WEM RULES

POWER SYSTEM OPERATION PROCEDURE: FACILITY OUTAGES

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2.0	1 April 2009	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
5.0	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

1.1.1 This Power System Operation Procedure: Facility Outages (Procedure) has been developed in accordance with clauses 3.18.21, 3.19.14, 3.21.12 and 4.11.1(h) of the Wholesale Electricity Market Rules (WEM Rules).

1.1.2 References to particular WEM Rules within the Procedure in bold and square brackets **[Clause XX]** are current as at 28 April 2018. These references are included for convenience only and are not part of this Procedure.

1.1.3 References to particular Technical Rules within the Procedure in bold and curly braces **{Clause XX}** are current as at 1 December 2016. These references are included for convenience only and are not part of this Procedure.

1.2 Interpretation

1.2.1 In this Procedure:

(a) terms that are capitalised but not defined in this Procedure have the meaning given in the WEM Rules;

(b) to the extent that this Procedure is inconsistent with the WEM Rules, the WEM Rules shall prevail to the extent of the inconsistency;

(c) 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 or vice versa.

1.2.2 In addition, the following defined terms have the meaning given.

Table 1 Defined terms

Term	Definition
Day Ahead Opportunistic Maintenance (DAOM)	Opportunistic Maintenance detailed in step 7.1.2(a).
Equipment List	The list of equipment required by clause 3.18.2(a) of the WEM Rules to be subject to outage scheduling, detailed in step 2.1.1.
On the Day Opportunistic Maintenance (ODOM)	Opportunistic Maintenance detailed in step 7.1.2(b).
Outage Risk Assessment	An assessment of risks that might extend the outage as detailed in step 4.2.3(a).
Outage Contingency Plans	Contingency plans for the early return to service of the Facility or item of equipment as detailed in step 4.2.3(b).
Outage Schedule	Information on all Scheduled Outages referred to in clause 3.18.4 of the WEM Rules held AEMO's IT system as detailed in step 6.1.1.

1.3 Purpose and application of this Procedure

1.3.1 The purpose of this Procedure is to detail the processes to be followed by:

(a) AEMO, Market Participants and Network Operators when conducting outage planning for a Facility **[Clause 3.18.21]**;

(b) AEMO, Market Participants and Network Operators when conducting final approval of outages **[Clause 3.19.14]**;

(c) AEMO, Market Participants and Network Operators when determining and reporting Forced Outages and Consequential Outages **[Clause 3.21.12]**; and

(d) AEMO when calculating Planned Outage and Forced Outage rates **[Clause 4.11.1(h)]**.

1.4 Associated documents

1.4.1 The following documents in ~~Table 1~~Table 2 Background Procedures~~Table 2~~~~Table 2~~ (available on the Market Web Site) provide background information to this Procedure:

Table 2~~1~~~~2~~ Background Procedures

Reference	Title	Location
SO_OP_WA_3805	IMS Interface Market Procedure: AEMO and Network Operators	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_3801	PSOP: Commissioning and Testing	Market Web Site
SO_OP_WA_3806	PSOP: Medium Term PASA	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
SO_OP_WA_3807	PSOP: Network Modelling Data	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 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)]**.

~~2.1.2~~2.1.3 In compiling the Equipment List, AEMO must include **[Clause 3.18.2(c)]**:

(a) all transmission network Registered Facilities;

(b) all Registered Facilities holding Capacity Credits with a nameplate capacity of more than 10 MW **[Clause 3.18.2A(a)]**;

(c) all generation systems with a nameplate capacity of more than 10 MW that are ~~registered as~~associated with an Intermittent Load **[Clause 3.18.2A(a)]**;

(d) all Registered Facilities subject to an Ancillary Services Contract; and

(e) any other equipment that AEMO determines must be subject to outage scheduling to maintain Power System Security and Power System Reliability.

