ELECTRICITY INDUSTRY ACT

ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY MARKET) REGULATIONS 2004

WHOLESALE ELECTRICITY MARKET RULES

Power System Operation Procedure:
Facility Outages

VERSION HISTORY WEM RULES

POWER SYSTEM OPERATION PROCEDURE: FACILITY OUTAGES

21 September 2006

1 April 2009	System Management amended changes to the procedure resulting from
	Procedure Change Report PPCL0003
21 June 2011	System Management amended changes to the procedure resulting from
	Procedure Change Report PPCL0017
Balancing Market	System Management replacement of the procedure resulting from Procedure
Commencement	Change Report PPCL0023
Day	
7 April 2014	System Management amendments to the procedure resulting from Procedure
	Change Report PPCL0026

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2. RELATIONSHIP WITH MARKET RULES

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<u>1.0</u>	<u>21 September</u> <u>2006</u>	Power System Operation Procedure (Market Procedure) for Facility Outages initial release
2.0	<u>1 April 2009</u>	System Management amended changes to the procedure resulting from Procedure Change Report PPCL0003
3.0	21 June 2011	System Management amended changes to the procedure resulting from Procedure Change Report PPCL0017
4.0	Balancing Market Commencement Day	System Management replacement of the procedure resulting from Procedure Change Report PPCL0023
<u>5.0</u>	7 April 2014	System Management amendments to the procedure resulting from Procedure Change Report PPCL0026
6.0	TBA 2018	AEMO restructure and rewrite of the procedure resulting from Procedure Change Report AEPC 2018 04



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1. PROCEDURE OVERVIEW

1.1. Relationship with the Wholesale Electricity Market Rules

- This Power System Operation Procedure (PSOP): Facility Outages (Procedure) has been developed in accordance with, clauses 3.18.21, 3.19.14, 3.21.12 and should be read in conjunction with, 4.11.1(h) of the Wholesale Electricity Market Rules (Market WEM Rules).
- 2.1.2.1.1.2. References to particular MarketWEM Rules within the Procedure in bold and square brackets [MRClause XX] are current as at 7 April 2014.1 September 2018. These references are included for convenience only, and are not part of this Procedure.

1.2. This Procedure is subservient to the Market Rules. Interpretation

1.2.1. In the event of conflict between this Procedure:

- (a) terms that are capitalised, but not defined, have the meaning given in the WEM Rules;
- (a)(b) to the extent that this Procedure and is inconsistent with the Market WEM Rules or any other document, the order of precedence is as set out in the Market, the WEM Rules [MR 1.5.2]. prevail to the extent of the inconsistency;
- 1. This Procedure may include explanatory text, including quotations from the Market Rules. Such explanatory text is for information only, does not form part of the Procedure, and is italicised and contained in a rectangular box.
- 2. A word or phrase defined in the Electricity Industry Act 2004, or in the Regulations or Market Rules made under that Act, has the same meaning when used in this Procedure.

3. RELATED DOCUMENTS

- (c) This Procedure is related to, and should be read in conjunction with a reference to the WEM Rules, or Market Procedures, includes any associated forms required or contemplated by the WEM Rules or Market Procedures; and
- (d) words expressed in the singular include the plural and vice versa.
- 3.1.1.1.2.2. In addition, the following: defined terms have the meaning given.

Table 1 **PSOP: Communications** Defined terms

<u>Term</u>	<u>Definition</u>
Day-Ahead Opportunistic Maintenance (DAOM)	Opportunistic Maintenance described in step 6.1.2(a).
Equipment List	The list of equipment required by clause 3.18.2(a) of the WEM Rules to be subject to outage scheduling, described in step 2.1.1.
On-the-Day Opportunistic Maintenance (ODOM)	Opportunistic Maintenance described in step 6.1.2(b).
Outage Risk Assessment	An assessment of risks that might extend the outage as detailed in step 4.2.3(a).



<u>Term</u>	<u>Definition</u>
Outage Contingency Plans	Contingency plans for the early return to service of the Facility or item of equipment as described in step 4.2.3(b).
Outage Schedule	An "outage schedule" (referred to in clause 3.18.4 of the WEM Rules) containing information on all Scheduled Outages as described in step 4.1.1.

a. Purpose and Control;

b. PSOP: Commissioning and Testing;

c. PSOP: Power System Security; and

3.2.1.3. Marketapplication of this Procedure: IMS Interface.

4. COMMENCEMENT

1. This revised The purpose of this Procedure has effect from 7 April 2014.



1 SCOPE

- 4.1.1.1.3.1. This Procedure has been developed in accordance with the Market Rules [MR 3.18.21, 3.19.14, 3.21.12 and 4.11.1(h)] and details to detail the processes to be followed by:
 - (a) System Management, the IMOAEMO, Market Participants and Network Operators when conducting outage planning for an outage of a Network, Market Generator, Load or an Ancillary Service-Facility; [Clause 3.18.21];
 - (b) System Management AEMO, Market Participants and Network Operators when conducting final approval of outages; [Clause 3.19.14];
 - (c) System Management AEMO, Market Participants and Network Operators when determining and reporting Forced Outages and Consequential Outages; [Clause 3.21.12]; and

The IMOAEMO when calculating Planned Outage and Forced Outage rates, for

- (d) This-Procedure includes details of the processes: purposes of assigning Certified Reserve Capacity [Clause 4.11.1(h)].
- 1.4. that enable Market Participants and Network Operators to gain agreement with System Management Associated documents
- 1.4.1. The following documents in Table 2 (available on the timing Market Web Site) provide background information to this Procedure:

 Table 2
 Background Procedures

Reference	<u>Title</u>	<u>Location</u>
SO OP WA 3805	IMS Interface Market Procedure: AEMO and Network Operators	Market Web Site
SO OP WA 3801	PSOP: Commissioning and Testing	Market Web Site
SO OP WA 3802	PSOP: Communications and Control Systems	Market Web Site
SO OP WA 3803	PSOP: Dispatch	Market Web Site
SO OP WA 3806	PSOP: Medium Term PASA	Market Web Site
SO OP WA 3807	PSOP: Network Modelling Data	Market Web Site
SO OP WA 3808	PSOP: Power System Security	Market Web Site
SO OP WA 3809	PSOP: Short Term PASA	Market Web Site

2. LIST OF EQUIPMENT SUBJECT TO OUTAGE PLANNING

2.1. Contents of the Equipment List

- 2.1.1. Clause 3.18.2(a) of the WEM Rules requires AEMO to maintain a list of equipment that is subject to outage scheduling (Equipment List).
- 2.1.2. Market Participants and the Network Operator must schedule outages of for the equipment on the Equipment List in accordance with clauses 3.18, 3.19, 3.20 and 3.21 of the



WEM Rules [Clause 3.18.2(f)].

