Mr John Pierce AO Chair Australian Energy Market Commission Level 6, 201 Elizabeth Street SYDNEY NSW 2000

By email: john.pierce@aemc.gov.au

6 March 2018

Our ref: NOC032018

Dear Mr Pierce

#### Generator three year notice of closure rule change request

The Independent Review into the Future Security of the National Electricity Market (NEM) (Finkel Review) identified managing the retirement of the existing coal-fired generators as they reach their end of life as a key challenge facing the NEM.

The Finkel Review included a recommendation that all existing large electricity generators be required to provide at least three years' notice prior to closure. The review suggests this will provide time for replacement capacity to be built and for affected communities to plan for change. The review also recommended that the Australian Energy Market Operator should maintain and publish a register of long-term expected closure dates for large generators.

The COAG Energy Council agreed to implement the recommendations in relation to generator notice of closure. The Energy Security Board has considered this recommendation and in this regard, please find enclosed a rule change request for the three year notice of closure rule change. The change request sets out how the three year notice of closure requirement can be implemented by changes to the National Electricity Rules.

Yours sincerely

Ken fals

Kerry Schott AO Chair, Energy Security Board

## Three year notice of closure of generators rule change request

## 1. The name and address of proponent

Dr Kerry Schott AO Chair, Energy Security Board Level 26, 1 Bligh St Sydney, NSW 2000

## 2. Relevant background

The Independent Review into the Future Security of the NEM (Finkel Review) identified managing the retirement of the existing coal-fired generators as they reach their end of life as a key challenge facing the NEM.

The Finkel Review included a recommendation that all existing large electricity generators be required to provide at least three years' notice prior to closure. The review suggests this will provide time for replacement capacity to be built and for affected communities to plan for change. The review also recommended that the Australian Energy Market Operator (AEMO) should maintain and publish a register of long-term expected closure dates for large generators.

The COAG Energy Council agreed to implement these recommendations in relation to generator notice of closure and the Energy Council Secretariat requested the Energy Security Board to consider how these recommendations could be addressed by legislative changes. The Energy Security Board developed proposed changes to the National Electricity Rules (NER) (set out in the Schedule to this request) that would require scheduled and semi-scheduled generators to provide information to AEMO on expected closure dates and keep this information up to date. The proposed rule is focused on the provision of additional, specific information to AEMO on expected closure dates arequirement that scheduled and semi-scheduled generators provide at least three years' notice of when it will cease to supply electricity or trade directly in the market.

The proposed rule, if made, would enhance the information available to AEMO and the market in relation to generator closures and complement other measures to improve reliability in the National Electricity Market being considered by the Australian Energy Market Commission in its Reliability Frameworks Review and by the Energy Security Board in its consultation on the National Energy Guarantee.

## 3. Issue with current rules

Clause 2.2.1 of the NER includes a range of reporting requirements for generators when applying for registration. Clause 2.10.1 of the NER includes information to be provided by registered participants when ceasing to be a registered participant or termination of classification of loads, generating units or network services. However Clause 2.10.1 does not include a requirement whereby generators must provide a closure notice in advance of their intended closure date within a specific time period.

## 4. Description of proposed rule change

The mechanism reflected in the proposed rule would require additional information disclosure to AEMO by generators as follows:

- Three years notice of cessation of registration of Generator or termination of classification of a scheduled or semi-generating unit must be given to AEMO
- A requirement for scheduled and semi-scheduled generators to notify AEMO on registration, and regularly update through the MT PASA reporting process, the year they expect a generating unit to cease operating. This is referred to as the "expected closure year". The expected closure date should be no later than the expiry date of a generator's licence or authority to generate.
- Enhanced AEMO reporting through the MT PASA and Electricity Statement of Opportunities (ESOO) that specifically recognises the "expected closure year" for generating units
- A proposed change to the current Energy Adequacy Assessment Projection (EAAP) process to give the Reliability Panel the discretion to identify specific energy constraint scenarios for the focus of study under the EAAP. This would require AEMO to consider a broader range of energy constraint scenarios than the conditions it currently considers.

