availability of generator capacity that is not subject to Reserve Capacity Obligations into account in determining reserve margins and making decisions on Planned Outage approvals. Attendees agreed that RCP Support and AEMO should discuss this issue further outside the workshop, and that the issue should be raised in the CFFS.

- There was discussion about whether Planned Outages should include start-up times to cover the complete time until a Facility could be synchronised.
- Attendees agreed that if System Management rejects or recalls a generator Planned Outage, it should be able to direct the Market Generator to return the relevant capacity to the Balancing Market as soon as practicable, even if this is after Balancing Gate Closure. If this occurs, then attendees agreed that the Market Generator should not be required to provide any subsequent notification to System Management to explain the late Balancing Submission.

In relation to Issue 10 (Restrictions on the timeframes for making Opportunistic Maintenance requests), attendees raised no concerns about the proposed amendments, but discussed whether any further prescription or guidance should be included in the Market Rules around the practical application of clause 3.19.4, which requires System Management to approve or reject a Planned Outage request and inform the relevant participant as soon as practicable. Mr Matthew Fairclough and Mr James noted that AEMO intended to continue to include additional deadlines for the approval or rejection of Opportunistic Maintenance requests that are submitted within particular timeframes in the PSOP: Facility Outages.

Attendees agreed that more specific deadlines should not be included in the Market Rules, but offered several other suggestions, including an extension of the heads of power for the PSOP to include a requirement for additional detail about the application of clause 3.19.4. Attendees agreed that this question should be included in the CFFS.

Participants raised no concerns about the proposed amendments to address Issue 11 (Restrictions on the timeframes for making consecutive Opportunistic Maintenance requests). However, Mr Fairclough suggested that the obligation should be on the Rule Participant not to submit Opportunistic Maintenance requests that are less than 24 hours apart, rather than on AEMO to reject such requests.

In relation to Issue 13 (Availability declarations for Planned Outage approval requests), attendees agreed that another workshop should be held to consider options for the provisions relating to availability declarations by comparing their outcomes for a range of outage planning scenarios.

Mr Fairclough noted a potential drafting inconsistency between proposed clause 3.19.1 (which requires a Market Participant or Network Operator to request approval of a Scheduled Outage) and proposed clause 3.19.2B (which prohibits such requests if the capacity would not be otherwise available). Ms Laidlaw agreed that clause 3.19.1 may need to be made subject to clause 3.19.2B.

Attendees also:

- agreed that Scheduled Generators with a nameplate capacity of less than 10 MW should have to be on the Equipment List if they hold Capacity Credits;
- supported additional changes to introduce a materiality threshold for the requirement to log Outages for Non-Scheduled Generators; although Mr James noted that the appropriate threshold might vary depending on the technology of the Facility, so it might be useful to allow some flexibility in the threshold definition, e.g. by locating the definition in a PSOP; and
- agreed that an additional change should be included in this Rule Change Proposal to clarify that Market Participants are allowed to undertake Commissioning Tests during a Planned Outage.

### **7 November 2018 MAC workshop**

The aim of the 7 November 2018 workshop was to consider options for provisions relating to availability declarations by comparing their outcomes for a range of outage planning scenarios.

The following points were discussed.

Slides 4-5<sup>36</sup>: Outage planning objectives and assessment factors:

- Attendees raised no concerns about the outage planning objectives and Rule Change Proposal assessment factors listed in slides 4 and 5 of the workshop discussion notes.<sup>37</sup>

Slides 6-8: Workshop terminology:

- Ms Laidlaw noted that the definition of 'available for dispatch' required further consideration, as it was possible that capacity that was not assigned Capacity Credits would be allowed to be declared as unavailable in a Balancing Submission without being on an Outage. In response to a question from Ms Ng, Ms Laidlaw and Ms Laura Koziol clarified that the question of whether capacity without Capacity Credits should be allowed to be bid as unavailable in Balancing Submissions without being on an Outage would be part of the CFFS.
- Mr Paul Arias noted that currently, if a Facility is undertaking a Commissioning Test, the total capacity of that Facility is affected by the Commissioning Test, because there is no option for it to apply to only part of the capacity. Ms Laidlaw agreed to consider the issue as part of the assessment of the Rule Change Proposal.

Slides 9-11: Issue 13 proposed changes:

- Attendees reviewed the amendments proposed by the IMO to address Issue 13 (Availability declarations for Planned Outage approval requests).
- Mr Adam Stephen sought clarification about how Scheduled Outages that were approved with conditions would be treated if any of their Outage Plan details changed. Ms Laidlaw replied that the Market Rules did not provide for a Scheduled Outage to be approved with conditions. There was some discussion about the concept of accepting and approving Planned Outages with conditions.

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<sup>36</sup> The slide number references relate to the workshop discussion notes, which are available on the Rule Change Panel's website.

<sup>37</sup> These objectives and assessment factors are discussed in Appendix B.1.1 of this report.

- Ms Laidlaw clarified that the broader criteria for acceptance and approval of Planned Outages were out of the scope of this Rule Change Proposal.

Slide 12-14: Issues affecting the original Rule Change Proposal:

- Attendees agreed that:
  - AEMO's interpretation of the term 'removal from service' leads to outcomes that conflict with the intent of the Rule Change Proposal;
  - there should be an explicit requirement in the Market Rules for participants to update an Outage Plan if any of the relevant details changed; and
  - clarification is needed on which changes to an Outage Plan should cause it to be considered a new Outage Plan that needs to be reassessed and re-prioritised.
- Attendees generally supported the additional changes to address the three issues that were listed on slide 14 of the workshop discussion notes.
- Ms Ng suggested that a participant should be able to shift the timing of a Planned Outage without it losing its priority, if the change was not significant. Mr Leon Kwek replied that if a shift in the timing of a Scheduled Outage led to a conflict with another Scheduled Outage, then the modified Scheduled Outage should have the lower priority. Mr Arias noted that this approach could lead to participants requesting longer Scheduled Outages than they needed, to avoid running out of time. Mr Kwek considered this would still be the preferred outcome.
- Attendees did not identify any additional changes to an outage request that should cause the request to be treated as a new outage request.

Slide 17: Availability declaration requirement<sup>38</sup> – straw man:

- Attendees discussed a proposal to change the availability declaration requirement so that a participant must not request a Planned Outage if it is aware that the capacity would not otherwise be available.
- Mr Arias noted that in some cases a Facility needs a Planned Outage to fix a problem, but the Facility can be operated in a way that allows it to be dispatched despite that problem, e.g. a Facility is losing water due to a leak that needs an Outage to repair, but the Facility can still be operated if water is trucked in. Ms Laidlaw noted that as long as the relevant capacity could be dispatched and made available in the Balancing Market, the availability requirement would be fulfilled and the participant could request a Planned Outage.
- Mr Oscar Carlberg sought clarification on how the new proposed availability declaration requirement would apply to the extension of a Planned Outage. Ms Laidlaw replied that extension outages would be exempt from the availability requirement provided they did not follow an availability-challenged<sup>39</sup> Planned Outage.
- Ms Ng noted that a Planned Outage to investigate a potential issue might identify a major problem that requires an extension to address. The original Planned Outage might fulfil the availability requirement and then the request for the extension outage should be

<sup>38</sup> In this report, the 'availability requirement' for a proposed Planned Outage (or an Outage Plan or request for Opportunistic Maintenance) is that if the proposed Planned Outage was not approved the relevant capacity or capability would be available for service for the duration of the proposed outage period; while the 'availability declaration requirement' refers to the nature of the implicit declaration made by a Rule Participant when it submits an outage request. The wording of the minutes for the 7 November 2018 workshop have been updated here to use this terminology.

<sup>39</sup> 'Availability-challenged' is a term used in the 7 November 2018 MAC workshop to describe a Planned Outage or proposed Planned Outage that AEMO is aware does not meet the availability requirement.

exempt from the availability requirement. Ms Laidlaw clarified that there was likely to be a need for a good faith requirement that the period for which a Planned Outage is requested should not be unrealistically short given the information available to the participant about the work that needs to be undertaken.

Slide 18: Availability declaration requirement scenarios:

- Attendees reviewed a set of test scenarios for the availability declaration requirement straw man, and did not suggest any additional scenarios for consideration.
- Ms Ng raised a concern that the on-site staff who requested Planned Outages would be focussed on the maintenance of the Facility and may not necessarily take the availability requirement into account. Ms Laidlaw noted that the straw man availability declaration requirement provided a simpler test than the one proposed in the Rule Change Proposal.
- Attendees were generally supportive of the straw man availability declaration requirement and agreed it would be easier to apply than the one proposed in the Rule Change Proposal.

Slides 19-21: 'Lock-in' point for a Scheduled Outage – straw man:

- Attendees discussed a proposal to change the point of time after which an Outage Plan does not have to be withdrawn or rejected because it ceases to meet the availability requirement (**lock-in point**); and reviewed a set of test scenarios for the straw man proposal.
- In response to a question from Ms Teresa Smit, Ms Laidlaw clarified that if an availability-challenged Planned Outage was rejected for some other reason after it was accepted, then the participant would need to report a Forced Outage.
- Attendees supported the straw man proposal to change the lock-in point for a Scheduled Outage from the time of approval to the time of first acceptance and inclusion in System Management's outage schedule.

Slides 23-24: Starting Scheduled Outages early:

- Attendees agreed that an Opportunistic Maintenance outage should be allowed to precede a Scheduled Outage.
- Mr Arias asked whether the original intention of the Rule Change Proposal was to prevent Opportunistic Maintenance from directly preceding a Scheduled Outage. Ms Laidlaw clarified that under the Rule Change Proposal drafting, the approval of the Opportunistic Maintenance request could be interpreted as causing the Scheduled Outage to become availability-challenged. Attendees agreed that the proposed Amending Rules should be clarified to avoid this interpretation.

Slides 26-29: Disingenuous Planned Outage requests – straw man:

- Attendees discussed a straw man proposal for additional changes to address concerns about the potential for disingenuous Planned Outage requests; and reviewed a set of test scenarios for the straw man.
- Mr Stephen sought clarification on what form of evidence would need to be provided to AEMO to show that capacity was capable of being made available for dispatch prior to the start of a Planned Outage. Mr Kwek replied that this could, for example, be a consultant's report.

- Mr Arias raised a concern that AEMO might be overly conservative in its assessment of evidence so that Planned Outages are never approved while a Facility is on a Forced Outage. Ms Ng agreed with Mr Arias, and noted that it was hard to assess whether the evidence could be delivered, as it was unclear what kind of evidence AEMO would require.
- Ms Laidlaw sought suggestions from attendees about how the requirements for evidence can be specified to provide more clarity. Attendees did not provide specific suggestions at the workshop, although Ms Smit suggested that a report from an external party may be required.
- Attendees agreed that the evidence requirements should be detailed in the PSOP: Facility Outages.
- Attendees raised no other concerns about the straw man proposal to address concerns about disingenuous Planned Outage requests.

Slide 30: Availability declaration requirements for non-generator Equipment List Facilities:

- There was general agreement that the proposed availability declaration requirements could also be applied to non-generator Equipment List Facilities such as items of network equipment, provided that a suitable alternative to the term 'available for dispatch' was used for these facilities.
- There was some discussion about what term would be appropriate for network equipment. Ms Kei Sukmadjaja noted that during AEMO's recent workshop on the PSOP: Facility Outages, Western Power proposed that an Outage Plan should be deemed to be valid if the relevant network equipment was capable of being energised. This suggestion had been incorporated into the draft PSOP for the Procedure Change Proposal AEPC\_2018\_04: Facility Outages.
- Ms Laidlaw considered the term 'capable of being energised' would not be suitable because an item of network equipment can be partially de-rated but still capable of being energised. Such de-ratings were subject to the normal outage scheduling and reporting requirements. Ms Laidlaw suggested that 'available for service' might be a suitable term for network equipment and sought feedback from Western Power and AEMO on this question.

Attendees agreed that a three-week submission period would be sufficient for the proposed CFFS.

## A.8 Call for Further Submissions

On 11 December 2018, the Rule Change Panel published a CFFS on this Rule Change Proposal on the basis that:

- a significant period of time had passed since the IMO consulted on the Rule Change Proposal, during which the Market Rules had undergone numerous changes; and
- stakeholders should be given an opportunity to provide feedback on some additional issues identified by the Rule Change Panel that affect the Rule Change Proposal before the development of the Draft Rule Change Report.

While the Rule Change Panel sought submissions on all aspects of the Rule Change Proposal, it sought specific feedback on 19 questions. These questions, which are summarised in Appendix C of the Draft Rule Change Report and discussed in greater detail

in Appendix B.2 and Appendix B.3 of this report, generally reflected the outcomes of the 17 September 2018 and 7 November 2018 MAC workshops.

The Rule Change Panel also further extended the publication date for the Draft Rule Change Report to 1 April 2019, to:

- allow for the CFFS; and
- allow the Rule Change Panel sufficient time to assess the Rule Change Proposal and the submissions received and prepare the Draft Rule Change Report.

The CFFS and extension notice are available on the Rule Change Panel's website.

## **A.9 Submissions Received During the Further Submission Period**

The further submission period was held between 11 December 2018 and 11 January 2019. The Rule Change Panel received further submissions from AEMO, Alinta, Bluewaters, Perth Energy and Synergy.

Submitters were generally supportive of the Rule Change Proposal and the additional changes suggested in the CFFS. However, each further submission included specific concerns and suggestions relating to different issues.

Copies of all further submissions received are available on the Rule Change Panel's website.

### **A.9.1 Feedback from Submitters on the Questions in the Call for Further Submissions**

The feedback received from submitters on the explicit questions raised in the CFFS is summarised in Appendix C of the Draft Rule Change Report.

### **A.9.2 Additional Feedback Provided in Further Submissions**

#### **AEMO**

In addition to its responses to the 19 questions in the CFFS, AEMO:

- proposed several changes to the drafting presented in the CFFS, intended to improve clarity through consistent use of terminology; and
- suggested that the deadline for approval/rejection of an Opportunistic Maintenance request should be changed from 30 minutes before Balancing Gate Closure to 60 minutes before Balancing Gate Closure.

#### **Alinta**

Alinta considered that if a Facility returns to service prior to the end of a Planned Outage then its capacity should be allowed to return to the Balancing Market as soon as available, even if Balancing Gate Closure has already occurred.

To this end, Alinta expressed support for the amendment to clause 7A.2.8A suggested by ERM Power in its first period submission for this Rule Change Proposal.

#### **Perth Energy**

In its response to question 2, Perth Energy raised concerns about the ERA's interpretation of the Market Rules in relation to the quantity of an Outage that should be logged for a Scheduled Generator. Perth Energy noted that the ERA had recently advised Perth Energy

that it must log an Outage for a Trading Interval in which the generator's output was outside of its Tolerance Range at any point in time, even if it was for as little as one minute.

Perth Energy considered this interpretation significantly increased the cost of investigation and compliance activities in the WEM without any improvement in market outcomes. To address its concerns, Perth Energy considered that the proposed materiality threshold for Non-Scheduled Generators should be extended to apply to outages of Scheduled Generators.

Perth Energy also raised concerns about the calculations used by the ERA when monitoring compliance with Dispatch Instructions, and considered that further clarification regarding the calculation of outage quantities should be included in the Market Rules to address these concerns.

Perth Energy also:

- recommended that the Commissioning Test process is considered more holistically with a view to make necessary changes to allow Market Participants to fully comply with the rule requirements; and
- raised concerns about potential conflicts between the Rule Change Proposal, the Minister's WEM Reform Program and AEMO's SMST project.

## **Synergy**

Synergy considered that this Rule Change Proposal was initially intended as part of a suite of rule changes that were designed, among other things, to clarify the Market Rules associated with many undefined concepts used in the definitions of Outages, especially the definition of Forced Outages. Synergy expressed concern that, by progressing part of the whole suite of changes in isolation, the Rule Change Panel will inadvertently cause more uncertainty regarding the interpretation of the Market Rules.

Synergy suggested that, where possible, a principled (rather than prescriptive) drafting style should be adopted to enable the Market Rules to adapt to new situations and to aid in the interpretation of undefined terms and phrases used in the Market Rules.

Synergy provided two specific examples of where it considered the Rule Change Proposal appears to introduce uncertainty into the interpretation of the Market Rules:

- Synergy considered that the proposed Amending Rules (and in particular the use of the undefined term "unavailable for dispatch") could imply that a Market Generator must declare its Facility's capacity as unavailable in its Balancing Submission for a Trading Interval if the Facility is offline and cannot be re-synchronised in time for that Trading Interval. Under proposed section 7A.2A, the Market Generator would then be required to log Forced Outages for these periods.

Synergy assumed (correctly) that the temperature dependence exemption in section 7A.2A is intended to avoid the need for unnecessary Forced Outage notifications; but considered the explicit reference to only temperature dependence in this exemption creates uncertainty for the interpretation of other limitations (such as start-up times).

- Synergy expressed concern about how the proposed availability declaration requirement would apply where an Outage is required to enable maintenance or tests that must occur either at set times or after equipment has operated for a certain number of operating hours. Synergy considered that the proposed requirement could prevent a Market

Generator from requesting a Planned Outage at the most efficient time, reducing the availability of the Facility and negatively affecting the economic efficiency of the WEM.

### A.9.3 Submitters' Assessment of Proposal against the Wholesale Market Objectives

The assessment by submitting parties as to whether the Rule Change Proposal would better achieve the Wholesale Market Objectives is summarised below:

Submitter	Wholesale Market Objective Assessment
AEMO	AEMO considered that the proposed changes in the CFFS will better achieve Wholesale Market Objectives (a) and (d). AEMO agreed with the assessment contained within the Rule Change Proposal.
Alinta	No assessment provided.
Bluewaters	No assessment provided.
Perth Energy	Perth Energy considered that the initial Rule Change Proposal, as proposed to be amended by the Rule Change Panel in its CFFS, would better achieve the Wholesale Market Objectives. However, Perth Energy considered that if its recommendations were to be adopted, market efficiency and outcomes could be further improved.
Synergy	Aside from the issues noted in its submission and to the extent the Rule Change Proposal can be assessed without parts of the proposed drafting being available, Synergy broadly considered the rule change will better facilitate the achievement of the Wholesale Market Objectives.

## A.10 The Rule Change Panel's Response to Submissions Received During the Further Submission Period

The Rule Change Panel's response to each of the specific issues raised in the further submission period is presented in Appendix D of the Draft Rule Change Report. A more general discussion of the proposal, which addresses the main issues raised in further submissions and the Rule Change Panel's response to these issues, is available in section 7.2 and Appendix B of this report.

## A.11 Consultation Following the Call for Further Submissions

Following the close of the further submission period, RCP Support:

- met with AEMO on several occasions to:
  - clarify several issues raised by AEMO in its further submission;
  - seek AEMO's views on several issues raised by other stakeholders in their first period submissions and further submissions; and
  - seek feedback on potential additional changes to the proposed Amending Rules;
- met with Perth Energy to seek clarification on several issues raised in its further submission;

- met with Western Power and AEMO to discuss Western Power's concerns about the proposed mandatory inclusion of distribution network equipment on the Equipment List; and
- met with Synergy to:
  - seek clarification on the issues raised in its further submission; and
  - discuss Synergy's email response (provided on 8 January 2019) to the suggestion made by System Management in its first period submission about further changes to proposed clause 7A.2.9.

Further details relating to the matters discussed in these meetings are available in Appendix B.2 and Appendix B.3 of this report and Appendix D of the Draft Rule Change Report.

## Appendix B. Extract from Draft Rule Change Report: General Considerations, Assessment of Proposed Changes and Additional Issues Identified by the Rule Change Panel

The following is a reproduction of sections 6.2 (General Considerations), 6.3 (Assessment of the Proposed Changes) and 6.4 (Additional Related Issues Identified by the Rule Change Panel) of the Draft Rule Change Report. The only changes have been to:

- update the heading references to conform with the style guide for this Appendix; and
- replace references to ‘this report’ to ‘the Draft Rule Change Report’ where necessary to avoid confusion about which report is being referenced.

It should be noted that the Rule Change Panel has updated its position on some of the matters discussed in this appendix since the publication of the Draft Rule Change Report. Details of the updates are available in section 7.2 of this Final Rule Change Report.

### B.1 General Considerations

#### B.1.1 Outage Planning Objectives and Rule Change Proposal Assessment Factors

During the 7 November 2018 workshop, attendees discussed a number of outage planning objectives<sup>40</sup> that reflect the ways in which the WEM’s outage planning regime can work to promote the Wholesale Market Objectives. These outage planning objectives included:

- assisting System Management to maintain power system security and reliability;
- providing transparency to Rule Participants to reduce the market risks/costs associated with outages;
- providing mechanisms for Rule Participants to efficiently manage their facility maintenance, and encouraging use of these mechanisms to:
  - efficiently coordinate network and generator outages;
  - undertake an efficient level of maintenance that balances maintenance costs against the need to meet reliability obligations; and
  - manage the timing of outages efficiently to reduce their impact on market costs; and
- supporting the integrity of the RCM by helping to ensure that Market Participants deliver the capacity service for which they are paid.

In conducting its assessment of this Rule Change Proposal against the broader Wholesale Market Objectives, the Rule Change Panel has considered each of the identified outage planning objectives, and balanced the competing objectives where necessary.

Consistent with these outage planning objectives, the Wholesale Market Objectives in general, and considerations of cost and practicality; the Rule Change Panel has generally sought to give preference to options that:

- improve transparency of processes and outage-related information;

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<sup>40</sup> See slide 4 of the workshop discussion notes, available on the Rule Change Panel’s website.

- provide as much certainty as possible as early as possible to System Management and other Rule Participants;
- encourage forward planning and reward reliability;
- provide flexibility for Rule Participants;
- avoid unnecessary obligations or administrative burdens;
- avoid unwarranted complexity or system development costs;
- avoid planning obligations on Rule Participants with which they cannot comply; and
- discourage the withholding of information from AEMO.

### B.1.2 Factors Affecting this Rule Change Proposal

Based on its preliminary assessment of the Rule Change Proposal, the Rule Change Panel concluded that the proposed Amending Rules, if updated to reflect the changes made to the Market Rules since the submission of the Rule Change Proposal, are still valid to be considered via the rule change process.

However, the Rule Change Panel identified several issues warranting additional consideration.<sup>41</sup> These include:

- concerns that affect the proposed solutions to the Rule Change Proposal's 13 issues (which are discussed in Appendix B.2 of this report); and
- several new but related issues (which are discussed in Appendix B.3 of this report).

The following factors contributed to the identification of these issues.

- **EMOP project:** The scope of the EMR's EMOP project included revising the WEM outage planning processes to support proposed reforms to the real-time energy market. The EMOP project team worked with a group of industry representatives (**EMOP Consultation Group**) on a straw man proposal for outage planning in workshops held between 31 October 2016 and 27 February 2017. The work took the reforms proposed in this Rule Change Proposal as a starting point, and identified several issues with, and potential enhancements to those reforms.

Many of the changes proposed by the EMOP project are either outside the scope of this Rule Change Proposal or require material system changes that are unlikely to be justified before the implementation of the WEM Reform Program in 2022. However, the Rule Change Panel has considered whether to incorporate a few of the simpler refinements into this Rule Change Proposal.

- **Interpretation of 'removal from service':** Clause 3.18.4A defines an Outage Plan as:
 

*"a proposal submitted to System Management in accordance with this clause 3.18 by a Market Participant or Network Operator in which permission is sought from System Management for the scheduling of the removal from service (or derating) of an item of equipment". [emphasis added]*

In early 2017, Bluewaters sought a declaration from the Supreme Court of Western Australia to require AEMO to evaluate an Outage Plan submitted for a Facility that had tripped and was still out of service.

<sup>41</sup> Most of these issues were discussed with stakeholders at the 17 September 2018 and 7 November 2018 workshops and were included in the CFFS.

The Supreme Court's decision (**Bluewaters decision**)<sup>42</sup> was delivered on 13 April 2017, and rejected Bluewaters' action. The Supreme Court concluded that an item of equipment could not be removed from service if it was already out of service, and so:

*“a proposal submitted to System Management by a Market Participant in which permission is sought for the scheduling of the removal from service of an item of equipment is not a proposed Outage Plan as defined by clause 3.18.4A of the Market Rules if the item of equipment is out of service at the time the proposal is submitted and the Market Participant expects and intends that the item of equipment will remain out of service until the commencement of the proposed outage plan. The Market Rules do not require System Management to evaluate such a proposal as an Outage Plan.”*

As discussed in Appendix B.2.4.1 (interpretation of removal from service) and Appendix B.3.3.1 (Commissioning Tests and outages) of this report, the Bluewaters decision has highlighted the need for additional changes to the proposed Amending Rules in this Rule Change Proposal to allow the Rule Change Proposal to achieve its intended outcomes in relation to the availability requirements for Planned Outages and Planned Outage extensions, and the undertaking of Commissioning Tests under a Planned Outage.

- **Consultation on Rule Change Proposal: Administrative Improvements to the Outage Process (RC\_2014\_03):**<sup>43</sup> The IMO submitted RC\_2014\_03 to implement a range of administrative reforms that mostly affect the processes for Consequential and Forced Outages. RCP Support has discussed RC\_2014\_03 with stakeholders on several occasions, including:
  - during updates on the proposal at the 13 September 2017, 13 December 2017 and 14 February 2018 MAC meetings; and
  - at a MAC workshop held on 17 January 2018 to discuss specific aspects of that Rule Change Proposal.

These discussions raised several issues, some of which affect Planned Outages as well as Forced and Consequential Outages (e.g. the need for a materiality threshold for Non-Scheduled Generator Outages). The Rule Change Panel has taken the issues that affect Planned Outages into account in its assessment of this Rule Change Proposal (RC\_2013\_15).

- **Rule Change Proposal: Removal of Resource Plans and Dispatchable Loads (RC\_2014\_06):** As noted in section 4.1.2 of the Draft Rule Change Report<sup>44</sup>, RC\_2014\_06 includes changes to clarify the treatment of unavailable capacity in Balancing Submissions that are very similar, but not identical, to the corresponding changes in this Rule Change Proposal (RC\_2013\_15). Appendix B.2.2.1 of this report discusses the differences between the two Rule Change Proposals.

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<sup>42</sup> Bluewaters Power 2 Pty Ltd –v- Australian Energy Market Operator Ltd [2017] WASC 98, available from: <https://ecourts.justice.wa.gov.au/eCourtsPortal/Decisions/ViewDecision?returnUrl=%2feCourtsPortal%2fDecisions%2fFilter%2fSC%2fCitationNumber&id=d6ad0c85-c57f-4a38-4825-8101001537ba>.

<sup>43</sup> The Rule Change Panel is currently progressing RC\_2014\_03, which the IMO submitted on 27 November 2014.

<sup>44</sup> The same information is provided in section 3.1.2 of this Final Rule Change Report.

## B.2 Assessment of the Proposed Changes

This section presents the Rule Change Panel's assessment of the issues raised in the Rule Change Proposal and the amendments that were proposed by the IMO to address those issues.

The section is structured as follows:

- Appendix B.2.1 discusses the issues that relate to obligations to participate in the outage planning process;
- Appendix B.2.2 discusses the issues that relate to interactions between Planned Outages and Balancing Submissions;
- Appendix B.2.3 discusses the issues that relate to timelines for Planned Outages;
- Appendix B.2.4 discusses the issues that relate to availability criteria for approval of Planned Outages; and
- Appendix B.2.5 discusses the minor enhancements proposed by the IMO to improve the integrity and clarity of the outage planning provisions in the Market Rules.

### B.2.1 Obligations to Participate in the Outage Planning Process

This Rule Change Proposal proposes three changes to refine and clarify the obligations on Rule Participants to participate in the outage planning process:

- removal of the requirement for Demand Side Programmes, Dispatchable Loads and Interruptible Loads holding Capacity Credits to be included in the Equipment List;
- amendment of clause 3.18.2(c)(i) to require the Equipment List to include “any part of a transmission system or distribution system (however defined by System Management) that could limit the output of a generation system included on the Equipment List”; and
- clarification of the requirement on Market Participants to request (or for Small Outage Facilities to report) a Planned Outage prior to undertaking discretionary maintenance on their Outage Facilities.

#### *B.2.1.1 Equipment List: Demand Side Programmes and Associated Loads, Dispatchable Loads and Interruptible Loads (Issue 1)*

The IMO proposed to restrict the Facilities included on the Equipment List under clause 3.18.2(c)(ii) to Scheduled Generators and Non-Scheduled Generators holding Capacity Credits with a Standing Data nameplate capacity of at least 10 MW.

The Rule Change Panel supports the proposed change, as it agrees with the argument presented in the Rule Change Proposal by the IMO that:

- there is no need for Demand Side Programmes or their Associated Loads to be included on the Equipment List; and
- Interruptible Loads should only need to be included on the Equipment List if they provide Spinning Reserve Service under an Ancillary Service Contract, in which case they will be included independently under clause 3.18.2(c)(iv).

The only other Facility Class that is eligible for Capacity Credits (Dispatchable Load) will be removed from the Market Rules by RC\_2014\_06 from 1 July 2019.

Stakeholders were generally supportive of the change in their first period submissions and raised no concerns during a discussion of the issue at the 17 September 2018 workshop or in further submissions.

### *B.2.1.2 Equipment List: Network equipment (Issue 2)*

Currently clause 3.18.2(c)(i) requires “all transmission network Registered Facilities” to be included on the Equipment List. The IMO proposed to amend this clause to require the inclusion of “any part of a transmission system or a distribution system (however defined by System Management) that could limit the output of a generation system that System Management has included on the Equipment List”.

The Rule Change Panel agrees that it is inefficient to require System Management to schedule outages for all components of the transmission system, given that only some components have the potential to affect power system security and reliability.

The Rule Change Panel also agrees in principle that if a generation system is required on the Equipment List, then any network equipment (whether transmission or distribution) that could limit that generation system’s output should also be on the Equipment List. In particular, inclusion of the relevant distribution circuits on the Equipment List would:

- allow the use of consistent processes to manage all network outages affecting Equipment List generators; and
- improve the quality of PASA forecasts and reserve margin calculations through the provision of more accurate and timely information about network outages affecting distribution-connected generators.

While Bluewaters considered in its first period submission that the Equipment List should exclude network equipment, it recently advised the Rule Change Panel<sup>45</sup> that its position has shifted since the first submission period. Bluewaters advised that it now supports the changes proposed by the IMO and considers that they are an improvement on the current rules.

Community Electricity and Perth Energy both supported the change in their first period submissions.

However, Western Power has on several occasions questioned the value of including distribution network equipment on the Equipment List, and raised concerns about the costs to Western Power of complying with the proposed obligations. RCP Support met with Western Power and AEMO on 23 January 2019 and 14 February 2019 to discuss Western Power’s concerns in more detail.

During the 23 January 2019 meeting, Western Power:

- noted that distribution-connected generators may be either connected at a zone sub-station or embedded within the distribution network, and that its concerns only related to generators embedded with the distribution network;
- noted that the generators in question represent a very small percentage of the registered generation in the WEM, and considered their impact on power system security and reliability was negligible;
- advised that it would not be able to comply with the proposed Amending Rules without IT and process changes that would require material cost and time to implement, and that

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<sup>45</sup> In an email provided on 12 February 2019 to RCP Support.

- the new obligations would also adversely affect the efficiency of Western Power's maintenance program and its ability to meet its obligations under other legislation;
- proposed an alternative approach for distribution-connected generators embedded within the distribution network, under which Western Power would:
    - make changes to its IT systems to automatically alert its staff if a proposed outage in the distribution system could potentially affect a distribution-connected generator;
    - on receiving an alert, manually assess the situation, and if appropriate, send an email to AEMO to notify it of the proposed outage; and
    - proceed with the proposed outage unless AEMO informs it that the relevant generator's capacity is needed to maintain power system security and reliability.

Western Power advised that it usually would provide between 2 and 5 Business Days' notice to generators that may be impacted by the network outages, but could not guarantee this in all cases, as there may be circumstances which prevent such notification. Since the arrangement would be between Western Power and AEMO, Western Power indicated that it would prefer that the arrangement be covered in Western Power and AEMO's confidential Operating Protocol rather than the Market Rules. This would allow greater flexibility for Western Power and AEMO by excluding the need to go through a lengthy procedure change process should both organisations determine that there was a need to change the arrangements.

Western Power also confirmed that it would often only be able to provide AEMO and the Market Generator with a broad time band within which an outage was expected to occur, rather than precise start and end times.

AEMO agreed with Western Power that the impact of the relevant generators on power system security and reliability was negligible; and advised that it did not require advance notice of, or control over, Consequential Outages of these generators to support its PASA and outage assessment processes. AEMO found Western Power's proposed alternative to be acceptable but did not want any changes that would impose obligations on AEMO to notify Market Generators or publish details of the network/generator outages on the Market Web Site.

During the 14 February 2019 meeting, Western Power and AEMO advised that inclusion in the Market Rules of any obligation on Western Power to request or report outages of the relevant distribution equipment would require Western Power to align its IT system for the distribution network with the IT system for the transmission network:

- to identify the generators connected at the distribution feeder level impacted by Planned Outages; and
- to provide automatic notification of the impacted distribution generators to AEMO via SMMITS.

Following the 14 February 2019 meeting, Western Power provided RCP Support with a cost estimate to meet the proposed requirements for distribution system equipment. The estimate, which was provided on a confidential basis, was very high, far exceeding the other expected implementation costs of this Rule Change Proposal.

Western Power advised that it could implement its alternative arrangement at no additional cost because the required system and process upgrades could be undertaken as part of Western Power's business-as-usual activities.

The Rule Change Panel agrees that the cost estimated by Western Power outweighs any potential benefits of the change, given:

- AEMO's advice that it does not require any advance warning of outages for the relevant generators for its PASA and outage processes;
- Western Power's advice that it is likely to only be able to provide indicative outage period start and end times, so that the relevant generators would still not be in a position to log ex-ante Consequential Outages or adjust their Balancing Submissions; and
- the current low levels of distribution-connected Scheduled Generators in the WEM.

The Rule Change Panel therefore proposes a further change to proposed clause 3.18.2(c)(i) to restrict the obligation to transmission system equipment only.

### *B.2.1.3 Requirements to follow the outage planning process (Issue 3)*

The Rule Change Panel supports the proposed amendment of clause 3.18.2A(b) and addition of proposed clause 3.19.2A to include an explicit obligation on Market Participants to request (or report, as applicable) a Planned Outage before undertaking discretionary maintenance on their Outage Facilities.

The Rule Change Panel agrees that, while various clauses of the Market Rules imply an obligation to follow the outage planning processes, an explicit obligation is preferable, in particular because the primary incentive to seek approval of a Planned Outage (to avoid the Capacity Cost Refunds) applies only to Scheduled Generators with Capacity Credits that have not exceeded their 1000 Trading Day Planned Outage limit.<sup>46</sup> For this reason, the Rule Change Panel also considers that the obligations should apply to all Outage Facilities, including network equipment, and proposes additional changes to clause 3.19.2A to reflect this.

Stakeholders were generally supportive of the proposed changes in their first period submissions and raised no concerns during a discussion of the issue at the 17 September 2018 workshop or in further submissions.

