

Indicative changes to the National Electricity Rules showing changes made by the *National Electricity Amendment (Enhancing information on generator availability in MT PASA) Rule 2022*

Note:

This document shows indicative changes to the relevant parts of the National Electricity Rules (NER) as amended by the *National Electricity Amendment (Enhancing information on generator availability in MT PASA) Rule 2022*. This document is provided for information purposes only. The Australian Energy Market Commission does not guarantee the accuracy, reliability or completeness of this version of the NER.

CHAPTER 3

3.7 Projected Assessment of System Adequacy

(a0) In this rule:

PASA objective has the meaning in clause 3.7.1(b).

unit recall time means, for a *scheduled generating unit* or *scheduled bidirectional unit*, the period in which the *plant* can be made available under normal conditions after a period of unavailability as determined in accordance with the *reliability standard implementation guidelines*.

unit state means the availability or unavailability of a *scheduled generating unit* or *scheduled bidirectional unit* and the reason for its availability or unavailability, as determined in accordance with the *reliability standard implementation guidelines*.

3.7.1 Administration of PASA

- (a) *AEMO* must administer medium term and short term *projected assessment of system adequacy processes* to be known as *PASA*.
- (b) The *PASA* is a comprehensive program of information collection, analysis, and disclosure of medium term and short term *power system security* and reliability of *supply* prospects so that *Registered Participants* are properly informed to enable them to make decisions about *supply*, demand and *outages of transmission networks* in respect of periods up to 2 years in advance (or up to 3 years in advance, where specified) (the PASA objective).
- (c) On a weekly basis *AEMO* must:
- (1) collect and analyse information from all *Scheduled Generators*, *Market Customers*, *Transmission Network Service Providers* and *Market Network Service Providers* about their intentions for:
 - (i) *generation*, *transmission* and *market network service maintenance scheduling*;
 - (ii) intended *plant* availabilities, unit states and unit recall times;
 - (iii) *energy constraints*;
 - (iv) other *plant* conditions which could materially impact upon *power system security* and reliability of *supply*; and
 - (v) significant changes to *load* forecasts previously notified to *AEMO*,for the following 24 months in respect of subparagraphs (i), (iii), (iv) and (v), and for the following 36 months in respect of subparagraph (ii);
 - (2) prepare the *unconstrained intermittent generation forecasts* for the following 24 months; and
 - (3) following analysis and assessment of the information referred to in subparagraphs (1) and (2), *publish* information that will inform the *market* regarding forecasts of *supply* and demand.

- (d) *AEMO* must use its reasonable endeavours to ensure that it publishes sufficient information to allow the *market* to operate effectively with a minimal amount of intervention by *AEMO*.

3.7.2 Medium term PASA

- (a) The *medium term PASA* covers the 24 month period (or, in the case of paragraphs (d)(1)(i), [\(d1\)](#) and (f)(5) the 36 month period), commencing from the Sunday after the *day* of publication with a daily resolution. Every week, *AEMO* must review and *publish* the outputs of the *medium term PASA* in accordance with the *timetable*.
- (b) *AEMO* may publish additional updated versions of the *medium term PASA* in the event of changes which, in the judgment of *AEMO*, are materially significant.
- (c) The following *medium term PASA inputs* are to be prepared by *AEMO*:
- [\(1\)](#) forecast *load* information for each *region* which is:
 - (i) forecasts of the 10% probability of exceedence daily *peak load*, forecasts of the most probable daily *peak load* and forecasts of the time of the peak, on the basis of past trends, day type and special events, including all forecast *scheduled load* and other *load* except for pumped storage *loads*;
 - (ii) subsequently to be adjusted by an amount anticipated in the forecast as *scheduled load* by *load* bidders; and
 - (iii) an indicative half hourly *load* profile for each day type for each *region* for each month of the year;
 - [\(2\)](#) the capabilities of *generating units* for which formal commitments have been made for construction or installation;
 - [\(3\)](#) forecast *network constraints* known to *AEMO* at the time;
 - [\(4\)](#) an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* for each *day*.
- (d) The following *medium term PASA inputs* must be submitted by each relevant *Scheduled Generator* or *Market Participant* in accordance with the *timetable* and must represent the *Scheduled Generator's* or *Market Participant's* current intentions and best estimates:
- [\(1\)](#) *PASA availability* of each *scheduled generating unit*, *scheduled load* or *scheduled network service* for each *day* taking into account the ambient weather conditions forecast at the time of the 10% probability of exceedence *peak load* (in the manner described in the procedure prepared under paragraph (h)):
 - (i) for a 36 month period in respect of each *scheduled generating unit*; and
 - (ii) for a 24 month period in respect of each *scheduled load* or *scheduled network service*; and
 - [\(2\)](#) weekly *energy constraints* applying to each *scheduled generating unit* or *scheduled load* for a 24 month period.