## 5. How the proposed rule change will address the issue

The proposed rule change would assist in managing the retirement of the existing coal-fired generators by augmenting the existing reporting requirements on generators to provide additional information to AEMO relating to expected closure dates. This information would give AEMO and market participants (through AEMO's reporting) a better outlook of generator availability into the future.

## 6. How the proposed rule contributes to the national electricity objective

The proposed rule change request will contribute to the national electricity objective by promoting efficient investment in, efficient operation and use of, electricity services for the long term interests of consumers.

The proposed rule is expected to:

- Improve the provision of information: The arrangements for registration and any additional reporting requirements in NER should be clear, consistent and understandable to all participants. The inclusion of clear reporting requirements around expected closure dates of generators should support accountability and confidence in the system.
- Enhance transparency and predictability: The transparency of information is a key feature of the efficient operation of the NEM. Market participants need access to clear, timely and accurate information in order to allow them to efficient commercial and operational decisions. Greater transparency resulting from additional reporting requirements should make it easier for market participants to examine trends and plan for the future therefore contributing to more informed and efficient decision making.

## 7. Expected impact of the proposed rule on affected parties

The proposed changes to the rules will benefit AEMO by improving the data and information it has access to regarding the future availability of generators. On registration Generators are required to provide AEMO with copies of their licences or authorities to generate; the proposed rule will allow AEMO to compare the information in jurisdictional licences with expected closure dates.

The proposed changes will also improve information available to market participants through enhanced AEMO reporting of expected closure dates in the MT PASA and Electricity Statement of Opportunities (ESOO) that will specifically recognise the "expected closure year" for generating units.

There may be administrative costs associated with additional reporting requirements for generators. AEMO will also have to update their reporting procedures for the MT PASA and ESOO to allow for the additional information to be reflected.

## SCHEDULE – PROPOSED RULE

## CHAPTER 2

RELEVANT EXTRACTS OF CHAPTER 2 SHOWING PROPOSED CHANGES TO PROVIDE FOR MINIMUM NOTICE OF CLOSURE.

# 2. Registered Participants and Registration

## 2.1 Registered Participants

#### 2.1.1 Purpose

This Chapter sets out and describes the various categories of *Registered Participants* and the registration procedures. It also sets out the fees payable by *Registered Participants*.

#### 2.1.2 General

- (a) **[Deleted]**
- (b) **[Deleted]**
- (c) The different categories of *Registered Participants* have different obligations under the *Rules*.
- (d) Rules 2.2 to 2.7 set out the *Registered Participant* categories and requirements which a person must satisfy in order to be registered by *AEMO* in relation to each of those *Registered Participant* categories.
- (e) Each prospective *Registered Participant* must apply to *AEMO* for registration in accordance with rule 2.9.
- (e1) Rule 2.9A sets out the process to be followed in order to transfer a *Registered Participant's* registration to another person.
- (f) Each *Registered Participant* must pay to *AEMO* the prescribed fees determined in accordance with the provisions of rule 2.11.

## 2.2 Generator

## 2.2.1 Registration as a Generator

- (a) Subject to clause 2.2.1(c), a person must not engage in the activity of owning, controlling or operating a *generating system* that is *connected* to a *transmission or distribution system* unless that person is registered by *AEMO* as a *Generator*.
- (b) **[Deleted]**
- (c) *AEMO* may, in accordance with guidelines issued from time to time by *AEMO*, exempt a person or class of persons from the requirement to register as a *Generator*, subject to such conditions as *AEMO* deems appropriate, where (in *AEMO*'s opinion) an exemption is not inconsistent with the *national electricity objective*.

#### Note:

A person who is exempt from registration as a *Generator*, may register with *AEMO* as a *Small Generation Aggregator* under rule 2.3A.