## **B.2.2 Interactions between Planned Outages and Balancing Submissions**

This Rule Change Proposal seeks to clarify how unavailable or potentially unavailable capacity should be treated in Balancing Submissions. The proposed amendments include clarification of:

- how available and unavailable capacity should be reported in Balancing Submissions;
- what deadline should apply to decisions on requests for approval of Scheduled Outages and Opportunistic Maintenance;
- how capacity subject to an approved Planned Outage or an outstanding request for approval of a Planned Outage should be represented in Balancing Submissions;
- Market Generator obligations to account for capacity declared as unavailable in Balancing Submissions; and
- Market Generator obligations in the event of a late rejection of a previously approved Planned Outage or the recall of a Planned Outage in progress.

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<sup>46</sup> The Market Rules place a limit on how long a Scheduled Generator can be on a Planned Outage over any 1000 Trading Day period. If this limit is exceeded then the Market Generator is liable for Facility Reserve Capacity Deficit Refunds for any additional Planned Outages taken in that period.

### *B.2.2.1 Balancing Submission unavailability declarations (Issue 4)*

The Rule Change Proposal proposes new clauses 7A.2.4A, 7A.2.4B and 7A.2.4C, as well as changes to clause 7A.2.4 and the Glossary definition of Balancing Submission, to clearly specify how available and unavailable capacity should be reported in Balancing Submissions. The first period submissions supported these amendments, and the Rule Change Panel agrees that changes are needed to provide clarity to Market Generators on this aspect of their Balancing Submission obligations.

The Amending Rules for RC\_2014\_06 include similar changes. However, the requirements for Non-Scheduled Generators in RC\_2014\_06 differ from those in this Rule Change Proposal, in that RC\_2014\_06 explicitly requires the inclusion of a single Balancing Price-Quantity Pair and does not require a declaration of the MW quantity that will be unavailable for dispatch.

The Rule Change Panel, during the 17 September 2018 workshop and in the CFFS, sought feedback on the need to include declared MW quantities of unavailable capacity in Non-Scheduled Generator Balancing Submissions. The feedback provided by AEMO and other stakeholders all agreed that these unavailable capacity details are not required.

The Rule Change Panel agrees that a requirement to include unavailable capacity details in Non-Scheduled Generator Balancing Submissions would serve no purpose and impose an unnecessary administrative burden on Market Generators. The Rule Change Panel therefore proposes additional changes to the proposed Amending Rules to remove the requirement and align the drafting of clause 7A.2.4B with the version that will be implemented on 1 July 2019 by RC\_2014\_06.

The Rule Change Panel notes that the corresponding obligation in proposed clause 7A.2.4C to include the unavailable Non-Scheduled Generator capacity in Balancing Portfolio Balancing Submissions places a similar, unnecessary administrative burden on Synergy. To address this concern, the Rule Change Panel proposes:

- an additional change to clause 7A.2.4C, to restrict the unavailable capacity declaration in Balancing Portfolio Balancing Submissions to the unavailable capacity of Scheduled Generators;
- consequential changes to clause 7A.2.9(g), to reflect that Synergy would not need to modify the unavailable quantities in its Balancing Submissions to reflect the approval of a request for Opportunistic Maintenance for a Non-Scheduled Generator in the Balancing Portfolio; and
- consequential changes to clause 7A.2.9A, to apply the obligations to Scheduled Generator capacity only.

### *B.2.2.2 Deadline for approval of a Planned Outage (Issue 5)*

This Rule Change Proposal proposes changes to clause 3.19.2 to set the deadline for requesting Opportunistic Maintenance to 30 minutes before Balancing Gate Closure for the Trading Interval in which the outage is due to commence. The Rule Change Proposal also proposes a new clause 3.19.4A, which specifies that if System Management has not provided a Rule Participant with a decision on a request for approval of a Planned Outage (including a Scheduled Outage or Opportunistic Maintenance) by this time, then for the purposes of the Market Rules the request is deemed to be rejected.

The Rule Change Panel supports the proposed changes in relation to Opportunistic Maintenance. The establishment of a specific deadline for decisions on Opportunistic Maintenance requests provides certainty for Rule Participants and System Management. Additionally, the choice of 30 minutes before Balancing Gate Closure provides as much time as possible for the processing of requests while still ensuring that Market Generators have sufficient time to adjust their final Balancing Submissions to reflect the approval or rejection (as applicable) of a request. Several first period submissions supported this deadline, as did attendees at the 17 September 2018 workshop.

However, during the development of an outage planning straw man for the EMOP project, several EMOP Consultation Group members raised concerns that the deadline proposed in this Rule Change Proposal would be too late to provide certainty about whether a Scheduled Outage would proceed. Considering that Scheduled Outages can be major events that are requested up to three years in advance, can run for several months, and require complex arrangements for resourcing and bilateral cover, it may be inefficient to leave the confirmation of such outages until so late in the process.

The EMOP Consultation Group agreed that 2:00 PM on TD-2 is an appropriate deadline for approval of Scheduled Outages, as it provides a balance between the need for certainty and the flexibility benefits of a later deadline. Attendees at the 17 September 2018 supported this deadline, as did AEMO and Alinta in their further submissions.

Bluewaters and Perth Energy suggested in their further submissions that a specific time limit should be placed on AEMO to provide decisions on Scheduled Outage approval requests. Perth Energy considered that AEMO should be required to approve or reject the request by the earlier of:

- 15 Business Days after the request is submitted; and
- 2:00 PM on TD-2.

The Rule Change Panel does not support a specific time period limit for these decisions. AEMO is already required under clause 3.19.4 to make decisions on Scheduled Outage approval requests as soon as practicable, which in many cases should be well before the suggested 15 Business Day deadline. A requirement to provide a decision within a limited period after the submission of the request is therefore unlikely to increase the number of early approval decisions, and in some situations could force AEMO to reject a request that it might be able to approve later when more accurate information is available. This would reduce the efficiency and flexibility of the outage planning process.

The Rule Change Panel considers that a deadline of 2:00 PM on TD-2 provides an appropriate balance between the need for certainty and the flexibility benefits of a later deadline. The Rule Change Panel therefore proposes:

- an additional change to proposed clause 3.19.4A to set the deadline for decisions on Scheduled Outage approval requests to 2:00 PM on TD-2; and
- consequential changes to proposed clauses 7A.2.8A(b), 7A.2.9(g) and 7A.2.9A(b) to reflect that these decisions will occur well before any of the relevant Trading Intervals fall into the Balancing Horizon.

During the 17 September 2018 workshop, there was some discussion about whether any further prescription or guidance should be included in the Market Rules around the practical application of clause 3.19.4. The Rule Change Panel sought stakeholder views on this question in the CFFS. No requests or suggestions for additional prescription or guidelines

were provided in the further submissions<sup>47</sup>, and the Rule Change Panel does not consider a need has been demonstrated for additional prescription or guidelines at this time. The Rule Change Panel does not therefore propose any additional changes to clarify the application of clause 3.19.4.

#### *B.2.2.3 Representation of non-Balancing Portfolio Capacity affected by Planned Outages (Issue 6)*

The Rule Change Panel agrees with the intent of proposed clause 7A.2.8A, and specifically with the principle that if Scheduled Generator capacity is subject to an outstanding Opportunistic Maintenance request then it should be declared as unavailable in the Balancing Facility's Balancing Submissions. The Rule Change Panel notes that historically Opportunistic Maintenance requests have been approved more often than not. This means that making the capacity unavailable in the Forecast BMO earlier is likely to:

- improve transparency and the likely accuracy of Balancing Forecasts and Forecast BMOs; and
- assist System Management's assessment of the request because the Forecast BMO will reflect the impact of the outage.

Community Electricity, Perth Energy and Bluewaters supported the proposed approach in their first period submissions. ERM Power raised no concerns about the proposed approach but suggested an amendment to proposed clause 7A.2.8A to allow a Balancing Facility to return to the Balancing Market before the scheduled end time of its Planned Outage.

Attendees at the 17 September 2018 workshop raised no specific concerns about the proposed approach. However, Collgar opposed the proposed approach in its late first period submission, as it considered that the associated obligations on Market Generators to update their Balancing Submissions were unreasonable and added further complexity to an already onerous process.

The Rule Change Panel acknowledges that a Market Generator will need to update its Balancing Submissions if it decides to submit a request for Trading Intervals already within the Balancing Horizon; and will also need to update its Balancing Submissions if a request for Trading Intervals within the Balancing Horizon is rejected by System Management. However, under the alternative approach, a Market Generator would need to update its Balancing Submissions whenever a request that affected Trading Intervals already within the Balancing Horizon was approved.

Whether the proposed approach will increase or decrease a given Market Generator's administrative costs is likely to depend on when and under what circumstances it submits its Opportunistic Maintenance requests. However, the Rule Change Panel considers that any potential additional administrative costs would be minor compared with the transparency benefits of the proposed approach.

#### *B.2.2.4 Representation of Balancing Portfolio Capacity affected by Planned Outages (Issue 7)*

This Rule Change Proposal treats Balancing Portfolio capacity that is subject to an outstanding Planned Outage approval request differently to the corresponding capacity of other Balancing Facilities.

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<sup>47</sup> Apart from the suggestions made by Bluewaters and Perth Energy for the imposition of a specific time period limit for decisions on Scheduled Outage approval requests.

Under the proposed approach, Synergy must declare such capacity as available in the Balancing Submissions for the relevant Trading Intervals. If Synergy receives approval for a request later than its usual gate closure time, it is required under proposed clause 7A.2.9(g):

- to amend its Balancing Submissions for the affected Trading Intervals to make the relevant capacity unavailable; and
- to remove the capacity from its highest price Balancing Price-Quantity Pairs, leaving its lower price Balancing Price-Quantity Pairs unchanged.

The proposed approach aimed to prevent any significant changes to Synergy's Balancing Submissions (and therefore Balancing Market outcomes) occurring after Synergy's normal gate closure due to the late approval of a Planned Outage, while allowing Synergy the same time window for requesting Opportunistic Maintenance as other Market Generators.

First period submissions and attendees at the 17 September 2018 workshop generally supported the proposed approach. However, in its first period submission, System Management suggested that Synergy should also be required to resubmit Balancing Submissions as soon as it becomes aware of a Forced Outage (even after its normal gate closure time), as all other Market Generators are required to do under clause 7A.2.10. System Management considered that this would improve the accuracy of the Forecast BMO by removing any Balancing Portfolio capacity that is subject to a Forced Outage. System Management noted that, while clauses 7A.2.9(e) and 7A.2.9(f) allow Synergy to update its Balancing Submissions after gate closure in some cases to reflect Forced Outages, there is no obligation on Synergy to do so.

During the further submission period, RCP Support sought Synergy's views on System Management's suggestion. Synergy's response was that both proposed clause 7A.2.9(g) and System Management's proposal would likely impose an unnecessary burden on Synergy. In particular, Synergy would need to change its systems and roster traders outside current hours to enable these post-gate closure resubmissions, which would only reduce quantities and therefore not provide any price benefit to Synergy or the market.

The Rule Change Panel supports the proposal to declare Balancing Portfolio capacity subject to an outstanding Opportunistic Maintenance request as available in Balancing Submissions. The Rule Change Panel also agrees that a failure to remove excess capacity from the Balancing Portfolio's Balancing Submissions to reflect a Forced Outage or late approval of a Planned Outage would usually have no material effect on the Balancing Market, as the excess capacity would be well above the margin. However, on occasions where the reserve margin is low, the presence of such capacity in the BMO or a Forecast BMO has the potential to reduce transparency and distort market outcomes.

Accordingly, the Rule Change Panel proposes additional changes to clause 7A.2.9(g) to implement an alternative approach that was developed in consultation with Synergy and AEMO. Under this approach, Synergy is responsible for updating its Balancing Submissions to reflect a Forced Outage or the late approval of a Planned Outage, but is not required to make the updates unless there is a credible risk that the excess capacity will distort the operation of the Balancing Market.

Synergy already has the option (but not the obligation) to update its Balancing Submissions after its normal gate closure under clauses 7A.2.9(e) to 7A.2.9(f). Synergy may be able to update its Balancing Submissions under those clauses and take advantage of the opportunity to revise its prices, but otherwise it will be obliged to reduce the quantities as originally proposed in clause 7A.2.9(g).

### *B.2.2.5 Capacity Declared as Unavailable in Balancing Submissions (Issues 6 and 7)*

Proposed clause 7A.2A.1 states that a Market Generator must, as soon as practicable after Balancing Gate Closure for each Trading Interval, for each of its Balancing Facilities that is an Outage Facility, ensure that it has notified AEMO of a Forced Outage or Consequential Outage for any capacity declared unavailable in the Facility's Balancing Submission that:

- was not subject to an approved Planned Outage or Consequential Outage at Balancing Gate Closure for the Trading Interval; and
- is not attributable to a difference between the expected temperature at the site during the Trading Interval and the temperature at which the Sent Out Capacity of the Facility was determined.

Proposed clause 7A.2A.2 imposes corresponding obligations on Synergy in respect of the Balancing Portfolio, which take into account its different gate closure arrangements.

Under clause 4.12.1(c) of the Market Rules, a Market Generator holding Capacity Credits is obliged to make the associated capacity (excluding any capacity that is subject to an Outage) available for dispatch. For this reason, the Rule Change Panel supports the intent of proposed clauses 7A.2A.1 and 7A.2A.2 in respect of capacity for which a Market Generator holds Capacity Credits.

However, the obligation under clause 4.12.1(c) does not extend to capacity for which the Market Generator does not receive Capacity Credits. This implies that a Market Generator should be able to make such capacity unavailable in its Balancing Submissions if it chooses.<sup>48</sup>

As drafted, proposed clauses 7A.2A.1 and 7A.2A.2 require that if a Market Generator chooses to make capacity for which it does not receive Capacity Credits unavailable in its Balancing Submission, it must either request or report<sup>49</sup> a Planned Outage in advance, or report a Forced Outage after gate closure. The Rule Change Panel considers this constitutes an unwarranted and inefficient administrative burden on Market Generators.

The question of whether Market Generators should be obliged to request or report Outages in these circumstances, along with the broader question of whether AEMO should take generator capacity that is not subject to Capacity Credits into account when determining PASA reserve margins, was discussed at the 17 September 2018 workshop. Attendees agreed that both questions should be raised in the CFFS.

In their further submissions, AEMO, Alinta and Perth Energy agreed that Market Generators should not be required to request or report an Outage in these circumstances. However, Bluewaters suggested that the outage information could be useful if reserve margin calculations take capacity that is not subject to Capacity Credits into account.

The question of how PASA studies should treat this capacity is outside the scope of this Rule Change Proposal. However, for AEMO to include any such capacity in the reserve margin it would need to be confident that the Market Generator will choose to offer that capacity, given that it has no obligation to do so under normal circumstances.

Stakeholders raised no other concerns about proposed clauses 7A.2A.1 and 7A.2A.2 in submissions or other forums.

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<sup>48</sup> Note this does not affect the Market Generator's obligations to comply with directions issued by System Management in an emergency.

<sup>49</sup> As applicable, depending on whether the Outage Facility is an Equipment List Facility or a Small Outage Facility.

The Rule Change Panel proposes additional changes to clauses 7A.2A.1 and 7A.2A.2 to limit the scope of the clauses to capacity associated with Capacity Credits. The Rule Change Panel notes that these changes also account for temperature-related de-rating up to 41 degrees Celsius, because Capacity Credits are only assigned to capacity that is available up to this temperature. The Rule Change Panel therefore proposes to replace the original temperature de-rating exemptions in the proposed clauses with exemptions covering situations where the Market Generator has a reasonable expectation that the maximum site temperature for the applicable Trading Day will exceed 41 degrees Celsius.

The Rule Change Panel also proposes to amend proposed clauses 7A.2A.1(a) and 7A.2A.2(a) (now renumbered to clauses 7A.2A.1(b) and 7A.2A.2(b)) to extend the exemptions for capacity subject to approved Planned Outages and Consequential Outages to cover capacity that is subject to an approved Commissioning Test Plan. The change is to reflect that during a period covered by an approved Commissioning Test Plan the Facility is only expected to participate in the Balancing Market to the extent specified in the associated Commissioning Tests.

System Management will still need to know when generator capacity that is not subject to Capacity Credits is, or will be, genuinely 'unavailable for service' (i.e. physically unable to respond to a System Management direction in an emergency)<sup>50</sup>. This means that Market Generators will still be required to follow the normal outage processes for this capacity (e.g. to request or report a Planned Outage before undertaking maintenance on their Facilities). However, the Rule Change Panel notes that its proposed changes to clauses 7A.2A.1 and 7A.2A.2 allow such capacity to be declared unavailable for dispatch through the Balancing Market in a Balancing Submission, and still qualify as 'available for service'.

The Rule Change Panel also proposes additional changes to clause 3.19.2A to clarify that the obligation in that clause to request approval for a Scheduled Outage or Opportunistic Maintenance only applies to capacity that is being made unavailable to allow it to undergo maintenance.

#### *B.2.2.6 Re-entry to Balancing Market after Planned Outage Recall or Late Rejection (Issues 6 and 7)*

On rare occasions, System Management may reject a previously approved Planned Outage under clause 3.19.5 shortly before it is due to commence. Proposed clause 7A.2.9B requires a Market Generator in this situation to update its Balancing Submission for any Trading Intervals in the Balancing Horizon for which Balancing Gate Closure has not yet occurred, to make the relevant capacity available for dispatch. The proposed obligation applies to all Scheduled Generators and Non-Scheduled Generators, including those in the Balancing Portfolio.

If a rejection occurs late enough, the Market Generator may not be able to update its Balancing Submissions in time for the capacity to be available in the BMO for the first Trading Interval(s) of the rejected outage period. To ensure that Market Generators are not unduly penalised, proposed clause 7A.2A.3 provides an exemption from the requirements of proposed clauses 7A.2A.1 and 7A.2A.2 in these situations.

Figure B.1 provides an example of the proposed arrangements for a non-Synergy Balancing Facility. In this example, System Management rejects a Planned Outage at 9:15 AM that is due to start at 11:00 AM. When this occurs:

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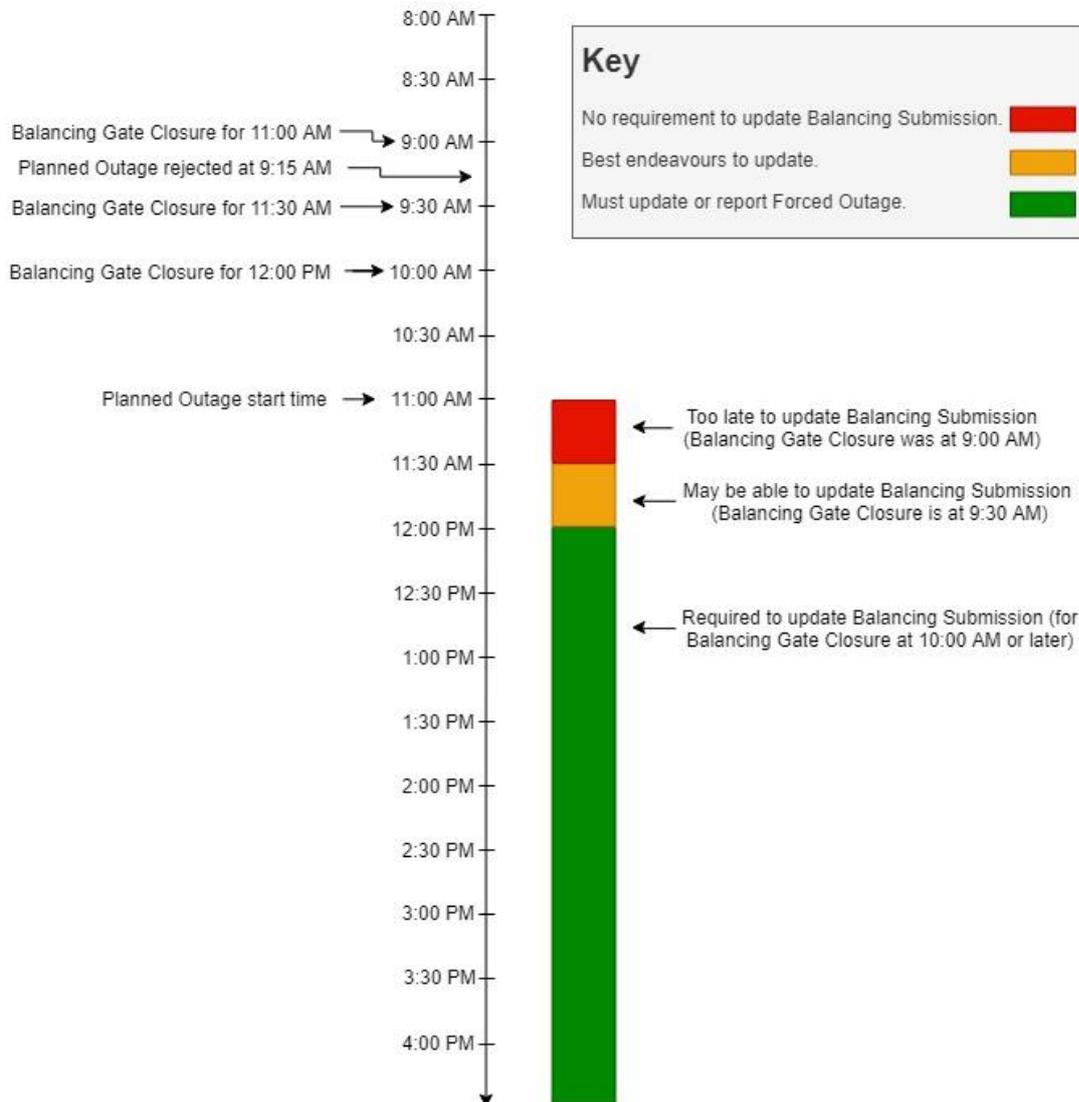
<sup>50</sup> See Appendix B.3.3.2 of this report for further discussion of the concept of 'unavailable for service'.

- It is too late for the Market Generator to update its Balancing Submission for the 11:00 AM Trading Interval<sup>51</sup>, because Balancing Gate Closure for this Trading Interval (9:00 AM) has already passed. The Market Generator is not required to log a Forced Outage under proposed clause 7A.2A.1, because at 9:00 AM the relevant 'unavailable capacity' was still subject to an approved Planned Outage.
- If it can respond fast enough, the Market Generator may be able to update its Balancing Submission for the 11:30 AM Trading Interval by Balancing Gate Closure (9:30 AM). The Market Generator is not penalised if it fails to update its Balancing Submission by this time, because under clause 7A.2A.3, the requirement to report a Forced Outage does not apply if the Planned Outage was rejected less than 30 minutes before Balancing Gate Closure. In this example the Planned Outage was rejected only 15 minutes before the 9:30 AM Balancing Gate Closure for the 11:30 AM Trading Interval.
- The Market Generator is required to update its Balancing Submission for the 12:00 PM Trading Interval (and later Trading Intervals) or report a Forced Outage under proposed clause 7A.2A.1. The exemption under clause 7A.2A.3 does not apply to the 12:00 PM Trading Interval, because the Planned Outage was rejected more than 30 minutes before Balancing Gate Closure (i.e. 45 minutes before the 10:00 AM Balancing Gate Closure for the 12:00 PM Trading Interval).

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<sup>51</sup> In the Draft Rule Change Report (and this report) a Trading Interval is identified by its start time (e.g. the 11:00 AM Trading Interval starts at 11:00 AM and ends at 11:30 AM).

**Figure B.1: Late rejection of a Planned Outage – Rule Change Proposal**



The IMO proposed a similar approach where a Market Generator is directed by System Management to return capacity to service early from a Planned Outage under clause 3.20.1. Proposed clause 7A.2.9C requires the Market Generator to update its Balancing Submission for any relevant Trading Intervals in the Balancing Horizon for which Balancing Gate Closure has not yet occurred, to reflect the impact of System Management’s direction on the proposed end time of the Planned Outage.

The Rule Change Panel supports the intent of the clauses to clarify Market Generator obligations in these situations and to ensure that required capacity is returned to the Balancing Market as soon as practicable. Stakeholders raised no concerns about the clauses in first period submissions or in other forums.

**Return of capacity to the Balancing Market after Balancing Gate Closure**

During the 17 September 2018 workshop, attendees discussed whether System Management should be allowed, in the event of a late rejection or recall of an approved Planned Outage, to direct the Market Generator to return the relevant capacity to the

Balancing Market as soon as practicable, even if this is after Balancing Gate Closure. Attendees expressed general support for this concept.

The Rule Change Panel subsequently sought stakeholder views on the concept in the CFFS. While AEMO, Alinta and Bluewaters remained generally supportive of the concept (subject to various refinements), Perth Energy was strongly opposed, considering that the benefits of the suggested change would be outweighed by its costs.

On 23 January 2019, RCP Support met with Perth Energy to discuss its concerns in more detail. Perth Energy explained that it had recently made changes to its IT systems to ensure it does not inadvertently submit late Balancing Submissions that do not comply with the Market Rules. A new requirement to provide Balancing Submission updates after Balancing Gate Closure, following the late rejection of a Planned Outage or the recall of a Balancing Facility on a Planned Outage, would impose significant additional IT costs on Perth Energy.

The Rule Change Panel has reassessed the potential benefits of the change in response to Perth Energy's concerns. The Rule Change Panel notes that in the emergency situations under consideration, System Management can direct a Market Generator to provide capacity even if that capacity is not in the BMO. If the Market Generator can comply, then it will receive the Balancing Price for any energy it produces. Although the Market Generator is not eligible for constrained on compensation until the capacity is returned to the BMO, the Balancing Price is likely to be high enough in these cases to provide a reasonable level of compensation for the short period in question.

In addition, the Rule Change Panel agrees with Perth Energy that these situations are unlikely to occur often (or even at all) before October 2022, when material changes to the gate closure rules and Market Participant systems are anticipated.

For these reasons, the Rule Change Panel agrees with Perth Energy that the costs of the suggested change outweigh the potential benefits at this time.

### **Additional issues with the late return of capacity to the Balancing Market**

The Rule Change Panel considers that proposed section 7A.2A does not account for the following situations:

- If a slower-starting Balancing Facility is unsynchronised at the time of a late Planned Outage rejection, it may not be possible to make it available for service in the time frames contemplated by proposed clauses 7A.2.9B and 7A.2A.3.

If the Market Generator makes capacity available in its Balancing Submission for a Trading Interval in which it will not be available, and the capacity is then dispatched in merit (which is quite feasible in the circumstances), the Market Generator will be unable to comply with its Dispatch Instruction and therefore required to report a Forced Outage.

Figure B.2 provides an example of this problem. As in Figure B.1, System Management rejects a Planned Outage at 9:15 AM that is due to start at 11:00 AM. However, in this case the Balancing Facility is unsynchronised at 9:15 AM and has a 4-hour start-up time.

Under proposed clauses 7A.2.9B, 7A.2A.1 and 7A.2A.3, the Market Generator is expected to update its Balancing Submissions for the 12:00 PM Trading Interval and later Trading Intervals because the Planned Outage was rejected 30 minutes or more before Balancing Gate Closure for those Trading Intervals (e.g. the Balancing Gate Closure for the 12:00 PM Trading Interval is 10:00 AM, 45 minutes after the rejection). However, even if the Balancing Facility begins its start-up process immediately at

9:15 AM, it will not be ready to synchronise until 1:15 PM (i.e. it cannot be available for service until the 1:30 PM Trading Interval). Under the Rule Change Proposal drafting:

- if the Market Generator fails to update its Balancing Submissions for the Trading Intervals in the period between 12:00 PM and 13:30 PM, it is required to report a Forced Outage under clause 7A.2A.1; and
- if the Market Generator updates its Balancing Submissions for that period and is then dispatched in merit, it will be unable to comply with its Dispatch Instruction and will therefore be required to report a Forced Outage.

The Rule Change Panel does not consider it reasonable for a Market Generator to be exposed to such a risk through no fault of its own.

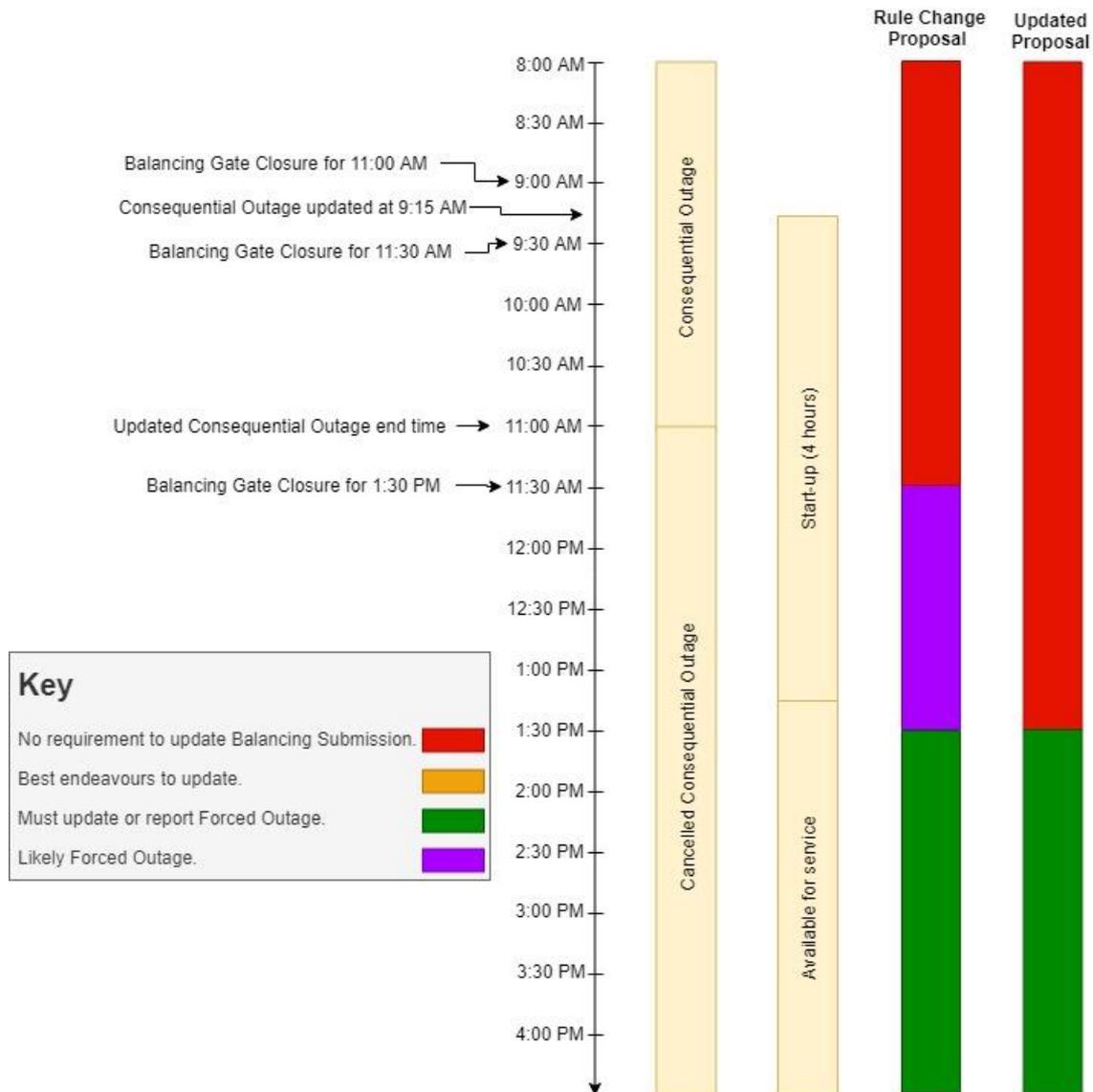
**Figure B.2: Late rejection of a Planned Outage – Balancing Facility with a 4-hour start-up time**



- System Management may need to reject or cancel a Consequential Outage or Commissioning Test Plan at a time that falls before gate closure but is still too late to return the capacity to the Balancing Market for one or more of the affected Trading Intervals (due to gate closure or start-up time limitations). Proposed clauses 7A.2A.1 and 7A.2A.2 would require the Market Generator to report a Forced Outage in this situation.

Figure B.3 provides an example of this problem. A Balancing Facility is undergoing a Consequential Outage and the Market Generator has declared its capacity as unavailable in its Balancing Submissions for the Trading Day. At 9:15 AM the Market Generator is notified that the associated network outage (and therefore the Consequential Outage) will end at 11:00 AM.<sup>52</sup> The Market Generator has a 4-hour start-up time.

**Figure B.3: Early termination of a Consequential Outage**



The Market Generator does not need to have updated its Balancing Submission for the 11:00 AM Trading Interval because the capacity was subject to an approved Consequential Outage for the Trading Interval at the time of Balancing Gate Closure (9:00 AM). However, if the Market Generator does not update its Balancing Submission for any of the remaining Trading Intervals in the Trading Day, then it will need to log a Forced Outage for those Trading Intervals, because at the time of Balancing Gate

<sup>52</sup> The Rule Change Panel notes that this specific scenario is presented to illustrate the rule issue and is very unlikely to occur. The Rule Change Panel is considering the management of late changes affecting Consequential Outages as part of its assessment of RC\_2014\_03.

Closure for those Trading Intervals (e.g. 9:30 AM for the 11:30 AM Trading Interval) the Consequential Outage will no longer apply to them.

However, as in the example in Figure B.2, the Balancing Facility cannot be available for service until the 1:30 PM Trading Interval, due to its 4-hour start-up time. This means that the Balancing Facility will be exposed to Forced Outages for the period between 11:30 AM and 1:30 PM, through no fault of its own.

Even if the Balancing Facility could synchronise within Balancing Gate Closure, the Market Generator may find it challenging to update its Balancing Submission for the 11:30 AM Trading Interval before its Balancing Gate Closure (9:30 AM).

- A Market Generator that withdraws an approved Planned Outage after the relevant gate closure time for one or more Trading Intervals in the outage period, can leave the capacity unavailable in its Balancing Submission(s) for the Trading Interval(s) without any obligation under proposed clauses 7A.2A.1 or 7A.2A.2 to report a Forced Outage.