Note

This paragraph is classified as a tier 1 civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d1) The following *medium term PASA input* must be submitted by each relevant *Scheduled Generator* or *Market Participant* in accordance with the *timetable* and must represent the *Scheduled Generator's* or *Market Participant's* current intentions and best estimates:

(1) the unit state, which must distinguish between a physical and economic reason for unavailability in accordance with the *reliability standard implementation guidelines* as appropriate; and

(2) the unit recall time, if required by *AEMO* for a unit state as specified in the *reliability standard implementation guidelines*,

of each *scheduled generating unit* or *scheduled bidirectional unit* for each day.

[For information purposes only - Note

The AEMC will recommend that paragraph (d1) be classified as a tier 1 civil penalty provision under the National Electricity (South Australia) Regulations. This note is for information purposes only and the AEMC does not guarantee the accuracy of this note over time.]

(e) *Network Service Providers* must provide to *AEMO* an outline of planned *network outages* in accordance with the *timetable* and provide to *AEMO* any other information on planned *network outages* that is reasonably requested by *AEMO* to assist *AEMO* to meet its obligations under paragraph (f)(6).

Note

This paragraph is classified as a tier 1 civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) *AEMO* must prepare and *publish* the following information in respect of each *day* (unless otherwise specified in subparagraphs (1) to (6)) covered by the *medium term PASA* in accordance with clause 3.13.4(a):

(1) forecasts of the 10% probability of exceedence *peak load*, and most probable *peak load*, excluding the relevant aggregated MW allowance referred to in subparagraph (2), and adjusted to make allowance for *scheduled load*;

(1A) the maximum and minimum values of the forecasts of the 10% probability of exceedence *peak load* and the forecasts of the most probable *peak load*, prepared by *AEMO* in accordance with paragraph (c)(1);

(2) the aggregated MW allowance (if any) to be made by *AEMO* for *generation* from *non-scheduled generating systems* in each of the forecasts of the 10% probability of exceedence *peak load* and most probable *peak load* referred to in subparagraph (1);

(3) in respect of each of the forecasts of the 10% probability of exceedence *peak load* and most probable *peak load* referred to in

- subparagraph (1), a value that is the sum of that forecast and the relevant aggregated MW allowance referred to in subparagraph (2);
- (4) forecasts of the most probable weekly *energy* for each *region*;
- (5) for a 36 month period, aggregate *generating unit PASA availability* for each *region* and *PASA availability, unit state and unit recall time of each scheduled generating unit* ~~*individual scheduled generating unit PASA availability*~~;
- (5) **[Drafting note: The drafting shown in this paragraph commences on 3 June 2024]** for a 36 month period, aggregate *PASA availability* of *generating units* and *bidirectional units* to produce electricity for each *region* and *PASA availability, unit state and unit recall time* of each *scheduled generating unit* and *scheduled bidirectional unit*;
- (5A) aggregate capacity for each *region* that can be *generated* continuously, calculated by adding the following categories:
- (i) the capacity of *scheduled generating units* in the *region* that are able to operate at the *PASA availability*; and
- (ii) the forecast *generation* of *semi-scheduled generating units* in the *region* as provided by the *unconstrained intermittent generation forecasts*;
- (5B) aggregate capacity for each *region* that cannot be *generated* continuously at the *PASA availability* of the *scheduled generating units* in the *region* due to specified *weekly energy constraints*;
- (5C) the adjusted maximum and minimum aggregate *scheduled generating unit PASA availability* for each *region* following adjustment for the inclusion of *Scheduled Generator* probabilistic forced outage information; and
- (6) identification and quantification of:
- (i) any projected *violations* of *power system security*;
- (ii) any projected failure to meet the *reliability standard* as assessed in accordance with the *reliability standard implementation guidelines*;
- (iii) **[Deleted]**
- (iv) forecast *interconnector* transfer capabilities and the discrepancy between forecast *interconnector* transfer capabilities and the forecast capacity of the relevant *interconnector* in the absence of *outages* on the relevant *interconnector* only; and
- (v) when and where *network constraints* may become binding on the *dispatch* of *generation* or *load*.
- (g) For the purpose of paragraph (f) (other than subparagraphs (f)(4) and (f)(6)), *AEMO* must *publish* forecast information in a format consistent with the format of the demand information published under clause 3.13.4(x).
- (h) *AEMO* must publish the procedure it uses for preparation of the *medium term PASA*.