- 2.1.3. In compiling the Equipment List, AEMO must include [Clause 3.18.2(c)]:
 - (a) all transmission network Registered Facilities;
 - a. to resolve possible conflicts between Outage Plans of different Rule Participants; and
 - (b) to assistall Registered Facilities holding Capacity Credits with a nameplate capacity of at least
 - 10 MW [Clause 3.18.2A(a)];
 - (c) all generation systems with a nameplate capacity of at least 10 MW that are associated with an Intermittent Load [Clause 3.18.2A(a)];
 - (d) all Registered Facilities subject to an Ancillary Services Contract; and
 - (b)(e) any other equipment that AEMO determines must be subject to outage scheduling to maintain Power System Management in the management of Security and Power System Security.Reliability.

<u>In</u>

- 2.1.4. applying step (e), AEMO may include in the Equipment List:
 - (a) any transmission or distribution Network equipment that is not a Registered Facility; and
 - (b) any Facility with a nameplate capacity of less than 10 MW, where AEMO considers that an outage of that Facility may adversely affect AEMO's ability to ensure that Power System Security and Power System Reliability are maintained.
- 2.1.5. In applying step (e), AEMO must consider the following matters when deciding whether to include a Facility or item of equipment on the Equipment List:
 - (a) the safe operation of equipment, and the safety of personnel and the public;
 - (b) the impact of an outage on other items of equipment or Facilities; and
 - (c) the maintenance of Power System Security and Power System Reliability.
- 2.1.6. AEMO may update the Equipment List in circumstances including, but not limited to [Clause 3.18.2(b)]:
 - (a) when a new Facility is registered;
 - (b) when there has been a change to any of the details for an item of equipment on the Equipment List; and
 - (c) when AEMO considers that an existing item of equipment is no longer required to be included on the Equipment List.
- 2.1.7. Where the Equipment List is revised in step 2.1.6, AEMO must publish the revised Equipment List as soon as practicable [Clause 3.18.2(b)].
- 2.1.8. AEMO must review the Equipment List at least once every 6 months.



- 2.1.9. A Market Participant or Network Operator may request that the Economic Regulation Authority reassess the inclusion of its Facility or item of equipment on the Equipment List [Clause 3.18.3].
- 2.1.10. Before requesting the Economic Regulation Authority to conduct a reassessment under step 2.1.9, a Market Participant or Network Operator may discuss with AEMO the inclusion of its Facility or item of equipment on the Equipment List.

5.3. COMMUNICATIONS AND CONTACTS

2.1 RULE PARTICIPANT CONTACTS

- 1.—Depending on the circumstances, System Management may communicate directly with affected Market Participants and Network Operators or request affected Market Participants and Network Operators to seek resolution of Outage Plan conflicts amongst themselves.
- 2. Market Participants and Network Operators must provide System
 Management with the communication details of the operating person(s)
 authorised to submit Outage Plans and request cancellations of Planned
 Outages for each of their Facilities.
- 3. System Management must maintain a record of details as advised in Paragraph 2.1.2 and make them available to Market Participants and other involved parties on an as needed basis.

2.2 SYSTEM MANAGEMENT CONTACTS

1. System Management must from time to time advise Market Participants and Network Operators of its contact details and modes of communication in respect of outages.



5.1.3.1. Communication of outage informationOutage Information

- 5.1.1.3.1.1. Communication of outage requests and notifications shallmust be made through

 System Management's Market Information Technology System ("SMMITS")

 web interface AEMO's nominated IT system, as soon as practicable, unless otherwise set out in this Procedure.
- 5.1.2.3.1.2. Where this Procedure requires a Rule Participant to provide confirmation in SMMITSAEMO's IT system of a request or notification made using an alternative communication method, the Rule Participant must record that confirmation in SMMITSAEMO's IT system as soon as practicable after making the relevant request or notification.
- 5.1.3.3.1.3. During periods when SMMITSWhen AEMO's IT system is unavailable, Rule Participants must provide any requests and notifications required to be communicated through SMMITSAEMO's IT system under this Procedure by an alternative communication method defined in the PSOP: Communications and Control Systems or as otherwise directed by System ManagementAEMO. When AEMO's IT system becomes available, Rule Participants must update AEMO's IT system as soon as practicable to record any requests and notifications provided by an alternative communication method under this step 3.1.3.
 - 2. When SMMITS becomes available again after a period during which it has been unavailable, Rule Participants must update SMMITS as soon as practicable to record any requests and notifications provided under Paragraph 2.3.3.

3 SWIS EQUIPMENT LIST

Market Rules [MR 3.18.2(a) & (b)] require System Management to compile and maintain a list of all equipment in the SWIS that is subject to outage scheduling by System Management.

3.1 CONTENT OF THE EQUIPMENT LIST

- 1. In addition to the requirements of the Market Rules [MR 3.18.2(c)] the list of equipment must include:
 - a. All network circuits that could affect the output from a generating Facility during a Planned Outage of that circuit; and
 - b. All Synergy generating facilities; and
 - c. All Non-Synergy generating facilities with output ratings in excess of 10MW; and
 - d. Any Facilities contracted to provide Ancillary Services that are not covered by the above.
- 3.1.4. Market Generators and Loads with a name plate capacity rating less than 10MW may be included in the AEMO may agree with the Network Operator on a



4. OUTAGE SCHEDULING

4.1. Maintenance of the Outage Schedule

- 4.1.1. AEMO must maintain an Outage Schedule that contains details of each Outage Plan [Clause 3.18.4] that:
 - (a) AEMO has accepted under step 5.1.1; or
 - (b) the ERA has directed AEMO to include the Outage Plan in its Outage Schedule, as per clause 3.18.15(f) of the WEM Rules.

4.2. Outage Plan Information Requirements

- 4.2.1. Market Participants and Network Operators must submit Outage Plans through AEMO's IT system unless step 3.1.3 applies.
- 4.2.2. An Outage Plan must contain the information specified in clause 3.18.6 of the WEM Rules and 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 [Clause 3.18.7].
- 4.2.3. An Outage Plan submitted under step 4.2.1 must include (among other matters) [Clause 3.18.6] an:
 - (a) Outage Risk Assessment, being an assessment of risks that might extend the outage [Clause 3.18.6(e)]; and
 - (b) Outage Contingency Plans, being contingency plans for the early return to service of the Facility or item of equipment [Clause 3.18.6(g)].
- 4.2.4. An Outage Plan is valid if it complies with step 4.2.2 and:
 - (a) (in the case of a Scheduled Generator or Non-Scheduled Generator) the Market

 Participant has reasonable grounds to expect the Facility to be available for dispatch, or
 capable of being put into that state, immediately prior to the commencement of the
 proposed outage;¹
 - (b) (in the case of an item of Network equipment-list) the Network Operator has reasonable grounds to expect the item of equipment to be energised, or capable of being put into that state, immediately prior to the commencement of the proposed outage; and
 - (c) (in the case of any other equipment on the Equipment List) the Market Participant has reasonable grounds to expect the equipment would otherwise be in service, or capable of being put into that state, immediately prior to the commencement of the proposed outage.
- 4.2.5. An Outage Contingency Plan must include the following details [Clause 3.18.6(g)]:

.