2.1.4 In applying step 2.1.3(e)~~2.1.23(e)~~, AEMO may include in the Equipment ~~ListLoadsNetwork~~List:

(a) loads;

(b) transmission or distribution Network equipment~~,~~ that is not a Registered Facility; and ~~Market Generators~~

~~(f)~~(c) Facilities with a nameplate capacity of less than 10 MW, where the maintenance of Power System Security and Power System Reliability may be impacted during an outage of that Facility.

2.1.5 AEMO must consider the following factors in making a decision as to whether to include or exclude a piece of equipment on the Equipment List:

(a) the safety of equipment, personnel and the public;

(b) impacts upon other Facilities; and

(c) Power System Security and Power System Reliability.

~~2.1.3~~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) where there has been a change to any of the details for an item of equipment on the Equipment List; and

(c) when an existing item of equipment is no longer required to be included on the Equipment List.

~~2.1.4~~2.1.7 Where the Equipment List is revised in step 2.1.5~~2.1.45~~, AEMO must publish the revised Equipment List as soon as practicable **[Clause 3.18.2(b)]**.

~~2.1.5 AEMO may agree with Market Participants on a process for Planned Outage commencement and restoration, which will be detailed and agreed in a confidential Operating Protocol.~~

~~2.1.6 Where there is no other agreement in an Operating Protocol, Participants must notify AEMO~~

~~immediately prior to commencement and restoration of a Planned Outage via telephone.~~

2.1.8 AEMO must review the Equipment List at least once every X months.

~~2.1.7~~2.1.9 A Market Participant or Network Operator may request that the Economic Regulation Authority reassess the inclusion or exclusion of its Facility or item of equipment from 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~~2.1.10~~ a Market Participant or Network Operator may discuss with AEMO the inclusion or exclusion of its Facility or item of equipment on the Equipment List.

3 COMMUNICATIONS

3.1 Communication of Outage Information

3.1.1 Communication of outage requests and notifications must be made through AEMO's nominated IT system, as soon as practicable, unless otherwise set out in this Procedure. AEMO must publish the nominated IT system on the Market Web Site.

3.1.2 Where this Procedure requires a Rule Participant to provide confirmation in AEMO's IT system of a request or notification made using an alternative communication method, the Rule Participant must record that confirmation in AEMO's IT system as soon as practicable after making the relevant request or notification.

3.1.3 During periods when AEMO's IT system is unavailable Rule Participants must:

(a) provide any requests and notifications required to be communicated through AEMO's IT system under this Procedure by an alternative communication method defined in the PSOP: Communications and Control Systems or as otherwise directed by AEMO; and

(b) once AEMO's IT system becomes available, update AEMO's IT system as soon as practicable to record any requests and notifications provided under step 3.1.3.

3.1.4 AEMO may agree with the Network Operator on a communication process for Planned Outage commencement and restoration, which will be detailed and agreed in a confidential Operating Protocol.

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 6.1.4; or

(b) the ERA has directed AEMO to include 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 nominated 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 4.2.2 must include, amongst other items, 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 submitted under step 4.2.2 is valid ~~where the Facility:~~[1]for:

(a) ~~is~~Scheduled Generators or Non-Scheduled Generators, where:[2]

(1) would otherwise be available for dispatch, or capable of being put into that state, just prior to the commencement of the proposed outage; and

(2) ~~is~~would otherwise be capable of being available for dispatch for the duration of the Outage Plan.

(b) items of Network equipment, where:

(1) would otherwise be energised, or capable of being put into that state, just prior to the commencement of the proposed outage; and

(2) would otherwise be capable of being energised for the duration of the Outage Plan.

(c) any other equipment on the Equipment List, where

(1) the equipment would otherwise be in service, or capable of being put into that state, just prior to the commencement of the proposed outage; and

(2) would otherwise be capable of being in service for the duration of the Outage Plan.