- (i) *AEMO must have regard to the PASA objective when developing the approach to defining:*
 - (1) *the period in which the plant can be made available under normal conditions after a period of unavailability; and*
 - (2) *the reasons for the unavailability of a scheduled generating unit or scheduled bidirectional unit, including how to distinguish between a physical and economic reason for the unavailability,*
for the purposes of the reliability standard implementation guidelines.

3.9.3D Implementation of the reliability standard

- (a) *AEMO must develop, publish and amend from time to time reliability standard implementation guidelines that set out how AEMO will implement the reliability standard and the interim reliability measure.*
- (b) The *reliability standard implementation guidelines* must include, without limitation, the approach *AEMO* will use and the assumptions it will make in relation to:
 - (1) demand for electricity;
 - (2) *reliability* of existing and future *generation*;
 - (3) *intermittent generation*;
 - (4) *energy constraints*;
 - (5) the treatment of extreme weather events; and
 - (6) *network constraints*.
- (b1) In addition to the matters specified in paragraph (b), the *reliability standard implementation guidelines* must set out:
 - (1A) *the form of information to be submitted by each relevant Scheduled Generator or Market Participant under clause 3.7.2(d1);*
 - (1) the factors that *AEMO* will consider in determining whether it has an obligation to publish an *EAAP* under rule 3.7C(d)(2); and
 - (2) the method for calculating *unserved energy* in accordance with clause 3.9.3C, including calculation of the amount of *energy* demanded in the relevant *region*.
- (c) *AEMO* must develop and amend the *reliability standard implementation guidelines* in consultation with the *Reliability Panel*, *Registered Participants* and other interested persons in accordance with the *Rules consultation procedures*.
- (d) There must be *reliability standard implementation guidelines* in force at all times after the date on which *AEMO* publishes the first *reliability standard implementation guidelines* under the *Rules*.
- (e) *AEMO* must review the *reliability standard implementation guidelines* at least once every four years. *AEMO* must conduct the review in consultation with the *Reliability Panel*, *Registered Participants* and other interested persons in accordance with the *Rules consultation procedures*.

CHAPTER 10

medium term PASA inputs

The inputs to be prepared in accordance with clauses 3.7.2(c), ~~and (d)~~ and (d1).

11. Savings and Transitional Rules

After Part ZZZZZ, insert:

Part ZZZZZA Enhancing information on generator availability in MT PASA

11.151 Rules consequential on the making of the National Electricity Amendment (Enhancing information on generator availability in MT PASA) Rule 2022

11.151.1 Definitions

For the purposes of this rule 11.151:

Amending Rule means the National Electricity Amendment (Enhancing information on generator availability in MT PASA) Rule 2022.

commencement date means 9 October 2023.

11.151.2 Reliability Standard Implementation Guidelines

- (a) By 30 April 2023, *AEMO* must amend and *publish* the *reliability standard implementation guidelines* to take into account the Amending Rule.
- (b) *AEMO* must comply with the *Rules consultation procedures* when amending the *reliability standard implementation guidelines* in accordance with paragraph (a).
- (c) Amendments made in accordance with paragraph (a) must take effect on and from the commencement date.

11.151.3 Procedure for preparation of the medium term PASA

By 30 April 2023, *AEMO* must amend and *publish* the procedure it uses for preparation of the *medium term PASA* under clause 3.7.2(h) to take into account the Amending Rule.