**Figure B.4: Late withdrawal of a Planned Outage**



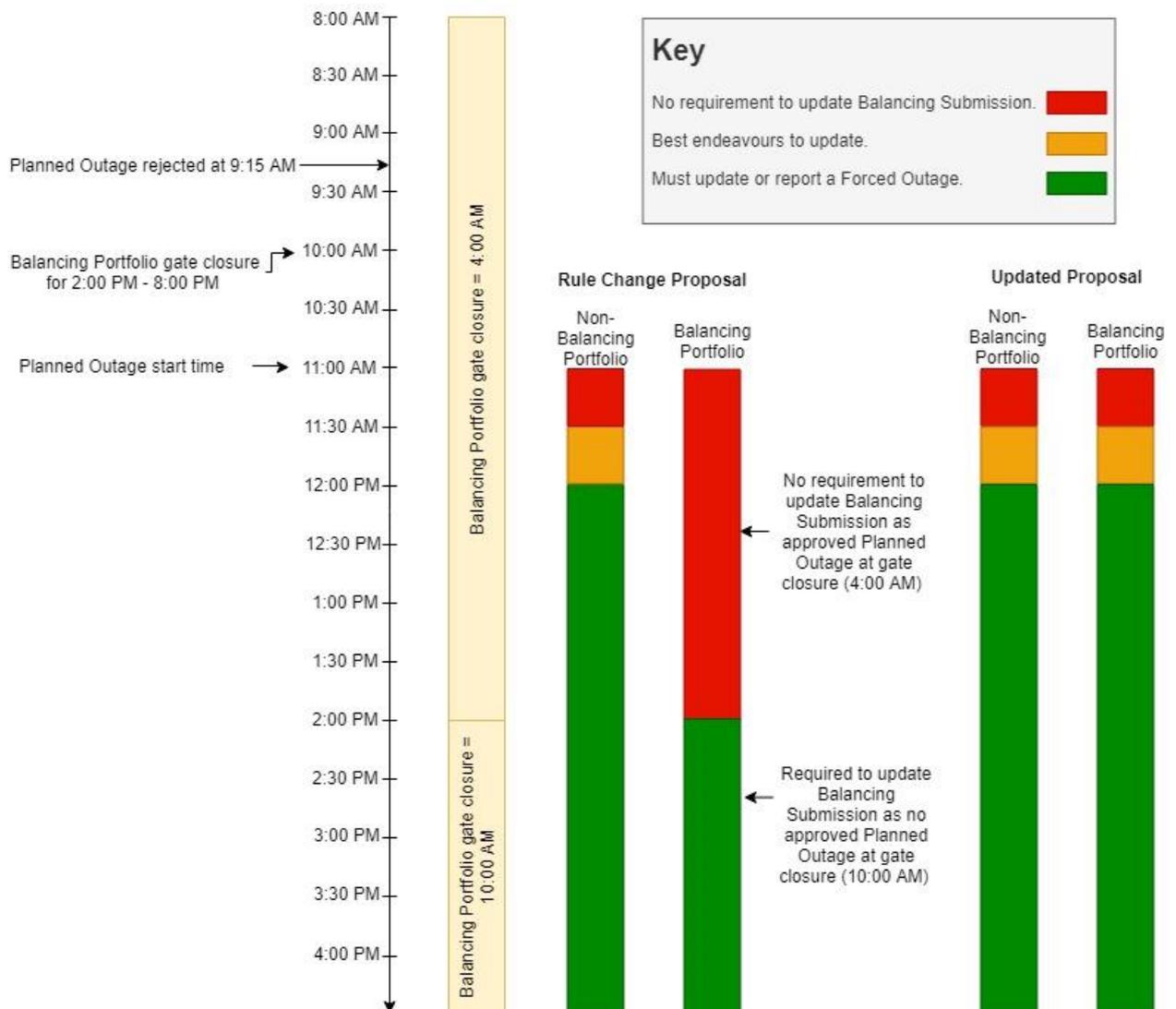
Figure B.4 provides an example of this problem. In this example, a Market Generator cancels an approved Planned Outage at 9:45 AM that is due to start at 11:00 AM. The Market Generator has no requirement under clause 7A.2A.1 to update its Balancing

Submissions for the 11:00 AM and 11:30 AM Trading Intervals, because at the time of Balancing Gate Closure for these Trading Intervals (9:00 AM and 9:30 AM respectively) the capacity was still subject to a Planned Outage for those Trading Intervals. Note that the Market Generator is required to update its Balancing Submissions for the remaining Trading Intervals, because at the time of Balancing Gate Closure for those Trading Intervals (e.g. 10:00 AM for the 12:00 PM Trading Interval) those Trading Intervals are no longer subject to a Planned Outage.

- System Management might reject a previously approved Planned Outage for a Balancing Portfolio Facility between the clause 7A.2.9(d) gate closure time for an affected Trading Interval and Balancing Gate Closure for that Trading Interval. If Synergy can make the capacity available in its Balancing Submission under proposed clause 7A.2.9B but does not do so, it is not required to report a Forced Outage under proposed clause 7A.2A.2.

Figure B.5 provides an example of this problem. As in Figures B.1 and B.2, System Management rejects a Planned Outage at 9:15 AM that is due to start at 11:00 AM. However, in this case the Balancing Facility is a fast-starting Facility in the Balancing Portfolio.

**Figure B.5: Late rejection of a Planned Outage for a Balancing Portfolio Facility**



Clause 7A.2.9B requires Synergy to update its Balancing Submissions for the same Trading Intervals as any other Market Generator. However, the consequences of Synergy failing to do so are different. This is because the tests in clause 7A.2A.2 are based on Synergy's default gate closure times (i.e. the latest time specified in clause 7A.2.9(d)), which are 4:00 AM for Trading Intervals in the period from 8:00 AM to 2:00 PM, and 10:00 AM for Trading Intervals in the period from 2:00 PM to 8:00 PM.

At 4:00 AM, the Trading Intervals in the period between 11:00 AM and 2:00 PM are still subject to an approved Planned Outage, so Synergy has no obligation to report a Forced Outage for these Trading Intervals. Synergy is only obliged to report a Forced Outage for failing to update its Balancing Submissions for the 2:00 PM Trading Interval and later Trading Intervals (i.e. because the Planned Outage is rejected before the 10:00 AM gate closure time for these Trading Intervals).

To address these concerns, the Rule Change Panel proposes the following additional changes to the proposed Amending Rules:

- changes to proposed clauses 7A.2.9B and 7A.2A.3 to account for the delayed return to the Balancing Market of unsynchronised Balancing Facilities with longer start-up times;
- changes to proposed clauses 7A.2A.1 and 7A.2A.2 to base the tests in those clauses on the situation during the Trading Interval rather than at the relevant gate closure time;
- inclusion of new clause 7A.2A.4 to specify exemptions from clauses 7A.2A.1 and 7A.2A.2 for late cancellations/rejections of Commissioning Test Plans and Consequential Outages, which take the relevant gate closure and start-up time restrictions into account; and
- changes to proposed clause 7A.2A.3 to base the exemption on the Balancing Gate Closure time for a Trading Interval for all Facilities, including those in the Balancing Portfolio, to reflect the obligation under clause 7A.2.9B.

The changes would have the following effect:

- in the examples in Figures B.2 and B.3, the Market Generator would not need to update its Balancing Submissions for the Trading Intervals that start before 1:30 PM;
- in the example in Figure B.4, the Market Generator would be required to report a Forced Outage for the 11:00 AM and 11:30 AM Trading Intervals; and
- in the example in Figure B.5, Synergy would be subject to the same obligations to update its Balancing Submissions as any other Market Generator.

The Rule Change Panel has not yet publicly consulted with stakeholders on these changes.

### **B.2.3 Timelines for Planned Outages**

This Rule Change Proposal includes several changes that clarify the timing requirements for Planned Outage requests and improve flexibility by removing unnecessary timing restrictions on Opportunistic Maintenance requests.

#### ***B.2.3.1 Market Generators' alternative outage planning mechanism***

While stakeholders generally agreed that the proposed outage planning changes would provide a material benefit, Alinta, Bluewaters, ERM Power and Synergy met with the IMO during the first submission period to propose an alternative outage planning mechanism. The Market Generators later provided several slightly different versions of this proposed alternative mechanism in their first period submissions on this Rule Change Proposal.

The common and central element of these alternative outage planning mechanisms was an allowance for longer Opportunistic Maintenance outages that could lead directly into a 'pre-accepted' Scheduled Outage, without any gap between the two outages. The Market Generators considered this would provide maximum flexibility when compared to the IMO's proposal, which they considered was overly focussed on preventing Market Generators from hiding Forced Outages.

The alternative mechanisms assume the use of a pre-accepted Scheduled Outage, an option no longer permitted by System Management because it does not comply with the Market Rules. The intent appears to be that the approval requests for the two outages are submitted at about the same time.

The Rule Change Panel considers that allowing an Opportunistic Maintenance outage to continue until a Scheduled Outage is approved and commences is effectively the same as reducing the deadline for a Scheduled Outage request to a few hours before the start of the outage. The Rule Change Panel acknowledges that this option allows Rule Participants greater flexibility, but also considers that it:

- significantly reduces the amount of notice provided to the market of longer Planned Outages, which reduces transparency and makes it more difficult, if not impossible, for other Rule Participants to respond in an efficient manner;
- reduces the incentive for Rule Participants to forward plan their outages and appropriately manage the balance between their maintenance costs and their market obligations; and
- increases the ability of Rule Participants to hide Forced Outages, by allowing Opportunistic Maintenance (which has a relatively short request/approval timeframe) to lead directly into a Scheduled Outage without any gap.

Bluewaters' submission suggested changing the deadline for Opportunistic Maintenance requests to six hours before the start of the outage, to address concerns about Market Generators using these requests to hide Forced Outages. The Rule Change Panel agrees this change would, in some circumstances, make it harder for Market Generators to hide a Forced Outage; but notes that it would not address the other problems listed above, and would reduce the time window for Opportunistic Maintenance requests (reducing flexibility).

Overall, the Rule Change Panel does not support the alternative mechanisms proposed by Alinta, Bluewaters, ERM Power and Synergy in their first period submissions, as it considers the disadvantages of the alternative mechanisms outweigh their potential flexibility benefits.

#### *B.2.3.2 Clarification of deadline for Scheduled Outage approval requests (Issue 8)*

This Rule Change Proposal proposes to amend clause 3.19.1 to clarify that approval of a Scheduled Outage must be requested no later than 10:00 AM on TD-2. While the Market Rules do not currently specify an exact deadline for these requests, the proposed deadline is consistent with current practice.

The first period submissions of Community Electricity, Perth Energy and Western Power supported the specification of this deadline in clause 3.19.1; as did attendees at the 17 September 2018 workshop. No concerns were raised in further submissions regarding the proposed deadline.

The Rule Change Panel supports the proposed amendment, because:

- 10:00 AM on TD-2 is an appropriate deadline for Scheduled Outage approval requests that is generally supported by stakeholders; and
- specifying the deadline in the Market Rules will provide greater clarity to Rule Participants on their outage scheduling obligations.

#### *B.2.3.3 Prohibition on Opportunistic Maintenance Outages spanning two Trading Days (Issue 9)*

This Rule Change Proposal proposes to amend clause 3.19.2 to allow Opportunistic Maintenance requests to be for any period up to 24 hours in length. The Rule Change Panel supports this amendment, as it agrees with the IMO that there is no reason to require an Opportunistic Maintenance outage to take place within a single Trading Day.

First period submissions generally supported the removal of the single Trading Day restriction, although (as discussed in Appendix B.2.3.1) some submitters considered the maximum outage period should be longer than 24 hours.

Stakeholders raised no concerns about the proposed change at the 17 September 2018 workshop or in further submissions.

#### *B.2.3.4 Restrictions on the timeframes for making Opportunistic Maintenance requests (Issue 10)*

Currently an Opportunistic Maintenance request cannot be made between 10:00 AM on the Scheduling Day and the start of the Trading Day. This Rule Change Proposal proposes to amend clause 3.19.2 to allow a Rule Participant to submit an Opportunistic Maintenance request at any time between:

- the proposed deadline for Scheduled Outage approval requests (i.e. 10:00 AM on TD-2); and
- the proposed deadline for System Management's decisions on Opportunistic Maintenance requests (i.e. 30 minutes before Balancing Gate Closure for the Trading Interval in which the requested outage is due to commence).

The proposed change was generally supported in first period submissions and at the 17 September 2018 workshop. No concerns were raised about the proposed change in further submissions.

The Rule Change Panel supports the proposed amendments, as it agrees with the IMO that the current submission restrictions are unnecessary and removing them would improve the efficiency of the outage planning process.

#### *B.2.3.5 Restrictions on the timeframes for making consecutive Opportunistic Maintenance requests (Issue 11)*

This Rule Change Proposal proposes to amend clause 3.19.3A(b) to require a 24-hour period to elapse between the end of one Opportunistic Maintenance outage for an Equipment List Facility and the start of the next. The proposed requirement replaces the current requirement in clause 3.19.3A(b) that System Management must not approve Opportunistic Maintenance for an Equipment List Facility "on two consecutive Trading Days".

The proposed amendment was supported in some first period submissions, but opposed by the Market Generators who suggested the alternative outage planning mechanism discussed in Appendix B.2.3.1.

Stakeholders raised no concerns about the proposed requirement at the 17 September 2018 workshop or in further submissions. However, AEMO suggested that the obligation should be on the Rule Participant to ensure its Opportunistic Maintenance requests were compliant, rather than on System Management to reject non-compliant requests.

The Rule Change Panel supports the intent of the proposed amendment, because allowing Rule Participants to undertake multiple Opportunistic Maintenance outages consecutively or in rapid succession could cause similar problems to those identified in Appendix B.2.3.1.

However, the Rule Change Panel agrees with AEMO that it would be more practical and more consistent with the treatment of related requirements (such as the requirement that the duration of the outage does not exceed 24 hours) if the obligation was placed on the Rule Participant. The Rule Change Panel therefore proposes additional changes to remove the requirement from proposed clause 3.19.3A(b) and include it as an additional requirement on the Rule Participant in clause 3.19.2(b).

#### ***B.2.3.6 Notification timelines for Small Outage Facilities (Issue 12)***

This Rule Change Proposal proposes to amend clause 3.18.2A to align the notification deadlines for Planned Outages of Small Outage Facilities with the approval request deadlines for Planned Outages of corresponding duration of Equipment List Facilities. The proposed amendments to clause 3.18.2A also clarify that a Market Participant must notify System Management if the timing of the outage changes or the outage is no longer required.

Community Electricity, Perth Energy and Bluewaters supported the proposed amendments in their first period submissions. Stakeholders raised no concerns about the amendments at the 17 September 2018 workshop or in further submissions.

The Rule Change Panel also supports the proposed amendments, as it considers the current deadline for reporting these outages (not less than 2 Business Days prior to their commencement) is unnecessarily restrictive. The proposed deadlines will provide Market Participants with Small Outage Facilities greater flexibility in their outage planning, while ensuring that System Management is still provided with the relevant information by the time it would be needed to inform System Management's final assessment and approval of Planned Outage requests for Equipment List Facilities.

#### **B.2.4 Criteria for Approval of Planned Outages**

The Rule Change Panel supports the general intent of the changes proposed by the IMO to address Issue 13 of this Rule Change Proposal (Availability declarations for Planned Outage approval requests).

However, the Rule Change Panel has proposed some additional changes to the proposed Amending Rules, to address several issues that affect the proposed availability declaration arrangements. These issues are discussed in the remainder of this Appendix B.2.4, and include:

- three issues identified by the Rule Change Panel that, if not addressed, might prevent the availability declaration-related changes in this Rule Change Proposal from achieving their original intent (Appendices B.2.4.1 to B.2.4.3);

- three concerns raised by stakeholders about the proposed availability declaration requirements in first period submissions and in more recent discussions (Appendices B.2.4.4 to B.2.4.6);
- one additional issue identified by the Rule Change Panel regarding the need for additional safeguards against the abuse of the new availability declaration arrangements (Appendix B.2.4.7); and
- the question of the extent to which the availability declaration provisions should apply to Equipment List Facilities other than Scheduled Generators and Non-Scheduled Generators, and in particular to items of Network equipment (Appendix B.2.4.8).

#### *B.2.4.1 Interpretation of 'removal from service'*

Based on its interpretation of the Bluewaters decision, AEMO has advised stakeholders that for a Market Generator's Outage Plan or Opportunistic Maintenance request to be valid, and therefore capable of being approved, the Market Generator must have reasonable grounds to expect the Facility will be available for dispatch, or capable of being put into that state, immediately prior to the commencement of the proposed outage.

The current version of the PSOP: Facility Outages, which commenced on 7 January 2019, reflects this position.

To ensure its compliance with the Market Rules, System Management applies this test when:

- assessing Outage Plans under clause 3.18.11;
- reassessing Outage Plans under clause 3.18.13;
- approving Scheduled Outages or Opportunistic Maintenance requests; and
- deciding whether to reject previously approved Planned Outages after a change in power system conditions, as contemplated in clause 3.19.5.

The requirement for Facilities to always satisfy this test is inconsistent with the intent of this Rule Change Proposal to facilitate extensions of Scheduled Outages that overrun their original timeframe by relaxing the availability requirement for a Planned Outage that immediately follows a Scheduled Outage.

Additionally, the need to reapply the test after the approval of a Planned Outage if power system conditions change is inconsistent with the intent of this Rule Change Proposal to provide Rule Participants with as much certainty as possible that their Planned Outages will proceed, once approved.

The Rule Change Panel therefore proposes additional changes to proposed clauses 3.18.2A(b), 3.18.2A(f), 3.18.4A, 3.18.7, 3.18.8, 3.18.9 and 3.19.2A to remove any implication that an Outage Facility must be available for service immediately prior to the start of a Planned Outage.

The need to address this issue was discussed at the 7 November 2018 workshop, where attendees were generally supportive of the proposed clarifications. The proposed changes were also discussed in the CFFS. While the Rule Change Panel did not explicitly seek feedback on this specific issue, Alinta strongly supported the changes in its further submission.

#### *B.2.4.2 Obligations to notify System Management of changes to Planned Outage Details*

Currently, the Market Rules only require Rule Participants to update System Management about changes affecting a submitted Outage Plan in the following circumstances:

- where the Rule Participant no longer plans to remove from service, or de-rate, the relevant Facility or item of equipment for maintenance, it must inform System Management as soon as practicable (clause 3.18.8); and
- where the Rule Participant intends to remove from service, or de-rate, the relevant Facility or item of equipment for maintenance at a different time than indicated in the Outage Plan, it must submit a revised Outage Plan to System Management as soon as practicable (clause 3.18.9).

No update obligations of any kind are specified for Opportunistic Maintenance requests or reported Planned Outages of Small Outage Facilities.

This Rule Change Proposal proposes to mirror the existing update obligations for Planned Outages of Small Outage Facilities (in proposed clauses 3.18.2A(f) and 3.18.2A(g)), but does not propose any further obligations for either Equipment List Facilities or Small Outage Facilities.

The lack of an explicit requirement for Rule Participants to notify System Management of changes affecting their outage requests may compromise System Management's ability to manage the power system, for example if it does not have accurate information about the quantity of de-rating or recall time for a Planned Outage. The Rule Change Proposal in its current form may increase this problem by removing the requirement for Rule Participants to withdraw their outage requests in some situations.

The Rule Change Panel therefore proposes additional changes to place a clear obligation on Rule Participants to update their Planned Outage request details (or notification details for Small Outage Facilities) to reflect any relevant changes to the proposed Planned Outage. These include changes to proposed clauses 3.18.2A(g) and 3.18.9, and the inclusion of new clauses 3.19.2C and 3.19.2D.<sup>53</sup>

The Rule Change Panel also proposes additional changes to proposed clause 3.18.8 to explicitly require a Rule Participant that no longer wishes to undertake a Scheduled Outage to withdraw its Outage Plan, not just "inform System Management".

The proposed additional changes were discussed at the 7 November 2018 workshop and in the CFFS. Attendees at the workshop were generally supportive of the proposed changes, and no concerns were raised in further submissions.

#### *B.2.4.3 Implications of Outage Plan changes*

The Market Rules are unclear about when a revised Outage Plan should be treated as a new Outage Plan for the purposes of assessment and prioritisation.

Clause 3.18.14 specifies the criteria System Management must use when deciding which of multiple incompatible Outage Plans it should reject. Subject to the Outage Plan evaluation criteria in clause 3.18.11, clause 3.18.14(b) requires System Management to give priority to previously scheduled Outage Plans in the order in which they were entered in the outage schedule. For the purposes of this clause, an Outage Plan in the schedule that was revised

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<sup>53</sup> Note that while the Rule Change Proposal included proposed clauses 3.19.2C and 3.19.2D, the Rule Change Panel has replaced proposed clause 3.19.2C with new clauses 3.18.8B (for Scheduled Outages) and 3.19.2F (for Opportunistic Maintenance), and renumbered proposed clause 3.19.2D to 3.19.2G.

in accordance with clause 3.18.9 (i.e. to specify a different time for the outage) is considered to have been entered into the schedule on the date the most recent revision of the Outage Plan was submitted under that clause.

This means that, for the purposes of prioritisation, any changes to the proposed outage times in an Outage Plan will result in that Outage Plan losing its position in the implicit outage schedule queue, so it will effectively become a new Outage Plan. While this treatment may be appropriate for timing changes that shift the outage period outside of its existing boundaries, it appears unnecessary and inappropriate for changes that reduce the duration of the outage, while remaining within the existing outage period boundaries.

The Market Rules are silent on how changes to the details of an Opportunistic Maintenance request should affect its priority, consistent with the lack of any explicit requirement to report such changes to System Management.

The intent of this Rule Change Proposal is that the status of an approved outage request should not be affected by later changes that alter the relevant capacity's availability for dispatch. For this reason, it is necessary to clearly specify what types of revision to an outage request should be treated as the creation of a new outage request and so be subject to the same availability declaration requirements as other new outage requests.

Attendees at the 7 November 2018 workshop discussed a proposal to limit the changes that would effectively create a new outage request to:

- changes to the timing of the outage that shift the outage period beyond its previous boundaries (i.e. so that the outage either starts earlier or ends later than previously); and
- a material increase in the quantity of de-rating.

In the CFFS, the Rule Change Panel sought feedback from stakeholders on what other changes to an outage request (in addition to the two listed above) should cause the request to be treated as a new request.

Stakeholders did not identify any other changes to an outage request that should be treated in this way at the 7 November 2018 workshop or in further submissions. However, stakeholders raised two concerns with the proposed changes:

- In its further submission, Alinta suggested that outage request changes should be considered as new outage requests only where they would affect AEMO's ability to maintain system adequacy. Alternatively, Alinta suggested that minor changes to previous boundaries (such as outage start and end times) may need to be allowed to avoid perverse consequences. The latter suggestion was similar to that proposed by Ms Ng of ERM Power at the 7 November 2018 workshop.
- In its further submission, Bluewaters noted that a quantitative measure of "material increase" would help to remove uncertainty surrounding changes to outage requests.

After further reflection, the Rule Change Panel considers that a change to the outage period or quantity of de-rating in an outage request would be 'material' in this context if it resulted in a scheduling conflict. However, scheduling conflicts may not manifest themselves until well after the submission of a revised outage request (e.g. if the Forced Outage of another Outage Facility causes a group of previously accepted Outage Plans to no longer be acceptable). This means that an obligation to determine the priority of outage requests using the materiality of prior changes to these parameters would require a continual reassessment process that would reduce certainty for Rule Participants and impose an impractical administrative burden on System Management.

The CFFS noted that minor changes to outage quantities might need to be allowed to avoid perverse consequences, for example where a major Scheduled Outage of a Market Generator loses its priority in the outage schedule because of a small change to its Maximum Sent Out Capacity after the acceptance of the Outage Plan. However, after further discussion with AEMO, the Rule Change Panel has concluded that the likelihood of such events is sufficiently low as to not warrant the issues that a requirement to determine the materiality of outage quantity increases would create.

The Rule Change Panel considers that the priority assigned to an Outage Plan in the outage schedule should only apply to the outage period and quantity of de-rating that was specified in that Outage Plan.

For example, the Rule Change Panel considers that a Market Generator with a Scheduled Outage for one outage period should not be able to extend that outage period at the expense of another Market Generator's Scheduled Outage (with an outage period that overlaps the proposed extension period), simply because System Management accepted the Outage Plan for the first Scheduled Outage before the Outage Plan for the second Scheduled Outage. In other words, the Market Generator should be required to 'join the queue' to take a Scheduled Outage during the extension period, to avoid perverse and inequitable outcomes.<sup>54</sup>

The Rule Change Panel therefore proposes additional changes to proposed clause 3.18.9 and the inclusion of new clause 3.18.9A to clarify that a revised Outage Plan will be deemed a new Outage Plan if the revisions include:

- a new start time for the proposed outage that is earlier than the previous proposed start time;
- a new end time for the proposed outage that is later than the previous proposed end time; or
- any increase in the quantity of de-rating.

The Rule Change Panel proposes new clauses 3.18.2A(h) and 3.19.2E to provide a similar clarification for notifications for Small Outage Facilities and Opportunistic Maintenance requests. The proposed criteria vary from those discussed in the CFFS in that they include all increases in quantities of de-rating, not just 'material' increases.

The Rule Change Panel also proposes to remove the second sentence from clause 3.18.14(b),<sup>55</sup> because new clause 3.18.9A will specify which revisions to an Outage Plan should constitute a new Outage Plan.

#### *B.2.4.4 Nature of the availability declaration requirement*

Proposed clause 3.19.2B specifies that:

*a Market Participant must not request approval of a proposed Planned Outage for a Scheduled Generator or Non-Scheduled Generator under clauses 3.19.1 or 3.19.2 if the Market Generator does not expect in good faith that, if System Management rejected the request, the capacity to which the request applies would be available for dispatch for the duration of the proposed Planned Outage.*

<sup>54</sup> The Rule Change Panel notes that System Management may override the outage schedule queue at any time, if this is necessary to maintain power system security and reliability.

<sup>55</sup> "For the purposes of this clause an Outage Plan which has been entered into the outage schedule and has subsequently been revised in accordance with clause 3.18.9 is considered to have been entered into the schedule on the date the most recent revision of the Outage Plan was submitted under that clause."

Several Market Generators have expressed concerns that the proposed obligation may be too onerous and lead to perverse outcomes.<sup>56</sup> This is because:

- it may be impractical for a Market Generator to make a good faith declaration that its Facility will meet the availability requirement for a period that may be months or even years in advance; and
- a Market Generator that seeks a Planned Outage to investigate a potential issue and, if necessary, to take corrective action, is acting efficiently and to the benefit of the market but may not be able to make the proposed availability declaration because of the possibility that the issue may be serious enough to cause a Forced Outage if left unattended.

To mitigate these concerns, the Rule Change Panel proposes to change the availability declaration requirement in clause 3.19.2B to require that a Market Generator must not request approval if:

*it is aware or ought to be aware in the circumstances that, if System Management rejected the request, any of the capacity or capability to which the request applies would be unavailable for service for any part of the relevant outage period.*

The revised wording removes the requirement for a Market Generator not to request approval of a proposed Planned Outage based on its 'expectation'; and replaces it with a requirement not to request approval based on its 'knowledge' of a circumstance.

The Rule Change Panel also proposes additional changes to proposed clause 3.18.2A, to align the requirement for Small Outage Facilities and move it from clause 3.18.2A(h) to 3.18.2A(b).

The proposed drafting of the requirement includes several refinements to the version presented at the 7 November 2018 workshop and in the CFFS.<sup>57</sup> These include:

- *or ought to be aware in the circumstances*: this has been included to address concerns with 'wilful blindness' (i.e. disingenuous claims by a Market Generator that it was unaware its proposed Planned Outage could not meet the availability requirement). The intent is that a Market Generator could still be determined to have not complied with the requirement, if it could be clearly demonstrated that the Market Generator ought to have been aware in the circumstances (e.g. given an overt scenario like an explosion).
- *capacity or capability*: the words 'or capability' have been added at AEMO's suggestion to reflect that some Equipment List Facilities (including network equipment and providers of Ancillary Services under Ancillary Service Contracts) provide services that are not 'capacity' in the RCM sense.
- *unavailable for service*: this term has replaced the term 'unavailable for dispatch' for two reasons:
  - to reflect that the services provided by Equipment List Facilities are not all centrally 'dispatched' through a mechanism like the Balancing Market; and
  - to help distinguish between Balancing Facility capacity that is unavailable for service (i.e. physically unable to respond to a System Management direction in an

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<sup>56</sup> Most recently during the workshop held by AEMO on 26 June 2018 to discuss outage issues.

<sup>57</sup> "...if it is aware that, if AEMO was to reject the request, the capacity to which the request applies would not be available for dispatch for the full duration of the proposed Planned Outage".

emergency), and Balancing Facility capacity that is declared as unavailable in a Balancing Submission for a Trading Interval.<sup>58</sup>

- any of the capacity or capability...for any part of the relevant outage period: these expressions replace the expression “for the full duration of the proposed Planned Outage”. This is to avoid any ambiguity around partial Planned Outages and situations where the relevant capacity or capability would be unavailable for some part of the outage period (e.g. where a Facility could operate for the first few hours of the outage period but not for the full outage period).

The Rule Change Panel considers the amended obligation:

- should provide a simpler test that makes it easier for Market Generators to ensure their compliance with the Market Rules; and
- does not prevent a Market Generator from taking a Planned Outage to investigate a potential issue with their Outage Facility.

Attendees at the 7 November 2018 workshop were generally supportive of the proposed change to the availability declaration requirement, and agreed it would be easier to apply than the one proposed in this Rule Change Proposal. The further submissions (excluding Synergy’s submission as discussed below) also generally supported the proposed change.

### **Synergy’s availability declaration requirement issue**

Synergy raised a new, more general issue with the proposed availability declaration requirement in its further submission:

*“Synergy considers prohibiting a generator from requesting a Planned Outage when the Facility will be unavailable for dispatch for the duration of the Planned Outage, rather than immediately prior to its commencement, could inhibit a Market Generator from maximising the availability of its Facilities, leading to inefficient outcomes. Synergy’s concern is how this rule will apply to situations where outages are required for maintenance or tests that occur at set times or after equipment has operated for a certain number of operating hours (e.g. tests required under environmental licensing or under original equipment manufacturers requirements).”*

*Synergy considers that to maximise availability, Market Generators are likely to request Planned Outages to commence just prior to when these types of maintenance are required, such that the proposed outage period includes the period when this maintenance is required to be performed. As maintenance needs to be performed on the Facility during the Planned Outage, and theoretically, the Facility would not be able to operate without this maintenance, the Facility would not be available for the “duration” of the proposed outage.*

*Synergy considers that consequently, proposed clause 3.19.2B could prevent the Market Generator from requesting a Planned Outage at the most efficient time and cause it to be brought forward such that there is no overlap between the Planned Outage period and the set time when maintenance is required. This could reduce the availability of the Facility and negatively affect the economic efficiency of the WEM.”*

The Rule Change Panel agrees that a Market Generator will often have a preferred or ‘ideal’ outage period for the types of routine maintenance described by Synergy, and notes that taking outages at these times will help to reduce a Market Generator’s long-term

<sup>58</sup> As discussed in Appendix B.2.2.5 of this report, the declaration of capacity (and in particular capacity not subject to Capacity Credits) as unavailable for dispatch in a Balancing Submission does not mean it is necessarily unavailable for service.

maintenance costs. However, such maintenance may not occur during the ideal outage period for several reasons. For example:

- if a Market Generator requests a Planned Outage months or years in advance to increase the likelihood of its approval, it will often need to use a conservative estimate of when the relevant trigger for the maintenance (e.g. the requisite number of operating hours or starts) will be reached;
- the forecast ideal outage period may be a period of high energy prices and the Market Generator might consider it preferable to undertake the outage when lower energy prices are expected; and
- most importantly for this Rule Change Proposal, System Management may be unable to approve a Planned Outage for the ideal outage period.

Market Generators can never be sure that they will be able to take a Planned Outage at the time of their choice. This means that while a Market Generator might request a Planned Outage for its ideal outage period, it needs to ensure it has fallback options, which could involve taking the outage either later (if delay is permitted and the risk of delay is acceptable) or earlier.

A Market Generator that delayed requesting a Planned Outage until no alternative outage period was possible would not be meeting either its reliability obligations or its own best interests. For this reason, the Rule Change Panel considers that the proposed availability declaration requirement is consistent with what should already be normal good practice for a Market Generator planning this type of maintenance.

However, if an Outage Plan is able to be scheduled for the 'ideal' outage period (i.e. the latest possible time to meet a maintenance obligation) then at some subsequent point in time it will become too late to request a Planned Outage for an earlier outage period. The Rule Change Panel considers that it would be inefficient to then reclassify the outage as failing to meet the availability requirement and, as discussed in Appendix B.2.4.7 of this report, proposes an additional change to the proposed Amending Rules to prevent this outcome.

### **System Management Obligations**

Proposed clause 3.19.3B allows System Management to decline to approve a Scheduled Outage or Opportunistic Maintenance for an Equipment List Facility where it considers that the proposed Planned Outage does not meet the availability requirement. The Rule Change Panel proposes to amend proposed clause 3.19.3B to oblige (rather than just allow) System Management to not approve a request for approval of Opportunistic Maintenance<sup>59</sup> if it is aware or ought to be aware in the circumstances that any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period.

The Rule Change Panel, in the CFFS, sought the views of stakeholders on whether System Management should be obliged, rather than just allowed, to reject a request in these circumstances. While Bluewaters supported a firm obligation, AEMO's preference was not to be obliged to reject the outage request in this situation, as "in most circumstances AEMO does not have the means to accurately assess (without assistance from the Market Participant) whether a generator is available".

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<sup>59</sup> Note the Rule Change Panel intends that this clause only apply to requests for approval of Opportunistic Maintenance, as discussed in Appendix B.2.4.5 of this report.

However, the Rule Change Panel notes that an obligation is only placed on System Management in circumstances where it is or becomes aware (i.e. has knowledge) that any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period. There is no requirement for System Management to proactively investigate every situation.

The Rule Change Panel sought clarification from AEMO regarding its concerns about this obligation; but to date has not identified any scenarios in which System Management is aware (or ought to be aware in the circumstances) that an outage request does not meet the availability requirement but should not be obliged to reject that outage request. However, the Rule Change Panel will continue to work with AEMO during the second submission period to understand its concerns.

The Rule Change Panel also notes that the proposed Amending Rules do not place any obligation on the ERA to proactively determine, for each Planned Outage, whether the participant is compliant with the availability declaration requirement. To determine non-compliance in practice, the ERA (or Electricity Review Board) would need evidence that the participant possessed information that ought to have made the participant aware that its outage request did not meet the availability requirement.<sup>60</sup>

#### *B.2.4.5 Availability declaration timeframes*

In this Rule Change Proposal, the IMO proposed that once a Planned Outage is approved, it should not need to be withdrawn or rejected because it ceases to meet the relevant availability requirement.

For example, if a Scheduled Generator with an approved Planned Outage experiences a Forced Outage, and the repairs cannot be completed until after the start of the proposed Planned Outage period, then:

- the Planned Outage will not be rejected for that reason; and
- the Market Generator will not be liable for Capacity Cost Refunds during the Planned Outage period (although it may be liable for Capacity Cost Refunds before and/or after that outage period).

During a workshop held by AEMO on 26 June 2018 to discuss outage issues, some Market Generators raised concerns that the potential late approval of Scheduled Outages<sup>61</sup> could lead to inefficient outcomes. For example, a Market Generator with a major Scheduled Outage, that was requested many months in advance, might have that outage rejected only days before its scheduled start due to the occurrence of a relatively minor Forced Outage that will affect the availability of the Facility beyond the start of the Planned Outage period. The late rejection of the Planned Outage would typically oblige the Market Generator to amend its plans and seek to return to service as soon as possible to avoid further Capacity Cost Refunds. This is unlikely to be an efficient outcome and would provide little or no benefit to the market.

The Rule Change Panel proposes additional changes to the proposed Amending Rules to ensure that once an Outage Plan is accepted and included in System Management's outage schedule, the Scheduled Outage no longer needs to be withdrawn or rejected because the

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<sup>60</sup> This is true for both the original availability declaration requirement in the Rule Change Proposal and the revised version proposed by the Rule Change Panel.