4.2.5 The Outage Contingency Plan provided in step ~~4.2.2~~4.2.3 must include the following details:

(a) the steps the Market Participant or Network Operator will follow if AEMO were to request the relevant Facility or item of equipment to return to service;

(b) ~~For~~for a Network Operator, where relevant, other measures that can be employed in order to manage Power System Security and Power System Reliability when the Facility cannot be returned to service, including but not limited to measures such as:

(1) partial restoration of the Facility;

(2) bypass of affected equipment;

(3) dispatch of a Network Control Service arrangement; and

(4) alternative operation of other equipment (e.g. open point);

(c) any limitations that AEMO may need to take into account in the management of Power System Security and Power System Reliability when the Outage Contingency Plan is enacted, including, but not limited to:

(1) ~~For~~for a Network Operator:

(A) alternative protection operation;

(B) revised Equipment Limits or Security Limits; or

(2) ~~For~~for a Market Generator, any reduction in capacity as a result of early return to service.

4.2.6 AEMO may require the Market Participant or Network Operator to clarify or provide additional information to enable the Outage Plan to be assessed.

[1] ~~BLUEWATERS POWER 2 PTY LTD -v- AUSTRALIAN ENERGY MARKET OPERATOR LTD [2017], paragraphs 49 and 50. Available from: https://www.austlii.edu.au/cgi-bin/viewdoc/au/cases/wa/WASC/2017/98.html~~

[2] BLUEWATERS POWER 2 PTY LTD -v- AUSTRALIAN ENERGY MARKET OPERATOR LTD [2017], paragraphs 49 and 50. Available from: https://www.austlii.edu.au/cgi-bin/viewdoc/au/cases/wa/WASC/2017/98.html

4.2.7 Where AEMO requests further information in step 4.2.6, AEMO must determine a timeframe for the information requested that will allow adequate time for the Outage Plan to be assessed, and the Market Participant or Network Operator must provide the information requested within that timeframe.

4.2.8 AEMO must use reasonable endeavours to assess an Outage Plan within:

(a) 10 Business Days of receipt from a Market Generator; and

(b) 20 Business Days of receipt from a Network Operator.

4.3 Outage Plans lodged within six weeks of commencement

4.3.1 Where an Outage Plan is first submitted within 6 weeks of the commencement of the outage, if there is insufficient time for the Outage Plan to be assessed, AEMO may reject that Outage Plan without evaluation **[Clause 3.18.7A]**.

4.3.2 In assessing whether an Outage Plan under step 4.3.1 should not be rejected without evaluation, AEMO must take into account:

(a) whether the Outage Plan arises from a need to carry out urgent and unforeseen maintenance on its Facility or item of equipment;

(b) when the Market Participant or Network Operator first became aware of the need; and

(c) whether the nature of the work to be performed prevents accurate scheduling in advance, or is contingent on actions outside the control of the Market Participant or Network Operator.

4.4 Network Outages that may impact a Market Participant's Facilities

4.4.1 Where a Network Outage impacts any Market Generator's Facilities, the Network Operator must provide sufficient information to AEMO to demonstrate that it has used best endeavours to inform that Market Generator **[Clause 3.18.6(h)]**.

~~(a) A Network Outage will unduly impact the operation of one or more Market Participant's Registered Facilities in circumstances that include, but are not limited to, where, to allow the Network Outage to commence, AEMO must dispatch a Registered Facility not in accordance with the latest Balancing Merit Order.~~

4.4.2 Where a Network Outage impacts the operation of a Market Participant as indicated in step ~~4.4.2~~4.4.3, then AEMO may require the Network Operator and the affected Market Participants coordinate the timing of their outages in order to minimise the impact of the Network Outage on the Market Participant Facilities **[Clause 3.18.5C]**.

4.4.3 A Network Outage will unduly impact the operation of one or more Market Participant's Registered Facilities in circumstances that include, but are not limited to, where, to allow the Network Outage to commence:

(a) AEMO will be unable dispatch a Registered Facility in accordance with the latest Balancing Merit Order or Non-Balancing Dispatch Merit Order;

(b) the Registered Facility's participation in the Balancing Market would be impacted;

(c) a Facility subject to an Ancillary Services Contract will be unable to provide the contracted services.