- (d) Without limitation, an exemption may be given which only relieves a person or class of persons from the requirement to register as a *Generator* in relation to certain specified *generating systems* or classes of *generating systems*.
- (e) To be eligible for registration as a *Generator*, a person must:

- (1) obtain the approval of *AEMO* to classify each of the *generating units* that form part of the *generating system* that the person owns, operates or controls, or from which it otherwise sources electricity, as:
  - (i) a scheduled generating unit;
  - (ii) a *semi-scheduled generating unit*; or
  - (iii) a non-scheduled generating unit;
- (2) classify the *generating units* in accordance with *AEMO's* approval as referred to in subparagraph (1);
- (2A) if a generating unit is classified as a scheduled generating unit or a semi-scheduled generating unit, notify AEMO of the year in which the Generator expects the generating unit to cease supplying electricity to the transmission network or distribution network at its connection point (expected closure year); and
- (3) satisfy *AEMO* that each *generating system* will be capable of meeting or exceeding its *performance standards*.
- (f) Except in relation to a proposed *generating unit*, a person must also classify each of those *generating units* as either a *market generating unit* or a *non-market generating unit*.
- (f1) A *Generator* may also classify one or more of its *generating units* as an *ancillary service generating unit* where it has obtained the approval of *AEMO* to do so.
- (g) Nothing in clause 2.2.1(e) or (f) requires the classification of any *generating unit* which forms part of a *generating system* in respect of which an exemption under clause 2.2.1(c) applies.

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# 2.10 Ceasing to be a Registered Participant or termination of classification of *loads*, *generating units* or *network services*

## 2.10.1 Notification of intention

- (a) A person may notify *AEMO* in writing that it wishes to cease to be registered in any category of *Registered Participant* or that it wishes to terminate any of its classifications of *loads*, *generating units* or *network services*.
- (b) A person is not entitled to notify *AEMO* that it wishes to cease to be registered in relation to any category for which that person is required to be registered under the *National Electricity Law* or under the *Rules*.
- (c) In any notice given under paragraph (a), the *Registered Participant* must specify a date upon which it wishes to cease to be so registered or for an existing classification of *loads* or *network services* to be terminated and, in the case of a *Market Participant*, the date upon which it will cease to *supply* or acquire electricity or trade directly in the *market* and whether entirely or in relation to one or more *connection points* or *market network services*.

- (c1) In any notice given under paragraph (a) requesting that an existing classification of a *generating unit* be terminated, the *Registered Participant* must specify a date (the **closure date**) upon which:
  - (1) it wishes the classification of the *generating unit* to be terminated; and
  - (2) in the case of a *Market Generator*, it will cease to supply electricity or trade directly in the *market* and whether entirely or in relation to one or more *connection points*.
- (c2) The closure date must, in respect of a *Scheduled Generator* or *Semi-Scheduled Generator*, be a date no earlier than the date that is three years from the date of the notice given under paragraph (a).
- (c3) Despite paragraph (c2), a *Scheduled Generator* or *Semi-Scheduled Generator* may specify a closure date that is earlier than the date that is three years from the date of the notice given under paragraph (a) if the relevant *Generator* wishes to terminate the classification of a *generating unit* or cease to supply electricity in the *market* in relation to one or more *connection points* because an event that is beyond the reasonable control of the relevant *Generator* has occurred and the occurrence of that event (or of an event of a similar kind) could not reasonably have been foreseen by the relevant *Generator*.
- (d) *AEMO* may reject a notice from a *Market Customer* that it wishes to terminate its classification of a *connection point* as one of its *market loads* or otherwise cease to be a *Market Customer* in relation to any of its *market loads* unless *AEMO* is satisfied that:
  - (1) another person has classified the *connection point* as one of its *market loads* and is registered as a *Market Customer*;
  - (2) the relevant *Local Retailer* has agreed or is otherwise required by laws of the relevant *participating jurisdiction* to assume responsibility for payments to *AEMO* for electricity *supplied* to that *connection point*; or
  - (3) the *load* at that *connection point* will be *disconnected* on and from the date specified and, taking into consideration any relevant guidelines and procedures specified by the relevant *participating jurisdiction* to *AEMO*, that *disconnection* is not inappropriate.
- (d1) AEMO may reject a notice from a Market Small Generation Aggregator which states that it wishes to terminate its classification of a small generating unit as a market generating unit, or otherwise cease to be a Market Small Generation Aggregator in relation to any of its market generating units, unless AEMO is satisfied that:
  - (1) another person has classified the *small generating unit* as one of its *market generating units* and that person is registered as a *Small Generation Aggregator* and a *Market Small Generation Aggregator*;
  - (2) the relevant *Local Retailer* has agreed or is otherwise required by laws of the relevant *participating jurisdiction* to assume responsibility for payments with *AEMO* for electricity *supplied* to the *connection points* of the *market generating units*; or
  - (3) the *small generating unit* at that *connection point* will be *disconnected* on and from the date specified in the notice, and, after having regard to