This requirement is based on the WA Supreme Court judgment in *Bluewaters Power 2 Pty Ltd -V- Australian Energy Market Operator Ltd* [2017] WASC 98. Available from:

 $[\]underline{https://ecourts.justice.wa.gov.au/eCourtsPortal/Decisions/ViewDecision?returnUrl=\%2 feCourtsPortal\%2 fDecisions\%2 fFilter\%2 fSC\%2 fCitationNumber\&id=d6ad0c85-c57f-4a38-4825-8101001537ba.$

- (a) the steps that the Market Participant or Network Operator will follow if

 AEMO requires the relevant Facility or item of equipment to return to service before the proposed outage end time specified in the Outage Plan;
- (a)(b) for a Network Operator, where outage scheduling is required for the maintenance of relevant, other measures that can be used to manage Power System Security and Power System Reliability, as specified in the Market Rules [MR 3.18.2A]. when the Facility cannot be returned to service, including, but not limited to, measures such as:
- 2. System Management must consider the following factors in making a decision as to whether to include or exclude a piece of equipment on the list:



- (1) The safety of partial restoration of the Facility;
- (2) bypass of affected equipment;
- (3) dispatch under a Network Control Service Contract; and
- (1)(4) alternative operation of other equipment, personnel and the public; (e.g. open point); and
- (b)(c) any limitations that AEMO may need to take into account in maintaining Power System Security and Power System Reliability-when the Outage Contingency Plan is enacted, including, but not limited to:
- 3. System Management must update the equipment list as soon as practicable after new equipment that is required to be subject to outage scheduling is added to the SWIS [MR 3.18.2(b)] and provide the revised equipment list to the IMO as soon as practicable [MR 3.18.2(e)].
- 4. Notwithstanding Paragraph 3.1.4, System Management must review the equipment list at least once every six months to determine if any updates are required.
- 5. Where following the review referred to in Paragraph 3.1.5, System

 Management determines that an update to the equipment list is necessary
 it must complete the required updates and provide the revised equipment
 list to the IMO as soon as practicable [MR 3.18.2(e)].

3.2 RECONSIDERATION OF ITEMS ON THE EQUIPMENT LIST

- 1. A Market Participant or Network Operator may request that the Independent Market Operator reassess the inclusion or exclusion of its Facility or item of equipment on the list in accordance with the Market Rules [MR 3.18.3].
- 2. Before requesting the IMO to conduct a reassessment under Paragraph
 3.2.1 a Market Participant or Network Operator may initially contact System Management to discuss the inclusion or exclusion of its Facility or item of equipment on the list.

4 OUTAGE SCHEDULE

The requirements for System Management to maintain an outage schedule, containing information on all Scheduled Outages are specified in the Market Rules [MR 3.18.4].

- 1. The outage schedule must contain a list of all accepted and approved outages.
- 2. The outage schedule must contain the identity of the item of equipment and the planned starting and completion times of each Outage Plan accepted by System Management, up to three years ahead.

The Market Rules [MR 3.18.5D] specify that System Management may disclose information from the outage schedule to a Network Operator to coordinate outage timings.



5 OUTAGE PLANS

5.1 OUTAGE PLAN

1. Market Participants and Network Operators must submit requests for acceptance of Outage Plans through SMMITS.



- 2. System Management must accept an Outage Plan that:
 - a. contains the information specified in the Market Rules [MR 3.18.6]; and
 - b. is submitted in accordance with the requirements of this Procedure; and
 - **c.** meets the criteria for evaluating Outage Plans specified in the Market Rules [MR 3.18.11].
 - (1) System Management for a Network Operator:
 - (A) alternative protection operation;
 - (B) revised Equipment Limits or Security Limits; or
 - (2) for a Market Generator, any reduction in capacity as a result of early return to service.
- 5.1.4.4.2.6. AEMO may require the Market Participant or Network Operator to clarify or provide additional information in relation to an accepted Outage Plan prior to approval of enable the Outage Plan to be evaluated.

5.2 CHANGES TO AN OUTAGE PLAN

The requirements for Market Participants or Network Operators to revise plans to remove from service or de-rate an item of equipment are specified in the Market Rules [MR 3.18.8 and MR 3.18.9].

- 1. A Market Where AEMO requests clarification or additional information under step 4.2.6, the Market Participant or Network Operator wishing to withdraw an Outage Plan pursuant to the Market Rules [MR 3.18.8] must:
 - a. if the Outage is scheduled to commence within 24 hours, provide
 the information requested as soon as practicable notify System

 Management by telephone and provide confirmation through
 SMMITS; or
 - b. otherwise, as soon as practicable inform System Management through SMMITS.
- 5.1.5.4.2.7. A Market Participant or Network Operator may request to change times, in an approved Outage Plan so long as any event, within the change does not extend the Outage beyond the approved period and pursuant to the Market Rules [MR 3.18.9] must:timeframe specified by AEMO.
 - c. if the Outage is scheduled to commence within 24 hours, as soon as practicable notify System Management by telephone and provide confirmation through SMMITS; or
 - d. otherwise, as soon as practicable inform System Management through SMMITS.

Note that it is the Market Participant's responsibility to ensure their Balancing Submissions are consistent with their Outage Plans at all times.



5.2.4.3. Outage Plans lodged within the final six weeks of commencement

The requirements applying to an Outage Plan first submitted within 6 weeks of the commencement time of the outage are specified in the Market Rules [MR 3.18.7A].

- 4.3.1. In assessing—Where an Outage Plan is first submitted within 6 weeks of the commencement of the proposed outage, if there is insufficient time for the Outage Plan to be evaluated, AEMO may reject that Outage Plan without evaluation [Clause 3.18.7A].
- 4.3.2. In deciding whether to reject an Outage Plan without evaluation under step 4.3.1, AEMO must take into account:
 - 2.—whether to reject an Outage Plan [MR 3.18.7A], System Management must take into account:
 - (a) If the Outage Plan arises from a need to carry out relatively urgent and unforeseen maintenance on its the Facility or item of equipment.



- (b) when the Market Participant or Network Operator <u>first</u> became aware of the need <u>for maintenance</u>; and
- (c) Whether whether the nature of the work to be carried out on the Facility or item of equipment makes it difficult to plan times accurately performed prevents accurate scheduling in advance, or the work is contingent on actions outside the control of the Market Participant or Network Operator.
- 3. When System Management is unable to assess an Outage Plan in the time available, System Management may reject the Outage Plan and require the Market Participant or Network Operator to resubmit the Outage Plan.

5.3 GROUPING OF ASSOCIATED OUTAGE PLANS

The requirements for Market Participants and Network Operators to coordinate outages are specified in the Market Rules [MR 3.18.5C].