~~4.4.3~~4.4.4 To assist with the coordination of outages in step 4.4.2~~4.4.3~~, 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 with relevant Outage Plans; and

(c) relevant technical information able to be shared by AEMO.

4.4.44.4.5 Where AEMO accepts a Network Outage to which step 1.1.1(a)4.4.2 applies, and the impacted Market Participant has not submitted an Outage Plan as at the commencement of the Network Outage, the Market Participant must lodge a Forced Outage or Consequential Outage, in accordance with stepsection 10. The Market Participant may request that the outage be converted to a Consequential Outage.

5 CHANGES TO OR WITHDRAWAL OF AN OUTAGE PLAN

5.1 Re-Scheduling or Cancelling an Outage Plan

5.1.1 Where a Market Participant or Network Operator no longer plans to remove from service or de-rate a Facility or an item of equipment as per an Outage Plan then it must cancel the relevant Outage Plan in AEMO IT's system as soon as practicable **[Clause 3.18.8]**.

5.1.2 Where a Market Participant or Network Operator intends to change the times of an outage from those indicated in the Outage Plan it must inform AEMO and submit a revised Outage Plan if the times changed are within the timeframe of the initial Outage Plan, or a new Outage Plan otherwise, as soon as practicable **[Clause 3.18.9]**.

5.1.3 If aFollowing the submission of a revised Outage Plan as specified in step 5.1.2, if the corresponding Planned Outage is scheduled to commence within 24 hours, the Market Participant or Network Operator must notify AEMO of the changes to the Outage Plan by telephone and provide confirmation through AEMO's IT system as soon as practicable.

6 ACCEPTANCE OF OUTAGE PLANS

6.1 General

6.1.1 AEMO must assess the acceptability of Outage Plans using the criteria specified in clause 3.18.11 of the WEM Rules, based on the information specified in the PSOP: Power System Security and any relevant guidelines.

6.1.2 An Outage Plan in step 6.1.1 must be valid and meet the requirements in step 4.2.4 to be able to be assessed as acceptable.

6.1.3 AEMO may assess an outage as acceptable under step 6.1.1 subject to conditions **[Clause 3.18.13(c)]**.

6.1.4 An Outage Plan that AEMO has assessed in step 6.1.1 as acceptable is a Scheduled Outage **[Clauses 3.18.10 and 3.19.1]**.

6.1.5 AEMO must perform the assessment in step 6.1.1 on an ongoing basis as part of the Medium Term PASA and Short Term PASA studies **[Clause 3.18.10(b)]**.

6.1.6 Where, following a re-assessment in step 6.1.5, AEMO identifies that a Scheduled Outage or group of Scheduled Outages can no longer be accepted, AEMO must change the status of that outage, or group of outages or group of outages and 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 AEMO's outage schedule **[Clause 3.18.13]**.

6.1.7 Following negotiations with the affected Market Participants and Network Operators to attempt to reach agreement as to AEMO's outage schedule:

(a) if agreement is reached, then the affected Market Participants and Network Operators must resubmit Outage Plans to AEMO; or

(b) if no agreement is 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 the AEMO's outage schedule where they were previously scheduled; and

(3) notify each affected Market Participant whether its Outage Plan has been scheduled.

6.2 Acceptance of non-complying Outage Plan for reasons of System Security

6.2.1 AEMO may allow ~~an Outage Plan~~outages to proceed that ~~does~~do not meet the criteria in step 6.1.1 if it considers that preventing ~~the outage~~these 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)]**.

6.2.2 Circumstances in which AEMO may accept an Outage Plan in step 6.2.1 include, but are not limited to:

(a) where an outage is required to address ongoing equipment or Facility unreliability that may impact or has impacted on Power System Security or Power System Reliability; and

(b) an item of equipment or a Facility was recalled from an outage prior to completion of the planned work and the impacted 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.