<sup>61</sup> At the time AEMO was proposing to delay the approval of all Scheduled Outages until two days before their commencement.

Market Generator ceases to meet the applicable availability declaration requirement.<sup>62</sup> The changes include:

- new clause 3.18.5D, which applies the proposed availability declaration requirement to the submission of an Outage Plan;
- new clause 3.18.9B, which requires the withdrawal (under clause 3.18.9B(b)(ii)) of an Outage Plan that has not yet been scheduled by System Management if the Market Generator can no longer meet the availability declaration requirement;
- new clause 3.18.10A, which obliges System Management not to schedule a new Outage Plan in its Outage Schedule if it is aware or ought to be aware in the circumstances that the proposed Scheduled Outage does not satisfy the availability requirement;
- amendments to proposed clause 3.19.2B to restrict the clause to requests for approval of Opportunistic Maintenance; and
- replacement of proposed clause 3.19.2C with new clause 3.19.2F, which requires the withdrawal (under clause 3.19.2F(b)(ii)) of an Opportunistic Maintenance request that has not yet been approved by System Management if the Market Generator can no longer meet the availability declaration requirement.

New clauses 3.18.5D, 3.18.9B, 3.18.10A and 3.19.2F (as well as revised clauses 3.19.2B, 3.18.2A(b)(ii) and 3.19.3B) are all subject to clause 3.19.2G (renumbered from 3.19.2D), which specifies the exception cases to which the availability requirement does not apply.

The Rule Change Panel considers these changes:

- may prevent the inefficiencies that can result from the late rejection of a large Scheduled Outage; and
- provide a strong incentive for Market Generators to submit their Outage Plans as early as possible, which would provide greater transparency to AEMO and other Rule Participants and support more efficient outage planning and coordination.

Attendees at the 7 November 2018 workshop discussed and generally supported the proposed changes. AEMO and Alinta also supported the changes in their further submissions. However, Bluewaters' further submission only supported the change if Bluewaters' suggestion to impose specific time period limits for decisions on Scheduled Outage approval requests was not adopted.<sup>63</sup>

#### *B.2.4.6 Ability to start work on a Scheduled Outage early*

This Rule Change Proposal proposes to relax the normal availability requirement for a Planned Outage that immediately follows a Scheduled Outage.<sup>64</sup> This is intended to allow a Market Participant to seek what is effectively an extension to its Scheduled Outage (subject to standard outage request timeframes) if its maintenance work has taken longer than expected and the relevant capacity might not be otherwise available for dispatch by the end of the Scheduled Outage.

Occasionally a Market Participant may be able to start a Scheduled Outage early, if the Facility is not needed for dispatch and the required equipment and personnel are available. However, the proposed Amending Rules may not allow a Market Participant to use an

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<sup>62</sup> Of course, AEMO could reject the Scheduled Outage for other reasons under the Market Rules.

<sup>63</sup> The Rule Change Panel does not propose to adopt this suggestion, as discussed in Appendix B.2.2.2 of this report.

<sup>64</sup> The Scheduled Outage could, of course, be rejected by AEMO for other reasons under the Market Rules.

Opportunistic Maintenance outage to commence a Scheduled Outage a day earlier than originally planned. This is because:

- if AEMO rejected the Scheduled Outage after work commenced on the Opportunistic Maintenance outage, then it would be likely that the relevant capacity would not be available for dispatch; and
- the exemption from the availability declaration requirement only applies to Planned Outages that follow Scheduled Outages.

The Rule Change Panel proposes an additional change to proposed clause 3.19.2D(a) (renumbered to clause 3.19.2G(a)), to extend the proposed exemption from the availability requirement to apply to Planned Outages that immediately follow any Planned Outage of the relevant capacity, not just a Scheduled Outage. This would provide Market Participants with additional flexibility by allowing them to begin their Scheduled Outages up to a day earlier than originally proposed where this is a more efficient option.

Attendees at the 7 November 2018 workshop discussed and generally supported this change. AEMO, Alinta and Bluewaters also supported the change in their further submissions.

#### *B.2.4.7 Prevention of disingenuous Planned Outage requests*

The Rule Change Panel considers that the changes proposed in this Rule Change Proposal could, in some circumstances, allow a Market Generator to request a Planned Outage and avoid Capacity Cost Refunds in a way that is contrary to the intent of the Rule Change Proposal. The additional changes proposed in Appendix B.2.4.4 and Appendix B.2.4.5 may further increase the potential for these requests. For example:

- if a Scheduled Generator was to trip just before the start of an approved Planned Outage and fixing the issue that caused the trip takes longer than the duration of the Planned Outage, the Market Generator would be able to request additional 'extension' Planned Outages that were exempt from the normal availability requirements; or
- under the modified availability declaration requirement proposed in Appendix B.2.4.4, a Market Generator could request a Planned Outage for capacity on a Forced Outage on the basis that it considers the relevant capacity *might* be able to be returned to service by the start of the proposed Planned Outage, even if this is extremely unlikely.

Permitting Planned Outages under these circumstances may allow a Market Generator to submit disingenuous outage requests that compromise the integrity of the RCM and reduce the incentive for Market Generators to avoid Forced Outages by undertaking prudent preventative maintenance.

The Rule Change Panel therefore proposes the following additional changes to the proposed Amending Rules, to prevent the acceptance (for Scheduled Outages) or approval (for Opportunistic Maintenance) of disingenuous outage requests where it is likely that the relevant capacity will be unavailable for dispatch if the request is rejected.

- *Obligations to notify AEMO of changes to availability status*: new clause 3.18.9B specifies the actions that a Rule Participant<sup>65</sup> must take if it becomes aware that its proposed Scheduled Outage no longer meets the availability requirement.

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<sup>65</sup> The Rule Change Panel proposes to apply these provisions to all Rule Participants with Equipment List Facilities, not just Market Generators, as discussed in Appendix B.2.4.8 of this report.

- Clause 3.18.9B(a) gives the Rule Participant an option to meet the availability declaration requirement by submitting a revised Outage Plan to amend the outage period and/or reduce the quantity of de-rating.
- Clause 3.18.9B(b) requires the Rule Participant, if it does not take the option in clause 3.18.9B(a), to as soon as practicable:
  - notify System Management; and
  - withdraw the Outage Plan if it has not yet been accepted.

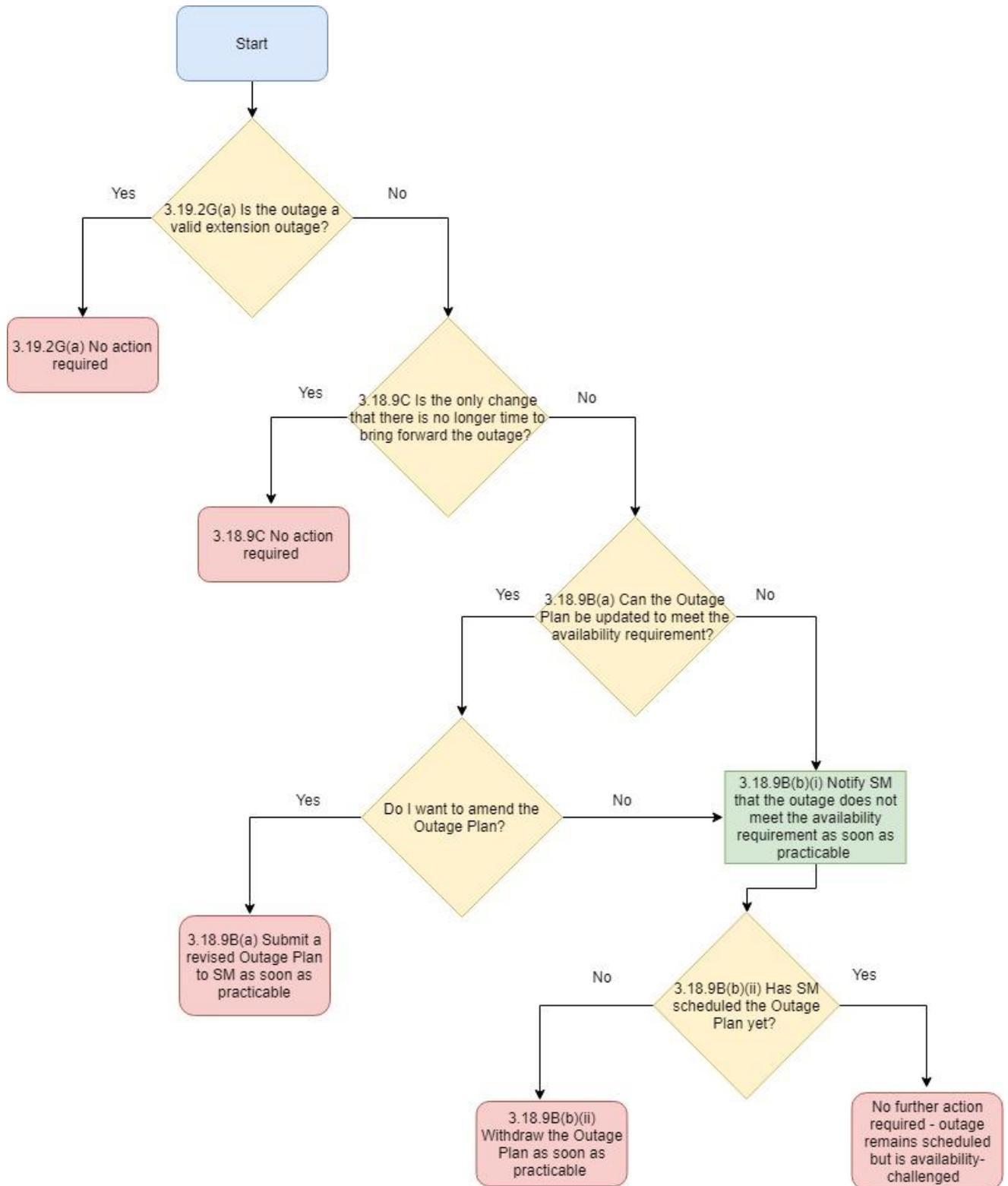
While an accepted Outage Plan does not need to be withdrawn or rejected, AEMO must still be notified that the outage no longer meets the availability requirement.

As discussed in Appendix B.2.4.4 of this report, if an Outage Plan is scheduled for an outage period that falls as late as possible to meet the relevant maintenance obligation, then at some subsequent point in time it will become too late to reschedule the outage for an earlier period. To avoid perverse outcomes, new clause 3.18.9C exempts a Rule Participant from having to comply with clause 3.18.9B when this occurs.

Figure B.6 provides a graphical overview of the options available to a Rule Participant that becomes aware its proposed Scheduled Outage does not meet the availability requirement.

New clause 3.19.2F (which replaces proposed clause 3.19.2C) specifies the corresponding actions that a Rule Participant must take if it becomes aware that its proposed Opportunistic Maintenance outage no longer meets the availability requirement.

**Figure B.6: Options for a Rule Participant that becomes aware that its proposed Scheduled Outage does not meet the availability requirement**



- Refinement of the extension provisions: the Rule Change Panel proposes additional changes to clause 3.19.2D(a) (renumbered to clause 3.19.2G(a)), to make a proposed Planned Outage, that will immediately follow a Planned Outage that System Management knows does not meet the availability requirement (from a notification received under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i)), ineligible for the exemption from the availability requirement in clause 3.19.2G(a).
- Additional requirements for Scheduled Outages: new clause 3.18.10B requires System Management to delay the evaluation of a new Outage Plan for capacity that is subject to either a Planned Outage that has been flagged as not meeting the availability requirement or a Forced Outage until certain conditions are met. Specifically, if at the time System Management begins its evaluation of the Outage Plan:
  - the capacity is subject to a Planned Outage that System Management has been notified does not meet the availability requirement (under new clauses 3.18.9B(b)(i) or 3.19.2F(b)(i)); or
  - the capacity is subject to a Planned Outage, and System Management is otherwise aware that it should have received a notification for that outage under new clauses 3.18.9B(b)(i) or 3.19.2F(b)(i); or
  - the capacity is subject to a Forced Outage,
 then System Management must delay its evaluation of the Outage Plan until either:
  - the relevant capacity becomes available for service; or
  - System Management receives evidence to its satisfaction from the Rule Participant that the capacity would be capable of being made available for service before the start of the proposed outage period.

Figure B.7 provides a graphical overview of how these arrangements apply to a Rule Participant wishing to undertake maintenance under a Scheduled Outage, while Figure B.8 sets out the process to be used by System Management to decide whether it can proceed with the evaluation of a new Outage Plan.

**Figure B.7: Considerations for a Rule Participant that wants to undertake maintenance under a Scheduled Outage**

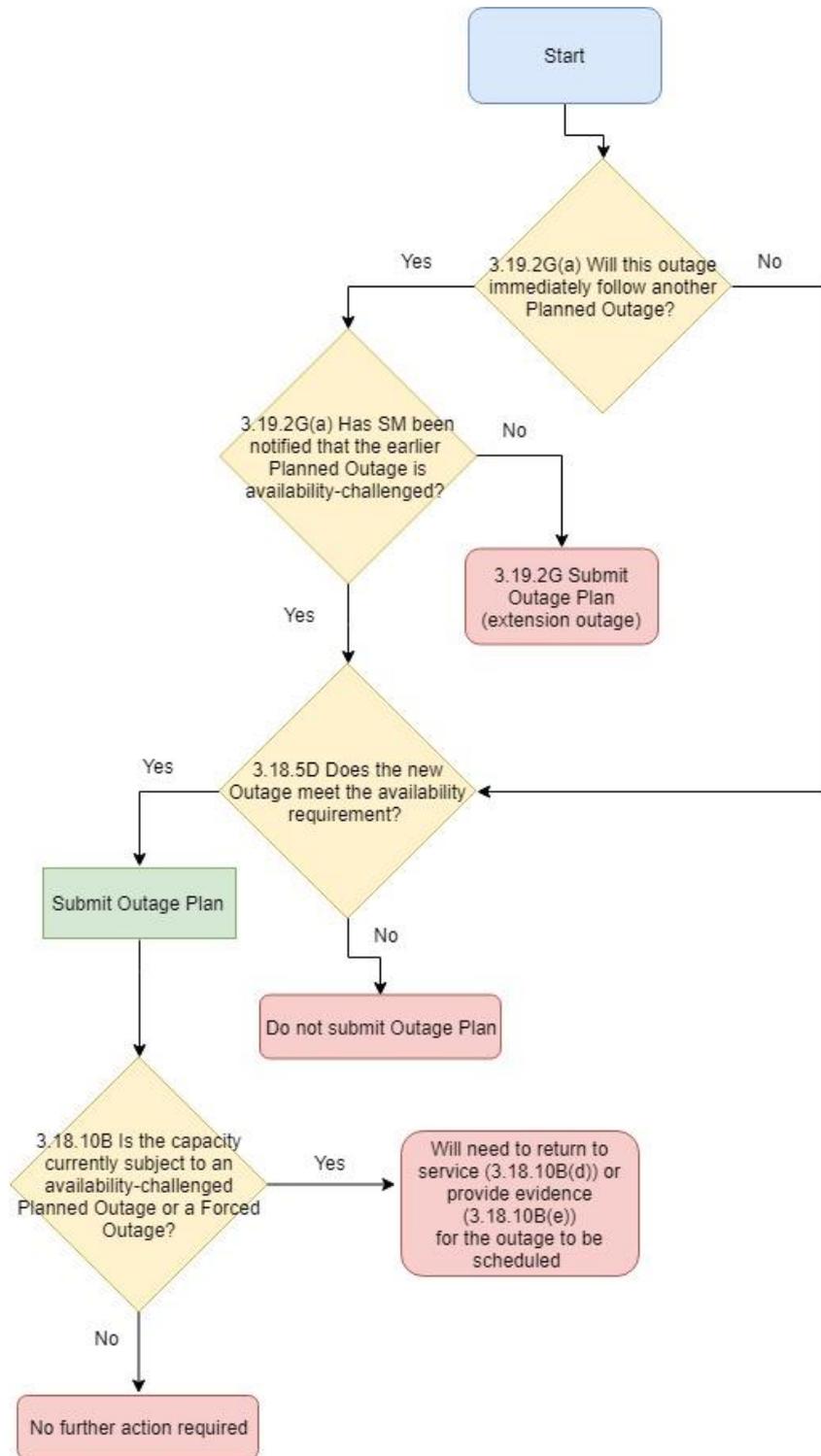
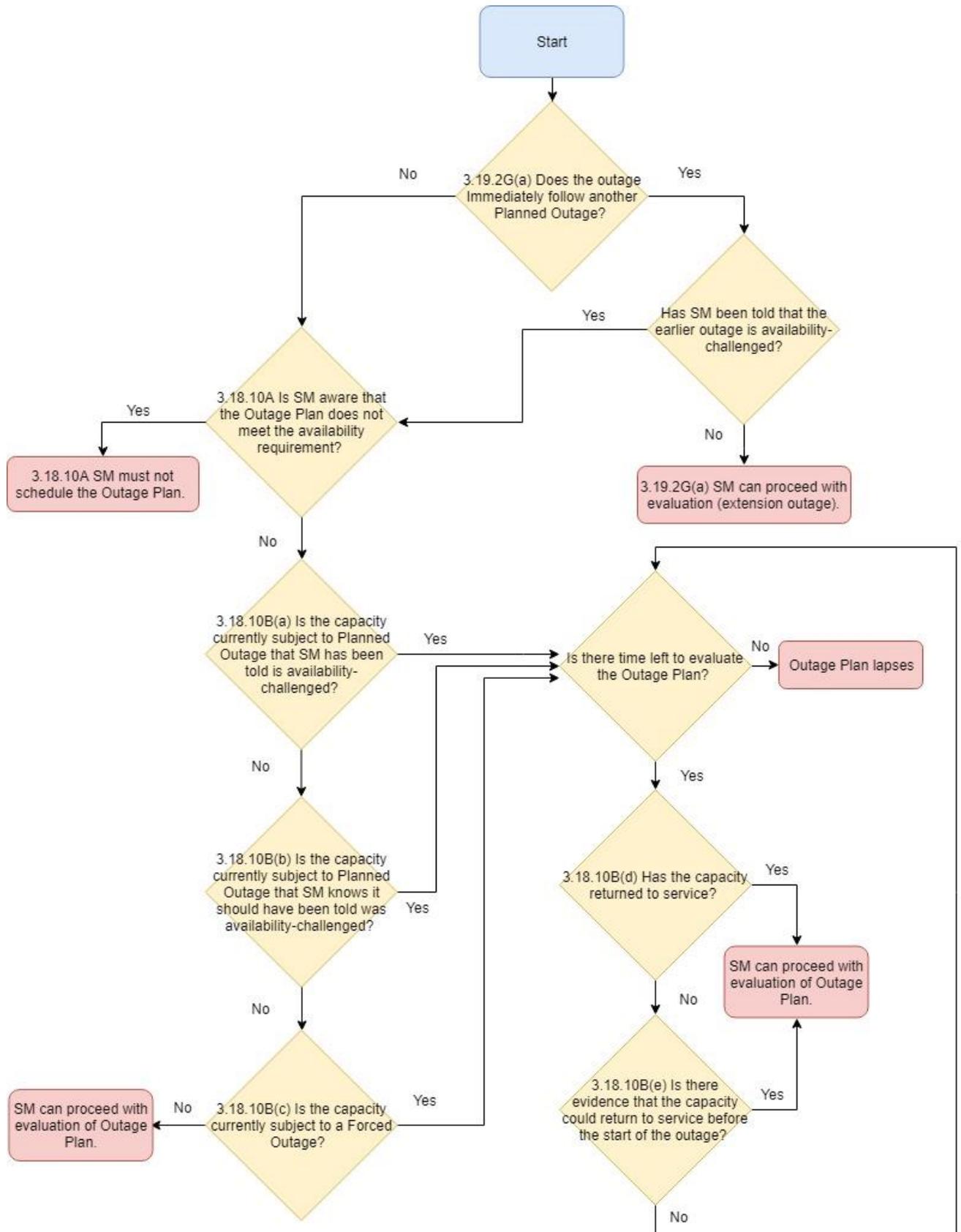


Figure B.8: Considerations for System Management on whether to evaluate an Outage Plan



- Additional requirements for Opportunistic Maintenance: new clause 3.19.3C specifies the corresponding obligations for Opportunistic Maintenance.

Attendees at the 7 November 2018 workshop discussed and generally supported the proposed changes, although some attendees raised questions about the kind of evidence System Management might require from Market Generators in these circumstances.

The proposed changes were also discussed in the CFFS, which sought feedback from stakeholders on two questions:

- whether the changes provide an appropriate and sufficient safeguard against disingenuous Planned Outage requests where it is likely that the relevant capacity will be unavailable for service if the request is rejected; and
- what principles or guidelines, if any, should be included in the Market Rules to guide System Management's assessment of evidence that capacity would be able to be made available for service prior to the start of a requested Planned Outage.

The further submissions were generally supportive of the proposed changes, although some stakeholders noted a need to review the drafting of the proposed changes.

In relation to the second question, AEMO preferred that the relevant evidence requirements be detailed in a Market Procedure, but was comfortable for the Market Rules to provide guiding principles. Bluewaters' submission noted the importance of transparency in System Management's assessment process, but no stakeholders provided any suggestions for specific principles or guidelines.

The Rule Change Panel does not propose to include any specific principles or guidelines in the Market Rules around System Management's assessment of evidence under new clauses 3.18.10B and 3.19.3C because a requirement for the inclusion of such principles or guidelines has not been demonstrated. It is expected that further details of this new component of the outage planning process will be included in the PSOP: Facility Outages under clauses 3.18.21 and 3.19.14.

The Rule Change Panel notes that the option in new clauses 3.18.9B(a) and 3.19.2F(a) was not in the straw man proposal discussed at the 7 November 2018 workshop or the CFFS. The Rule Change Panel considers that this option may provide greater flexibility to Rule Participants in the following situations:

- If a Rule Participant suffers a Forced Outage that might prevent the acceptance of its Outage Plan, the Rule Participant may choose to delay the start of the proposed Scheduled Outage by a short period.<sup>66</sup> The delay might be used to prevent the Outage Plan from 'timing out', and allow the Rule Participant to undertake repairs and/or prepare evidence for System Management that would allow the Outage Plan to be accepted.
- If a Rule Participant suffers a Forced Outage that would require the Rule Participant to notify System Management that a major upcoming (already) Scheduled Outage no longer met the availability requirement, the Rule Participant may choose to delay the start of the Scheduled Outage by a short period. The delay would allow the Rule Participant time to undertake sufficient repairs to prevent the need to send a notification to System Management under clause 3.18.9B(b)(i), as the notification could jeopardise the Rule Participant's ability to seek an extension if its major outage runs over time.

<sup>66</sup> The Rule Participant could also delay the end time to keep the outage period the same length, although this would cause the Outage Plan to be treated as a new Outage Plan under proposed clause 3.18.9A.

- If a Rule Participant suffers a partial Forced Outage that might prevent the acceptance of an Outage Plan, the Rule Participant may need to reduce the quantity of de-rating in the Outage Plan to account for the partial Forced Outage.

The Rule Change Panel also notes that the proposed Amending Rules might encourage the submission of outage requests for unrealistically short outage periods. During the 7 November 2018 workshop, there was some discussion about a scenario in which:

- a Rule Participant needs a lengthy outage (e.g. 4 weeks) for corrective maintenance on its Equipment List Facility;
- the Rule Participant is aware that the Equipment List Facility would satisfy the availability declaration requirement for only the first part of the proposed outage period (e.g. the first 2 days); and
- the Rule Participant evades the availability declaration requirement for the 4-week outage by requesting a Scheduled Outage for the first 2 days (that meets the availability declaration requirement), and then requesting an extension outage, which is exempt from the availability declaration requirement, for the remaining period.

The Rule Change Panel considers that if a Rule Participant becomes aware of a problem that needs more time to address during a Planned Outage, it should be able to seek an extension outage (that is not subject to the availability declaration requirement) to complete the required work.

However, to prevent deliberate abuse of this flexibility, the Rule Change Panel proposes to include new clause 3.18.6A, which prohibits a Rule Participant from submitting an Outage Plan if it is aware (or ought to have been aware in the circumstances) that it will not be possible to complete the proposed maintenance by the end of the proposed outage period.

#### *B.2.4.8 Application of availability declaration requirements to non-generator Equipment List Facilities*

Most of the provisions in this Rule Change Proposal that relate to availability requirements for Planned Outages apply only to outages of Scheduled Generators and Non-Scheduled Generators. However, the Rule Change Panel considers that the proposed obligations are also appropriate for other Equipment List Facilities, such as items of network equipment and Facilities that provide services under Ancillary Service Contracts. The Rule Change Panel considers that extension of the provisions to non-generator Equipment List Facilities would promote better outcomes in terms of improved transparency, efficiency and reliability, even though these Equipment List Facilities are not subject to the same RCM considerations as Scheduled Generators and Non-Scheduled Generators.

The Rule Change Panel therefore proposes additional changes to proposed clauses 3.19.2A, 3.19.2B, 3.19.2D (renumbered to 3.19.2G) and 3.19.3B to ensure that these clauses apply to all Equipment List Facilities. The Rule Change Panel has also drafted new clauses 3.18.5D, 3.18.9B, 3.18.10A, 3.18.10B, 3.19.2C, 3.19.2D, 3.19.2E, 3.19.2F and 3.19.3C to apply to all Equipment List Facilities.

At the 7 November 2018 workshop, there was general agreement that the proposed availability requirements could also be applied to non-generator Equipment List Facilities, provided that a suitable alternative to the term 'available for dispatch' was used for these Equipment List Facilities.

The Rule Change Panel sought feedback on the question in the CFFS. Further submissions raised no concerns about the extension of the provisions to all Equipment List Facilities, with Bluewaters expressing explicit support for the change.

### B.2.5 Other Issues

This Rule Change Proposal includes a number of minor amendments to improve the clarity and integrity of the Market Rules. The Rule Change Panel’s assessment of the proposed minor amendments is summarised below.

Proposed Amendment	The Rule Change Panel’s Assessment
<p>Create defined terms in the Glossary for Equipment List, Equipment List Facility, Small Outage Facility and Outage Facility.</p>	<p>The Rule Change Panel supports the creation of defined terms for these concepts to provide clarity and reduce unnecessary repetition in the drafting; but, as discussed in Appendix B.3.1.2 of this report, proposes to replace the name ‘Small Outage Facility’ with ‘Self-Scheduling Outage Facility’.</p>
<p>Amend clause 3.18.2(c) to replace two cross-references to clause 3.18.2A with their substantive meaning, i.e. that the generation systems in question must have a nameplate capacity of at least 10 MW.</p>	<p>The Rule Change Panel supports the proposed clarification of clause 3.18.2(c).</p>
<p>Remove clause 3.18.5D, which allows System Management to provide a Network Operator with the Scheduled Outage information of a Market Participant’s Facility, on the basis that it is no longer required because Planned Outages by Facility are public information under clause 10.5.1(zD).</p>	<p>The Rule Change Panel notes that clause 10.5.1(zD) was deleted on 1 October 2013 by the Rule Change Proposal: Transparency of Outage Information (RC_2012_11). However, the Rule Change Panel considers that clause 3.18.5D is still not required because:</p> <ul style="list-style-type: none"> <li>• Outage Plan information is classified as Public in the current confidentiality status list published by AEMO; and</li> <li>• RC_2012_11 also implemented a requirement for the publication of near real-time outage information for Scheduled Generators and Non-Scheduled Generators on the Market Web Site.</li> </ul> <p>As discussed in Appendix B.2.4.5 of this report, the Rule Change Panel proposes to re-use the clause number (3.18.5D) for the obligation on Rule Participants to not submit an Outage Plan if they are unable to meet the availability declaration requirement.</p>

Proposed Amendment	The Rule Change Panel's Assessment
Amend clause 3.18.4 to clarify which Outage Plans are to be considered Scheduled Outages and included in System Management's Outage Schedule.	The Rule Change Panel supports the proposed clarification of clause 3.18.4.
Several other minor and typographical changes to improve the clarity and integrity of the drafting.	The Rule Change Panel generally supports the proposed changes; but notes that it has proposed some additional minor and typographical changes, as discussed in section 6.5 of the Draft Rule Change Report.

### B.3 Additional Related Issues Identified by the Rule Change Panel

This section discusses several additional changes proposed by the Rule Change Panel to address new but related issues identified during the Rule Change Panel's assessment of this Rule Change Proposal. The section is structured as follows:

- Appendix B.3.1 discusses additional issues relating to obligations to participate in the outage planning process;
- Appendix B.3.2 discusses additional issues relating to requirements for Opportunistic Maintenance requests;
- Appendix B.3.3 discusses proposed clarifications of several central outage planning concepts; and
- Appendix B.3.4 discusses several minor additional issues.

#### B.3.1 Obligations to Participate in the Outage Planning Process

As discussed in section 4.1.1 of the Draft Rule Change Report<sup>67</sup>, the IMO proposed three changes to refine and clarify the obligations of Rule Participants to participate in the outage planning process. During its assessment of these changes, the Rule Change Panel identified three additional, related issues:

- what outage scheduling obligations should apply to small Scheduled Generators that hold Capacity Credits;
- what outage scheduling obligations should apply to larger generation systems that are not included on the Equipment List; and
- whether a materiality threshold should apply to the requirements to request or report Non-Scheduled Generator outages.

##### B.3.1.1 Obligations for small Scheduled Generators with Capacity Credits

Proposed clause 3.18.2(c)(ii) requires all Scheduled Generators and Non-Scheduled Generators with Capacity Credits and a nameplate capacity of at least 10 MW to be included on the Equipment List. Smaller Scheduled Generators and Non-Scheduled Generators are classified as Small Outage Facilities under proposed clause 3.18.2A(a), unless System Management determines under proposed clause 3.18.2(c)(v) that they must be included on

<sup>67</sup> The same information is provided in section 3.1.1 of this Final Rule Change Report.

the Equipment List and made subject to outage scheduling to maintain power system security and reliability.

Proposed clause 3.18.2(c) does not require the inclusion of smaller Scheduled Generators holding Capacity Credits on the Equipment List, unless System Management determines they are required under proposed clause 3.18.2(c)(v). Not including these Scheduled Generators on the Equipment List allows the relevant Market Generators to remove the Facilities from service at any time for maintenance, without the need for System Management approval. This reduces the value of such Facilities as a source of reliable capacity compared with larger Scheduled Generators that need to have their Planned Outages approved by System Management.

The Rule Change Panel considers that inclusion of smaller Scheduled Generators with Capacity Credits on the Equipment List would increase the value of their capacity to the WEM and improve the integrity of the RCM.

During the development of this Rule Change Proposal, most of the relevant Scheduled Generators were included on the Equipment List under clause 3.18.2(c)(iv)<sup>68</sup>, so the question of whether their inclusion on the Equipment List should be mandatory was not considered by the IMO in any detail.

The Rule Change Panel does not consider that any corresponding issue exists for small Non-Scheduled Generators holding Capacity Credits. This is because there are strong incentives for Market Generators to make their Non-Scheduled Generators available in peak demand periods.

A requirement for all Scheduled Generators holding Capacity Credits to be included on the Equipment List was generally supported by attendees at the 17 September 2018 workshop. Alinta and Bluewaters offered explicit support for the change in their further submissions, while AEMO advised it had no objection but noted its powers to add Facilities to the Equipment List under clause 3.18.2(c)(v).

The Rule Change Panel proposes to replace proposed clause 3.18.2(c)(ii) with two clauses:

- clause 3.18.2(c)(ii), which requires the inclusion of all Scheduled Generators holding Capacity Credits on the Equipment List; and
- clause 3.18.2(c)(iii), which requires the inclusion of all Non-Scheduled Generators holding Capacity Credits with a Standing Data nameplate capacity that equals or exceeds 10 MW.

The Rule Change Panel also proposes the consequential renumbering of proposed clauses 3.18.2(c)(iiA), 3.18.2(c)(iii) and 3.18.2(c)(iv) to clauses 3.18.2(c)(iv), 3.18.2(c)(v) and 3.18.2(c)(vi) respectively.

### *B.3.1.2 Treatment of larger generation systems not on the Equipment List*

During discussions with AEMO about this Rule Change Proposal, it was noted that a Scheduled Generator or Non-Scheduled Generator with a nameplate capacity that equals or exceeds 10 MW may not qualify for inclusion as either an Equipment List Facility or a Small Outage Facility.<sup>69</sup> This would exclude the Facility from any obligations to report its outages to System Management.

<sup>68</sup> Renumbered in the proposed Amending Rules to clause 3.18.2(c)(v).

<sup>69</sup> For example, if a 30 MW Scheduled Generator did not have Capacity Credits and was not required on the Equipment List by System Management under renumbered clause 3.18.2(c)(vi) to maintain power system security and reliability, then it would not be included on the Equipment List, but would also not qualify for inclusion under clause 3.18.2A because its nameplate capacity was too high.

The Rule Change Panel considers it would be more logical for these Facilities to be treated in the same way as smaller Scheduled Generators and Non-Scheduled Generators that are not required on the Equipment List. The Rule Change Panel therefore proposes additional changes to proposed clause 3.18.2A(a) to extend the scope of the clause to all Scheduled Generators, Non-Scheduled Generators and generation systems serving Intermittent Loads that are not required to be included on the Equipment List under clause 3.18.2(c).

To reflect that some of the Facilities subject to proposed clause 3.18.2A may have a nameplate capacity exceeding 10 MW, the Rule Change Panel also proposes additional changes to this clause and the proposed Glossary definitions of Outage Facility and Small Outage Facility to change the collective name for these Facilities from Small Outage Facility to Self-Scheduling Outage Facility.

The Rule Change Panel has not yet consulted with stakeholders on this additional change.

### *B.3.1.3 Materiality threshold for Non-Scheduled Generators*

Currently the Market Rules do not apply any materiality threshold to the requirement to request or report Non-Scheduled Generator outages. This means, for example, that a Market Generator with a Non-Scheduled Generator on the Equipment List is technically obliged to request a Planned Outage before removing a single wind turbine or inverter from service for maintenance.

In practice, it is normal for a small proportion of the turbines or inverters that comprise a Non-Scheduled Generator to be out of service for routine maintenance or repair at any time. Market Generators do not usually request or report outages for these small events, due to the large administrative burden this would impose. While AEMO has advised that it does not require the information about such minor outages to manage the power system, the relevant Market Generators may still be technically in breach of the Market Rules.

The EMOP Consultation Group discussed the need for a materiality threshold in several workshops over 2016/17. The EMOP project proposed that a Market Generator should be required to request or report outages that reduce the available capacity of its Non-Scheduled Generator by an average MW quantity over a Trading Interval more than:

*minimum (0.2 \* Facility's nameplate capacity, 6) MW*

RCP Support discussed the issue with MAC members and observers:

- during updates on the Rule Change Proposal RC\_2014\_03 at the 13 September 2017, 13 December 2017 and 14 February 2018 MAC meetings;
- at the MAC workshop for RC\_2014\_03 held on 17 January 2018; and
- at the 17 September 2018 workshop for this Rule Change Proposal (RC\_2013\_15).