4.4. Coordination of Network Outages that may affect the operation of a Market Participant's Facilities

- 4.4.1. Where a proposed Network outage may affect the operation of any Market Generator's

 Facility, the Network Operator must provide sufficient information to AEMO to demonstrate
 that it has used best endeavours to inform the affected Market Generator [Clause 3.18.6(h)].
- 4.4.2. Where a Network outage is likely to unduly impact the operation of one or more Market Participants' Registered Facilities, as indicated in step 4.4.3, then AEMO may require the Network Operator and the affected Market Participants to coordinate the timing of their outages in order to minimise the impact of the Network outage on the operation of the Market Participant Facilities [Clause 3.18.5C].
- 4.4.3. A Network outage will unduly impact the operation of one or more Market Participants'

 Registered Facilities in circumstances that include, but are not limited to, where:
 - (a) the Registered Facility's participation in the Balancing Market would be affected; or
 - (b) a Facility, subject to an Ancillary Services Contract, will be unable to provide the contracted services.
- 4.4.4. To assist with the coordination of the timing of outages in step 4.4.2, AEMO may make information from the Outage Schedule available to a Network Operator [Clause 3.18.5D]. This information may include, but is not limited to, the following:
 - (a) details of Outage Plans;
 - (b) the contact details of Market Participants in relation to relevant Outage Plans; and
 - (c) relevant technical information that AEMO is permitted to disclose.
- 4.4.5. Where AEMO accepts a Network outage to which step 4.4.2 applies, and the impacted

 Market Participant has not submitted an Outage Plan at the commencement of the Network

 outage, the Market Participant must provide full and final details of the relevant Forced

 Outage, as required by clause 3.21.7 of the WEM Rules, no later than 15 calendar days

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following the Trading Day on which the Network outage occurred. In addition, the Market Participant may request that AEMO determine that the outage was a Consequential Outage, as described in step 9.1.3.

4.5. Re-Scheduling or Cancelling an Outage Plan

- 4.5.1. Where a Market Participant or Network Operator submits an Outage Plan, but no longer plans to remove from service, or de-rate, a Facility or an item of equipment, it must cancel the Outage Plan in AEMO IT's system as soon as practicable [Clause 3.18.8].
- 4.5.2. Where a Market Participant or Network Operator intends to change the proposed time of an outage from the time indicated in the Outage Plan, it must inform AEMO and submit a revised Outage Plan as soon as practicable [Clause 3.18.9].
 - 1. In the situation where a close interdependency exists between outages on multiple Facilities or items of equipment, System Management may assess the associated Outage Plans together and may approve, review or reject the group as a whole.

6.5. ACCEPTANCE OF OUTAGE PLANS

5.4 ASSESSMENT OF OUTAGE PLANS

5.1. System Management General

- 5.1.1. AEMO must evaluate Outage Plans using the criteria specified in clause 3.18.11 of the WEM Rules and the information specified in the PSOP: Power System Security.
- 5.1.2. Unless a group of outages must be considered together, AEMO must use reasonable endeavours to respond to a request for a proposed evaluate an Outage Plan received under step 5.1.1 within:
 - (a) 10 Business Days of receipt from a Market Participant or Generator; and
 - (b) 20 Business Days of receipt from a Network Operator-within 10 Business Days of receipt of a generation.
- 5.1.3. AEMO may assess an outage as acceptable under step 5.1.1, subject to conditions [Clause 3.18.13(c)].
- 6.1.1.5.1.4. An Outage Plan and within 20 Business Days of receipt that AEMO has assessed in step 5.1.1 as acceptable is a Scheduled Outage and must be scheduled in the Outage Schedule under step 4.1.1 as at the date of a network Outage Plan. that assessment [Clauses 3.18.13(b) and 3.18.14(b)].
 - 1.—System Management must take all reasonable steps to expedite

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assessments of all submitted Outage Plans.

5.5 ADEQUACY CRITERIA FOR ASSESSING THE ACCEPTABILITY OF OUTAGE PLANS

- System Management must assess the acceptability of Outage Plans using the criteria specified in the Market Rules [MR 3.18.11 (a) to (d) & MR 3.18.12], based on the information specified in the PSOP: Power System Security.
- 2. Acceptance by System Management of an Outage Plan must be based on the 2nd standard deviation (SD) PASA load forecast as specified in the Market Rules [MR 3.18.11(a)].

Due to the fact that, during summer, the 2nd SD of the weather adapted load forecast may exceed the 2nd SD of the PASA load forecast, an outage in the summer period is only accepted conditionally. However, this does not imply that the outage can or will be approved. Due to the variability of summer loads the final assessment is normally carried out 2 days prior to the scheduled outage commencement. This is because the assessment must be based on the more reliable weather-corrected load



forecast. To increase the likelihood of approval, Market Participant's are advised to plan long duration outages to occur outside of the summer months, which are typically from the beginning of December to the end of March.

System Management may find an Outage Plan to be acceptable, acceptable under some circumstances, or not acceptable. The actions System Management is required to take in each case are specified in the Market Rules [MR 3.18.13].

5.6 CRITERIA FOR SELECTION OF OUTAGE PLANS IN THE EVENT OF CONFLICTING OUTAGE PLANS

System Management must adhere to the criteria for the selection and prioritisation of Outage Plans as specified in the Market Rules [MR 3.18.14].

- <u>System Management must notify all</u>AEMO must evaluate an Outage Plan under step 5.1.1 on an ongoing basis, as part of the Medium Term PASA and Short Term PASA studies [Clause 3.18.10(b)].
- 5.1.6. Where, following a re-evaluation under step 5.1.5, AEMO considers that a Scheduled Outage or group of Scheduled Outages can no longer be accepted, AEMO must [Clause 3.18.13(d)]:
 - (a) change the status of that outage or group of outages in AEMO's IT system;
 - (b) inform all Market Participants and Network Operators affected; and
 - (c) negotiate with the affected Market Participants and Network Operators to attempt to reach agreement as to AEMO's Outage Schedule.
- 6.1.2.5.1.7. Following negotiations with the affected Market Participants and Network Operators of any decision made [MR 3.18.14] via SMMITS and must use reasonable endeavours to confirm its decision by telephone. to attempt to reach agreement as to AEMO's Outage Schedule [Clause 3.18.13(d)] if:
 - (a) an agreement is reached, then the affected Market Participants and Network Operator must resubmit Outage Plans to AEMO; or

The Market Rules provide for System Management to permit an Outage Plan to proceed even if it does not meet the criteria for acceptance as specified in the Market Rules [MR 3.18.11(e)].

This situation could, for example, arise in relation to outages intended to address ongoing plant unreliability.

(b) an agreement is not reached within 15 Business Days, AEMO must:

- (1) decide which of the Outage Plans are acceptable and schedule these Outages Plans into AEMO's Outage Schedule where they are not already scheduled;
- (2) decide which of the Outage Plans are unacceptable and remove these Outages Plans from AEMO's Outage Schedule, where they were previously scheduled; and
- (3) notify each affected Market Participant and Network Operator whether its Outage Plan has been scheduled.
- 5.1.8. A Market Participant or Network Operator may revise details of the Outage Contingency Plan or Outage Risk Assessment of a Scheduled Outage by notifying AEMO. Where AEMO considers that the changes have no material effect on Power System Security or Power System Reliability, the revised details do not require the submission of a revised Outage Plan.
- 6.2.5.2. Acceptance of non-complying Outage Plan for reasons of Power System Security and Power System Reliability
- 5.2.1. Where AEMO may allow an Outage Planoutage that does not meet the criteria for acceptance specified in Paragraph 6.2.1 [MR 3.18.1(a) to (d)] System Management may still accept the Outage Planin step 5.1.1 to proceed if it considers that preventing the outages would pose a greater threat to Power System Security or Power System Reliability over the long term than allowing the outage [Clause 3.18.11(e)].
- 5.2.2. Circumstances in which AEMO may accept an Outage Plan in steps 5.2.1 or 7.2.2 include, but are not limited to:
 - (a) where an outage is required to address ongoing equipment or Facility unreliability that may affect, or has affected, AEMO's ability to ensure that Power System Security and Power System Reliability are maintained; and
 - (b) where an item of equipment, or a Facility, was recalled from an outage prior to completion of the planned work and the equipment or Facility requires a further outage to complete the planned work so that, on return to service of the equipment or Facility, the SWIS is able to be operated in a secure and reliable manner.
- 5.2.3. Factors that AEMO must consider in making a decision in steps 5.2.1 or 7.2.3 include:
 - (a) Whether the increased security risk over the period of the outage is less than the longerlong-term risk reduction that would be achieved by allowing the outage to go ahead [MR 3.18.11(e)].proceed. This may occur in circumstances including, but not limited to, where:
 - (1) If System Management accepts an revised forecast information is available indicating a high probability of a lower demand than indicated in the PASA second standard deviation forecasts calculated in accordance with the WEM Rules [Clause 3.17.9(a)(ii)];
 - (2) the proposed Outage Plan pursuantis for a short period and is intended to Paragraph 6.4.1, System Management must document its estimation of the extentavoid an outage for a longer period at a time of the risk including the likelihood and consequenceshigher demand;
 - (3) there is limited opportunity to re-schedule the outage, a demonstrated need to have the outage as soon as possible, and ongoing advantages AEMO is of the opinion

that arise over the longer term, as a result of accepting anthe associated risks of conducting the outage can be managed. This also may include where the outage has previously been recalled under clause 3.20.1 of the WEM Rules or rejected under clause 3.19.5 of the WEM Rules; and

(b) whether not proceeding with the Outage Plan could endanger the safety of any person, damage equipment, or violate any applicable law.

6 CHANGES TO POWER SYSTEM CONDITIONS AFFECTING SCHEDULED OUTAGES

- 5.3. Where System Management's forecast of power system conditions for a period coinciding with an Outage Plan occurs, such that the Outage Plan would-Re-Scheduling or Cancelling a Scheduled Outage
 - 1. Where a Market Participant or Network Operator no longer meet the criteria for acceptance, System Management may withdraw its acceptance of the Outage Plan and either deem that the Outage Plan is unacceptable, or deem that the Outage Plan is acceptable under certain circumstances.

2. Where System Management withdraws its acceptance of an Outage Plan, plans to remove from service or de-rate a Facility or an item of equipment as per a Scheduled Outage then it must inform AEMO as soon as practicable notify[Clause 3.18.8]. This must be done by cancelling the relevant Market Participant or Network Operator of its decision by telephone and confirm its decision via SMMITS.

7 PRE-ACCEPTED OUTAGES

- 1.—A Market Participant may request the acceptance of an Outage Plan by telephone no earlier than 8:00 am on the seventh day prior to the Trading Day on which the Outage is proposed to commence ('Pre-Accepted Outage').
- System Management may accept a request made in accordance with Paragraph 8.1 if it considers there is a likelihood that the Outage can be approved.
- 6.2.1.5.3.1. If System Management accepts a Pre-Accepted Outage then the Market Participant must confirm the details of the Outage Plan and request approval in SMMITS-Scheduled Outage in AEMO IT's system as soon as practicable.but no later than 10:00 am on the second day prior to the Trading Day on which the Pre-Accepted Outage is proposed to commence.
 - 3. For avoidance of doubt, a Market Participant will not be considered to have complied with Paragraph 8.3, unless:
 - a. the Market Participant has first complied with Paragraph 8.1; and
 - b. System Management has accepted the request pursuant to Paragraph 8.2.
 - 4. Where a request for approval has been made in accordance with Paragraph 8.3, System Management must apply the approval framework in accordance with Section 9 of this Procedure.
 - System Management must not approve a request for approval made under Paragraph 8.3 unless it has first accepted the request by telephone in accordance with Paragraph 8.2.

8 APPROVAL OF SCHEDULED OUTAGES

The requirements for a Market Participant or Network Operator to request approval of a Scheduled Outage are specified in the Market Rules [MR 3.19.1].

The criteria that System Management must adhere to when assessing whether to grant approval of Scheduled Outage requests are specified in the Market Rules [MR 2 10 6]

6.2.2.5.3.2. AWhere a Market Participant or Network Operator must request, and receive notice of, approval of an accepted Outage Plan via SMMITS prior to conducting the Outage referred to in the Outage Plan.intends to change the



proposed time of an outage from the time indicated in the Scheduled

Outage, it must submit a revised Outage Plan to AEMO as soon as practicable [Clause 3.18.9].

1. Where a Market Participant requires an approval of an outage earlier than the two days in advance as specified in the Market Rules [MR 3.19.1], the



Market Participant may raise a request to System Management. System Management must assess each such request on its own merits.

- 2. At the time the application is made under Paragraph 9.1 the Market Participant or Network Operator must also notify System Management of any change to the information contained in the Outage Plan originally provided to System Management.
- 3. Notification by System Management of either an approval or rejection of a Scheduled Outage must be made via SMMITS.

System Management would consider fuel in evaluating an Outage Plan only when there is known shortage of fuel to the extent that it may impact on the availability of generators and the security of the system. The fuel shortage can be due to restrictions arising from supply or transportation. When this happens, System Management would confirm the feasibility of its dispatch plans with the relevant Market Participants. Where the Market Participant confirms the loss of generation due to fuel, System Management would simulate accordingly in the PASA.

9 OPPORTUNISTIC MAINTENANCE

Opportunistic Maintenance refers to approved outages that are carried out without previously having been subject to Acceptance. Applications for Opportunistic Maintenance generally carry a lower probability of approval because more of the factors governing power system security are 'locked in' by the time such an application is made.

The requirements for a Market Participant or Network Operator to request approval of Opportunistic Maintenance are specified in the Market Rules [MR 3.19.2(a)] ("dayahead opportunistic maintenance") and [MR 3.19.2(b)] ("on the day Opportunistic Maintenance"). System Management must have regard to the requirements in the Market Rules [MR 3.19.3A] in assessing whether to grant a request for Opportunistic Maintenance.

The criteria that System Management must adhere to when assessing whether to grant approval for Opportunistic Maintenance requests are specified in the Market

5.3.3. For a revised Outage Plan submitted under step 5.3.2 and accepted under step 5.1.1, AEMO must schedule the outage in the Outage Schedule in step 4.1.1 using the date the most recently revised Outage Plan was submitted [Clause 3.18.14(b)].

7.6. REQUESTS FOR OPPORTUNISTIC MAINTENANCE

1. Before approving an Opportunistic Maintenance request, System

Management may at its sole discretion require a Market Participant's or

Network Operator's authorised personnel included in the relevant contact

Paragraph 10.1.1, relates to System Management's right under the Market Rules [MR 3.19.3A(c)] to reject an outage request that it considers to be made principally to avoid exposure to Reserve Capacity refunds.

list to make a written declaration that the capacity for which

Opportunistic Maintenance is being sought is available prior to the outage commencing. System Management must reject any Opportunistic Maintenance request where the relevant Market Participant or Network Operator does not comply with such a request.