6.2.3 Factors that AEMO must consider in making a decision in step 6.2.1 include:

(a) whether increased security risk over the period of the outage is less than the longer-term risk reduction that would be achieved by allowing the outage to proceed. This may occur in circumstances including, but not limited to where:

(1) revised forecast information is available indicating a high probability of a lower demand than indicated in the PASA second standard deviation forecasts;

(2) the proposed Outage Plan is for a short period and is intended to avoid an outage for a longer period at a time of higher demand;

(3) there is limited opportunity to re-schedule the outage, a demonstrated need to have the outage as soon as possible, and AEMO is of the opinion that the 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;

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

6.3 Changes to Outage Contingency Plans

6.3.1 From time to time where an Outage Plan is submitted well in advance of the commencement date, AEMO may allow a Market Participant or Network Operator to revise details in the Outage Contingency Plan after it has become a Scheduled Outage.

6.3.2 A Market Participant or Network Operator must receive AEMO's verbal permission prior to

amending the Outage Contingency Plan of a Scheduled Outage.

7 REQUESTS FOR OPPORTUNISTIC MAINTENANCE

7.1 General

7.1.1 Opportunistic Maintenance is a request from a Market Participant or Network Operator for AEMO to approve an outage that is not a Scheduled Outage, of a Facility or item of equipment to be carried out during a Trading Day ~~that is not a Scheduled Outage~~ **[Clause 3.19.2]**.

7.1.2 The WEM Rules ~~describes~~describe two types of Opportunistic Maintenance:

(a) Day-ahead Opportunistic Maintenance (DAOM) covers requests made between 10:00 AM on the day prior to the Scheduling Day and 10:00 AM on the Scheduling Day **[Clause 3.19.2(a)]**; and

(b) On the Day Opportunistic Maintenance (ODOM) 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 **[Clause 3.19.2(b)]**.

7.1.3 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 timing requirements specified in the WEM Rules **[Clause 3.19.2]**.

~~7.1.4 Opportunistic Maintenance is valid where the Facility:~~[3]

~~(a) is available for dispatch, or capable of being put into that state, just prior to the commencement of the Opportunistic Maintenance; and~~

~~(b) is capable of being available for dispatch for the duration of the Opportunistic Maintenance.~~

7.2 Pre-condition for Opportunistic Maintenance

7.2.1 AEMO may decline to approve Opportunistic Maintenance for a ~~Facility or item of equipment~~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)]**.

7.2.2 Factors that AEMO will consider for the decision in step 7.2.1 include whether a Scheduled Generator:[4]

(a) would otherwise be available for dispatch, or capable of being put into that state, just prior to the commencement of the Opportunistic Maintenance; and

(b) would otherwise be capable of being available for dispatch for the duration of the Opportunistic Maintenance.

~~7.2.1~~7.2.3 Before approving an Opportunistic Maintenance request that AEMO considers may meet the conditions in step 7.2.1, AEMO may require the Market Participant ~~or Network Operator~~ to provide a written declaration that the capacity is available.

~~7.2.2~~7.2.4 AEMO must reject any Opportunistic Maintenance request where the relevant Market Participant ~~or Network Operator~~ does not comply with a request in step 7.2.2.

[3] ~~BLUEWATERS POWER 2 PTY LTD -v- AUSTRALIAN ENERGY MARKET OPERATOR LTD [2017], paragraphs 49 and 50. Available from: https://www.austlii.edu.au/cgi-bin/viewdoc/au/cases/wa/WASC/2017/98.html~~

[4] BLUEWATERS POWER 2 PTY LTD -v- AUSTRALIAN ENERGY MARKET OPERATOR LTD [2017], paragraphs 49 and 50. Available from: https://www.austlii.edu.au/cgi-bin/viewdoc/au/cases/wa/WASC/2017/98.html

7.3 Day-ahead Opportunistic Maintenance (DAOM)

7.3.1 A Market Participant or Network Operator requesting Day-ahead Opportunistic Maintenance must submit its request via AEMO's nominated IT system.