any relevant guidelines and procedures specified by the relevant *participating jurisdictions* to *AEMO*, *disconnection* is appropriate.

- (e) Upon receiving a notice which complies with clause 2.10.1 from a person who wishes to cease to be registered in any category of *Market Participant*, or to terminate the classification of any of its *market loads*, *market generating units*, or *market network services*, *AEMO* must deliver a notice to the *AER* and the *AEMC* and notify all *Registered Participants* stating that:
  - (1) *AEMO* has received a notice under clause 2.10.1(a); and
  - (2) the person who gave the notice has stated that, from the date specified in the notice, the person intends to cease *supplying* or acquiring electricity or trading directly in the *market* and whether entirely or in relation to certain *connection points* or *market network services*.
- (f) If a *Market Customer* that is a *retailer* gives a notice under this clause, *AEMO* must, before deciding whether to reject the notice under paragraph (d), consult with the *AER*.

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## **CHAPTER 3**

#### RELEVANT EXTRACTS OF CHAPTER 3 SHOWING PROPOSED CHANGES TO PROVIDE FOR ADDITIONAL REPORTING BY GENERATORS ON FORECAST PHYSICAL PLANT CAPABILITY.

# 3. Market Rules

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## 3.7 **Projected Assessment of System Adequacy**

## 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.
- (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 <u>having regard to, in respect of</u> <u>scheduled generating units:</u>
      - (A) <u>any notified cessation of registration of the relevant</u> <u>Scheduled Generator under clause 2.10.1; and</u>
      - (B) the expected closure year of the generating unit;
    - (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;

- (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 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:
    - the 10% probability of exceedence daily *peak load*, most probable daily *peak load* and 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) **[Deleted]**
  - (3) forecast *network constraints* known to *AEMO* at the time;
  - (4) an unconstrained intermittent generation forecast for each semischeduled 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*:
  - (1) *PASA availability* of each *scheduled generating unit, scheduled load* or *scheduled network service* for each *day* in the period covered by the *medium term PASA* 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 (g));
  - (2) weekly *energy constraints* applying to each *scheduled generating unit* or *scheduled load*; and
  - (3) in the case of *Scheduled Generators*, the *expected closure year* of that *scheduled generating unit* (if that year has changed since it was notified under clause 2.10.1 or last notified to *AEMO* under this subparagraph (3)).

#### Note

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

(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 clause is classified as a 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) [Deleted]
  - (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) aggregate *generating unit PASA availability* for each *region*;
  - (5A) aggregate capacity for each *region*, after allowing for the impact of *network constraints*, 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*, after allowing for the impact of *network constraints*, that cannot be *generated* continuously at the *PASA availability* of the *scheduled generating units* in the *region* due to specified weekly *energy constraints*; 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) *AEMO* must publish the procedure it uses for preparation of the *medium term PASA*.