MAC members were generally supportive of the introduction of a materiality threshold and did not suggest any specific alternatives to the threshold proposed by the EMOP project. During the 17 September 2018 workshop, AEMO suggested that different thresholds might be appropriate for different intermittent generation types and it may be preferable to define the threshold(s) in a PSOP.

The Rule Change Panel sought stakeholder views on this question in the CFFS. AEMO, Alinta, Bluewaters and Perth Energy all supported the introduction of a materiality threshold. Perth Energy also considered that a 'materiality threshold' should apply to the Outages of Scheduled Generators, and in particular to Forced Outages of Scheduled Generators.

However, after discussion with Perth Energy to clarify its suggestion, the Rule Change Panel considers that the suggestion falls out of the scope of this Rule Change Proposal.<sup>70</sup>

AEMO considered the proposed formula was a reasonable starting position but reiterated its suggestion that the Market Rules should require the threshold to be determined in a Market Procedure. In subsequent discussions, AEMO also suggested the threshold could be set using a regime based on that used to determine Tolerance Ranges and Facility Tolerance Ranges.

Alinta proposed the use of a flat percentage of at least 10% of nameplate capacity, to allow for increasing wind turbine sizes. No other submitter suggested an alternative threshold formula.

The Rule Change Panel does not consider, based on information provided to date, that the additional complexity and administrative overheads of a PSOP or Tolerance Range-style regime are warranted. The Rule Change Panel acknowledges that in some, very rare situations it may be necessary to set a more conservative threshold than the default to maintain power system security and reliability, and therefore seeks the views of stakeholders on:

- whether System Management should be empowered under the Market Rules to set a more conservative materiality threshold for a Non-Scheduled Generator if it considers it necessary to maintain power system security and reliability; and
- if so, whether such decisions should either be Reviewable Decisions or subject to appeal to the ERA.

The Rule Change Panel has also reviewed the proposed threshold formula in response to Alinta's comments regarding the increasing size of wind turbines. The originally proposed threshold was based on Semi-Scheduled Generator obligations to report outages to AEMO under the NER, to support the operation of AEMO's Australian Wind Energy Forecasting System. However, the Rule Change Panel considers the following factors are more relevant to the WEM:

- Under clauses 4.11.1(h) and 4.11.1D of the Market Rules, from the 2019 Reserve Capacity Cycle onwards a Forced Outage rate exceeding 10%, or a combined Forced Outage rate and Planned Outage rate exceeding 20%, can affect the quantity of Certified Reserve Capacity assigned to a Non-Scheduled Generator. Given this limit, it would be difficult to justify allowing the materiality threshold for a Non-Scheduled Generator to exceed 10%.
- It is also difficult to justify why the 6 MW limit should not be increased to 10 MW, to be consistent with the frequent use of 10 MW as a boundary for determining the obligations of generators (e.g. to meet the Balancing Facility Requirements) on the basis of the materiality of their impact on the WEM. However, although the Rule Change Panel agrees that wind turbine sizes are increasing, it does not consider that turbine size should in itself determine the threshold (e.g. if a single turbine had a capacity of 20 MW this would not in itself warrant an increase of the threshold to 20 MW).

Based on these considerations, the Rule Change Panel proposes to include a new clause 3.18.1A in the proposed Amending Rules, which sets the materiality threshold for requesting/reporting Non-Scheduled Generator outages to:

*minimum (0.1 \* Facility's nameplate capacity, 10) MW*

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<sup>70</sup> For further discussion of Perth Energy's suggestion please see issue 26 in Appendix D of the Draft Rule Change Report.

### B.3.2 Opportunistic Maintenance Requirements

The Rule Change Panel identified two additional issues relating to Opportunistic Maintenance during its assessment of this Rule Change Proposal:

- whether the requirement under proposed clause 3.19.2(b)(ii) was still appropriate; and
- the impact of the requirement to include start-up times in outage periods on Market Generators with slow-starting Facilities.

#### *B.3.2.1 Clarification of Requirements for Opportunistic Maintenance Requests*

Clause 3.19.2(b)(ii) states that on-the-day Opportunistic Maintenance outages “must not require any changes in scheduled energy or ancillary services”. The proposed Amending Rules for this Rule Change Proposal, in merging the concepts of on-the-day and day-ahead Opportunistic Maintenance, extended this requirement to apply to all Opportunistic Maintenance.

Before the implementation of the Balancing Market, Resource Plans and Verve Energy’s Dispatch Plan provided an effective energy schedule for each Trading Interval, which could be used to test the compliance of an Opportunistic Maintenance request with clause 3.19.2(b)(ii). However, since the start of the Balancing Market in July 2012, the dispatch targets of Generators are determined in near-real time, making it unclear how the restriction in clause 3.19.2(b)(ii) should be applied.

The Rule Change Panel proposes to delete clause 3.19.2(b)(ii), because it considers the clause is unnecessary for the following reasons:

- Proposed clause 7A.2.8A requires Market Generators (other than Synergy in respect of the Balancing Portfolio) to make any capacity that is subject to an approved Planned Outage or an outstanding Planned Outage request unavailable in their Balancing Submissions. This means that the relevant capacity will not appear in the Forecast BMOs that are used by System Management and Market Participants to predict the eventual dispatch schedule.
- Facilities that are cleared for LFAS are required to offer the relevant capacity into the Balancing Market at the relevant Price Caps. This means the capacity cannot also be made unavailable in the Market Generator’s Balancing Submissions, and therefore the Market Generator cannot apply for Opportunistic Maintenance without breaching proposed clause 7A.2.8A.
- When considering Opportunistic Maintenance requests, System Management is required under clause 3.19.6(b) to ensure that “the Facilities remaining in service must be capable of meeting the Ancillary Service Requirements”. This means that any request that compromises the provision of Ancillary Services must be rejected by System Management.

AEMO noted the challenges of interpreting clause 3.19.2(b)(ii) at the 17 September 2018 workshop.

The Rule Change Panel sought feedback from stakeholders in the CFFS on whether clause 3.19.2(b)(ii) should be deleted or otherwise amended. Alinta and Bluewaters supported deletion of the clause in their further submissions, while AEMO supported further clarification of the clause and suggested this could include specifying considerations in a Market Procedure.

RCP Support sought clarification from AEMO on the suggestion in its further submission. In a meeting held on 24 January 2019, AEMO agreed that placing an obligation about “scheduled Ancillary Services” in clause 3.19.2(b)(ii) could create difficulties for Rule Participants (e.g. it could prevent Market Generators providing a System Restart Service from requesting Opportunistic Maintenance for their Facilities). The approval criteria for Opportunistic Maintenance requests were discussed, and it was noted that these criteria allow AEMO to reject an Opportunistic Maintenance request if it significantly impacts the Ancillary Service Requirements (e.g. a transmission line outage placing multiple generators on a radial connection). Given the Opportunistic Maintenance approval criteria and other safeguards in the Market Rules (such as the good faith obligations relating to Opportunistic Maintenance requests and LFAS Submissions), AEMO agreed that clause 3.19.2(b)(ii) should be deleted.

The Rule Change Panel also proposes to implement a suggestion from Bluewaters’ first period submission to remove the requirement in clause 3.19.2(b)(i) that Opportunistic Maintenance outages be for ‘minor’ maintenance. The Rule Change Panel considers that the requirement for the maintenance to be minor:

- may be inappropriate for Opportunistic Maintenance outages that are used to start a Scheduled Outage a day early (as proposed in Appendix B.2.4.6 of this report), because the work performed during such outages may not be minor; and
- is unnecessary for other Opportunistic Maintenance outages, because the only test required is that the maintenance work can be completed within the 24-hour time limit.

### *B.3.2.2 Allowance for Short Outages of Slow-Starting Generators*

Synergy raised concerns in its further submission about the use of the undefined phrase ‘unavailable for dispatch’ in proposed clauses 7A.2.4A(b), 7A.2.4B(b), 7A.2.4C(b), 7A.2A.1 and 7A.2A.2. Synergy considered the drafting implied that if a Facility was offline and required some time to re-synchronise, the Market Generator would need to update its Balancing Submissions to show that the Facility was unavailable for the period of its start-up time. The Market Generator would then be required to log Forced Outages for those unavailability declarations under proposed clauses 7A.2A.1 or 7A.2A.2. Synergy suggested this would lead to undesirable outcomes (e.g. a peaking Facility that was rarely required to generate could theoretically be required to log Forced Outages for almost every Trading Interval).

On 25 January 2019, RCP Support met with Synergy to discuss Synergy’s concerns. During this discussion, Synergy raised a further concern about the effects of including start-up times in outage periods. Synergy gave an example involving an offline Scheduled Generator with a 10-hour start-up time. If Synergy wanted to undertake maintenance on the Facility for a 30-minute period, it would need to request a 10.5-hour Opportunistic Maintenance outage to account for the Facility’s start-up time. Synergy noted that the requirement to include start-up times in outage periods increased its risk of breaching its Refund Exempt Planned Outage limits.<sup>71</sup>

As discussed in Appendix B.3.3.2 of this report, the Rule Change Panel considers that an outage period should only end when the relevant capacity could, with sufficient notice to account for any relevant Equipment Limits like start-up times, be made available for service again. In most cases, this will require a Market Generator seeking a Scheduled Outage to include the time for a cold start in the proposed outage period. The Rule Change Panel does

<sup>71</sup> The Amending Rules in Schedule B, Part 3 of the *Wholesale Electricity Market Rules Amending Rules 2016* (which commenced on 1 October 2017) imposed a limit on the level of Refund Exempt Planned Outages that can be taken by a Facility over any 1000 Trading Day period. A Market Participant is liable for Capacity Cost Refunds for any Planned Outages taken in excess of that limit.

not consider this approach treats slow-starting plant unreasonably because it simply reflects the actual availability of the capacity to the WEM.

However, the Rule Change Panel notes that the Market Rules allow a Market Generator to make capacity 'available' in a Balancing Submission that it does not plan to have synchronised during the relevant Trading Interval; and do not require a Market Generator to update its Balancing Submission once it becomes too late to start the process that would synchronise the Facility by the start of the Trading Interval. Under the self-commitment model, a Market Generator bears the risk that its Balancing Facility will be dispatched in merit when it is not synchronised (obviously if it is dispatched out of merit its Equipment Limits will apply). If the capacity is dispatched in merit, then the Market Generator will have breached its dispatch obligations; but if it is not, then it will be deemed (from a compliance perspective at least) to have been available for service.

The Rule Change Panel does not propose to alter these arrangements, as noted in Appendix B.3.3.2 of this report, and specifically does not propose to require Market Generators to continually update their Balancing Submissions to reflect the passing of Facility start-up deadlines.

In response to the further concern raised by Synergy, the Rule Change Panel has assessed the scenario provided by Synergy and the effect of the proposed 30-minute outage on the availability of the Facility to the WEM.

For a particular Facility and a future Trading Interval there may be a point in time, if the Facility is offline, after which the Market Generator (or for Balancing Portfolio Facilities, System Management acting on Synergy's behalf) can no longer choose to provide energy from the Facility in that Trading Interval. Once this time has passed, there appears to be little point in the Market Generator seeking approval for Opportunistic Maintenance for that Trading Interval.

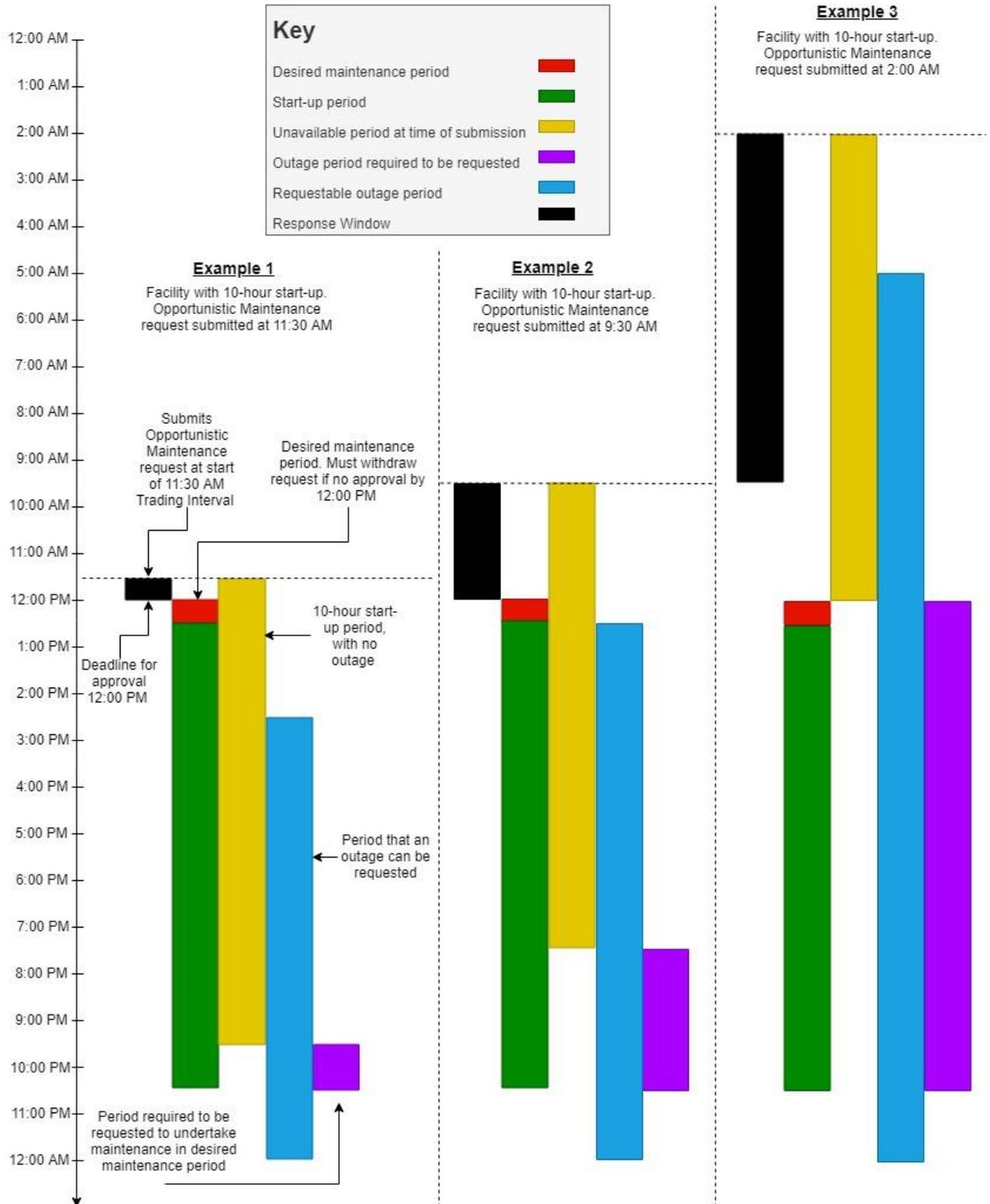
Figure B.9 provides a graphical overview of the concept. In Example 1, Synergy decides at 11:30 AM on a Trading Day that it wants to carry out maintenance on an offline Scheduled Generator with a 10-hour start-up time (shown in green) between 12:00 PM and 12:30 PM (shown in red). The deadline for submitting and approving Opportunistic Maintenance requests starting at 2:00 PM has just passed, so it is too late to submit a request with a proposed start time of 12:00 PM (the Trading Intervals for which submission of an Opportunistic Maintenance request is still feasible are shown in blue).

However, at 11:30 AM the Facility could no longer be synchronised until 9:30 PM (shown in yellow), so the outage would not affect the true availability of the Facility between 12:00 PM and 9:30 PM, due to the state of the Facility and its start-up time given that state. However, the outage would extend the period in which the Facility would be unavailable by an hour, from 9:30 PM to 10:30 PM (shown in purple).

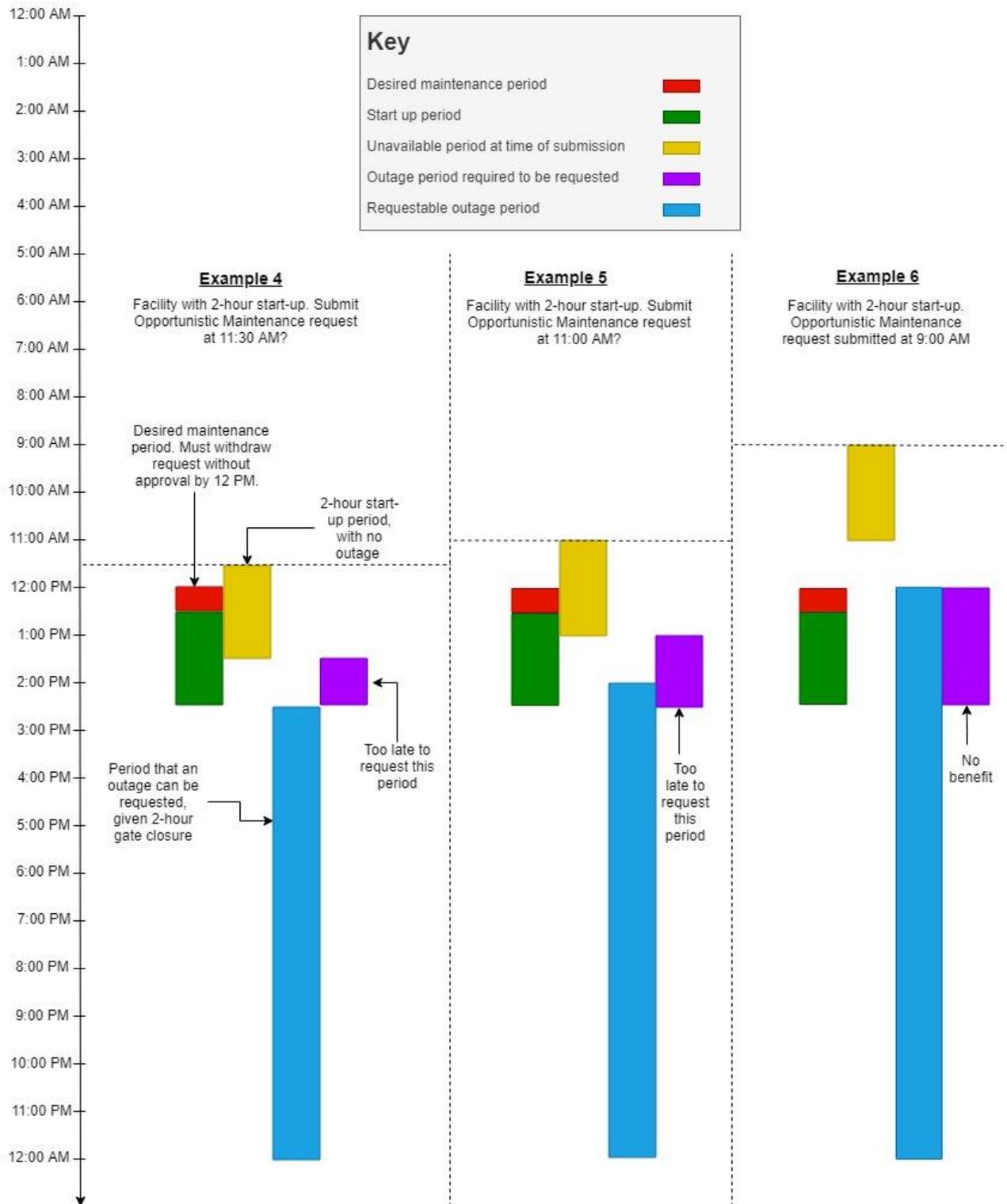
In this situation, the Rule Change Panel proposes that the Market Generator should be able to submit a request for approval of Opportunistic Maintenance for the period from 9:30 PM to 10:30 PM, rather than the full period from 12:00 PM to 10:30 PM. However, in this case the request would need to be approved within a 30-minute window (shown in black) so the work could start at 12:00 PM. This may be unlikely depending on how System Management decides to manage its Opportunistic Maintenance approval processes in the future.

If the request was submitted earlier (e.g. at 9:30 AM as shown in Example 2), this would give System Management more time to approve the request (2.5 hours, shown in black), but would also increase the period being made unavailable by the outage from 1 hour to 3 hours (purple).

**Figure B.9: Options for a 30-minute outage of a Balancing Facility with a 10-hour start-up time**



**Figure B.10: Options for a 30-minute outage of a Balancing Facility with a 2-hour start-up time**



The Rule Change Panel notes that if the request was submitted at 2:00 AM (Example 3) or earlier, there would be no overlap between the period for which the actual availability of the Facility is now fixed (shown in yellow) and the actual outage period (i.e. the (red) work time plus the (green) start-up time), so no option would exist to request a shorter outage period.

The Rule Change Panel proposes to include a new clause 3.19.2H to implement this arrangement. The Rule Change Panel notes that the proposed arrangement:

- does not remove the requirement to account for start-up times in outage periods;
- only permits the shortening of Opportunistic Maintenance outage periods under quite specific, limited circumstances;
- is only relevant for slower starting Facilities (e.g. a Facility with a 2-hour start-up time has no potential to take advantage of the arrangement, as demonstrated in Figure B.10); and
- places no obligation on AEMO to assess Opportunistic Maintenance requests any faster than is already required under clause 3.19.4.

The Rule Change Panel considers the proposed change would provide greater flexibility to Market Generators with slow-starting Facilities, without creating any adverse impacts on transparency or system reliability.

The Rule Change Panel has not yet consulted with stakeholders on this additional change, apart from Synergy (who was supportive of the change) and AEMO (who expressed some reservations about the complexity of the proposed arrangement).

### **B.3.3 Clarification of General Outage Planning Concepts**

The Rule Change Panel proposes several additional changes to the proposed Amending Rules to clarify some of the central concepts that affect outage planning. These include:

- clarification of the ability of a Facility to undertake a Commissioning Test under a Planned Outage or Forced Outage;
- clarification of the concept of ‘unavailable for service’;
- clarification of the concept of ‘maintenance’; and
- use of the term ‘capacity or capability’ to describe what is made unavailable (or less available) during an outage.

Several submissions on this Rule Change Proposal have suggested that its scope should include a review of the definitions of the different outage types in the Market Rules, and in particular, the definition of “Forced Outage”. The Rule Change Panel considers that the proposed Amending Rules, including the clarifications discussed in this Appendix B.3.3, provide clarity on the types of outages that should be eligible for approval as Planned Outages; and do not need to include further elaboration of the definitions of Forced Outage or Consequential Outage to achieve the intent of the Rule Change Proposal. The Rule Change Panel does not therefore consider that a detailed review of these outage types is required to progress this Rule Change Proposal.

However, the Rule Change Panel notes that it is also currently progressing Rule Change Proposal RC\_2014\_03, which deals with issues affecting Forced Outages and Consequential Outages. The Rule Change Panel considers it will be more appropriate to review the definitions of these outage types as part of its assessment of that Rule Change Proposal.

### *B.3.3.1 Commissioning Tests and Outages*

Proposed clause 7A.2.8A states that a Market Generator must, for each of its Balancing Facilities and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times, any of the Facility's capacity that is:

- subject to an approved Planned Outage; or
- subject to an outstanding request for approval of a Planned Outage,

is declared as unavailable in the Balancing Submission for the Facility and the Trading Interval, unless the Facility is undertaking a Commissioning Test in that Trading Interval.

The Rule Change Panel agrees with the exemption in proposed clause 7A.2.8A for Facilities that are undertaking a Commissioning Test, because Market Generators performing maintenance on their Facilities may need to undertake tests that involve synchronising to the grid and exporting energy before their Facility is returned to normal service. The Rule Change Panel considers that requiring a Market Generator to end its Planned Outage before undertaking such a test is impractical and inefficient, as the Market Generator may want or need to carry out further maintenance work after the test.

However, based on its interpretation of the Bluewaters decision, AEMO has determined that a Commissioning Test cannot be undertaken under a Planned Outage. This is because a Market Generator that undertakes a Commissioning Test is required under the Market Rules to make Balancing Submissions at the relevant Price Caps, to ensure it is dispatched by AEMO in accordance with the output levels in its Commissioning Test Plan. AEMO has determined that this constitutes a return to service, so the Facility cannot remain under a Planned Outage because it is no longer "removed from service" as required under clause 3.18.4A.

The ban on Commissioning Tests under Planned Outages is only recent, and AEMO has advised RCP Support that apart from the removal from service issue it has no concerns about Market Generators undertaking these tests under a Planned Outage.

Attendees at the 17 September 2018 and 7 November 2018 workshops agreed that Market Generators should be allowed to undertake Commissioning Tests under a Planned Outage, and that an explicit clarification to this effect should be included in the proposed Amending Rules for this Rule Change Proposal. AEMO, Alinta, Bluewaters and Perth Energy also supported the proposed clarification in their further submissions.

The Rule Change Panel notes that Market Generators may also need to undertake Commissioning Tests when undertaking major repairs to their Facilities under a Forced Outage.

The Rule Change Panel therefore proposes to include a new clause 3.21A.<sup>1472</sup> to clarify that a Commissioning Test under an approved Commissioning Test Plan for an Outage Facility may cover periods in which some or all of the capacity or capability of the Outage Facility is subject to a Planned Outage or Forced Outage.

### *B.3.3.2 Clarification of 'Unavailable for Service'*

During the consultation process for this Rule Change Proposal, several stakeholders raised concerns about the potential ambiguity of terms such as 'available', 'unavailable', 'available

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<sup>72</sup> Note that a clause 3.21A.14 exists in the Market Rules but is currently "[Blank]".

for dispatch' and 'unavailable for dispatch' in the proposed Amending Rules. In particular, stakeholders raised concerns about:

- the applicability of the term 'available for dispatch' to Outage Facilities that are not dispatched by System Management in the same way as Scheduled Generators and Non-Scheduled Generators (e.g. items of network equipment);
- the need to distinguish between an outage and operation within the normal, expected limits of an Outage Facility, such as the expected temperature de-rating of a Scheduled Generator or transmission line, the start-up time and ramp rate limitations of a Scheduled Generator, or the intermittency of a Non-Scheduled Generator; and
- for Scheduled Generator and Non-Scheduled Generator capacity that is not subject to Capacity Credits, how to distinguish between capacity that the Market Generator simply chooses not to offer into the Balancing Market and capacity that is physically unavailable (e.g. because the Facility is undergoing maintenance).

To address the first concern, the Rule Change Panel has amended several proposed clauses in sections 3.18 and 3.19 to consistently use the terms 'available for service' and 'unavailable for service' instead of more general terms such as 'unavailable', or more generator-oriented terms such as 'unavailable for dispatch'.

To address the second and third concerns, the Rule Change Panel proposes to include a new clause 3.18.1B, which provides clarification on when an Outage Facility's capacity or capability should (for the purposes of sections 3.18 and 3.19) be deemed to be unavailable for service.

The Rule Change Panel considers that capacity or capability should be deemed to be unavailable for service in a Trading Interval if it could not, in response to an instruction or direction from System Management, be used to provide the relevant service expected from that capacity or capability.

To provide for the necessary distinction between the normal operational limits of an Outage Facility and an outage, the hypothetical instruction or direction from System Management is required to be consistent with the agreed normal operating limits of the Outage Facility. The specification of these limits depends on the type of Outage Facility. For example:

- for Scheduled Generators and Non-Scheduled Generators, the relevant limits are the Equipment Limits of the Facility;<sup>73</sup>
- for items of network equipment, the relevant limits appear to be provided to System Management in accordance with the PSOP referred to in clause 2.28.3A(a); and
- for Outage Facilities subject to an Ancillary Service Contract, the relevant limits are expected to include the Outage Facility's Equipment Limits and any contract-specific limits in the Ancillary Service Contract.

For a Non-Scheduled Generator, the expected service depends on the availability of its fuel source (e.g. a solar farm is not unavailable for service because the sun is not shining at the time). New clause 3.18.1B includes an explicit clarification to this effect.

The Rule Change Panel seeks the views of stakeholders on whether the information listed in clause 3.18.1B appropriately defines the normal operating limits of Outage Facilities and

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<sup>73</sup> An Equipment Limit is defined in the Market Rules as any limit on the operation of a Facility's equipment that is recorded in the Standing Data for the Facility.

allows a practical distinction to be made between the normal operation of an Outage Facility and a state that should be regarded as unavailable for service.

The Rule Change Panel notes that the Equipment Limits of a Scheduled Generator include its start-up times, ramp rate limits and temperature-related limits on sent out capacity. This means, for example, that:

- A Scheduled Generator with a 4-hour start-up time could be offline during a Trading Interval starting at 2:00 PM without being unavailable for service in that Trading Interval, provided that it could have synchronised and provided energy in that Trading Interval if System Management had instructed it to do so by 10:00 AM on the same day.
- A Scheduled Generator returning from a Planned Outage will, following the completion of the relevant maintenance work, remain unavailable for service until the time the Market Generator could restart the Facility and synchronise it to the grid. If the Market Generator decides to leave the unit offline (because the Balancing Forecast indicates it is not required) then the Market Generator should use the relevant Equipment Limit to determine the end time of the outage period.
- Scheduled Generator capacity that is affected by normal temperature-related de-rating would not become 'unavailable for service', because a direction to generate above the level expected for the current site temperature would be inconsistent with the Equipment Limits of the Facility.

#### **B.3.3.3 Clarification of 'Maintenance'**

The Rule Change Panel proposes to include new clause 3.18.1C to provide clarification on the types of activities that qualify as maintenance and are therefore eligible to be performed under a Planned Outage. Under new clause 3.18.1C, for the purposes of outage planning and approval:

*references to 'maintenance' include but are not limited to preventative maintenance, corrective maintenance, plant inspections, upgrades and tests that require some or all of the capacity or capability associated with an Outage Facility being unavailable for service when such maintenance would be reasonably considered to be required in accordance with good industry practice.*

The Rule Change Panel notes that a maintenance activity could be consistent with clause 3.18.1C but still not be eligible for approval as a Planned Outage, for example if the outage to perform corrective maintenance did not meet the availability requirement.

#### **B.3.3.4 Capacity or Capability**

During the consultation period for this Rule Change Proposal, AEMO raised a concern that references to the 'capacity' of an Outage Facility might be misleading for those Outage Facilities that do not provide 'capacity' in the RCM sense. AEMO suggested that these concerns might be addressed by replacing the term 'capacity' in the relevant clauses with the term 'capacity or capability'.

As mentioned briefly in Appendix B.2.4.4, the Rule Change Panel has adopted this suggestion and proposes changes to several clauses in sections 3.18 and 3.19 to replace 'capacity' with the more general 'capacity or capability'.

### B.3.4 Additional Minor Issues

The Rule Change Panel also proposes the following minor enhancements to improve the clarity and integrity of the outage planning provisions in the Market Rules:

- Equipment List maintenance requirement: The Rule Change Panel proposes additional changes to proposed clause 3.18.2(b) to strengthen and clarify the obligations on System Management to keep the Equipment List up to date. The changes are based on a suggestion made by System Management in its first period submission on this Rule Change Proposal.
- Removal of requirement for outage period details in Scheduled Outage approval requests: The Rule Change Panel proposes to remove the second sentence of proposed clause 3.19.1, i.e. the requirement for a request for approval of a Scheduled Outage to specify the Trading Intervals during which the Scheduled Outage will occur. The requirement is unnecessary because the outage period is specified by the Rule Participant when the Outage Plan is first submitted.
- Relocation of the definition of Scheduled Outage: The Rule Change Panel proposes to move the definition of Scheduled Outage from section 3.19, which only deals with the final approval of Scheduled Outages, to the Glossary.
- Outage recall and Self-Scheduling Outage Facilities: The Rule Change Panel proposes an additional change to proposed clause 3.20.1 to reflect the existing exemption of Self-Scheduling Outage Facilities from obligations under section 3.20 (which deals with Planned Outage recalls) that is specified in clause 3.18.2A(a).
- Minor administrative and typographical changes: The Rule Change Panel proposes several other minor administrative and typographical changes to improve the clarity and integrity of the drafting. These changes are summarised in section 6.5 of the Draft Rule Change Report.

## Appendix C. Comments and Suggestions made at the 10 June 2019 MAC Drafting Review Workshop

Clause/Term	Comments/Suggestions	Rule Change Panel's Response
2.34.4	<p>Mrs Jacinda Papps suggested that “the capability of a Registered Facility” in clause 2.34.4 might need to be modified to “the capacity or capability of a Registered Facility”.</p>	<p>The Rule Change Panel agrees and has made the suggested change.</p>
3.18.1A	<p>Ms Jenny Laidlaw sought the views of attendees on whether the proposed materiality threshold should be based on the Sent Out Capacity of the Facility instead of its nameplate capacity.</p> <p>Mr Sam Lei noted that the Sent Out Capacity of a Non-Scheduled Generator can be materially lower than its nameplate capacity (e.g. if a hybrid Non-Scheduled Generator has 150 MW of wind capacity, 50 MW of solar capacity and a Declared Sent Out Capacity (DSOC) of 150 MW. Mr Lei questioned whether the Market Generator should be required to report an outage if the solar capacity was unavailable).</p> <p>Mr Clayton James noted that an understanding of the availability of the different components of a hybrid Facility would support more accurate forecasting of the likely output of the Facility. Ms Laidlaw agreed that more detailed information would need to be provided if central forecasting of Non-Scheduled Generator output was to be implemented in future, but noted this was not the case currently and that it appeared ETIU had not yet decided on the future arrangements.</p>	<p>See section 7.2.2.1 of this report.</p>

Clause/Term	Comments/Suggestions	Rule Change Panel's Response
	<p>Mr Adam Stephen noted that the physical capacity of Non-Scheduled Generators may decline over time so they may not remain capable of generating to their nameplate capacity levels.</p> <p>Ms Laidlaw suggested arranging a separate meeting with Alinta to discuss the treatment of outages for a Non-Scheduled Generator with a nameplate capacity greater than its DSOC.</p>	
3.18.1B	<p>Mr Stephen considered that the meaning of 'capacity or capability' should be clarified. There was some discussion about outages that relate to services other than the provision of energy (e.g. the services provided by network equipment, and Ancillary Services like System Restart that are provided under Ancillary Service Contracts).</p> <p>There was also discussion about Facilities that provide two distinct services (e.g. energy and System Restart), including:</p> <ul style="list-style-type: none"> <li>• whether the use of '0 MW' outages was the most expedient way to report outages of the Ancillary Service capability;</li> <li>• whether there was any need to specify multiple Outage Facilities, one for each service provided; and</li> <li>• the use of 0 MW outages to report the unavailability of one fuel for dual-fuel Facilities and the Reserve Capacity Testing implications.</li> </ul> <p>Mr James and Mr Matthew Fairclough considered that 0 MW outages were likely to be the most expedient means of reporting outages of Ancillary Service capability and situations where a dual fuel generator was unable to run on</p>	See section 7.2.2.5 of this report.