7.3.2 Requests for approval of Day-ahead Opportunistic Maintenance 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 **[WEM Rule 3.19.2(a)]**

7.4 On the day Opportunistic Maintenance (ODOM)

7.4.1 A Market Participant or Network Operator requesting On the day Opportunistic Maintenance (ODOM) must:

(a) make the request by telephone-:

(1) at any time on the Trading Day **[Clause 3.19.2(b)]**; and

(2) at least one hour before the commencement of the Trading Interval during which the requested ODOM is due to commence **[Clause 3.19.2(b)]**; andasand

(a)(b) as soon as practicable, confirm the request via AEMO's IT system.

7.4.2 AEMO may only approve ODOM where the outage is to perform minor maintenance **[Clause 3.19.2(b)(i)]**.

7.4.3 Circumstances which may fulfil the requirements of step 7.4.2 include, but are not limited to:

(a) inspections;

(b) preventative maintenance;

(c) corrective maintenance;

(d) works in the vicinity of the equipment or Facility; and

(e) testing that would not otherwise require a Commissioning Test Plan.

7.4.4 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]**. This includes, but is not limited to:

(a) for Network Outages:

(1) the Network Outage would constrain the operation of a Market Generator that has an outage that would otherwise indicated fullconstrain the Facility's declared availability for dispatch; or

(2) the Network Outage would require additional Ancillary Services to be scheduled.

(b) for Generator Outages:

(1) where a generator has a position in the Balancing Merit Order that, in the reasonable opinion of AEMO, could result in their dispatch during the period of the ODOM request; or

(2) where a generator has a position in the LFAS Upwards Merit Order or LFAS Downwards Merit Order that, in the reasonable opinion of AEMO, could result in their dispatch during the period of the ODOM request.

8 APPROVAL OF SCHEDULED OUTAGES AND OPPORTUNISTIC MAINTENANCE

8.1 General

8.1.1 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]**.

8.1.2 AEMO must 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]**.

8.1.3 To approve a Scheduled Outage in step 8.1.2, AEMO must determine whether the Scheduled Outage remains acceptable in accordance with steps 6.1.1 and 6.1.2.

8.1.4 To ensure the power system can be operated within the Technical Envelope, AEMO may consider fuel availability of Facilities remaining in service in assessing a Scheduled Outage or Opportunistic Maintenance **[Clause 3.19.6(c)]**.

8.1.5 AEMO must either approve or reject the Scheduled Outage or Opportunistic Maintenance and inform the Market Participant or Network Operator of its decision as soon as practicable **[Clause 3.19.4]**.

8.1.6 AEMO must inform the Market Participant or Network Operator of a decision in step 8.1.5 for:

(a) On the day Opportunistic Maintenance, verbally and then via AEMO's IT system ~~**[Clause 3.19.4]**.~~;

(b) Day-ahead Opportunistic Maintenance and Scheduled Outages, via AEMO's IT system.

8.1.7 Applications for Day-ahead Opportunistic Maintenance made between:

(a) 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;

(b) 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; and

(c) 6:00 am and 10:00 am on the Scheduling Day must be approved or rejected by 12:00 pm on the Scheduling Day.

~~8.1.5~~8.1.8 An outage, including Opportunistic Maintenance, which is approved by AEMO under step 8.1.5 is a Planned Outage **[Clause 3.19.11]**.

~~8.1.6~~8.1.9 Except for ODOM, a Market Participant or Network Operator may not commence a Planned Outage (including Day Ahead Opportunistic Maintenance) unless AEMO has provided confirmation of its approval of the outage request via its IT system.

8.2 Approval of non-complying Scheduled Outage for reasons of System Security

8.2.1 AEMO may allow an Outage Plan to proceed that does not meet the criteria in step 8.1.2 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 **[Clause 3.19.6 (e)]**.

8.2.2 Circumstances in which AEMO may accept an Outage Plan in step 8.2.1 include, but are not limited those detailed in step 6.2.2.