9.2 DAY-AHEAD OPPORTUNISTIC MAINTENANCE

1. A Market Participant or Network Operator seeking to request day-ahead Opportunistic Maintenance must submit the request via SMMITS.

6.1. Requests for approval of day-ahead Opportunistic Maintenance can only be General

6.1.1. Opportunistic Maintenance is an outage of a Facility or item of equipment, that is not a Scheduled Outage, to be carried out during a Trading Day [Clause 3.19.2].

Requests for day-ahead Opportunistic Maintenance in relation to Paragraph 10.2.2 must not span two consecutive Trading Days [MR 3.19.3A(b)].

- 6.1.2. The WEM Rules describe two types of Opportunistic Maintenance:
 - (a) Opportunistic Maintenance that covers requests made at any time between 10:00 am on the day prior to the Scheduling Day and 10:00 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 [MR 3.19.2(a)]. Clause 3.19.2(a)], referred to as Day-Ahead Opportunistic Maintenance (DAOM); and
 - 2. Requests for approval of day-ahead Opportunistic Maintenance must be processed as follows:
 - (b) Applications Opportunistic Maintenance that covers requests made at any time on the current Trading Day not later than 1 hour prior to the commencement of the Trading Interval during which the outage is due to commence, where the outage must be to allow for minor maintenance to be performed, must not require any changes in scheduled energy or Ancillary Services, may be for any duration and must end before the end of the Trading Day [Clause 3.19.2(b)], referred to as On-the-Day Opportunistic Maintenance (ODOM).
- 6.1.3. For a request for Opportunistic Maintenance to be valid, it must include all of the information specified in clause 3.18.6 of the WEM Rules and meet the requirements specified in step 6.1.2 [Clause 3.19.2].

6.2. Additional conditions for Scheduled Generators

- 6.2.1. AEMO may decline to approve Opportunistic Maintenance for a Scheduled Generator where it considers that the request has been made principally to avoid exposure to Capacity Cost Refunds, rather than to perform maintenance [Clause 3.19.3A(c)].
- 6.2.2. Factors that AEMO will consider, for the decision in step 6.2.1, include whether the Market

 Participant has reasonable grounds to expect the Facility to be available for dispatch, or to be

 capable of being put into that state, immediately prior to the commencement of the

 proposed outage.²

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² This requirement is based on the WA Supreme Court judgment in *Bluewaters Power 2 Pty Ltd -V- Australian Energy Market Operator Ltd* [2017] WASC 98. Available from:

 $[\]underline{https://ecourts.justice.wa.gov.au/eCourtsPortal/Decisions/ViewDecision?returnUrl=\%2 feCourtsPortal\%2 fDecisions\%2 fFilter\%2 fSC\%2 fCitationNumber\&id=d6ad0c85-c57f-4a38-4825-8101001537ba.$

- 6.2.3. Before approving an Opportunistic Maintenance request that AEMO

 considers may meet the condition in step 6.2.1, AEMO may require the Market Participant to provide a written declaration confirming the factors in step 6.2.2.
- 6.2.4. AEMO must reject any Opportunistic Maintenance request where the relevant Market Participant does not comply with a request in step 6.2.3.

6.3. Day-Ahead Opportunistic Maintenance (DAOM)

- 6.3.1. A Market Participant or Network Operator requesting DAOM must submit its request via AEMO's IT system.
- 6.3.2. Requests for approval of DAOM must be not be made prior to 10:00 am on the day prior to the Scheduling Day or after 10:00 am on the Scheduling Day [Clause 3.19.2(a)].

6.4. On-the-Day Opportunistic Maintenance (ODOM)

- 6.4.1. A Market Participant or Network Operator requesting ODOM must:
 - (a) make the request by telephone:
 - (1) at any time on the Trading Day [Clause 3.19.2(b)]; and
 - (2) no later than one hour before the commencement of the Trading Interval during which the requested ODOM is due to commence [Clause 3.19.2(b)]; and
 - (b) as soon as practicable, confirm the request via AEMO's IT system.
- 6.4.2. AEMO may only approve ODOM where the outage is to perform minor maintenance [Clause 3.19.2(b)(i)].
- 6.4.3. Circumstances that may fulfil the requirements of step 6.4.2 include, but are not limited to:
 - (a) inspections;
 - (b) preventative maintenance;
 - (c) corrective maintenance; and
 - (d) works in the vicinity of the item of equipment or Facility.
- 6.4.4. AEMO may only approve ODOM where the outage does not require any change in scheduled energy or Ancillary Services [Clause 3.19.2(b)(ii)]. Scenarios that may require a change in scheduled energy or Ancillary Services include, but are not limited to:
 - (a) for Network outages:
 - (1) the Network outage would affect the declared availability for dispatch of a Market Participant's Facility; or
 - (2) the Network outage would require additional Ancillary Services to be scheduled; and
 - (b) for Scheduled Generator and Non-Scheduled Generator outages:
 - (1) where a generator has a position in the Forecast Balancing Merit Order that, in AEMO's reasonable opinion, could result in dispatch of the Facility during the period of the ODOM request; or

(2) where a generator has a position in the forecast LFAS Upwards

Merit Order or LFAS Downwards Merit Order that, in AEMO's reasonable opinion,
could result in dispatch of the Facility during the period of the ODOM request.

7. APPROVAL OF SCHEDULED OUTAGES AND OPPORTUNISTIC MAINTENANCE

7.1. General

- 7.1.1. A Market Participant or Network Operator must request approval of a Scheduled Outage no later than two days prior to the date of commencement of any outage [Clause 3.19.1].
- 7.1.2. AEMO must, subject to the requirements specified in the WEM Rules [Clause 3.19.3A], assess a request for approval of a Scheduled Outage or Opportunistic Maintenance using the criteria in clause 3.19.6 of the WEM Rules based on the information available to AEMO at the time of the assessment [Clause 3.19.3].
- 7.1.3. Before approving a Scheduled Outage under step 7.1.2, AEMO must determine whether the Scheduled Outage remains acceptable in accordance with steps 5.1.1 and 5.1.3.
- 7.1.4. To ensure the power system can be operated within the Technical Envelope under the WEM Rules [Clause 3.19.6(c)], AEMO may consider fuel availability of Facilities remaining in service in assessing a request for approval of a Scheduled Outage or Opportunistic Maintenance.
- 7.1.5. AEMO must either approve or reject the request for approval of a Scheduled Outage or Opportunistic Maintenance, and must inform the Market Participant or Network Operator of its decision as soon as practicable [Clause 3.19.4].
- 7.1.6. AEMO must inform the Market Participant or Network Operator of a decision under step 7.1.5:
 - (a) for ODOM, verbally and then via AEMO's IT system; and
 - (b) for DAOM and Scheduled Outages, via AEMO's IT system.
- 7.1.7. AEMO must approve or reject requests for DAOM made between-:
 - (a) for Facilities other than a Network:
 - (1) 10:00 am and 3:30 pm on the day prior to the Scheduling Day-must be approved or rejected, by 8:00 am on the Scheduling Day; or
 - (2) Applications made between-3:30 pm on the day prior to the Scheduling Day and 6:00 am on the Scheduling Day-must be approved or rejected, by 8:00 am on the Scheduling Day, subject to staff availability, and in any case by 12:00 pm on the Scheduling Day; orand
 - (3) Applications made between 6:00 am on the Scheduling Day and 10:00 am on the Scheduling Day must be approved or rejected, by 12:00 pm on the Scheduling Day.