Clause/Term	Comments/Suggestions	Rule Change Panel's Response
	<p>one of its fuels. Ms Laidlaw agreed to consider what additional prescription or clarification was needed in the drafting.</p>	
3.18.1C	<p>Mrs Papps suggested that the term 'maintenance' be defined in the Glossary rather than in a clause. Ms Laidlaw agreed to investigate where 'maintenance' was used in the Market Rules and the implications of introducing a defined term 'Maintenance'.</p> <p>In response to a question from Mr Stephen, Ms Laidlaw confirmed that the drafting was not intended to imply that a Commissioning Test could only be taken under a Planned Outage.</p> <p>Mr Jake Flynn noted that Facility upgrades may not always be "reasonably considered to be required in accordance with good electricity industry practice". Ms Laidlaw agreed that the clause may need to be restructured to ensure that discretionary Facility upgrades were not unintentionally excluded from the definition of maintenance.</p>	See section 7.2.2.4 of this report.
3.18.2(c)	<p>Ms Laidlaw noted that the Market Rules currently allow the registration of a Non-Scheduled Generator that is not an Intermittent Generator, and that the drafting of proposed clauses 3.18.2(c)(ii) and (iii) may require further amendment to account for such Facilities.</p>	See section 7.2.3.4 of this report.
3.18.2(f)	<p>Mr Flynn suggested that the clause could be simplified without loss of meaning by removing ". Outages must be scheduled".</p>	The Rule Change Panel agrees and has made the suggested change.

Clause/Term	Comments/Suggestions	Rule Change Panel's Response
3.18.2A(h), 3.18.9A and 3.19.2E	<p>Ms Laidlaw noted that prohibiting the changes listed in clauses 3.18.2A(h), 3.18.9A and 3.19.2E could materially simplify the drafting of the outage rules, but would require Rule Participants wishing to amend their outages in this way to either:</p> <ul style="list-style-type: none"> <li>• submit an additional request/notification for the additional period or quantity of de-rating; or</li> <li>• withdraw the original request/notification and submit a new one.</li> </ul> <p>Attendees raised no concerns about amending the three clauses to prohibit changes of this type to Planned Outage requests and notifications.</p>	See section 7.2.1.3 of this report.
3.18.3(d)	Mr Flynn suggested that the clause be modified to explicitly require System Management to publish an updated Equipment List on the Market Web Site in the specified circumstances.	The Rule Change Panel agrees and has made the suggested change.
3.18.4(b)	<p>In response to a question from Mrs Papps, Ms Laidlaw noted that the Rule Change Panel had decided not to change references to System Management to references to AEMO as part of this Rule Change Proposal, following legal advice that cautioned against making such changes in a piecemeal manner.</p> <p>Mrs Papps questioned whether the clause reference in clause 3.18.4(b) should be to clause 3.18.15(g) (which requires System Management to schedule an Outage Plan if directed to by the ERA) rather than clause 3.18.15(f) (the clause that permits the ERA to provide such a direction).</p>	The Rule Change Panel has amended the structure of clause 3.18.4(b) to clarify that the reference to clause 3.18.15(f) relates to the ERA's direction rather than the subsequent action by System Management.

Clause/Term	Comments/Suggestions	Rule Change Panel's Response
3.18.6A	<p>Mr Flynn suggested removing the words “be possible to” to avoid potential confusion while retaining the meaning of the clause. Mr Flynn agreed with Ms Laidlaw that another option would be to replace “that it will not be possible to” with “that it will (or would) not be able to”.</p>	<p>The Rule Change Panel agrees with Mr Flynn’s concern and has amended new clause 3.18.6A to replace “that it will not be possible to” with “that it would not be able to”.</p>
3.18.9C	<p>Mr James and Mr Fairclough noted that AEMO was still considering this clause; and had some concerns about how it would monitor compliance with the clause and whether it needed to be informed once the proposed maintenance could no longer be brought forward.</p> <p>Ms Laidlaw noted two other options:</p> <ul style="list-style-type: none"> <li>• removing the proposed exemption and requiring the Market Participant to advise System Management when the outage became availability-challenged; or</li> <li>• requiring the Market Participant to include relevant details about the time-sensitive nature of the maintenance in its Outage Plan.</li> </ul>	<p>See section 7.2.1.5 of this report.</p>
3.18.10A	<p>Mr Stephen and Mrs Papps raised concerns about the inclusion of “or ought to be aware” in the clause and questioned how System Management ought to be aware of something when assessing an outage request. Ms Laidlaw reiterated that the clause placed no new obligations on System Management to undertake additional proactive monitoring of Outage Facilities, and that “ought to be aware in the circumstances” was intended to prevent wilful blindness on System Management’s part, consistent with the</p>	<p>See section 7.2.1.4 of this report.</p>

Clause/Term	Comments/Suggestions	Rule Change Panel's Response
	<p>corresponding drafting for Market Participants and Network Operators.</p> <p>Mr Fairclough advised that AEMO's concern was that the inclusion of "or ought to be aware in the circumstances" would force AEMO to undertake additional proactive actions and investigations to allow it to be sure it was complying with the obligation. There was some discussion about AEMO's interpretation of the obligation, whether the intent of the obligation was already covered by other provisions in the Market Rules, the existence of similar obligations on AEMO under other regulatory instruments (such as the Gas Retail Market Procedures) and the circumstances under which the ERA was likely to investigate AEMO for a breach of the clause.</p> <p>Ms Laidlaw reiterated that AEMO was welcome to suggest additional wording to clarify the meaning of the clause and avoid any perverse interpretation of the obligation.</p> <p>Ms Laidlaw suggested that early discussion with AEMO's auditors might assist with this process.</p>	
3.18.11(b)	Mr Stephen suggested that "or capability" should be included after "capacity" for consistency with other clauses.	The Rule Change Panel agrees and has made the suggested change.
3.19.2(b)(ii)	Mr Stephen suggested replacing the word "will" with "does".	The Rule Change Panel agrees and has made the suggested change.
3.19.2(b)(iii)	Mr Stephen suggested that the word "outage" in "Opportunistic Maintenance outage period" was redundant and should be removed.	The Rule Change Panel considers that in the context of the clause an "Opportunistic Maintenance outage period" is a specific type

Clause/Term	Comments/Suggestions	Rule Change Panel's Response
		of outage period, so the retention of the word "outage" in the phrase is warranted.
3.19.2C	<p>In response to a question from Mrs Papps, Ms Laidlaw advised that the Rule Change Panel had suggested clause 3.19.2C as a candidate for classification as a civil penalty provision because the corresponding clause for Scheduled Outages was already a civil penalty provision; and because failing to promptly withdraw an Opportunistic Maintenance request prevented the outage slot from being used by another Market Generator and reduced the accuracy of the Forecast BMO.</p> <p>Ms Laidlaw noted that RCP Support would forward any comments about civil penalties received in submissions to the PUO for consideration.</p> <p>Ms Laidlaw noted that clauses had generally been identified as candidate civil penalty provisions because a failure to comply with the clause could have adverse impacts on market outcomes or other Rule Participants.</p>	See section 7.5 of this report.
3.19.2H	<p>Mr Fairclough noted that clause 3.19.2H(c) could be interpreted to mean that the Market Generator could start its maintenance work as soon as the request was approved.</p> <p>Mr Fairclough noted clause 3.21.1 stated that a Forced Outage was maintenance that was not approved by System Management and suggested that the clause may need revision to account for Planned Outages of the type contemplated in clause 3.19.2H.</p>	<p>See section 7.2.2.2 of this report.</p> <p>The Rule Change Panel agrees that clause 3.19.2H(c) would allow the Market Generator to start its maintenance work as soon as the request was approved, but notes this work would occur during the period for which it is already certain that the Facility will be unable to generate (because it had not commenced</p>

Clause/Term	Comments/Suggestions	Rule Change Panel's Response
		its start-up process at the time it submitted the request).
3.19.4A	Several attendees suggested that the words “for the purposes of the Market Rules” were not required and should be removed from the proposed clause.	The Rule Change Panel agrees and has made the suggested change.
3.19.12(a)	<p>Ms Laidlaw noted that the proposed insertion of the words “under clause 3.19.5” in clause 3.19.12(a) would restrict compensation for the late rejection of an Outage Plan to Outage Plans that have been approved (rather than just scheduled) by System Management. The Rule Change Proposal does not provide the reasons for the proposed change.</p> <p>Mr James considered that most Scheduled Outages would be approved or rejected before the 48-hour deadline for compensation, but agreed this might not always be the case given the proposed deadline for approval decisions on Scheduled Outages was 2:00 PM on TD-2.</p>	See section 7.2.3.3 of this report.
3.20.1	Mr Stephen suggested including “a” before “High Risk Operating State”.	The Rule Change Panel agrees and has made the suggested change.
7A.2.8A	Ms Laidlaw questioned whether clause 7A.2.8A(a) was redundant given that the requirement to report capacity subject to an approved Planned Outage as unavailable in Balancing Submissions was covered by other clauses. Mr Paul Arias asked how the clause affected Facilities that returned from a Planned Outage earlier than expected. Ms Laidlaw replied that the intention was for a Market Participant to update its outage end time in SMMITS before	See section 7.2.1.1 of this report.

Clause/Term	Comments/Suggestions	Rule Change Panel's Response
	<p>updating its Balancing Submissions, so that the Facilities were not participating in the Balancing Market while under a Planned Outage; and that there may be benefit in leaving the clause as drafted if it helps to clarify that requirement.</p> <p>Mrs Papps noted that civil penalty payments for breaches of the surrounding clauses (7A.2.8 and 7A.2.9) were distributed to Market Participants.</p>	
7A.2A	<p>Mrs Papps suggested that the title of section 7A.2A (currently "Unavailable Capacity in a Balancing Submission") was potentially misleading and suggested a change to something like "Accounting for Unavailable Capacity in a Balancing Submission".</p>	<p>The Rule Change Panel agrees and has made the suggested change.</p>

## Appendix D. Responses to Submissions Received in the Second Submission Period

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
<b>Submissions relating to issues raised in the Rule Change Proposal</b>			
<b>Issue 2: Equipment List: Network equipment</b>			
1	Perth Energy	<p>Perth Energy highlights that the that the impact of distribution network equipment on the market is quickly increasing. Both the quantity of energy supplied by and consumed directly from the distribution network is increasing, and with a growing emphasis on small-scale technologies and demand-side solutions, we consider proper operation of the distribution network to be critical to the continued supply of electricity to our customers.</p> <p>Perth Energy appreciates that Western Power's expected costs of implementing the necessary IT changes to be high. However, we are concerned that the "alternative approach" proposed by Western Power appears to be highly reliant on manual processes and subjective assessments. Where similar ad-hoc processes have been implemented in the market before, they have resulted in an inconsistent application and market outcomes, and have quickly become unwieldy to manage. We are concerned that the alternative approach will be insufficient to deliver consistent, equitable and transparent market outcomes over the longer-term. We therefore request more information on the costs and benefits of each of the feasible options be made available prior to a decision about the exclusion of distribution equipment from the equipment list.</p>	<p>The Rule Change Panel agrees that the impact of distribution network equipment on the market is increasing, although the likely rate of change over the next 2-3 years (i.e. before the implementation of the Minister's proposed reforms in October 2022) is uncertain. The Rule Change Panel also agrees with Perth Energy that the alternative approach proposed by Western Power is of concern from the perspective of transparency and reliability.</p> <p>However, Western Power and AEMO have both insisted that inclusion in the Market Rules of any obligation on Western Power to request or report outages of the relevant distribution network equipment would require the implementation of a fully automated solution. The rejection by Western Power and AEMO of any less automated, less expensive options under the Market Rules leaves only two 'feasible' options: a high-cost, fully automated option or Western Power's alternative approach.</p> <p>As the costs estimated by Western Power for the first option greatly outweigh the potential benefits of the change, the Rule Change Panel has not altered its draft decision to not implement that option.</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
2	Perth Energy	<p>We are also concerned that the cost estimate provided by Western Power was stated as confidential, without any justification being provided. Perth Energy highlights that cost estimates including those from AEMO, Western Power and Market Participants are critical to the market's assessment of whether or not to progress with a Rule Change Proposal or part thereof. We urge the Rule Change Panel to require Western Power to provide publicly available cost estimates for this Rule Change Proposal and those in the future. This is particularly important for Rule Change Proposals such as this, where it is deciding to reject a proposed amendment, previously considered beneficial to the market as a whole.</p>	<p>Following the second submission period, RCP Support requested that Western Power either:</p> <ul style="list-style-type: none"> <li>grant the Rule Change Panel permission to publish the previously provided estimate details, as well as any other supporting/explanatory information Western Power could provide; or</li> <li>provide further explanation about why the provided estimate information was highly confidential and commercially sensitive.</li> </ul> <p>In its response, Western Power advised that:</p> <p><i>Western Power considers the cost estimates to be sensitive/commercial information, and hence confidential. That is, there is a high chance that these estimates, if made public, could be taken out of context by stakeholders. Stakeholders do not have the in-depth understanding of the two options and are not aware of the limitations of the costs estimates. Therefore, it is highly likely that publication of the estimates would confuse rather than assist stakeholders. In Western Power's view, the Draft Rule Change Report has sufficiently highlighted that the costs of the first option far exceed the costs of the second option.</i></p> <p>The Rule Change Panel agrees with Perth Energy that robust and transparent cost estimates play a critical role in the rule change process. Further, the Rule Change Panel notes that there is nothing preventing Western Power from providing the necessary context to allow</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
			<p>stakeholders to understand the options and related cost estimates.</p> <p>However, the Rule Change Panel notes that Market Participants and Network Operators are not obligated under the Market Rules to provide such estimates.</p>
<b>Issue 6: Representation of non-Balancing Portfolio Capacity affected by Planned Outages</b>			
3	Bluewaters	<p>Bluewaters is concerned that clause 7A.2.8A places an additional barrier to entry on generators wishing to return early from a Planned Outage. The requirement to update System Management's Market Participant Interface in real time introduces administrative burden on generators wishing to return to service earlier than expected, reducing the availability of low-cost generation to the market. Bluewaters considers this to be at odds with the Wholesale Market Objective to reduce long term cost of electricity supplied to consumers.</p>	See section 7.2.1.1 of this report.
<b>Issue 7: Representation of Balancing Portfolio Capacity affected by Planned Outages</b>			
4	AEMO	<p>AEMO is concerned about the lack of clarity regarding the self-assessment of credible risks in accordance with clause 7A.2.9(g)(iii) of the WEM Rules, as compliance with this clause is not measurable for similar reasons to those provided in AEMO's submission for AEMO's inability to monitor new clause 3.18.9C,<sup>74</sup> including that the assessment is subjective and independent information to assess compliance is not able to be readily obtained.</p>	See section 7.2.1.2 of this report.

<sup>74</sup> See section 7.2.1.5 of this report.

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		AEMO suggests including some guidance on how Synergy would determine this risk to avoid doubt.	
<b>Issue 13: Availability declarations for Planned Outage approval requests</b>			
5	AEMO	<p>AEMO's compliance with new clauses 3.18.10A and 3.19.3B depends on its actions prior to the commencement of the relevant outage. These obligations imply that AEMO is either:</p> <ul style="list-style-type: none"> <li>• aware, meaning AEMO has the knowledge that the capacity or capability would not be available for service; or</li> <li>• ought to be aware, meaning AEMO is not aware that the capacity or capability would not be available, but should be.</li> </ul>	<p>The Rule Change Panel considers that aware and ought to be aware are not necessarily exclusive (e.g. if AEMO is 'aware' then it will often 'ought to be aware' as well).</p> <p>The Rule Change Panel has made additional changes to clauses 3.18.10A and 3.19.3B to clarify the meaning of these clauses, as discussed in section 7.2.1.4 of this report.</p>
6	AEMO	AEMO is unable to comply with the proposed obligations under new clauses 3.18.10A and 3.19.3B: AEMO has no knowledge of, or ability to determine, whether a Facility will be available, other than as notified by the relevant Rule Participant (unless AEMO arranges for a representative to physically inspect the Facility).	The Rule Change Panel disagrees with this comment. There are several ways that AEMO can become aware that a Facility will not be available, other than notification by the relevant Rule Participant or physical inspection of the Facility. See section 7.2.1.4 of this report for further discussion.
7	AEMO	To comply with proposed new clauses 3.18.10A and 3.19.3B, AEMO would need to identify circumstances that it is not aware of, but should be, prior to the commencement of the outage. This is paradoxical, as, prior to the commencement of the outage, if AEMO is aware of circumstances that it ought to be aware of, then AEMO <b>is</b> aware of the circumstances.	The Rule Change Panel has made additional changes to clauses 3.18.10A and 3.19.3B to clarify the meaning of these clauses, as discussed in section 7.2.1.4 of this report.

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>Consequently, AEMO is only able to identify circumstances where it 'ought to be aware' retrospectively. Therefore, the proposed new clauses introduce a compliance burden that cannot be met, as AEMO's decision must be made before the circumstances that it 'ought to be aware' of have been determined.</p>	
8	AEMO	<p>As AEMO must rely on the Rule Participant for information, there is no case for 'wilful blindness'. AEMO is either aware, in which case it would take action and not approve the Outage Plan or Opportunistic Maintenance request, or it is not aware, in which case it would assess the Outage Plan or Opportunistic Maintenance request as required under the WEM Rules.</p> <p>Given the imposition of obligations on the Rule Participant to inform AEMO of the Facility's unavailability, the situation that the Rule Change Panel is seeking to address is already covered. There are sufficient checks and balances, and the ERA has the ability to take compliance action where the Rule Participant is found to have acted inappropriately.</p> <p>The imposition of an additional obligation on AEMO, with which it can never comply without arranging for an AEMO representative to physically inspect a Facility, is unnecessary and impractical.</p>	See the response to issue 6 and section 7.2.1.4 of this report.
9	AEMO	<p>The Draft Rule Change Report, at page 70, states the Rule Change Panel's position that 'there is no requirement for System Management to proactively investigate every situation'. AEMO suggests that this conclusion is</p>	<p>The Rule Change Panel does not consider that clauses 3.18.10A and 3.19.3B, as originally drafted, imply that AEMO should make further inquiries in relation to every outage request it receives. If the clauses were intended to</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>misconceived and does not reflect the requirements and obligations of the WEM Rules relating to compliance activities.</p> <p>The proposed drafting, 'ought to be aware', implies AEMO should make further inquiries in relation to every outage request it receives. The Market Auditor also holds this view.</p> <p>The Market Auditor has advised AEMO that 'ought to be aware' implies a positive, proactive obligation on AEMO to take steps to satisfy itself that the Facility would be available. A formal response from the Market Auditor is attached to this document and marked 'Attachment A'. In this letter, the Market Auditor outlines a process AEMO would be required to follow to ensure the Market Auditor is satisfied that AEMO meets the obligations imposed by the 'ought to be aware' drafting in proposed new clauses 3.18.10A and 3.19.3B. This process involves actively engaging with, and obtaining a positive declaration from, each Rule Participant who requests an outage.</p> <p>AEMO notes that, in certain situations, even a positive declaration from a Rule Participant may be insufficient, and AEMO will need to make further investigation.</p>	<p>require AEMO to actively monitor or verify Rule Participants' submitted information, then the clauses would have contained a more explicit obligation on AEMO, such as:</p> <p><i>"AEMO must ensure that it does not schedule a new Outage Plan where, if it rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period"</i>.</p> <p>As noted in section 7.2.1.4 of this report, the Rule Change Panel agrees with AEMO that such an obligation would not be practical or efficient.</p> <p>The Rule Change Panel also notes that the Market Auditor's advice includes the following disclaimer:</p> <p><i>"The following is an initial opinion only; it is not a legal opinion and is subject to change if a legal opinion is obtained or the intention of these clauses is clarified."</i></p> <p>As discussed in section 7.2.1.4 of this report, the Rule Change Panel has made additional changes to new clauses 3.18.10A and 3.19.3B to clarify the intent of those clauses.</p>
10	AEMO	<p>The process outlined by the Market Auditor to satisfy the proposed new 'ought to be aware' obligation creates an unnecessary, onerous obligation on AEMO that would require system changes and additional actions by AEMO, thereby increasing costs to Rule Participants. AEMO received approximately 3,700 network and generation</p>	<p>In Attachment A of AEMO's submission, the Market Auditor gives several examples of steps it considers that AEMO would be expected to take to demonstrate its compliance with clauses 3.18.10A and 3.19.3B.</p> <p>The Rule Change Panel notes that most of the steps involve obtaining some form of explicit availability</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>outage requests in 2017 and approximately 2,400 requests in 2018. The Rule Change Panel's proposal is unworkable.</p>	<p>declaration from the Rule Participant, some of which would require additional changes to SMMITS.</p> <p>As discussed in section 7.2.1.4 of this report, the Rule Change Panel considers that the required availability declaration is inherent in the submission of the outage request (and in not subsequently withdrawing that outage request). To require the Rule Participant to provide a separate declaration that it is acting in compliance with the Market Rules would serve no practical purpose and would therefore impose unnecessary costs on the market and unnecessary administrative burden on Rule Participants and AEMO.</p> <p>Further, the Rule Change Panel does not consider that such a declaration would affect AEMO's obligations under clauses 3.18.10A and 3.19.3B, which depend on what AEMO is aware of.</p>
11	AEMO	<p>Consequential uncertainty of outage approval: As a result of the above points, should the Rule Change Panel impose an obligation for AEMO to take action where it 'ought to be aware', Rule Participants will have less certainty of receiving approval for Planned Outages.</p> <p>AEMO will be obliged to assess the veracity of information provided by Rule Participants, in addition to assessing whether the proposed outage is permissible in terms of Power System Security considerations. As such, Rule Participants will not be able to take measures to maximise the probability of an outage being approved, because the</p>	<p>See section 7.2.1.4 of this report.</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>matters under consideration will be unspecified and will relate to the specific situation of each and every outage. AEMO cannot identify a single benefit that the imposition of this obligation would achieve.</p>	
12	Alinta	<p>Alinta considers that clauses 3.18.10A and 3.19.3B should be limited to “aware” only and not refer to “ought to be aware”. Alinta is concerned that the inclusion of “ought to be aware” may require AEMO to undertake additional monitoring and or investigations which are not warranted or justified.</p>	<p>See section 7.2.1.4 of this report.</p>
13	AEMO	<p>Ought to be aware' precedents: The Rule Change Panel has indicated that phrases similar to 'ought to be aware' are used in the NER, as well as the WA Gas Retail Market (<b>WAGRM</b>) Procedures. AEMO's view is that the instances of the similar phrases used in the NER and the WAGRM Procedures, referred to by the Rule Change Panel, are distinguishable because they relate to instances where the proponent is required to be aware of a specified matter based on information that is available to the proponent. In contrast, proposed new clauses 3.18.10A and 3.19.3B require awareness of a specified matter (the availability or otherwise of a Facility) based on information that is available to another party. As this is a different concept, and difficult to ascertain with certainty, the precedents in the NER and the WAGRM Procedures are not applicable.</p>	<p>As discussed in section 7.2.1.4 of this report, the Rule Change Panel has made additional changes to clauses 3.18.10A and 3.19.3B to clarify that AEMO is not required to act under these clauses if it has no relevant information.</p>
14	AEMO	<p>The NER examples are isolated uses of the 'ought to be aware' terminology and, therefore, caution should be</p>	<p>The examples provided by RCP Support at the 10 June 2019 workshop, including the examples from the</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>exercised when comparing these examples with proposed new clauses 3.18.10A and 3.19.3B. In chapters 3 and 4 of the NER, there are many more obligations triggered by awareness of information or circumstances, none of which incorporate an 'ought to be aware' concept.</p>	<p>NER, were only intended to demonstrate that the expression "ought to be aware" is used in multiple regulatory instruments and is therefore not unprecedented.</p>
15	AEMO	<p>The context of clause 4.3.3(e) of the NER is different to the situation considered in the Draft Rule Change Report, where Rule Participants operate their own Facilities and, unlike AEMO, have access to all relevant information regarding the availability, or otherwise, of those Facilities. This is because in clause 4.3.3(e) of the NER, a System Operator (typically a transmission network service provider), by nature of its duties, should always be aware of the relevant circumstances of its own system, and is responsible for making itself aware. It does not solely rely on information provided by other parties, and any case where it 'ought to be aware' is likely to result because it has not prudently undertaken its duties, that is, wilful blindness is a relevant factor in this situation.</p>	<p>As discussed in section 7.2.1.4 of this report, the Rule Change Panel has made additional changes to clauses 3.18.10A and 3.19.3B to clarify that AEMO is not required to act under these clauses if it has no relevant information.</p>
16	AEMO	<p>The context of clause 4.6.4 of the NER is also different. Clause 4.6.4 of the NER relates to thermal ratings, which can only be determined and provided by Network Service Providers (NSPs). The thermal ratings are in existence at all times and can change from time to time. AEMO is informed of the thermal ratings by NSPs. However, where an NSP may not have formally defined a thermal rating, it may be reasonable in some cases for AEMO to infer the thermal rating from available information provided by the</p>	<p>The Rule Change Panel does not agree that AEMO would never have relevant information about a proposed Planned Outage other than what was provided by the Rule Participant.</p> <p>As discussed in section 7.2.1.4 of this report, the Rule Change Panel has made additional changes to clauses 3.18.10A and 3.19.3B to clarify that AEMO is not required to act under these clauses if it has no relevant information.</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>NSP in another context, or, based on the current state of the network, that it should have been advised. As such, in this situation, AEMO 'ought to have been aware' and should take action to avoid exceeding the apparent thermal rating. By contrast, the situation considered in the Draft Rule Change Report concerns a future state about which AEMO has no information and cannot make any assessment other than as advised by the Rule Participant.</p>	
17	Alinta	<p>At the stakeholder workshop held on 10 June 2019, the Rule Change Panel secretariat indicated that "ought to be aware" was used in both the WAGRM Procedures and the NER (as part justification of including it in this rule change).</p> <p>Alinta was unable to find a reference to "ought to be aware" in the NER.</p>	<p>See clause 4.3.3(e) ("...that the System Operator is aware or ought reasonably to have been aware...") and clause 4.6.4(b) ("...to the extent that AEMO is or ought reasonably to be aware of such ratings") of the NER.</p>
18	AEMO	<p>Similarly, the context of clause 325 of the WAGRM Procedures can be distinguished from the situation considered in the Draft Rule Change Report. The distinction is that the obligation is not mandatory, so a situation where it is not aware of, but ought to be aware of, circumstances that it then chooses to disclose would be unlikely to practically arise.</p>	<p>The examples provided by RCP Support at the 10 June 2019 workshop, including the example from the WAGRM Procedures, were only intended to demonstrate that the expression "ought to be aware" is used in multiple regulatory instruments and is therefore not unprecedented. The Rule Change Panel agrees that the situation contemplated in clause 325 of the WAGRM Procedures is different from those contemplated in new clauses 3.18.10A and 3.19.3B.</p>
19	Alinta	<p>Having reviewed the WAGRM Procedures (specifically clause 325), Alinta notes that the context in the WA gas retail procedures is quite different to the proposal for this</p>	<p>See the Rule Change Panel's response to issue 18 and section 7.2.1.4 of this report.</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>rule change and doesn't in and of itself provide a justification for inclusion in this rule change. Specifically, the reference in the WAGRM Procedures is an "after the event" concept versus the proposed reference in this rule change which is a "before the event" concept.</p> <p>Alinta does not consider System Management will be in a position to identify what it "ought to be aware of" until a compliance investigation has taken place which identifies something that it "ought to have been aware of".</p>	
20	AEMO	<p>AEMO proposes that, to avoid the above issues, the phrase 'ought to be aware' be deleted. This would reinstate previous drafting reviewed and accepted by AEMO, where AEMO must take action when, and only when, it is 'aware'. AEMO's position was supported by a number of Rule Participants at the workshop on 10 June 2019. AEMO notes that none of the attendees at that workshop supported the Rule Change Panel's position.</p>	<p>The Rule Change Panel notes that two Alinta representatives expressed support for AEMO's position on clauses 3.18.10A and 3.19.3B during the 10 June 2019 workshop. Alinta also supported AEMO's position on these clauses in its second period submission.</p> <p>However, no other stakeholder provided any comment on the clauses during the 10 June 2019 workshop or in second period submissions.</p>
21	AEMO	<p>In addition, proposed new clauses 3.18.10B(b) and 3.19.3C(b) impose an obligation on AEMO to delay its evaluation of an Outage Plan or an Opportunistic Maintenance request where it is 'otherwise aware' of particular circumstances. This is referred to in the commentary on page 77 of the Draft Rule Change Report as an obligation where 'System Management knows it should have been told.' This interpretation would require AEMO to implement a similar process to that required under proposed new clauses 3.18.10A and 3.19.3B of the</p>	<p>During a discussion held with RCP Support after the close of the second submission period, AEMO advised that its concern with new clauses 3.18.10B(b) and 3.19.3C(b) related to the inclusion of the word 'otherwise', and that it would find the clauses acceptable if 'otherwise' was removed.</p> <p>After further review, the Rule Change Panel has concluded that the word 'otherwise' is unnecessary in</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>WEM Rules, in order for AEMO to determine whether it is 'otherwise aware' of, or 'knows whether it should have been told' about, a particular matter.</p> <p>AEMO considers that the use of the term 'otherwise aware' would be more appropriate in the context of a phrase such as "AEMO is aware from information provided by a Rule Participant, or otherwise aware based on other information available to AEMO, that...", rather than in its current form, which places an imprecise and unattainable obligation on AEMO.</p>	<p>clauses 3.18.10B(b) and 3.19.3C(b) and has updated the Amending Rules accordingly.</p>
22	AEMO	<p>Clause 2.13.9(g) of the WEM Rules requires AEMO to monitor Rule Participants for breaches of clause 3.18.2(f) of the WEM Rules. Clause 3.18.2(f) of the WEM Rules requires a Market Participant or Network Operator to schedule outages in accordance with sections 3.18, 3.19, 3.20 and 3.21 of the WEM Rules.</p> <p>The proposed amendments introduce clause 3.18.9C of the WEM Rules that AEMO will not be able to monitor. Clause 3.18.9C of the WEM Rules identifies specific conditions where a Market Participant or Network Operator is not required to comply with proposed new clause 3.18.9B of the WEM Rules, which relates to knowledge known only by the Market Participant or Network Operator. AEMO will not be able to monitor whether the Market Participant or Network Operator is compliant with clauses 3.18.2(f) and 3.18.9B (as required by clause 2.13.9(g)), as it cannot objectively assess what the Market Participant or Network Operator is aware of.</p>	<p>See section 7.2.1.5 of this report.</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
<b>Submissions relating to additional related issues identified by the Rule Change Panel</b>			
<b>Materiality threshold for Non-Scheduled Generator outages</b>			
23	AEMO	AEMO has reviewed this issue in the context of discussions at the stakeholder workshop held on 10 June 2019 and considers there is a need to review the appropriateness of having a single materiality threshold for all relevant facilities to cater for different technologies (e.g. hybrid facilities). AEMO suggests that dealing with specific thresholds may be better managed procedurally to allow for variation between facilities.	See section 7.2.2.1 of this report.
24	Perth Energy	<p>Perth Energy supports the proposed materiality threshold for Non-Scheduled Generator outage reporting.</p> <p>We appreciate that Non-Scheduled Generators must be treated differently with respect to the reporting of outages to ensure consistency with differences in the methods for certification of capacity. However, if as the RCM intends, every megawatt of capacity is treated the same, Perth Energy considers the same outage reporting requirements should apply or each of those megawatts whether the capacity is from a Scheduled or Non-Scheduled Generator.</p> <p>We understand the Rule Change Panel has decided this is out of the scope of the Rule Change Proposal, however we contend that introducing a materiality threshold for Non-Scheduled Generators without making the same accommodations for Scheduled Generators is</p>	See section 7.2.2.1 of this report.

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		discriminatory and therefore inconsistent with Wholesale Market Objective (c).	
25	Alinta	<p>Alinta considers that there is still justification to consider a materiality threshold <b>of</b> 10% for Non-Scheduled Generators. In our opinion, this would appropriately balance the need for market transparency without adding significant administrative burden for participants with larger (greater than 200MW) wind farms.</p> <p>Wind farms that have been constructed recently or currently being constructed generally have larger WTGs. A typical WTG capacity is now 4 – 6 MW each compared to 1 – 2 MW over 10 years ago.</p> <p>Good electricity industry practice for operating and maintaining wind farms means that at least one WTG is offline daily for inspection and maintenance. This means a larger wind farm would need to report an Outage if an additional WTG goes offline (10 MW total assuming WTG is 5 MW each) which creates significant administrative burden for both the participant and AEMO.</p> <p>Given this, Alinta considers that the materiality threshold for Non-Scheduled Generators (as outlined in proposed clause 3.18.1A) should be modified from “<i>min (0.1 x Nameplate_Capacity, 10)</i>” to “<i>max (0.1 x Nameplate_Capacity, 10)</i>”.</p>	See section 7.2.2.1 of this report.
<b>Allowance for short outages of slow-starting Generators</b>			
26	AEMO	The current fundamental principle of outage planning and approval is enshrined in clause 3.21.1, which defines a	See section 7.2.2.2 of this report.

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>Forced Outage as any outage that has not received AEMO's approval. Proposed new clause 3.19.2H creates an exception to this principle, allowing a Facility to perform maintenance of which AEMO is not aware and has not approved.</p> <p>AEMO is concerned that enabling this exception to the general principle may lead to the introduction of further exceptions in the future, which over time may erode AEMO's ability to ensure that Power System Security is maintained.</p>	
<b>Clarification of 'unavailable for service'</b>			
27	AEMO	<p>AEMO suggests the following change to proposed new clause 3.18.1B, to prevent unintended outcomes and uncertainty in relation to what information should be taken into account to determine what an instruction or direction from AEMO must be consistent with:</p> <p><i>For the purposes of this section 3.18 and section 3.19, capacity or capability associated with an Outage Facility is deemed to be unavailable for service in a Trading Interval if the capacity or capability could not, in response to an instruction or direction to the Market Participant or Network Operator from System Management that was consistent with the Outage Facility's Equipment Limits, any relevant limits or information <u>relating to the capacity or capability of an Outage Facility</u> provided to System Management in accordance with the Power System Operation Procedure referred to</i></p>	See section 7.2.2.3 of this report.

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<i>in clause 2.28.3A(a), or any relevant limits specified in an Ancillary Service Contract (as applicable), be used to provide the relevant service expected from the capacity or capability of the Outage Facility...</i>	
<b>Additional Issues</b>			
28	AEMO	<b>Use of 'System Management':</b> AEMO reiterates its previous comments that the WEM Rules should refer to AEMO generally throughout, not specifically to System Management, as this may have unintended implications for the market and its participants.	<p>In a recent discussion with RCP Support, AEMO confirmed that it was not aware of any current problems or risks with the use of the term System Management in the Market Rules, while reiterating its support for the removal of the term.</p> <p>The Rule Change Panel agrees with AEMO that a consolidation of the terms used when referring to AEMO's power system operation function would be beneficial for the transparency of the Market Rules. However, as noted previously in response to a similar suggestion from AEMO in its response to the call for further submissions on RC_2014_06, the Rule Change Panel considers that this should be done for the Market Rules as a whole to avoid unintended consequences. The assessment of all references to AEMO's power system operation functions is out of the scope of this Rule Change Proposal.</p>
29	AEMO	<b>Use of 'Market Participant':</b> AEMO notes that obligations imposed in this rule change refer to Market Participants, which results in obligations being placed on Market Generators and Market Customers only. Therefore, the obligations would not apply to parties registered as Ancillary Service Providers or other participants not	See section 7.2.3.1 of this report.