8.2.3 Factors that AEMO must consider in making a decision in step 8.2.1 include those detailed in step 6.2.3.

9 CHANGES AFFECTING A PLANNED OUTAGE

9.1 Changes to Power System Conditions Affecting a Planned Outage

9.1.1 Where power system conditions change such that the Planned Outage would no longer be approvable, AEMO may cancel the Planned Outage **[Clause 3.19.5]**.

9.1.2 Circumstances that AEMO must consider in making a decision under step 9.1.1 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 ~~Scheduled~~Planned Outage 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 SWIS within the Technical Envelope.

9.1.3 The general priority of assessment that AEMO will use to cancel outages in step 9.1.1 is:

(a) Opportunistic Maintenance **[Clause 3.19.6(d)(v)]**;

(b) Scheduled Outages that were originally scheduled less than one month ahead that were:

(1) ~~That were~~ deferred **[Clause 3.19.6(d)(iv)]**; and then

(2) ~~That were~~ not deferred **[Clause 3.19.6(d)(iii)]**; and then

(3) approved under step 8.2.1;

(c) Scheduled Outages that were originally scheduled more than one month ahead that were:

(1) ~~That were~~ deferred **[Clause 3.19.6(d)(ii)]**; and then

(2) ~~That were~~ not deferred **[Clause 3.19.6(d)(i)]**; and then

(3) ~~Outages~~ approved under step 8.2.1.

9.2 Extending the end time of the Planned Outage

9.2.1 Where the Market Participant wishes to extend the end time of a Planned Outage a new Outage Plan must be submitted under step 4.2.2 for ~~every~~the set of Trading ~~Interval~~Intervals beyond the end time of the existing Planned Outage.

9.2.2 Where AEMO is unable to approve an Outage Plan submitted under step 9.2.1, the Participant must submit a Forced Outage under step 10.1.1 for any part of the Planned Outage that exceeds its approved duration **[Clause 3.21.1(b)]**.

10 FORCED OUTAGES AND CONSEQUENTIAL OUTAGES

10.1 Information Requirements

10.1.1 Where a Facility or item of equipment suffers a Forced Outage or a Consequential Outage, the relevant Market Participant or Network Operator must communicate the details of the outage by telephone to AEMO as soon as practicable **[Clause 3.21.4]**.

10.1.2 The notification provided under step 10.1.1 must be confirmed via AEMO's nominated IT system as soon as practicable **[Clause 3.21.4]**.

10.1.3 For a Consequential Outage to be accepted by AEMO, a Market Participant must provide

AEMO with a notice confirming details of the Consequential Outage including the information specified in clause 3.21.8 of the WEM Rules **[Clause 3.21.10]**.

11 PLANNED OUTAGE RATE AND FORCED OUTAGE RATE

11.1 Calculation of Planned Outage Rate and Forced Outage Rate

11.1.1 AEMO must calculate the Planned Outage rate, ~~and~~ the Forced Outage rate and Equivalent Planned Outage Hours for a Facility in accordance with Appendix A and Appendix B **[Clauses 4.1.1(h) and 3.21.12]**.

APPENDIX 1~~A~~. CALCULATION OF FORCED OUTAGE RATE

This Appendix presents the methodology for calculating the Forced Outage rate of a Facility over a period of time (P) for the purposes of the Market Rules.

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

Forced Outage Rate Calculation	**Definitions**
Forced Outage rate (%): $\frac{(FOH + EFDH)}{PH} \times 100$	**FOH (Forced Outage Hours) = sum of all Trading Intervals,** Where: Outage MW = Capacity Credit (MW) and the Outage Reason is Forced and during the period P multiplied by 0.5. **EFDH(Equivalent Forced Derated Hours) = sum of all Trading Intervals,** 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, multiplied by 0.5.

APPENDIX 2~~B~~. CALCULATION OF PLANNED OUTAGE RATE

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

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

Planned Outage Rate Calculation	**Definitions**
Planned Outage rate (%): $\frac{(POH + EPDH)}{PH} \times 100$	**POH (Planned Outage 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. **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, multiplied by 0.5.