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## 3.7B Unconstrained intermittent generation forecast

- (a) *AEMO* must prepare a forecast of the *available capacity* of each *semi-scheduled generating unit* (to be known as an *unconstrained intermittent generation forecast*) in accordance with this rule 3.7B for the purposes of:
  - (1) the projected assessment of system adequacy process;
  - (2) *dispatch*; and
  - (3) pre-dispatch.
- (b) A *Semi-Scheduled Generator* must:
  - (1)submit to AEMO, in accordance with the *timetable*: (A) plant the availability for each semi-scheduled generating unit for the purpose of paragraph (a) as soon as the Semi-Scheduled Generator becomes aware that the *plant availability* of the unit is at least 6MW below or above the *nameplate rating* of the unit; and (B) the *expected closure year* of a semi-scheduled generating unit (if that year has changed since it was notified under clause 2.10.1 or last notified to AEMO under this subparagraph (B)); and (2) where the Semi-Scheduled Generator has submitted *plant availability* in accordance with subparagraph (1)(A), notify AEMO in accordance with the timetable as soon as the Semi-Scheduled Generator becomes aware of any changes to the plant availability of that semi-scheduled generating unit until such time as the *plant availability* of that *semi-scheduled generating unit* is no longer at least 6MW below or above the *nameplate rating* of the unit.

#### Note

This rule is classified as a civil penalty provision under the National Electricity (South Australia) Regulations.

- (c) When preparing an *unconstrained intermittent generation forecast* for the purposes referred to in paragraph (a), *AEMO* must take into account:
  - (1) the maximum generation of the semi-scheduled generating unit provided by the Semi-Scheduled Generator as part of its bid and offer validation data;
    - (2) the *plant availability* of the *semi-scheduled generating unit* submitted by the *Semi-Scheduled Generator* under paragraph (b) having regard to:

- (A) <u>any notified cessation of registration of the relevant</u> <u>Scheduled Generator under clause 2.10.1; and</u>
- (B) the expected closure year of the generating unit;
- (3) the information obtained for the *semi-scheduled generating unit* from the *remote monitoring equipment* specified in clause S5.2.6.1;
- (4) the forecasts of the energy available for input into the electrical power conversion process for each *semi-scheduled generating unit*;
- (5) the energy conversion model for each semi-scheduled generating unit;
- (6) the assumption that there are no *network constraints* otherwise affecting the *generation* from that *semi-scheduled generating unit*; and
- (7) the timeframes of:
  - (i) pre-dispatch;
  - (ii) dispatch,
  - (iii) medium term PASA; and
  - (iv) short term PASA.
- (d) *NEMMCO* must prepare the first *unconstrained intermittent generation* forecast for each semi-scheduled generating unit by 31 March 2009 and there must be an *unconstrained intermittent generation forecast* for each semi-scheduled generating unit available at all times after that date.

## 3.7C Energy Adequacy Assessment Projection

#### Purpose of EAAP

(a) The purpose of the *energy adequacy assessment projection* (or *EAAP*) is to make available to *Market Participants* and other interested persons an analysis that quantifies the impact of *energy constraints* on *energy* availability over a 24 month period under a range of scenarios.

## EAAP principles

- (b) The *EAAP* must:
  - (1) cover a 24 month period; ;
  - (2) be *published* at least once in every 12 month period and more frequently if required under paragraph (d);
  - (3) provide a probabilistic assessment of projected *energy* availability for each *region*;
  - (4) provide projected *unserved energy* levels for each *region* with a monthly resolution;
  - (5) provide aggregated information on the adequacy of *energy* availability for each scenario that *AEMO* defines for the purposes of the *EAAP* or which *AEMO* is directed by the *Reliability Panel*, to study as part of the *EAAP*, based on information received from *Registered Participants* and on anticipated *power system* constraints;

- (6) take into account:
  - (A) where relevant, the information and *medium term PASA* inputs referred to in clauses 3.7.1 and 3.7.2;
  - (B) where relevant, the matters *AEMO* considers in, and for the purposes of, preparing the *NTNDP*;
  - (C) *Generator Energy Limitation Frameworks* provided in accordance with paragraph (g), including *GELFs* that apply to more than one *scheduled generating unit* under clause 3.7C(k)(6) where those *GELFs* adequately represent the relevant *generating units*; and
  - (D) *GELF parameters* for each *GELF* which are provided in accordance with the *EAAP guidelines* and are updated in accordance with the *timetable*.
- (c) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP*.