The time required for processing day-ahead Opportunistic Maintenance requests varies depending on the complexity of the assessment required. Participants are encouraged to allow as much time as possible as System Management must reject requests that cannot be assessed in the time available.

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- (b) System Management must not approve a request for a dayahead Opportunistic Maintenance after 12:an item of Network equipment:
 - (1) 10.00 am and 3.30 pm on the day prior to the Scheduling Day, by 8.00 am on the Scheduling Day; and
 - (2) System Management must as soon as practicable 3.30 pm on the day prior to the Scheduling Day and 10.00 am on the Scheduling Day by 8.00 am on the Trading Day.
- 7.1.8. An outage, including Opportunistic Maintenance, that is approved by AEMO under step 7.1.5 [Clause 3.19.4] is a Planned Outage [Clause 3.19.11].
- 7.1.9. Except for ODOM, a Market Participant or Network Operator must not commence a Planned Outage (including DAOM) unless AEMO has confirmed its approval of the outage request via its IT system.

7.2. Approval of non-complying Scheduled Outage for reasons of System Security

- 7.2.1. AEMO may allow a Scheduled Outage that does not meet the criteria in step 7.1.2 to proceed if it considers that rejecting the outage would pose a greater threat to Power System Security or Power System Reliability than allowing the outage [Clause 3.19.6(e)].
- 7.2.2. Circumstances in which AEMO may accept a Scheduled Outage in step 7.2.1 include, but are not limited to, those specified in step 5.2.2.
- 7.2.3. Factors that AEMO must consider in making a decision in step 7.2.1 include those specified in step 5.2.3.

8. CHANGES AFFECTING A PLANNED OUTAGE

8.1. Changes to Power System Conditions Affecting a Planned Outage

- 8.1.1. Where AEMO approves a Planned Outage, and a change in power system conditions means that the Planned Outage is no longer approvable under the WEM Rules [Clause 3.19.6], AEMO may decide to reject the Planned Outage. AEMO must inform the Market Participant or Network Operator of its rejection decision immediately [Clause 3.19.5].
- 8.1.2. Circumstances that AEMO must consider in making a decision under step 8.1.1 include, but are not limited to:
 - (a) a change in AEMO's forecast of power system conditions;
 - (b) a change in weather forecast during the Planned Outage period, causing a significant increase in the forecast load; and
 - (c) an unplanned outage of a major Facility, or item of equipment, that could restrict AEMO's ability to operate the SWIS within the Technical Envelope.
- 8.1.3. The general priority of assessment that AEMO will use to reject outages under step 8.1.1 is (with (a) being the first outage category to be rejected):
 - (a) Opportunistic Maintenance [Clause 3.19.6(d)(v)]:



- (b) Planned Outages that were originally submitted less than one month ahead that were:
 - (1) not deferred [Clause 3.19.6(d)(iii)]; and then
 - (2) deferred under the WEM Rules [Clause 3.19.6(d)(iv)]; and then
 - (3) approved under step 7.2.1;
- (c) Planned Outages that were originally submitted more than one month ahead that were:
 - (1) not deferred [Clause 3.19.6(d)(i)]; and then
 - (2) deferred under the WEM Rules [Clause 3.19.6(d)(ii)]; and then
 - (3) approved under step 7.2.1.

8.2. Extending the end time of the Planned Outage

- 8.2.1. Where the Market Participant or Network Operator wants to extend the end time of a Planned Outage, a new Outage Plan must be submitted under step 4.2.1 for the set of Trading Intervals beyond the end time of the existing Planned Outage.
- 8.2.2. Where AEMO is unable to approve an Outage Plan submitted under step 8.2.1, the Market Participant or Network Operator must submit a Forced Outage under step 9.1.1 for any part of the Planned Outage that exceeds its approved duration [Clause 3.21.1(b)].

8.3. Starting a Planned Outage late or returning to service early

3.—If a Planned Outage is scheduled to commence within 24 hours, the Market
Participant or Network Operator must notify AEMO of any delay to the
commencement of the Planned Outage by telephone, and must provide
confirmation of its approval or rejection of a day-ahead Opportunistic
Maintenance request via SMMITS.

9.3 ON THE DAY OPPORTUNISTIC MAINTENANCE

- 1. A Market Participant or Network Operator seeking to request Opportunistic Maintenance at any time on the Trading Day must:
 - a. make an application for the approval of an on the day
 Opportunistic Maintenance request by telephone at least one
 hour before the commencement of the Trading Interval during
 which the requested outage is due to commence [MR
 3.19.2(b)]; and
 - b. as soon as practicable, confirm the request via SMMITS.



The effect of the Market Rules [MR 3.19.2(b)] is that the earliest an on the day Opportunistic Maintenance outage can commence is 9:00 am on the Trading Day.

2. System Management must not approve an on the day Opportunistic Maintenance request which it considers would require any change in energy scheduled in accordance with the Forecast BMO, or in scheduled Ancillary Services [MR 3.19.2(b)ii].

As a consequence of Paragraph 10.3.2, a non-Synergy Market Generator needs to ensure that an on the day Opportunistic Maintenance outage request is consistent with the Facility's position in the BMO and latest Forecast BMO.

- 7.1.1.8.3.1. System Management must through AEMO's IT system, as soon as practicable prior to the commencement of the proposed on the day Opportunistic Maintenance, provide confirmation to a Market Participant or Network Operator of its decision to approve or reject a request for on the day Opportunistic Maintenance by telephone and confirm the approval via SMMITS.
 - 3. System Management must as soon as practicable log in SMMITS all approvals and rejections and the reasons for System Management's decision.

10 OUTAGE RECALLS

1. When If, during a situation arises where Power System Security is at risk and the cancellation of outages could potentially alleviate the situation, System Management must consider all current Planned Outages and outages in progress and assess whether rejecting one or more Planned Outages or recalling equipment to service may assist in reducing the identified risk to Power System Security.

In a High-Risk Operating State, System Management may cancel or defer Planned Outages that have not yet commenced. In an Emergency Operating State, System Management may additionally recall to service Facilities that are on outage according to their Outage Contingency Plans.

- 7.1.2.8.3.2. If in the view of System Management there is benefit in the action referred to in Paragraph 11.1, System Management may contact Outage, the Market Participant or Network Operator and discuss the impact of rejecting the outage or recalling the equipment to service. If such contact is made, System Management must informintends to return to service prior to the end time of the Planned Outage, the Market Participant or Network Operator of the prevailing operating state and/or any likely change to the operating state requiring the action referred to in Paragraph 11.1 must notify AEMO by telephone, and must provide confirmation through AEMO's IT system, as soon as practicable.
 - 2.—The Market Participant or Network Operator must cooperate with System

Management and determine when the equipment can be returned to service and the best way of proceeding with such action. The Market Participant or Network Operator must give this information to System Management as soon as practicable.