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<p>registered as Market Generators and Market Customers. As such, these parties would not be required to obtain approval for Planned Outages or meet the other obligations. AEMO is aware of at least one registered Rule Participant covered by this situation. Accordingly, for the sake of completeness, AEMO suggests that the references to 'Market Participants' pertaining to obligations in relation to outages be replaced by references to 'Rule Participants'.</p>	
30	AEMO	<p><b>Direction of Self-Scheduling Outage Facilities:</b> Following further review, AEMO considers that its powers of direction to recall a Facility from outage in an Emergency Operating State or High Risk Operating State should not be limited to Equipment List Facilities. As such, the revised clause 3.20.1, should also apply to Self-Scheduling Outage Facilities. AEMO considers that an inability to direct all facilities in the SWIS, in the case of an emergency, may have adverse consequences for Power System Security and Power System Reliability.</p>	See section 7.2.3.2 of this report.
31	AEMO	<p><b>Transitional arrangements:</b> The Rule Change Panel should consider the requirement for transitional arrangements for Planned Outages and Opportunistic Maintenance requests that have already been submitted, approved or are in progress at the time of commencement of the proposed Amending Rules.</p>	<p>The Rule Change Panel has reviewed the Amending Rules and does not consider that any specific transitional provisions are needed for this Rule Change Proposal. AEMO has also confirmed that it has not identified a requirement for transitional provisions.</p> <p>The Rule Change Panel notes that, in the absence of any transitional rules to the contrary, the updated Planned Outage rules will apply to all Planned Outages that have not yet completed.</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
32	AEMO	AEMO has also identified a number of specific drafting issues and suggested drafting adjustments. AEMO will provide these to the Rule Change Panel separately.	The Rule Change Panel has considered the drafting suggestions provided by AEMO after the second submission period and updated the Amending Rules accordingly.
33	Alinta	<p>At the stakeholder workshop held on 10 June 2019 there was a discussion around the use of '0 MW' outages to report on facility restrictions that don't impact facility output (i.e. an 'outage' of Ancillary Service capability or situations where a dual-fuel generator was unable to run on one of its fuels).</p> <p>Alinta supports the inclusion of the concept of a '0 MW' outage in the market rules as an efficient mechanism to inform AEMO of facility restrictions that won't impact output.</p>	See section 7.2.2.5 of this report.
34	Alinta	<p>Where a Network outage is likely to unduly impact the operation of one or more Market Participant Registered Facilities the Market Rules allows System Management to require that, in developing their Outage Plans, the relevant Network Operator and affected Market Participants coordinate the timing of their outages to minimise the impact of the Network outage on the operation of the Market Participant Registered Facilities (clause 3.18.5C).</p> <p>While this clause ensures that there is some coordination of outages where both networks and generation participants both want outages, Alinta considers that the Market Rules should require either:</p>	<p>The Rule Change Panel acknowledges Alinta's concerns but notes this issue has not been previously raised in the context of this Rule Change Proposal. The Rule Change Panel considers that any material change to the obligations of a Rule Participant should be subject to public consultation and that this issue is not sufficiently urgent to warrant a further delay to the progression of this Rule Change Proposal to allow such public consultation.</p> <p>RCP Support will seek the views of the MAC regarding Alinta's suggested changes at future MAC meeting.</p>

Issue	Submitter	Comment/Issue Raised	Rule Change Panel's Response
		<ul style="list-style-type: none"> <li>greater coordination of network outages where they are likely to unduly impact the operation of one or more Market Participant Registered Facilities (whether or not the participant wants or needs a corresponding outage); and/or</li> <li>the Network Operator should have to consider the Wholesale Market Objectives when planning network outages to ensure that least cost and efficient outcomes are achieved for the market as a whole.</li> </ul>	

## Appendix E. Further Amendments to the Proposed Amending Rules

The Rule Change Panel proposes to make some further amendments to the proposed Amending Rules following the second submission period. Note that the base drafting in this appendix reflects the commencement of the Amending Rules for RC\_2014\_06 (on 1 July 2019) and RC\_2015\_01 (on 1 August 2019).

The further amendments are as follows (~~deleted text~~, added text, clauses that are included for context but not amended):

Clause 2.34.4 has been amended to replace “capability” with “capacity or capability”.

2.34.4. Notwithstanding clauses 2.34.2 and 2.34.3, a Rule Participant is not required to notify AEMO of changes to Standing Data where the changes reflect a temporary change in the capacity or capability of a Registered Facility resulting from a Planned Outage, Forced Outage or Consequential Outage.

...

### 3.18. Outage Scheduling

Clause 3.18.1 has been amended to use consistent language to refer to items of equipment.

3.18.1. Where a reference is made to an outage of a Facility or item of equipment in this section 3.18 and sections 3.19, 3.20 and 3.21, this includes partial and complete outages and de-ratings of the Facility or item of equipment.

3.18.1A. The obligations specified in this section 3.18 and sections 3.19 and 3.21 to request or report Outages do not apply to Market Participants in respect of an outage of a Non-Scheduled Generator if the average MW de-rating over the relevant Trading Interval is less than:

$$\min(0.1 \times \text{Nameplate\_Capacity}, 10)$$

where Nameplate\_Capacity is the MW quantity provided for the Non-Scheduled Generator under Appendix 1(e)(ii).

Clause 3.18.1B has been amended to:

- restructure the clause to improve its readability; and
- clarify that the “relevant limits and information” provided to System Management in accordance with the PSOP are those “relating to the capacity or capability of an Outage Facility”.

3.18.1B. For the purposes of this section 3.18 and section 3.19, capacity or capability associated with an Outage Facility is deemed to be unavailable for service in a Trading Interval if the capacity or capability could not, in response to an instruction

or direction to the Market Participant or Network Operator from System Management that was consistent with:

- (a) the Outage Facility's Equipment Limits;
- (b) any relevant limits or information relating to the capacity or capability of an Outage Facility provided to System Management in accordance with the Power System Operation Procedure referred to in clause 2.28.3A(a), or;
- (c) any relevant limits specified in an Ancillary Service Contract;

(as applicable), be used to provide the relevant service expected from the capacity or capability of the Outage Facility. To avoid doubt, capacity of a Non-Scheduled Generator is not deemed to be unavailable for service because of a shortfall of the intermittent energy source used by the Non-Scheduled Generator to generate electricity.

Clause 3.18.1C has been replaced with the creation and use of a new defined term 'Outage Facility Maintenance'.

~~3.18.1C. For the purposes of this section 3.18 and section 3.19, references to 'maintenance' include but are not limited to preventative maintenance, corrective maintenance, plant inspections, upgrades and tests that require some or all of the capacity or capability associated with an Outage Facility being unavailable for service when such maintenance would be reasonably considered to be required in accordance with good electricity industry practice.~~

Clause 3.18.2 has been amended to:

- clarify in clause 3.18.2(a) that the Equipment List is published on the Market Web Site;
- replace 'Ancillary Services Contract' with the correct term 'Ancillary Service Contract' in clause 3.18.2(c)(v)
- remove superfluous wording from clause 3.18.2(f); and
- add new clause 3.18.2(g) to clarify the outage scheduling obligations of a Market Generator whose generation system provides Ancillary Services under an Ancillary Service Contract.

### 3.18.2.

- (a) System Management must maintain and publish on the Market Web Site a list of all equipment on the SWIS that it determines should be subject to outage scheduling in accordance with this section 3.18 and sections 3.19, 3.20 and 3.21 ("**Equipment List**").
- (b) System Management must, as soon as practicable after it becomes aware of an error relating to the Equipment List, or otherwise determines that a change is required to the Equipment List, update the Equipment List to address the error or reflect the change and publish the updated Equipment List on the Market Web Site.

- (c) The Equipment List must include:
- i. any part of a transmission system (however defined by System Management) that could limit the output of a generation system that System Management has included on the Equipment List;
  - ii. all Scheduled Generators holding Capacity Credits;
  - iii. all Non-Scheduled Generators holding Capacity Credits with a Standing Data nameplate capacity that equals or exceeds 10 MW;
  - iv. all generation systems to which clause 2.30B.2(a) relates with a nameplate capacity that equals or exceeds 10 MW;
  - v. all Registered Facilities subject to an Ancillary ~~Services~~ Service Contract; and
  - vi. any other equipment that System Management determines must be subject to outage scheduling to maintain Power System Security and Power System Reliability.
- (d) The Equipment List may specify that an Equipment List Facility is subject to outage scheduling by System Management only at certain times of the year.
- (e) [Blank]
- (f) A Market Participant or a Network Operator must schedule outages for each of its Equipment List Facilities. ~~Outages must be scheduled~~ in accordance with this section 3.18 and sections 3.19, 3.20 and 3.21.
- (g) A Market Generator who provides an Ancillary Service under an Ancillary Service Contract must schedule outages in respect of both:
- i. the capacity of the Facility to provide sent out energy; and
  - ii. for each applicable Ancillary Service Contract, the capacity or capability of the Facility to provide the contracted Ancillary Service.

Clause 3.18.2A has been amended to:

- update clause 3.18.2A(b) and add new clause 3.18.2A(i) to clarify when a Planned Outage notice should be submitted, allow an exemption for Mandatory Routine

Maintenance similar to that allowed for Equipment List Facilities, and clarify that these provisions apply to Self-Scheduling Outage Facilities;

- use the new defined term Outage Facility Maintenance;
- remove the clarification in clause 3.18.2A(d) (to read references to Equipment List Facilities as references to Self-Scheduling Outage Facilities) as it is no longer required given the changes made to clause 3.18.6;
- move the location of the phrase “as soon as practicable” in clause 3.18.2A(g) to improve the readability of the clause;
- limit the allowed revisions to a Planned Outage notification by making clause 3.18.2A(g) subject to clause 3.18.2A(h); and
- prohibit revisions to a Planned Outage notification that extend the outage period outside its current boundaries or increase the quantity of de-rating (in clause 3.18.2A(h)).

### 3.18.2A.

(a) If a generation system:

- i. is a Scheduled Generator, a Non-Scheduled Generator or a generation system to which clause 2.30B.2(a) relates; and
- ii. is not required to be included on the Equipment List under clause 3.18.2(c),

then the relevant Market Participant is not required to schedule outages in accordance with this section 3.18 and sections 3.19 and 3.20 for that generation system (“**Self-Scheduling Outage Facility**”) other than as required by this clause 3.18.2A.

(b) ~~A-Subject to clause 3.18.2A(i), a~~ Market Participant must notify System Management of a proposed Planned Outage of its Self-Scheduling Outage Facility if, and only if, the Market Participant intends that some or all of the capacity of its Self-Scheduling Outage Facility will be unavailable for service for a period for the purpose of Outage Facility Maintenance.:

- ~~i. the Market Participant intends that some or all of the capacity of its Self-Scheduling Outage Facility will be unavailable for service for a period for the purpose of maintenance; and~~
- ~~ii. subject to clause 3.19.2G, the Market Participant is not aware that the capacity would otherwise be unavailable for service for any part of the duration of the proposed Planned Outage.~~

(c) The notice under clause 3.18.2A(b) must be given:

- i. for an outage exceeding 24 hours in duration, no later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the proposed Planned Outage is due to commence; and

- ii. for an outage of up to 24 hours in duration, no later than 30 minutes before Balancing Gate Closure for the Trading Interval in which the proposed Planned Outage is due to commence.
- (d) The notice under clause 3.18.2A(b) must include the information specified in clause 3.18.6. ~~For the purposes of this clause 3.18.2A(d), each reference to an “Equipment List Facility” in clause 3.18.6 is to be read as a reference to a “Self-Scheduling Outage Facility”.~~
  - (e) System Management is deemed to have approved each proposed Planned Outage for a Self-Scheduling Outage Facility that is notified under clauses 3.18.2A(b) or 3.18.2A(g) and in accordance with clauses 3.18.2A(c) and 3.18.2A(d). The deemed approval takes effect when System Management receives the notice.
  - (f) Where a Market Participant no longer intends that the relevant capacity of its Self-Scheduling Outage Facility will be unavailable for service for the purpose of ~~maintenance~~ Outage Facility Maintenance it must inform System Management and withdraw the notice of the proposed Planned Outage as soon as practicable.
  - (g) ~~If Subject to clause 3.18.2A(h), if~~ a Market Participant becomes aware of any changes to the information provided to System Management in a notice of a proposed Planned Outage for a Self-Scheduling Outage Facility, then the Market Participant must, as soon as practicable, submit a revised notice to System Management for the Self-Scheduling Outage Facility ~~as soon as practicable~~ that complies with the requirements of a notice of a proposed Planned Outage for a Self-Scheduling Outage Facility in this clause 3.18.2A.
  - (h) ~~If a Market Participant submits~~ A Market Participant must not submit a revised notice of a proposed Planned Outage to System Management for a Self-Scheduling Outage Facility ~~in accordance with clause 3.18.2A(g)~~ that proposes:
    - i. a new start time for the proposed Planned Outage that is earlier than the previous proposed start time;
    - ii. a new end time for the proposed Planned Outage that is later than the previous proposed end time; or
    - iii. an increase in the quantity of de-rating<sub>2</sub>.
  - (i) Subject to clause 3.19.2G, a Market Participant must not notify System Management of a proposed Planned Outage of its Self-Scheduling Outage Facility in accordance with clause 3.18.2A(b) if the Market Participant is aware, or ought to be aware in the circumstances that, if the proposed Planned Outage did not proceed, any of the relevant capacity would be unavailable for service for any part of the proposed outage period for any reason other than that a deadline for completion of Mandatory Routine Maintenance would pass before the end of the proposed outage period.

Clause 3.18.3 has been amended to explicitly require the publication of an updated Equipment List as soon as practicable in clause 3.18.3(d).

### 3.18.3.

- (a) If a Market Participant's or Network Operator's Facility (or an item of equipment forming part of a Facility or an item of equipment which is a generation system to which clause 2.30B.2(a) relates) is on the Equipment List, then the Market Participant or Network Operator may request that the Economic Regulation Authority reassess the inclusion of the Facility or item of equipment on the Equipment List in accordance with this clause 3.18.3.
- (b) Following a request by a Market Participant or Network Operator under clause 3.18.3(a), the Economic Regulation Authority must consult with System Management and the Market Participant or Network Operator concerning whether the Equipment List Facility should remain on the Equipment List.
- (c) The Economic Regulation Authority may give a direction to System Management that an Equipment List Facility should not remain on the Equipment List where it finds that:
  - i. System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.18.21 in determining the Equipment List; and
  - ii. if the Market Rules and the Power System Operation Procedure specified in clause 3.18.21 had been followed, then the Equipment List Facility would not have been on the Equipment List.
- (d) If the Economic Regulation Authority gives a direction to System Management under clause 3.18.3(c), then System Management must as soon as practicable, remove the relevant Equipment List Facility from the Equipment List and publish the updated Equipment List on the Market Web Site.

Clause 3.18.4(b) has been amended to clarify that it is the ERA's direction that occurs under clause 3.18.15(f).

3.18.4. System Management must maintain an outage schedule that contains details of each Outage Plan:

- (a) that System Management has accepted under clause 3.18.13; or
- (b) that the Economic Regulation Authority has directed System Management under clause 3.18.15(f) to include in the outage schedule, ~~under clause 3.18.15(f)~~.

3.18.4A. A proposal submitted to System Management in accordance with this section 3.18 by a Market Participant or Network Operator in which permission is sought from System Management for some or all of the capacity or capability of an Equipment

List Facility to be unavailable for service for a period is a proposed outage plan (“**Outage Plan**”).

3.18.5. Market Participants:

- (a) must, subject to clause 3.18.5A, submit to System Management details of a proposed Outage Plan at least one year but not more than three years in advance of the proposed outage, where:
  - i. the outage relates to an Equipment List Facility in respect of which a Market Participant holds Capacity Credits at any time during the proposed outage;
  - ii. the Equipment List Facility has a nameplate capacity greater than 10 MW; and
  - iii. the proposed outage has a duration of more than one week; and
- (b) otherwise may submit an Outage Plan to System Management not more than three years and not less than two days in advance of the proposed outage.

3.18.5A. Market Participants may submit an Outage Plan to which clause 3.18.5(a) relates to System Management less than one year, but not less than two days, in advance of the proposed outage, but in such instances:

- (a) System Management must give priority to Outage Plans to which clause 3.18.5(a) relate and which were received more than one year in advance of the commencement of the proposed outage;
- (b) System Management must give priority to Outage Plans to which this clause 3.18.5A relates in the order they are received; and
- (c) System Management must give no special priority to Outage Plans to which this clause 3.18.5A relates relative to Outage Plans to which clause 3.18.5(a) does not relate.

3.18.5B. Network Operators may submit an Outage Plan to System Management not more than three years and not less than two days in advance of the proposed outage.

3.18.5C. Where a Network outage is likely to unduly impact the operation of one or more Market Participant Registered Facilities, System Management may require that, in developing their Outage Plans, the relevant Network Operator and affected Market Participants coordinate the timing of their outages so as to minimise the impact of the Network outage on the operation of the Market Participant Registered Facilities.

Clause 3.18.5D has been amended to make the clause subject to the exception for Mandatory Routine Maintenance in new clause 3.18.5E.

3.18.5D. Subject to clauses [3.18.5E](#) and 3.19.2G, a Market Participant or Network Operator must not submit an Outage Plan to System Management if it is aware or ought to be aware in the circumstances that, if System Management rejected the Outage Plan,

any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the relevant outage period.

New clause 3.18.5E clarifies the exception that allows a Rule Participant to request a Scheduled Outage to undertake Mandatory Routine Maintenance at the optimal time.

3.18.5E. A Market Participant or Network Operator is not required to comply with clause 3.18.5D in respect of an Outage Plan provided that:

- (a) the purpose of the proposed outage is to conduct Mandatory Routine Maintenance;
- (b) the applicable deadline for the proposed Mandatory Routine Maintenance falls within the proposed outage period;
- (c) the Market Participant or Network Operator is aware that if the Mandatory Routine Maintenance is not undertaken before or during the proposed outage period then some or all of the capacity or capability to which the Outage Plan applies will be unavailable for service for part of the proposed outage period because the applicable deadline for the Mandatory Routine Maintenance will have passed;
- (d) the Market Participant or Network Operator is not aware of any other reason why, if System Management rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period; and
- (e) the Market Participant or Network Operator includes in the Outage Plan that the Outage Plan is submitted under this clause 3.18.5E.

Clause 3.18.6 has been amended to more clearly reflect its use for notices of proposed Planned Outages for Self-Scheduling Outage Facilities and requests for approval of Opportunistic Maintenance as well as Outage Plans.

3.18.6. The information submitted in an Outage Plan, a notice of a proposed Planned Outage of a Self-Scheduling Outage Facility submitted in accordance with clause 3.18.2A, or a request for approval of Opportunistic Maintenance must include:

- (a) the identity of the ~~Equipment List Facility~~ Outage Facility that will be unavailable;
- (b) the quantity of any de-rating where, if the ~~Equipment List Facility~~ Outage Facility is a generating system, this quantity is in accordance with clause 3.21.5;
- (c) the reason for the outage;
- (d) the proposed start and end times of the outage;
- (e) an assessment of risks that might extend the outage;
- (f) details of the time it would take the ~~Equipment List~~ Outage Facility to return to service, if required;

- (g) contingency plans for the early return to service of the Equipment List Outage Facility (“**Outage Contingency Plans**”); and
- (h) ~~if the Outage Plan is submitted by a Network Operator, if a Network Operator submits either an Outage Plan or a request for approval of Opportunistic Maintenance,~~ a confirmation that the Network Operator has used its best endeavours to inform any Market Generator with a Scheduled Generator or Non-Scheduled Generator impacted by the unavailability of the relevant Equipment List Outage Facility of the proposed outage.

Clause 3.18.6A has been amended to:

- use the new defined term Outage Facility Maintenance; and
- replace “it will not be possible to complete” with “it would not be able to complete” to clarify the meaning of the clause.

3.18.6A. A Market Participant or Network Operator must not submit an Outage Plan if it is aware or ought to have been aware in the circumstances that it ~~will not be possible~~ would not be able to complete the proposed ~~maintenance~~ Outage Facility Maintenance and make the relevant capacity or capability available for service by the end of the proposed outage period.

Clause 3.18.7 has been amended to use the new defined term Outage Facility Maintenance.

3.18.7. Outage Plans submitted by a Market Participant or Network Operator must represent the good faith intention of the Market Participant or Network Operator that the relevant capacity or capability of its Equipment List Facility will be unavailable for service for the duration of the outage period described in clause 3.18.6(d) for the purpose of ~~maintenance~~ Outage Facility Maintenance.

3.18.7A. System Management may reject an Outage Plan first submitted within 6 weeks of the commencement time of the outage without evaluating that Outage Plan if, in the opinion of System Management, the submitting party has not allowed adequate time for the Outage Plan to be assessed.

Clause 3.18.8 has been amended to use the new defined term Outage Facility Maintenance.

3.18.8. Where a Market Participant or Network Operator no longer intends that the relevant capacity or capability of its Equipment List Facility will be unavailable for service for the purpose of ~~maintenance~~ Outage Facility Maintenance it must inform System Management and withdraw the relevant Outage Plan as soon as practicable.

Clause 3.18.9 has been amended to limit the allowed revisions by making the clause subject to clause 3.18.9A.

3.18.9. ~~If Subject to clause 3.18.9A, if~~ a Market Participant or Network Operator becomes aware of any changes to the information provided to System Management in an

Outage Plan, then the Market Participant or Network Operator must as soon as practicable submit a revised Outage Plan to System Management for the relevant Equipment List Facility that complies with the requirements of an Outage Plan in this section 3.18.

Clause 3.18.9A has been amended to prohibit revisions to an Outage Plan that extend the outage period outside its current boundaries or increase the quantity of de-rating.

3.18.9A. ~~If a Market Participant or Network Operator submits a revised Outage Plan in accordance with clause 3.18.9A~~ A Market Participant or Network Operator must not submit a revised Outage Plan to System Management that proposes:

- (a) a new start time for the proposed outage that is earlier than the previous proposed start time;
- (b) a new end time for the proposed outage that is later than the previous proposed end time; or
- (c) an increase in the quantity of de-rating.

~~then for the purposes of the Market Rules the original Outage Plan is deemed to be withdrawn and the revised Outage Plan is deemed to be a new Outage Plan.~~

Clause 3.18.9B has been amended to remove the reference to clause 3.18.9C and make the clause subject to new clause 3.18.10C instead.

3.18.9B. Subject to clauses ~~3.18.9C~~ 3.18.10C and 3.19.2G, if a Market Participant or Network Operator becomes aware, or ought to have become aware in the circumstances, that, if System Management rejected an Outage Plan for its Equipment List Facility, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period, then the Market Participant or Network Operator must either:

- (a) as soon as practicable, submit a revised Outage Plan to System Management for the Equipment List Facility that amends the proposed outage period or reduces the quantity of de-rating (or both) to meet the requirements of clause 3.18.5D; or
- (b) as soon as practicable:
  - i. notify System Management; and
  - ii. if System Management has not yet scheduled the Outage Plan for the Equipment List Facility in its outage schedule, withdraw the Outage Plan.

Clause 3.18.9C is no longer required because the special conditions applicable to Outage Plans for Mandatory Routine Maintenance have been set out more explicitly in new clauses 3.18.5E and 3.18.10C.

~~3.18.9C. A Market Participant or Network Operator is not required to comply with clause 3.18.9B in respect of an Outage Plan if:~~

- ~~(a) the Outage Plan has been scheduled in System Management's outage schedule;~~
- ~~(b) the outage could have been brought forward at the time the Outage Plan was scheduled in System Management's outage schedule, if System Management had rejected the Outage Plan; and~~
- ~~(c) the only reason why, if System Management now rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period is that there is no longer time to bring forward the outage.~~

3.18.10. Subject to clauses 3.18.10A and 3.18.10B, System Management must use a risk assessment process using the criteria set out in clause 3.18.11 to evaluate Outage Plans:

- (a) when an Outage Plan is received or revised; and
- (b) on an ongoing basis as part of the Medium Term PASA and Short Term PASA studies.

Clause 3.18.10A has been amended to:

- clarify the intent of the words “ought to be aware”; and
- make the clause subject to the exemptions in clause 3.18.10C relating to Mandatory Routine Maintenance.

3.18.10A. Subject to clauses 3.18.10C and 3.19.2G, System Management must not schedule a new Outage Plan in its outage schedule if it is aware, or ought to be aware in the circumstances based on information that it has and any readily available confirmatory information, that, if it rejected the Outage Plan, any of the capacity or capability to which the Outage Plan applies would be unavailable for service for any part of the proposed outage period.

Clause 3.18.9B has been amended to remove the unnecessary word “otherwise” from clause 3.18.10B(b).

3.18.10B.If, at the time System Management begins its evaluation of a new Outage Plan:

- (a) the relevant capacity or capability is subject to a Planned Outage for which System Management has received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i);
- (b) the relevant capacity or capability is subject to a Planned Outage for which System Management is ~~otherwise~~ aware that it should have received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) from the Market Participant or Network Operator; or

- (c) the relevant capacity or capability is subject to a Forced Outage, then System Management must delay its evaluation of the Outage Plan until:
- (d) the relevant capacity or capability is returned to service; or
- (e) System Management receives evidence to its satisfaction from the Market Participant or Network Operator that the relevant capacity or capability would be capable of being made available for service before the start of the proposed outage period in the Outage Plan.

New clause 3.18.10C clarifies the exemptions that apply to Outage Plans for Mandatory Routine Maintenance.

3.18.10C. If a Market Participant or Network Operator submits an Outage Plan under clause 3.18.5E then:

- (a) System Management must not refuse to schedule the Outage Plan in its outage schedule under clause 3.18.10A because the Mandatory Routine Maintenance will not be completed before the applicable deadline for that Mandatory Routine Maintenance; and
- (b) the Market Participant or Network Operator is not required to take action under clause 3.18.9B because the Mandatory Routine Maintenance will not be completed before the applicable deadline for that Mandatory Routine Maintenance.

Clause 3.18.11(b) has been amended to refer to transmission system and distribution system “capacity or capability”, consistent with other proposed amendments.

- 3.18.11. System Management must apply the following criteria when evaluating Outage Plans:
- (a) the capacity of the total generation and Demand Side Management Facilities remaining in service must be greater than the second deviation load forecast published in accordance with clause 3.16.9(a)(iii) or clause 3.17.9(a)(iii), as applicable;
  - (aA) the total capacity of the generation Facilities remaining in service, and System Management’s reasonable forecast of the total available Demand Side Management, must satisfy the Ready Reserve Standard described in clause 3.18.11A;
  - (b) the transmission system and distribution system capacity or capability remaining in service must be capable of allowing the dispatch of the capacity referred to in clause 3.18.11(a);
  - (c) the Facilities remaining in service must be capable of meeting the applicable Ancillary Service Requirements;
  - (d) the Facilities remaining in service must allow System Management to ensure the power system is operated within the Technical Envelope; and

- (e) notwithstanding the criteria set out in clause 3.18.11(a) to (d), System Management may allow an outage to proceed if it considers that preventing the outage would pose a greater threat to Power System Security or Power System Reliability over the long term than allowing the outage.

3.18.11A. The Ready Reserve Standard requires that the available generation and demand-side capacity at any time satisfies the following principles:

- (a) Subject to clause 3.18.11A(c), the additional energy available within fifteen minutes must be sufficient to cover:
  - i. 30% of the total output, including Parasitic Load, of the generation unit synchronized to the SWIS with the highest total output at that time;
  - ii. plus the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).
- (b) Subject to clause 3.18.11A(c), and in addition to the additional energy described in clause 3.18.11A(a), the additional energy available within four hours must be sufficient to cover:
  - i. 70% of the total output, including Parasitic Load, of the generation unit synchronized to the SWIS with the second highest total output at that time;
  - ii. less the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).
- (c) System Management may relax the requirements in clause 3.18.11A(a) and (b) in the following circumstances:
  - i. where System Management expects that the load demand will be such that it exceeds the second standard deviation peak load forecast level, as described in clause 3.17.9(a), used in the most recently published Short Term PASA for that Trading Interval;
  - ii. during the four hours following an event that has caused System Management to call on additional energy maintained in accordance with clauses 3.18.11A(a) or (b).

3.18.12. Except to the extent required by the criteria in clause 3.18.11 and to the extent allowed by clause 3.18.5A, in evaluating Outage Plans, System Management must not show bias towards a Market Participant or Network Operator in regard to its Outage Plans.

3.18.13. Following an evaluation of a new Outage Plan or an Outage Plan or group of Outage Plans that System Management has previously accepted fully or subject to conditions:

- (a) System Management may find that an Outage Plan, or group of Outage Plans, when considered together, are acceptable, unacceptable or are acceptable under certain circumstances. If System Management finds that a

group of Outage Plans when considered together are acceptable, unacceptable or acceptable under certain circumstances, then all the Outage Plans in that group have that status.

- (b) Where System Management finds that an Outage Plan is acceptable, then it must schedule the Outage Plan in System Management's outage schedule accordingly and inform the Market Participants or Network Operators that submitted the Outage Plans.
- (c) Where System Management finds that an Outage Plan is acceptable under certain circumstances, then it must inform the Market Participant or Network Operator that submitted the Outage Plan of its finding and the circumstances under which the Outage Plan would be acceptable. System Management must:
  - i. consult with the Market Participant or Network Operator about those circumstances;
  - ii. determine a date by which it expects to have sufficient information on those circumstances to reassess the Outage Plan;
  - iii. inform the Market Participant or Network Operator of the date; and
  - iv. reassess the outage plan using the criteria under clause 3.18.11 following the date specified in accordance with clause 3.18.13(c)(ii);
- (d) Where System Management finds that an Outage Plan is unacceptable, then System Management must inform all Market Participants and Network Operators affected and must negotiate with the affected Market Participants and Network Operators to attempt to reach agreement as to System Management's outage schedule, and:
  - i. If agreement is reached, then the affected Market Participants and Network Operators must resubmit Outage Plans to System Management; or
  - ii. If no agreement is reached within 15 Business Days, System Management must:
    - 1. decide which of the Outage Plans are acceptable and schedule these Outages Plans into System Management's outage schedule where they are not already scheduled;
    - 2. decide which of the Outage Plans are unacceptable and remove these Outages Plans from the System Management's outage schedule where they were previously scheduled; and
    - 3. notify each affected Market Participant whether its Outage Plan has been scheduled.
- (e) Where, as a result of an evaluation, the status of an Outage Plan that was previously acceptable or acceptable under certain conditions changes then System Management must modify its outage schedule accordingly.

Clause 3.18.14 has been amended to use the new defined term Outage Facility Maintenance.

- 3.18.14. System Management must use the following criteria when making a decision referred to in clause 3.18.13(d)(ii), in descending order of priority:
- (a) System Management must give priority to the criteria in clause 3.18.11;
  - (b) System Management must give priority to Outage Plans that have previously been scheduled in System Management's outage schedule, in the order in which they were entered into the schedule;
  - (c) System Management must have regard to the technical reasons for the requested ~~maintenance~~ Outage Facility Maintenance, the technical implications for the relevant equipment if the ~~maintenance~~ Outage Facility Maintenance is not carried out and a reasonable duration for ~~maintenance~~ Outage Facility Maintenance carried out for those reasons; and
  - (d) System Management must give priority to Outage Plans that would be more difficult to reschedule, including considering the amount of capacity or capability that would be taken out of service and the duration of the outage.

Clause 3.18.15 has been amended to:

- replace 'Participant' with 'Market Participant' in clause 3.18.15(a); and
- use standard terminology for clause cross-references.

- 3.18.15. Where System Management informs a Market Participant or Network Operator that an Outage Plan has not been scheduled or has been removed from System Management's outage schedule under clause 3.18.13(d)(ii), the Market Participant or Network Operator may apply to the Economic Regulation Authority to reassess the decision in accordance with the following procedures:
- (a) A Market Participant or Network Operator can only apply for the Economic Regulation Authority to reassess a decision on the grounds that System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.18.21;
  - (b) The Market Participant or Network Operator must submit a written application to the Economic Regulation Authority, and forward a copy to System Management, stating the reasons why it considers that System Management's decision under clause 3.18.13(d)(ii) should be reassessed and providing any supporting evidence:
    - i. within ten Business Days of being informed of System Management's decision; and
    - ii. no later than five Business Days prior to the date when the outage would have commenced.
  - (c) Until the Economic Regulation Authority completes its reassessment, System Management's decision continues to have effect and System Management

and the Market Participant or Network Operator must continue to plan their operations on this basis.

- (d) System Management must submit records relating to System Management's outage schedule around the date of the relevant outage to the Economic Regulation Authority within two Business Days of being informed of the Market Participant's or Network Operator's application under ~~paragraph (b)~~ [clause 3.18.15\(b\)](#).
- (e) The Economic Regulation Authority must consult with System Management and the Market Participant or Network Operator concerning the Outage Plan, and must make a complete reassessment by the earlier of:
  - i. ten Business Days of receiving the application under ~~paragraph (b)~~ [clause 3.18.15\(b\)](#); or
  - ii. two Business Days prior to the date when the outage would have commenced.
- (f) The Economic Regulation Authority may give a direction to System Management that the Outage Plan should be scheduled in System Management's outage schedule where it finds that:
  - i. System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.18.21; and
  - ii. if the Market Rules and the Power System Operation Procedure specified in clause 3.18.21 had been followed, then the Outage Plan would have been scheduled; and
- (g) Where the Economic Regulation Authority gives a direction to System Management that the Outage Plan should be scheduled in System Management's outage schedule, System Management must schedule it into the outage schedule in accordance with the direction.

3.18.16. Where System Management informs a Market Participant or Network Operator that an Outage Plan is unacceptable, and the Economic Regulation Authority does not give System Management a direction under clause 3.18.15(f), then System Management and the Market Participant or Network Operator must use their best endeavours to agree an alternative time for the relevant outage, and System Management must schedule the alternative time in its outage schedule.

Clause 3.18.17 has been amended to use standard terminology for the reference to section 3.18.
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3.18.17. System Management must keep records of all of its outage evaluations and decisions made in accordance with this ~~clause~~ [section](#) 3.18, together with the reasons for each outage evaluation and decision.

3.18.18. From time to time, and at least once in every five year period starting from Energy Market Commencement, the Economic Regulation Authority, with the assistance of

System Management, must conduct a review of the outage planning process against the Wholesale Market Objectives. The review must include a technical study of the effectiveness of the criteria in clause 3.18.11 and a broad consultation process with Rule Participants.

- 3.18.19. At the conclusion of a review under clause 3.18.18, the Economic Regulation Authority must publish a report containing:
- (a) the inputs and results of the technical study;
  - (b) the submissions made by Rule Participants in the consultation process and any responses to issues raised in those submissions;
  - (c) any recommended changes to the outage planning process, formulated as one or more Market Rule changes or Market Procedure changes.

Clause 3.18.20 has been amended to use standard terminology for the reference to section 2.10.