## Administration of EAAP

- (d) *AEMO* must *publish* the *EAAP* and *GELF* provided to *AEMO* for the purposes of preparing the *EAAP*:
  - (1) at least once in every 12 month period in accordance with the *timetable*; and
  - (2) as soon as practicable after becoming aware of any new information that may materially alter the most recently published *EAAP*.
- (e) For the purposes of preparing the *EAAP*, a *Scheduled Generator* must provide *AEMO* with the following information in accordance with the *timetable*:
  - (1) updated *GELF parameters* for each *GELF* provided by it in accordance with paragraph (g); and
  - (2) other information that supplements the data provided under subparagraph (1) that is reasonably required by *AEMO* to study the scenarios defined in the *EAAP guidelines*.
- (f) In considering whether information referred to in subparagraph (e)(2) is reasonably required, *AEMO* must have regard to the likely costs that may be incurred by the *Scheduled Generator* in preparing and providing that information compared to the likely benefits from the use of that information for the purposes of the *EAAP*.

## Generator Energy Limitation Framework

(g) A Scheduled Generator must prepare and submit to AEMO, in accordance with the EAAP guidelines and for the purposes of the EAAP, a description of the energy constraints that affect the ability of each of its scheduled generating units to generate electricity (GELF or Generator Energy Limitation Framework). The GELF must be in a form that adequately represents that generating unit sufficient for AEMO to include the GELF in the EAAP.

- (h) A *GELF* submitted under paragraph (g) must be supplemented by *GELF* parameters for that *GELF* as defined in the *EAAP* guidelines, and those parameters must be updated:
  - (1) at least every 12 months in accordance with the *timetable*; and
  - (2) in accordance with the *EAAP guidelines*, if *AEMO* is required to *publish* an *EAAP* under paragraph (d)(2).
- (i) Without limiting paragraph (h), if a *Scheduled Generator* has submitted a *GELF* under paragraph (g) and there has been a material *change* to any of its *scheduled generating units* which has an impact on the *energy constraints* associated with that *GELF*, the *Scheduled Generator* must revise and resubmit the *GELF* in accordance with that paragraph.

## EAAP guidelines

- (k) AEMO must develop and publish guidelines (the EAAP guidelines) that:
  - (1) define scenarios that *AEMO* must study in preparing the *EAAP* and specify any scenarios that the *Reliability Panel* has identified for study for the purposes of preparing the *EAAP*;
  - (2) define modelling assumptions for the *EAAP*;
  - (3) define the components of a *GELF* that a *Scheduled Generator* must include in a *GELF* submitted under paragraph (g);
  - (4) provide detail on the forms of the *GELF* sufficient for a *Scheduled Generator* to meet the requirements of paragraph (g);
  - (5) define variable parameters specific to a *GELF* (*GELF parameters*) that are likely to have a material impact on the *GELF* and therefore the *EAAP*, and which may include, but are not limited to, parameters in relation to:
    - (i) hydro storage including pump storage;
    - (ii) thermal generation fuel;
    - (iii) cooling water availability; and
    - (iv) gas supply limitations;
  - (6) define circumstances where a *GELF* submitted under paragraph (g) can apply to a collection of *scheduled generating units* that face common *energy constraints* due to their geographic location, access to fuel source or another similar reason;
  - (7) define the form of information to be submitted by each *Scheduled Generator* in accordance with paragraph (e);
  - (8) define arrangements for managing the confidentiality of information submitted to *AEMO* under this rule 3.7C; and
  - (9) specify when a *Scheduled Generator* is required to update a *GELF* under paragraph (h)(2).