3. Market Participants and Network Operators must comply with the directions of System Management to the extent that they are required to do so under the prevailing Operating State.



4.—System Management must as soon as practicable update outage cancellations and recalls in SMMITS.

8.9. FORCED OUTAGES AND CONSEQUENTIAL OUTAGES

The requirements for Forced or Consequential Outages are specified in the Market Rules [MR 3.21].

9.1. Information Requirements

1. Where a Facility or item of equipment is unavailable or de-rated suffers a Forced Outage or a Consequential Outage, the relevant Market Participant or Network Operator experiencing the unavailability or de-rating must communicate the nature of that unavailability or de-rating by telephone prescribed information in relation to System Management the outage to AEMO as soon as practicable, using contact details that are advised from time to time as specified in the Market Rules [MR 3.21.7].

In addition to the notification in Paragraph 12.1, the relevant Market Participant must make a new Balancing Submission as soon as practicable taking into account the unavailability or de-rated capacity (any Internal Constraint) of the Facility [MR 7A.2.10(a)].

- 9.1.1. The relevant Market Participant or Network Operator must _[Clause 3.21.4]. This communication must be made by telephone, as soon as practicable confirm, in the first instance.
 - 2.—The notification provided under Paragraph 12.1 via SMMITS.
 - 3. The relevant Market Participant or Network Operatorstep 9.1.1 must, upon request, inform System Management of the Facility or item of equipment's status and provide a good-faith estimate of the likely return to service time.
 - 4. Whenever System Management receives communications from a Market Participant or Network Operator, including but not limited to one or more of the following (as applicable):
 - a. Electronic communications via e-mail or SMMITS; or
 - b. Voice communications; or
 - c. SCADA,

relating to the capabilities of their Facility or item of equipment System Management must determine whether the affected Facility or item of equipment is unavailable for any period or periods.

8.1.1.9.1.2. The Market Participant or Network Operator must provide a full and final description of the Planned Outage, Forced Outage or Consequential Outage to System Management, via SMMITS by midnight on the date



specified in the Market Rules [MR be confirmed via AEMO's IT system as soon as practicable [Clause 3.21.74].

- 5. System Management must investigate any communication relating to the availability of a Facility or item of equipment that is not in accordance with the information contained in SMMITS [MR 3.21.7].
- 6. If the Market Participant believes it has suffered a Consequential Outage, the A Market Participant may provide AEMO with a notice from an Authorised Officer to System Management confirming whydetails of the Outage should be considered to

IMR 3.21.21.



- 8.1.2.9.1.3. <u>be a Consequential Outage within 15 calendar days, including the time limitinformation</u> specified in <u>clause 3.21.8 of</u> the <u>Market</u> <u>WEM</u> Rules [MRClause 3.21.810].
 - 7. A notice provided under Paragraph 12.7 must be signed by an Authorised Officer and may be provided to System Management in person, by email or post.
 - 8. Where a Market Participant provides notice in accordance with Paragraph 12.7 above, System Management must provide a notification of receipt to the impacted Market Participant as soon as practicable.
 - System Management must determine whether to classify the outage as a Consequential Outage in accordance with the requirements of the Market Rules [MR 3.21.2].
 - **10.** In determining whether a Facility has experienced a Consequential Outage System Management must accept the information provided under Paragraph 12.7 unless the information is inconsistent with other information held by System Management [MR 3.21.9].

The Market Rules define a Forced Outage [MR 3.21.1] and a Consequential Outage

If a Market Participant does not provide System Management with a notice required under Paragraph 12.7 above, the Outage will not be deemed to be a Consequential

9.10. CALCULATION OF PLANNED OUTAGE RATE AND FORCED OUTAGE RATE

10.1. 1. The Calculation of Planned Outage Rate and Forced Outage Rate

9.1.1.10.1.1. AEMO must calculate the Planned Outage rate and, the Forced Outage rate and the Equivalent Planned Outage Hours for a Facility must be calculated by the IMO for the purposes of assigning Certified Reserve Capacity to a Facility in accordance with Appendix 4 of this Procedure. A and Appendix B [Clauses 4.1.1(h) and 3.21.12].

APPENDIX A. APPENDIX 1: CALCULATION OF PLANNED OUTAGE RATE AND FORCED OUTAGE RATE

This Appendix <u>A</u> presents the methodology for calculating the Forced Outage rate and Planned Outage rate of a Facility over a period of time (P) for the purposes of the <u>MarketWEM</u> Rules.

For the purposes of [MRthe WEM Rules [Clause 4.11.1(h)]: -P = 36 Months.

Table 1 Table 3 Methodology for calculating the Forced Outage rate calculation of a Facility

Forced Outage Rate Calculation	Definitions
Forced Outage rate (%):	FOH (Forced Outage Hours) = sum of all Trading Intervals, Where:
(FOH + EFDH) x 100	Outage MW = Capacity Credit (MW) and the Outage Reason is Forced and during the period P multiplied by 0.5.
PH	EFDH $(__(Equivalent Forced Derated Hours) = sum of all Trading Intervals_\overline{r} Where:$
	Outage MW < Capacity Credit (MW) and the Outage Reason is Forced and during the period P multiplied by 0.5 multiplied by Outage MW/Capacity Credit (MW).
	PH (Period hours) =
	where the Facility has been operating over all of period P, the number of Trading Intervals that occurred in period P, multiplied by 0.5; or
	where the Facility has been operating for less than period P, the number of Trading Intervals that occurred in period P after the Facility commenced operation—as advised by the IMO, multiplied by 0.5.

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APPENDIX B. CALCULATION OF PLANNED OUTAGE RATE

1. This Planned Outage rate calculation

Appendix B presents the methodology for calculating the Planned Outage rate of a Facility over a period of time (P) for the purposes of the WEM Rules.

For the purposes of the WEM Rules [Clause 4.11.1(h)]: P = 36 Months.

<u>Table 4 Methodology for calculating the Planned Outage rate of a Facility</u>

Planned Outage Rate Calculation	Definitions
Planned Outage rate (%):	POH (Planned Outage Hours) = sum of all trading intervals Where: Outage MW = Capacity Credit (MW) and the Outage Reason is Planned and
(POH + EPDH) x 100 PH	during the period P multiplied by 0.5.
	EPDH (Equivalent Planned Derated Hours) = sum of all trading intervals Where:
	Outage MW < Capacity Credit (MW) and the Outage Reason is Planned and during the period P multiplied by 0.5 multiplied by Outage MW/Capacity Credit (in MW).
	PH (Period hours) =
	where the Facility has been operating over all of period P, the number of Trading Intervals that occurred within the last 36 months, multiplied by 0.5; or
	where the Facility has been operating for less than period P, the number of Trading Intervals that occurred in period P after the Facility commenced operation—as advised by the IMO, multiplied by 0.5.