- 3.18.20. If the Economic Regulation Authority recommends any changes in the report in clause 3.18.19, the Economic Regulation Authority must either submit a Rule Change Proposal in accordance with clause 2.5.1 or initiate a Procedure Change Process in accordance with ~~clause~~ section 2.10, as the case may be.
- 3.18.21. System Management must document the procedure it follows in conducting outage planning in a Power System Operation Procedure.

### 3.19. Outage Approval

- 3.19.1. No later than 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which a Scheduled Outage is due to commence, the relevant Market Participant or Network Operator must request that System Management approve the Scheduled Outage to proceed.

Clause 3.19.2 has been amended to:

- use the new defined clause Outage Facility Maintenance;
- replace “will” with “does” in clause 3.19.2(b)(ii) because the duration of the proposed outage is specified at the time the request is submitted; and
- remove ‘all of’ from clause 3.19.2(b)(iv) because it is unnecessary and could be perceived to conflict with clause 3.18.6(h) for non-network Equipment List Facilities.

- 3.19.2. Subject to clause 3.19.2B, Market Participants and Network Operators may request that System Management approve an outage of an Equipment List Facility that is not a Scheduled Outage (“**Opportunistic Maintenance**”):
- (a) at any time between:
    - i. 10:00 AM on the day prior to the Scheduling Day for the Trading Day in which the requested outage is due to commence; and

- ii. 30 minutes before Balancing Gate Closure for the Trading Interval in which the requested outage is due to commence, and
- (b) where:
- i. the requested outage is to allow ~~maintenance~~ Outage Facility Maintenance to be performed;
  - ii. the duration of the requested outage ~~will~~ does not exceed 24 hours;
  - iii. the outage period is separated by at least 24 hours from any other Opportunistic Maintenance outage period for the Equipment List Facility; and
  - iv. the request includes ~~all of~~ the information specified in clause 3.18.6.

Clause 3.19.2A has been amended to:

- use the new defined term Outage Facility Maintenance; and
- clarify the condition in clause 3.19.2A(b) (i.e. that the outage must satisfy the availability requirement for a Planned Outage).

3.19.2A. If:

- (a) a Market Participant or Network Operator intends that some or all of an Equipment List Facility's capacity or capability will be unavailable for service for a period for the purpose of ~~maintenance~~ Outage Facility Maintenance; and
- (b) ~~the Market Participant or Network Operator is not aware that the Equipment List Facility's capacity or capability would not otherwise be available for service for the duration of the proposed outage~~ the Market Participant or Network Operator is not prohibited from submitting an Outage Plan under clause 3.18.5D or a request for approval of Opportunistic Maintenance under clause 3.19.2B (as applicable) for the proposed outage,

then the Market Participant or Network Operator must request approval for a Scheduled Outage or Opportunistic Maintenance from System Management in accordance with section 3.18 and this section 3.19.

3.19.2B. Subject to clause 3.19.2G, a Market Participant or Network Operator must not request approval of Opportunistic Maintenance under clause 3.19.2 if the Market Participant or Network Operator is aware or ought to be aware in the circumstances that, if System Management rejected the request, any of the capacity or capability to which the request applies would be unavailable for service for any part of the relevant outage period.

3.19.2C. Where a Market Participant or Network Operator no longer intends to proceed with Opportunistic Maintenance that was requested under this section 3.19, it must inform System Management and withdraw the request as soon as practicable.

Clause 3.19.2D has been amended to limit the allowed revisions to an Opportunistic Maintenance request by making the clause subject to clause 3.19.2E.

3.19.2D. ~~If Subject to clause 3.19.2E, if~~ a Market Participant or Network Operator becomes aware of any changes to the information provided to System Management in a request for approval of Opportunistic Maintenance, then the Market Participant or Network Operator must submit a revised request to System Management for the relevant Equipment List Facility as soon as practicable in accordance with the requirements of a request for approval of Opportunistic Maintenance in this section 3.19.

Clause 3.19.2E has been amended to prohibit revisions to an Opportunistic Maintenance request that extend the outage period outside its current boundaries or increase the quantity of de-rating.

3.19.2E. ~~If a Market Participant or Network Operator submits~~ A Market Participant or Network Operator must not submit a revised request for approval of Opportunistic Maintenance ~~in accordance with clause 3.19.2D~~ that proposes:

- (a) a new start time for the Opportunistic Maintenance that is earlier than the previous proposed start time;
- (b) a new end time for the Opportunistic Maintenance that is later than the previous proposed end time; or
- (c) an increase in the quantity of de-rating.

~~then for the purposes of the Market Rules the original request is deemed to be withdrawn and the revised request is deemed to be a new request.~~

3.19.2F. Subject to clause 3.19.2G, if a Market Participant or Network Operator becomes aware, or ought to have become aware in the circumstances, that, if System Management rejected a request for approval of Opportunistic Maintenance for its Equipment List Facility, any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period, then the Market Participant or Network Operator must either:

- (a) as soon as practicable, submit a revised request to System Management for the Equipment List Facility that amends the proposed outage period or reduces the quantity of de-rating (or both) to meet the requirements of clause 3.19.2B; or
- (b) as soon as practicable:
  - i. notify System Management; and
  - ii. withdraw the request for approval of Opportunistic Maintenance if System Management has not yet approved it.

Clause 3.19.2G has been amended to:

- update the clause 3.18.2A cross-reference to new clause 3.18.2A(i); and
- clarify the extent of the exemption for Consequential Outages.

3.19.2G. Clauses ~~3.18.2A(b)(ii)~~ 3.18.2A(i), 3.18.5D, 3.18.9B, 3.18.10A, 3.19.2B, 3.19.2F and 3.19.3B do not apply where:

(a) the proposed Planned Outage will immediately follow a Planned Outage of the relevant capacity or capability, and System Management has not received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) in respect of the earlier Planned Outage; or

(b) System Management or the Market Participant or Network Operator (as applicable); ~~reasonably expects that the relevant capacity or capability would be subject to a Consequential Outage if the proposed Planned Outage did not proceed.~~

i. is aware that the relevant capacity or capability would be subject to a Consequential Outage if the proposed Planned Outage did not proceed; and

ii. is not aware of any other reason why any part of the relevant capacity or capability would be unavailable for service for any part of the relevant outage period if the proposed Planned Outage did not proceed.

3.19.2H. If, at the time a Market Generator submits a request for approval of Opportunistic Maintenance for a Scheduled Generator:

- (a) the Facility is not synchronised; and
- (b) the proposed start time for the maintenance work that is the subject of the request is before the time when the Facility could be synchronised in accordance with its relevant Equipment Limits,

then the Market Generator may exclude from the start of the proposed outage period in its request any Trading Intervals during which the Facility could not be synchronised in accordance with its Equipment Limits, provided that the Market Generator:

- (c) does not start the maintenance work that is the subject of the request until the request is approved by System Management; and
- (d) immediately withdraws the request if System Management has not approved the request prior to the Trading Interval in which the maintenance work that is the subject of the request is intended to commence.

3.19.3. Subject to clauses 3.19.3A, 3.19.3B and 3.19.3C, System Management must assess the request for approval of a Scheduled Outage or Opportunistic Maintenance, based on the information available to System Management at the time of the assessment, and applying the criteria set out in clause 3.19.6.

- 3.19.3A. In assessing whether to grant a request for Opportunistic Maintenance, System Management:
- (a) must not grant permission for Opportunistic Maintenance to begin prior to the first Trading Interval for which Opportunistic Maintenance is requested; and
  - (b) [Blank]
  - (c) [Blank]
  - (d) may decline to approve Opportunistic Maintenance for a facility where it considers that inadequate time is available before the proposed commencement time of the outage to adequately assess the impact of that outage.

Clause 3.19.3B has been amended to clarify the intent of the words “ought to be aware”.

- 3.19.3B. Subject to clause 3.19.2G, System Management must not approve an Opportunistic Maintenance request for an Equipment List Facility if it is aware, or ought to be aware in the circumstances based on information that it has and any readily available confirmatory information, that, if it rejected the request, any of the capacity or capability to which the request applies would be unavailable for service for any part of the proposed outage period.

Clause 3.19.3C has been amended to remove the unnecessary word “otherwise” from clause 3.19.3C(b).

- 3.19.3C. If, at the time a Market Participant or Network Operator submits a request for approval of Opportunistic Maintenance under clause 3.19.2:
- (a) the relevant capacity or capability is subject to a Planned Outage for which System Management has received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i);
  - (b) the relevant capacity or capability is subject to a Planned Outage for which System Management is ~~otherwise~~ aware that it should have received a notification under clauses 3.18.9B(b)(i) or 3.19.2F(b)(i) from the Market Participant or Network Operator; or
  - (c) the relevant capacity or capability is subject to a Forced Outage, then System Management must delay its assessment of the request until:
  - (d) the relevant capacity or capability becomes available for service; or
  - (e) System Management receives evidence to its satisfaction from the Market Participant or Network Operator that the relevant capacity or capability would be capable of being made available for service before the start of the proposed Opportunistic Maintenance.

Clause 3.19.4 has been amended to:

- clarify that this clause is subject to clause 3.19.3C (which can delay the approval of an Opportunistic Maintenance request); and
- clarify that the clause relates to the approval or rejection of requests for approval of a Scheduled Outage or Opportunistic Maintenance.

3.19.4. System Management must either approve or reject ~~the a request for approval of a~~ Scheduled Outage or Opportunistic Maintenance, subject to clause 3.19.3C, and inform the Market Participant or Network Operator of its decision as soon as practicable.

Clause 3.19.4A has been amended to remove the unnecessary phrase “for the purposes of the Market Rules” from the trailer of the clause.

3.19.4A. If System Management does not provide a Market Participant or Network Operator with its decision on a request for approval of a Scheduled Outage or Opportunistic Maintenance:

- (a) for Scheduled Outages, by 2:00 PM on the day prior to the Scheduling Day for the Trading Day in which the Scheduled Outage is proposed to commence; or
- (b) for Opportunistic Maintenance, by 30 minutes before Balancing Gate Closure for the Trading Interval during which the Opportunistic Maintenance is proposed to commence,

then, ~~for the purposes of the Market Rules~~, the request for approval of the Scheduled Outage or Opportunistic Maintenance is deemed to be rejected.

3.19.5. Where a change in power system conditions after System Management has approved a Scheduled Outage or Opportunistic Maintenance means that the Scheduled Outage or Opportunistic Maintenance is no longer approvable applying the criteria in clause 3.19.6, System Management may decide to reject the Scheduled Outage or Opportunistic Maintenance. Where System Management makes such a decision, it must inform the relevant Market Participant or Network Operator of its decision immediately.

Clause 3.19.6 has been amended to correct a minor punctuation error in clause 3.19.6(d)(i).

3.19.6. System Management must use the following criteria when considering approval of Scheduled Outages or Opportunistic Maintenance:

- (a) the capacity of the generation Facilities remaining in service, and System Management’s reasonable forecast of the total available Demand Side Management, must be greater than the load forecast for the relevant time period;

- (b) the Facilities remaining in service must be capable of meeting the Ancillary Service Requirements;
- (c) the Facilities remaining in service must allow System Management to ensure the power system is operated within the Technical Envelope;
- (d) where a group of outages when considered together, do not meet the criteria set out in clause 3.19.6(a) to (c), then System Management should give priority:
  - i. to outages ~~Scheduled~~ scheduled in System Management's outage schedule more than one month ahead; then
  - ii. to previously Scheduled Outages that have been deferred in accordance with clauses 3.19.4 or 3.19.5, but were originally scheduled in System Management's outage schedule more than one month ahead; then
  - iii. to outages scheduled in System Management's outage schedule less than one month ahead; then
  - iv. to previously Scheduled Outages that have been deferred in accordance with clause 3.19.4 or 3.19.5, but were originally scheduled in System Management's outage schedule less than one month ahead; then
  - v. to Opportunistic Maintenance; and
- (e) notwithstanding the criteria set out in clause 3.19.6(a) to (d), System Management may allow a Scheduled Outage to proceed if it considers that rejecting it would pose a greater threat to Power System Security or Power System Reliability than accepting it.

3.19.7. Where System Management informs a Market Participant or Network Operator that an outage is rejected, then System Management and the Market Participant or Network Operator must use their best endeavours to find an alternative time for the relevant outage.

3.19.8. Subject to clause 3.19.9, Market Participants and Network Operators must comply with System Management's decision to reject an outage, and the relevant Market Participant or Network Operator must ensure that the outage is not taken.

3.19.9. Compliance with clause 3.19.8 is not required if such compliance would endanger the safety of any person, damage equipment, or violate any applicable law. Where a Rule Participant cannot comply with such a decision it must inform System Management as soon as practicable.

3.19.10. Where a Market Participant or Network Operator has reason to believe that System Management has not followed the Market Rules or the Power System Operation Procedure specified in clause 3.19.14 in its decision to reject an outage it may report the decision to the Economic Regulation Authority as a potential breach of the Market Rules in accordance with clause 2.13.4.

- 3.19.11. An outage, including a Scheduled Outage or Opportunistic Maintenance, is a Planned Outage if it is:
- (a) approved by System Management under clause 3.19.4; or
  - (b) deemed to be approved by System Management under clause 3.18.2A(e).

Clause 3.19.12 has been amended to remove the proposed restriction of the clause to Outage Plans that have been approved (rather than just accepted) in clause 3.19.12(a).

3.19.12.

- (a) Where, ~~under clause 3.19.5~~, System Management informs a Market Participant or Network Operator that an Outage Plan previously scheduled in System Management's outage schedule is rejected within 48 hours of the time when the outage would have commenced in accordance with the Outage Plan, the Market Participant or Network Operator may apply to AEMO for compensation.
  - (aA) Compensation will only be paid where details of the relevant Outage Plan have been submitted to System Management at least one year in advance of the time when the outage would have commenced.
  - (b) Compensation will only be paid for the additional maintenance costs directly incurred by a Market Participant or Network Operator in the deferment or cancellation of the relevant outage.
  - (c) Compensation will not be paid for Opportunistic Maintenance.
  - (d) The Market Participant or Network Operator must submit a written request for compensation to AEMO within three months of System Management's decision, including invoices and other documents demonstrating the costs referred to in clause 3.19.12(b).
  - (e) AEMO must determine the amount of compensation within one month of the submission of the application for compensation, and must notify the Market Participant or Network Operator of the amount determined and the reasons for its determination.

...

Clause 3.19.13 has been amended to use standard terminology for the reference to section 3.19.

- 3.19.13. System Management must keep records of all of its outage evaluations and decisions made in accordance with this ~~clause~~ section 3.19, together with the reasons for each outage evaluation and decision.
- 3.19.14. System Management must document the procedure it follows in conducting final approval of outages in a Power System Operation Procedure.

### 3.20. Outage Recall

Clause 3.20.1 has been amended to:

- reverse the change from Outage Facility to Equipment List Facility proposed in the Draft Rule Change Report;
- include “a” before “High Risk Operating State”; and
- remove an unnecessary comma.

3.20.1. Where the SWIS is in an Emergency Operating State, or a High Risk Operating State, System Management may direct a Market Participant or Network Operator to return an ~~Equipment List Outage~~ Facility to service from a Planned Outage in accordance with the relevant Outage Contingency Plan, or take other measures contained in the relevant Outage Contingency Plan.

3.20.2. Subject to clause 3.20.3, Market Participants and Network Operators must comply with directions from System Management under clause 3.20.1.

3.20.3. Rule Participants are not required to comply with directions issued by System Management under clause 3.20.1 if such compliance would endanger the safety of any person, damage equipment, or violate any applicable law. Where a Rule Participant cannot comply with such a direction it must inform System Management as soon as practicable.

...

3.21A.14. A Commissioning Test under an approved Commissioning Test Plan for an Outage Facility may cover periods in which some or all of the capacity or capability of the Outage Facility is subject to a Planned Outage or Forced Outage.

...

### 7.1. Data Used in the Non-Balancing and Out of Merit Dispatch Process

7.1.1. System Management must maintain and, in accordance with section 7.6, use the following data set when issuing Dispatch Instructions to Demand Side Programmes, when issuing Dispatch Instructions to Balancing Facilities dispatched Out of Merit, and when providing Operating Instructions:

- (a) Standing Data for Registered Facilities determined in accordance with section 2.34;
- (b) Loss Factors determined in accordance with section 2.27;
- (c) expected Scheduled Generator and Non-Scheduled Generator capacities by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;
- (d) network configuration and capacity by Trading Interval determined in accordance with clauses 3.17.5, 3.17.6 and 3.17.8;

- (e) forecasts of load and non-scheduled generation by Trading Interval determined in accordance with section 7.2;
- (f) Ancillary Service Requirements for each Trading Interval determined in accordance with clause 7.2.4;
- (g) schedules of approved Planned Outages by Trading Interval determined in accordance with section 3.19;
- (h) Forced Outages and Consequential Outages by Trading Interval received from Network Operators in accordance with section 3.21;
- (i) Scheduled Generator, Non-Scheduled Generator and Interruptible Load Forced Outages and Consequential Outages by Trading Interval received from Market Participants in accordance with section 3.21;
- (j) [Blank]
- (k) the Non-Balancing Dispatch Merit Order;
- (l) Supplementary Capacity Contract data, if any; and
- (m) Network Control Service Contract data, if any, received from a Network Operator in accordance with clauses 5.3A.3 and 5.3A.4.

...

## **7A.2. Balancing Submissions**

- 7A.2.1. A Market Participant must at all times ensure that it has made a Balancing Submission in accordance with clause 7A.2.4 for each Trading Interval in the Balancing Horizon for each of its Balancing Facilities.
- 7A.2.2. A Market Participant may submit a subsequent Balancing Submission in accordance with clause 7A.2.4 in respect of any of its Balancing Facilities, excluding Facilities in the Balancing Portfolio, and:
- (a) the Balancing Submission may be for one or more Trading Intervals in the Balancing Horizon; and
  - (b) the Balancing Submission must be made before Balancing Gate Closure for any Trading Interval in the submission.
- 7A.2.3. A Market Participant with a Balancing Facility that is:
- (a) the subject of an Operating Instruction; or
  - (b) undergoing a Test that has an approved Test Plan,
- must ensure that a Balancing Submission submitted under this section 7A.2 is consistent with the proposed operation of the Balancing Facility for each Trading Interval specified in the Operating Instruction or the Test Plan. The provisions of this clause 7A.2.3 do not apply to the Balancing Portfolio.
- 7A.2.4. A Balancing Submission must:

- (a) be in the manner and form prescribed and published by AEMO;
- (b) constitute a declaration by an Authorised Officer;
- (c) have Balancing Price-Quantity Pair prices within the Price Caps;
- (d) specify, for each Trading Interval covered in the Balancing Submission, whether the Balancing Facility is to use Liquid Fuel or Non-Liquid Fuel;
- (e) specify the Ramp Rate Limit or the Portfolio Ramp Rate Limit (as applicable) for each Trading Interval covered in the Balancing Submission; and
- (f) specify the available capacity and the unavailable capacity as determined under clause 7A.2.4A, 7A.2.4B or 7A.2.4C (as applicable) for each Trading Interval covered in the Balancing Submission.

7A.2.4A. A Balancing Submission for a Balancing Facility that is a Scheduled Generator must specify the following details for each Trading Interval covered in the Balancing Submission:

- (a) a ranking of Balancing Price-Quantity Pairs covering available capacity; and
- (b) a declaration of the MW quantity that will be unavailable for dispatch, where the sum of:
  - (c) the quantities in the Balancing Price-Quantity Pairs; and
  - (d) the declared MW quantity of unavailable capacity,
 must be equal to the Scheduled Generator's Sent Out Capacity.

7A.2.4B. A Balancing Submission for a Balancing Facility that is a Non-Scheduled Generator must specify, for each Trading Interval covered in the Balancing Submission, a single Balancing Price-Quantity Pair with a MW quantity equal to the Market Participant's best estimate of the Facility's output at the end of the Trading Interval (based on an assumption, for the purposes of this clause 7A.2.4B, that the Facility will not be subject to a Dispatch Instruction that limits its output during that Trading Interval).

7A.2.4C. A Balancing Submission for the Balancing Portfolio must specify the following details for each Trading Interval covered in the Balancing Submission:

- (a) a ranking of Balancing Price-Quantity Pairs covering available capacity in the Balancing Portfolio; and
- (b) a declaration of the MW quantity of capacity of Scheduled Generators in the Balancing Portfolio that will be unavailable for dispatch.

7A.2.5. For the purposes of clause 7A.2.4(b), where AEMO accepts a Balancing Submission from a Market Participant that complies with clause 7A.2.4(a), the submission will be deemed to constitute a declaration by an Authorised Officer of the Market Participant.

- 7A.2.6. A subsequent Balancing Submission made under clauses 7A.2.2, 7A.2.9(d), 7A.2.9(e), 7A.2.9(f), 7A.2.9B, 7A.2.9C, 7A.2.10 or 7A.3.5 in respect of the same Balancing Facility covering the same Trading Interval as an earlier Balancing Submission, overrides the earlier Balancing Submission for, and has effect in relation to, that Trading Interval.
- 7A.2.7. Where a subsequent Balancing Submission is made under clause 7A.2.6, a Market Participant must create and maintain internal records of the reasons for submitting the subsequent Balancing Submission, including details of any changed circumstances and the impacts of those circumstances that gave rise to the new Balancing Submission.
- 7A.2.8. A Market Participant (other than Synergy in relation to the Balancing Portfolio) must ensure that, for each Trading Interval in the Balancing Horizon for which Balancing Gate Closure has not occurred, its most recently submitted Balancing Submission in respect of its Balancing Facility and that Trading Interval accurately reflects:
- (a) all information reasonably available to the Market Participant, including Balancing Forecasts published by AEMO, the information provided by AEMO under clause 7A.3.1(c) and the latest information available to it in relation to any Internal Constraint or External Constraint;
  - (b) the Market Participant's reasonable expectation of the capability of its Balancing Facilities to be dispatched in the Balancing Market; and
  - (c) the price at which the Market Participant submitting the Balancing Submission intends to have the Balancing Facility participate in the Balancing Market.

Clause 7A.2.8A has been amended to clarify that the exemption only applies to approved Commissioning Tests.

- 7A.2.8A. A Market Participant (other than Synergy in respect of the Balancing Portfolio) must, for each of its Balancing Facilities, and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times, any of the Facility's capacity that is:
- (a) subject to an approved Planned Outage; or
  - (b) subject to an outstanding request for approval of Opportunistic Maintenance, is declared as unavailable in the Balancing Submission for the Facility and the Trading Interval, unless the Balancing Facility is expected to generate in accordance with an [approved](#) Commissioning Test in that Trading Interval.
- 7A.2.9. Synergy, in relation to the Balancing Portfolio:
- (a) must, subject to clauses 7A.2.9(d) to 7A.2.9(f), ensure that for each Trading Interval in the Balancing Horizon the most recently submitted Balancing Submission in respect of that Trading Interval accurately reflects:

- i. all information reasonably available to Synergy, including Balancing Forecasts published by AEMO and the latest information available to Synergy in relation to any Forced Outage for a Facility in the Balancing Portfolio;
  - ii. subject to clause 7A.2.9A(b), Synergy's reasonable expectation of the capability of its Balancing Portfolio to be dispatched in the Balancing Market for that Trading Interval; and
  - iii. the price at which Synergy intends to have the Balancing Portfolio participate in the Balancing Market;
- (b) must indicate in a manner and form prescribed by AEMO:
- i. which of the Balancing Price-Quantity Pairs that it has priced at the Minimum STEM Price are for Facilities that are to provide LFAS;
  - ii. which Facilities are likely to provide LFAS; and
  - iii. for each completed Trading Interval, which Facilities actually provided the LFAS in the Trading Interval;
- (c) must:
- i. ensure that quantities in the Balancing Price-Quantity Pairs in its Balancing Submissions that are required for the provision of Ancillary Services, other than LFAS, are priced at the Price Caps;
  - ii. advise AEMO in a manner and form prescribed by AEMO, the Facilities which are likely to provide the quantities specified in clause 7A.2.9(c)(i); and
  - iii. for each completed Trading Interval, advise AEMO which Facilities actually provided the Ancillary Services referred to in clause 7A.2.9(c)(i) in the Trading Interval;
- (d) may submit a new, updated Balancing Submission in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure is more than two hours in the future:
- i. by submitting its updated Balancing Submission to AEMO immediately before 1:00 PM; or
  - ii. otherwise by submitting its updated Balancing Submission to AEMO within one hour after LFAS Gate Closure;
- (e) may submit a new, updated Balancing Submission in relation to any Trading Interval in the Balancing Horizon for which Balancing Gate Closure is more than two hours in the future if a Facility in the Balancing Portfolio has experienced a Forced Outage since the last Balancing Submission;
- (f) may after the time specified in clause 7A.2.9(d), submit a new, updated Balancing Submission to reflect the impact of a Forced Outage which Synergy expects will cause a Facility to run on Liquid Fuel, where the Facility would not have run on Liquid Fuel but for the Forced Outage, in order to

meet Synergy's Balancing Market obligations in relation to the Balancing Portfolio under this Chapter 7A; and

- (g) must, as soon as it becomes aware that:
- i. either:
    1. a Facility in the Balancing Portfolio has experienced a Forced Outage; or
    2. System Management has approved a request for Opportunistic Maintenance for a Facility in the Balancing Portfolio; and
  - ii. the outage will reduce the available capacity of the Balancing Portfolio in a Trading Interval in the Balancing Horizon from the quantity reported as available in the current Balancing Submission for that Trading Interval; and
  - iii. there is a credible risk that representation of the relevant capacity as available in the Balancing Submission might, in the circumstances:
    1. affect any expected EOI Quantity provided to another Market Participant for the Trading Interval under clause 7A.3.1(c); or
    2. cause System Management to dispatch Balancing Facilities Out of Merit under clauses 7.6.1C(b) or 7.6.1C(c),submit a new, updated Balancing Submission for the Trading Interval to:
    - iv. make any relevant Scheduled Generator capacity subject to the outage unavailable; and
    - v. unless otherwise permitted under clauses 7A.2.9(d) to 7A.2.9(f), remove or reduce the quantity of the highest price Balancing Price-Quantity Pair or Balancing Price-Quantity Pairs (excluding any Balancing Price-Quantity Pairs that are required to be offered at the Price Caps under clause 7A.2.9(c)) to remove the capacity subject to the outage from its Balancing Price-Quantity Pairs.

Clause 7A.2.9A has been amended to clarify that the exemption in clause 7A.2.9A(a) only applies to approved Commissioning Tests.

7A.2.9A. Synergy must, to the extent it is able to update its Balancing Submissions subject to clauses 7A.2.9(d) to 7A.2.9(g) (as applicable), for each Scheduled Generator in the Balancing Portfolio, and for each Trading Interval in the Balancing Horizon, use its best endeavours to ensure that, at all times:

- (a) any of the Scheduled Generator's capacity that is subject to an approved Planned Outage is declared as unavailable in the Balancing Submission for the Balancing Portfolio and that Trading Interval, except where that Scheduled Generator is expected to generate in accordance with an approved Commissioning Test; and

- (b) any of the Scheduled Generator's capacity that is subject to an outstanding request for approval of Opportunistic Maintenance is declared as available in the Balancing Submission for the Balancing Portfolio and that Trading Interval.

7A.2.9B. If System Management rejects a previously approved Planned Outage of a Balancing Facility (or a Facility in the Balancing Portfolio) under clause 3.19.5, then the relevant Market Participant must, as soon as practicable, update its Balancing Submission for any relevant Trading Intervals in the Balancing Horizon for which:

- (a) the Market Participant can make the relevant capacity available for dispatch, taking into account any relevant Equipment Limits; and
- (b) Balancing Gate Closure has not yet occurred,

to reflect that the capacity will not be subject to a Planned Outage in those Trading Intervals.

7A.2.9C. If System Management directs a Market Participant to return a Balancing Facility or a Facility in the Balancing Portfolio from a Planned Outage in accordance with an Outage Contingency Plan under clause 3.20.1, then the Market Participant must, as soon as practicable, update its Balancing Submission for any relevant Trading Intervals in the Balancing Horizon for which Balancing Gate Closure has not yet occurred, to reflect the impact of System Management's direction on the proposed end time of the Planned Outage.

7A.2.10. A Market Participant (other than Synergy in relation to the Balancing Portfolio) as soon as it becomes aware that a Balancing Submission for a Trading Interval for which Balancing Gate Closure has occurred is inaccurate:

- (a) if the inaccuracy is due to an Internal Constraint, must make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available Sent Out Capacity of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval as soon as reasonably practicable;
- (b) if the inaccuracy is due to an External Constraint, may make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the available Sent Out Capacity of that Facility and the Ramp Rate Limit is accurate but no prices are altered, in respect of that Trading Interval, as soon as reasonably practicable;
- (c) if the inaccuracy is due to the Market Participant receiving an Operating Instruction, may make a new, accurate Balancing Submission that reflects the Operating Instruction; or
- (d) if the inaccuracy is due to a variation of the availability of the intermittent energy source used by a Non-Scheduled Generator, may make a new, accurate Balancing Submission so that the quantity in the Balancing Submission reflects the Market Participant's best estimate of the Facility's

output at the end of the Trading Interval and the Ramp Rate Limit is accurate but the price is not altered, in respect of that Trading Interval.

7A.2.10A. A Market Participant (other than Synergy in relation to the Balancing Portfolio) must not submit a new, updated Balancing Submission in respect of a Trading Interval for which Balancing Gate Closure has occurred except in accordance with clause 7A.2.10.

7A.2.11. Where a Market Participant has submitted a Balancing Submission in accordance with clauses 7A.2.10(a) or 7A.2.10(b) after Balancing Gate Closure, the Market Participant must, as soon as reasonably practicable, provide AEMO with written details of the nature of the Internal Constraint or External Constraint, when it occurred and its duration.

7A.2.12. Where Synergy has submitted an updated Balancing Submission for the Balancing Portfolio in accordance with clauses 7A.2.9(e) or 7A.2.9(f) because of a Forced Outage of one of the Facilities in the Balancing Portfolio after the time specified in the applicable clause it must, as soon as reasonably practicable, provide AEMO with written details of:

- (a) the nature of the Forced Outage;
- (b) when the Forced Outage occurred;
- (c) the duration of the Forced Outage; and
- (d) information substantiating the commercial impact, if any, of the Forced Outage.

7A.2.13. A Market Participant must:

- (a) make a Balancing Submission under this section 7A.2 in good faith;
- (b) not act in a manner that:
  - i. is intended to lead; or
  - ii. the Market Participant should have reasonably known is likely to lead, to another Rule Participant being misled or deceived as to the existence or non-existence of a material fact relating to the Balancing Market; and
- (c) not include information in a Balancing Submission relating to prices for a purpose of influencing the determination of the Constrained Off Compensation Price, the Constrained Off Quantity which the Facility may provide, the Constrained On Compensation Price or the Constrained On Quantity which the Facility may provide.

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The section heading for section 7A.2A has been amended to make it more reflective of the contents of the section.

## 7A.2A. ~~Unavailable~~ Accounting for Unavailable Capacity in a Balancing Submission

Clauses 7A.2A.1 and 7A.2A.2 have been amended to clarify the meaning of the third criterion.

7A.2A.1. Subject to clauses 7A.2A.3 and 7A.2A.4, a Market Participant (other than Synergy in respect of the Balancing Portfolio) must, as soon as practicable after each Trading Interval, for each of its Balancing Facilities that is an Outage Facility, ensure that it has notified System Management of a Forced Outage or Consequential Outage that relates to any capacity for which the Market Participant holds Capacity Credits that:

- (a) was declared unavailable in the Facility's Balancing Submission for that Trading Interval; and
- (b) was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval; ~~and,~~
- ~~(c) was not declared unavailable in the Facility's Balancing Submission because the Market Participant reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.~~

unless the relevant capacity was declared unavailable in the Facility's Balancing Submission because the Market Participant reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

7A.2A.2. Subject to clauses 7A.2A.3 and 7A.2A.4, Synergy must, as soon as practicable after each Trading Interval, for each Facility in the Balancing Portfolio that is an Outage Facility, ensure that it has notified System Management of a Forced Outage or Consequential Outage that relates to any capacity for which Synergy holds Capacity Credits that:

- (a) was declared unavailable in the Balancing Portfolio's Balancing Submission for that Trading Interval; and
- (b) was not subject to an approved Planned Outage, Consequential Outage or Commissioning Test Plan in that Trading Interval; ~~and,~~
- ~~(c) was not declared unavailable in the Balancing Portfolio's Balancing Submission because Synergy reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the maximum site temperature for the relevant Trading Day would exceed 41 degrees Celsius.~~

unless the relevant capacity was declared unavailable in the Balancing Portfolio's Balancing Submission because Synergy reasonably expected that its Reserve Capacity Obligations for the Trading Interval would be reduced because the

maximum site temperature for the applicable Trading Day would exceed 41 degrees Celsius.

7A.2A.3. Clauses 7A.2A.1 and 7A.2A.2 do not apply in respect of a Trading Interval if:

- (a) the relevant capacity was previously subject to an approved Planned Outage for the Trading Interval; and
- (b) System Management notified the Market Participant of the rejection of the Planned Outage under clause 3.19.5:
  - i. less than 30 minutes before Balancing Gate Closure for the Trading Interval; or
  - ii. at a time when the Facility was not synchronised and could not be synchronised by the start of the Trading Interval given the Facility's relevant Equipment Limits.

7A.2A.4. Clauses 7A.2A.1 and 7A.2A.2 do not apply in respect of a Trading Interval if:

- (a) the relevant capacity was previously subject to an approved Consequential Outage or Commissioning Test Plan for the Trading Interval; and
- (b) System Management notified the Market Participant that the capacity was no longer subject to the Consequential Outage or Commissioning Test Plan for the Trading Interval:
  - i. less than 30 minutes before:
    - 1. Balancing Gate Closure for the Trading Interval, for a Facility that is not in the Balancing Portfolio; or
    - 2. the latest time specified in clause 7A.2.9(d) for the Trading Interval, for a Facility in the Balancing Portfolio; or
  - ii. at a time when the Facility was not synchronised and could not be synchronised by the start of the Trading Interval given the Facility's relevant Equipment Limits.

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## Glossary

**Equipment List:** Means the list maintained by System Management under clause 3.18.2(a).

**Equipment List Facility:** Means a Facility or item of equipment that is included on the Equipment List.

**Mandatory Routine Maintenance:** Means Outage Facility Maintenance of a routine nature that must be undertaken by a specific point in time, or by the time that a specific measure of usage is reached, as required by applicable legislation or in accordance with the Outage Facility's asset management plan.

**Outage Facility:** Means an Equipment List Facility or a Self-Scheduling Outage Facility.

**Outage Facility Maintenance: Means:**

- (a) an upgrade of Outage Facility equipment; or
- (b) all maintenance in respect of an Outage Facility, including but not limited to preventative maintenance, corrective maintenance, plant inspections and tests, that would reasonably be required in accordance with good electricity industry practice,

that requires some or all of the capacity or capability associated with an Outage Facility being unavailable for service.

**Scheduled Outage:** Means an outage that has an Outage Plan that is included in System Management's outage schedule.

**Self-Scheduling Outage Facility:** Has the meaning given in clause 3.18.2A(a).

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