- (1) The scenarios that are defined for the purposes of subparagraph (k)(1) may include, but are not limited to:
  - (1) water conditions such as normal rainfall and drought;
  - (2) material restrictions on the supply of a significant fuel source;
  - (3) other limits on a fuel source for a major form of generation; and
  - (4) any other scenario that *AEMO* reasonably considers will have a material impact on the *EAAP*.
- (m) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP guidelines*.
- (n) AEMO must comply with the EAAP guidelines in preparing the EAAP.
- (o) *AEMO* must develop and *publish* the *EAAP guidelines* in accordance with the *Rules consultation procedures*.
- (p) **[Deleted]**
- (q) *AEMO* may from time to time in accordance with the *Rules consultation procedures* amend or replace the *EAAP guidelines*.

## **Provision of information to Scheduled Generators**

(r) *AEMO* must provide to each *Scheduled Generator*, based on the relevant *GELF*, an estimate of the total *energy* production of the *scheduled generating units* of that *Scheduled Generator* for the period of the *EAAP*.

## Review

(s) **[Deleted]**.

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## 3.13.2 Systems and procedures

- (a) Information must be provided to *AEMO* and by *AEMO* on the *electronic communication system* unless:
  - (1) the *electronic communication system* is partially or wholly unavailable, then information will, to the extent of that unavailability, be provided to *AEMO* and by *AEMO* by means of the backup procedures specified by *AEMO* from time to time; or
  - (2) otherwise approved by *AEMO*.
- (b) Information must be provided by using the templates supplied in the *electronic communication system* unless otherwise approved by *AEMO*.
- (c) Where approved by *AEMO*, information may be transmitted to and from *AEMO* and the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* concerned in any agreed format.
- (d) If possible, information provided to *AEMO* must be *time stamped* by *AEMO* on receipt by *AEMO* of the information by the *electronic communication system* and, if stamped, is deemed to be provided at the time indicated by the *time stamp*.

- (e) Information that is *published* by *AEMO* is deemed to be *published* when the information is placed on the *market information bulletin board*.
- (f) The market information bulletin board must be accessible by Scheduled Generators, Semi-Scheduled Generators and Market Participants via the electronic communication system subject to applicable security requirements.
- (g) Information *published* or notified to a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must be capable of being reviewed by that *Generator* or *Market Participant* and be capable of being downloaded from the *market information bulletin board* to the relevant *Generator* or *Market Participant* via the *electronic communication system*.
- (h) A Scheduled Generator, Semi-Scheduled Generator or Market Participant must notify AEMO of, and AEMO must publish, any changes to submitted information within the times prescribed in the *timetable*.

#### Note

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

- (i) AEMO must make a copy of all *changes* to the data available to *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* for verification and resubmission by the relevant *Generator* or *Market Participant* as necessary.
- (j) All revisions must be provided on the *electronic communication system* and in the same format as the original information.
- (k) A Scheduled Generator, Semi-Scheduled Generator or Market Participant may withhold information from AEMO which must otherwise be provided under the *Rules* if:
  - (1) the information is of a confidential or commercially-sensitive nature and is not information of a kind that, in the reasonable opinion of the *AEMC*, is fundamental to the efficient operation of the *market*; or
  - (2) disclosure of the information would have the likely effect of causing detriment to the person required to provide it unless, in the reasonable opinion of the *AEMC*, the public benefit resulting from the provision of the information outweighs that detriment.
- (1) Nothing in paragraph (k) allows a Scheduled Generator, Semi-Scheduled Generator or Market Participant to avoid providing information to AEMO under the Rules where that information is generally available or to avoid providing AEMO with three years' notice of its intention to cease registration or terminate the classification of any scheduled generating unit or semi-scheduled generating unit under clause 2.10.1.

## 3.13.3 Standing data

(a) *AEMO* must establish, maintain, update and *publish*:

- (1) a list of all of the Scheduled Generators, Semi-Scheduled Generators and Market Participants and a list of all applications to become a Scheduled Generator, Semi-Scheduled Generator or Market Participant, including bid and offer validation data;
- (2) a list of all of the Scheduled Generators, Semi-Scheduled Generators and Market Participants who will cease to be Scheduled Generators, Semi-Scheduled Generators or Market Participants and the time that each listed Scheduled Generator, Semi-Scheduled Generator or Market Participant will cease to be a Scheduled Generator, Semi-Scheduled Generator or Market Participant;
- (2A) a list of the *expected closure years* for all *scheduled generating units* or <u>semi-scheduled generating units</u> notified under clause 2.10.1, clause 3.7.2(d)(3) or clause 3.7B(b)(1)(B);
- (3) a list of all of the Scheduled Generators, Semi-Scheduled Generators and Market Participants who are or are going to be suspended and the time at which each listed Scheduled Generator, Semi-Scheduled Generator or Market Participant was suspended or will be suspended.

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#### Statement of opportunities

- (q) By 31 August in each year, *AEMO* must prepare and *publish* at a reasonable charge to cover the cost of production, a *statement of opportunities*, including at least the following information for the subsequent 10 year period:
  - (1) projections of aggregate MW demand and *energy* requirements for each *region*;
  - (2) generating capabilities of existing *generating units* and *generating units* for which formal commitments have been made for construction or installation;
  - (3) planned *plant* retirements;
  - (3A) any scheduled generating units and semi-scheduled generating units that have an expected closure year in the subsequent 10 year period;
  - (3B) any *generating units* for which *Generators* have provided notice of cessation of registration or termination of classification under rule 2.10;
  - (4) a summary of *network capabilities* and *constraints* based upon *Transmission Annual Planning Reports*; and
  - (5) operational and economic information about the *market* to assist planning by:
    - (i) Scheduled Generators, Semi-Scheduled Generators and Market Participants; and
    - (ii) potential *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants*.
- (r) If after the publication of the most recent *statement of opportunities*, significant new information becomes available to *AEMO* relating to:

- (1) projections of aggregate MW demand and *energy* requirements for each *region*; or
- (2) generating capabilities of existing *generating units* and *generating units* for which formal commitments have been made for construction or installation; or
- (3) planned *plant* retirements,

AEMO must, as soon as practicable, *publish* that information in a descriptive form that is consistent with the *statement of opportunities*.

- (s) *AEMO* may by written notice request a *jurisdictional planning body* to provide *AEMO* with information that *AEMO* requires for the preparation of a *statement of opportunities* and the *jurisdictional planning body* must comply with that notice.
- (t) As soon as practicable after a *Scheduled Generator*, *Semi-Scheduled Generator Market Participant* or *Network Service Provider* becomes aware of any information required for *publication* by *AEMO* under paragraph (q), that information must be provided to *AEMO* by that *Scheduled Generator*, *Market Participant* or *Network Service Provider*.

#### Note

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

- (u) By 1 November each year, *AEMO* must prepare and provide a report to the *Reliability Panel* on:
  - (1) the accuracy of the demand forecasts to date in the most recent *statement of opportunities*; and
  - (2) any improvements made by *AEMO* or other relevant parties to the forecasting process that will apply to the next *statement of opportunities*.
- (v) The *Reliability Panel* must *publish* each report provided to it under paragraph (u) within ten *business days* after being provided with that report.
- (w) In relation to the *declared transmission system* of an *adoptive jurisdiction*:
  - (1) AEMO must maintain the register referred to in paragraph (d); and
  - (2) a *declared transmission system operator* must provide *AEMO* with information reasonably required by *AEMO* for maintaining the register and keeping it up to date.
- (x) A *jurisdictional planning body* must provide assistance *AEMO* reasonably requests in connection with the preparation of a report under paragraph (u).

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