

10 October 2014

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By email

Dear Mr Pierce

**Submission on National Electricity Amendment (Generator ramp rates and dispatch inflexibility in bidding) Rule 2014**

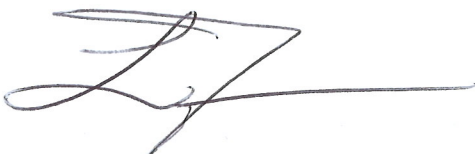
AEMO appreciates the opportunity to submit comments on the National Electricity Amendment (Generator ramp rates and dispatch inflexibility in bidding) Rule 2014 Draft Determination.

Both the AER proposal and the draft rule would increase minimum ramp rates registered in the market, which would be expected to improve levels of security and reduce the volume of ramp rate withdrawal for commercial reasons compared to the current arrangements.

AEMO confirms it would expect to be able to manage power system security under the draft rule. However, under conditions identified in the submission there is a higher chance under the draft compared to the AER's proposal that AEMO would need to direct to achieve its obligations.

Should you have any questions or wish to discuss this submission further, please contact Brian Nelson on (02) 9239 9132 or [brian.nelson@aemo.com.au](mailto:brian.nelson@aemo.com.au).

Yours sincerely



Louis Tirpcou  
**Acting Chief Operating Officer**

**Attachments:**

1. AEMO Submission in response to AEMC Draft Determination: National Electricity Amendment (Generator ramp rates and dispatch inflexibility in bidding) Rule 2014

## **AEMO Submission in response to AEMC Draft Determination: National Electricity Amendment (Generator ramp rates and dispatch inflexibility in bidding) Rule 2014**

### 1. Introduction

AEMO understands this Rule change proposal is attempting to address two core issues<sup>1</sup> with the current Rules:

- Problems associated with disorderly bidding.
- Technical versus commercial parameters.

Although the draft determination deals with power system security at length, AEMO considers this to be relevant only to the extent that the proposed rule does not adversely impact AEMO's ability to manage power system security. Security can be delivered through market mechanisms or through AEMO's powers of direction. A differentiating factor between the AER's proposal and the draft rule is the extent to which the two options rely on powers of direction and how this best achieves the national electricity objective.

### 2. Impact of AEMC Preferable Draft Rule

#### 2.1. NEM-wide Impact

An expected outcome of the proposed rule is an overall increase in the minimum level of ramping registered by Scheduled Generators. To this extent, AEMO confirms that it will not inhibit AEMO's ability to manage power system security without directions.

#### 2.2. South Australia

The proposed rule has the potential to reduce the available ramp rate capability in South Australia in some specific circumstances. In these circumstances, AEMO is more likely to need to direct under the proposed rule compared to both the current rules and the AER's proposal. These are:

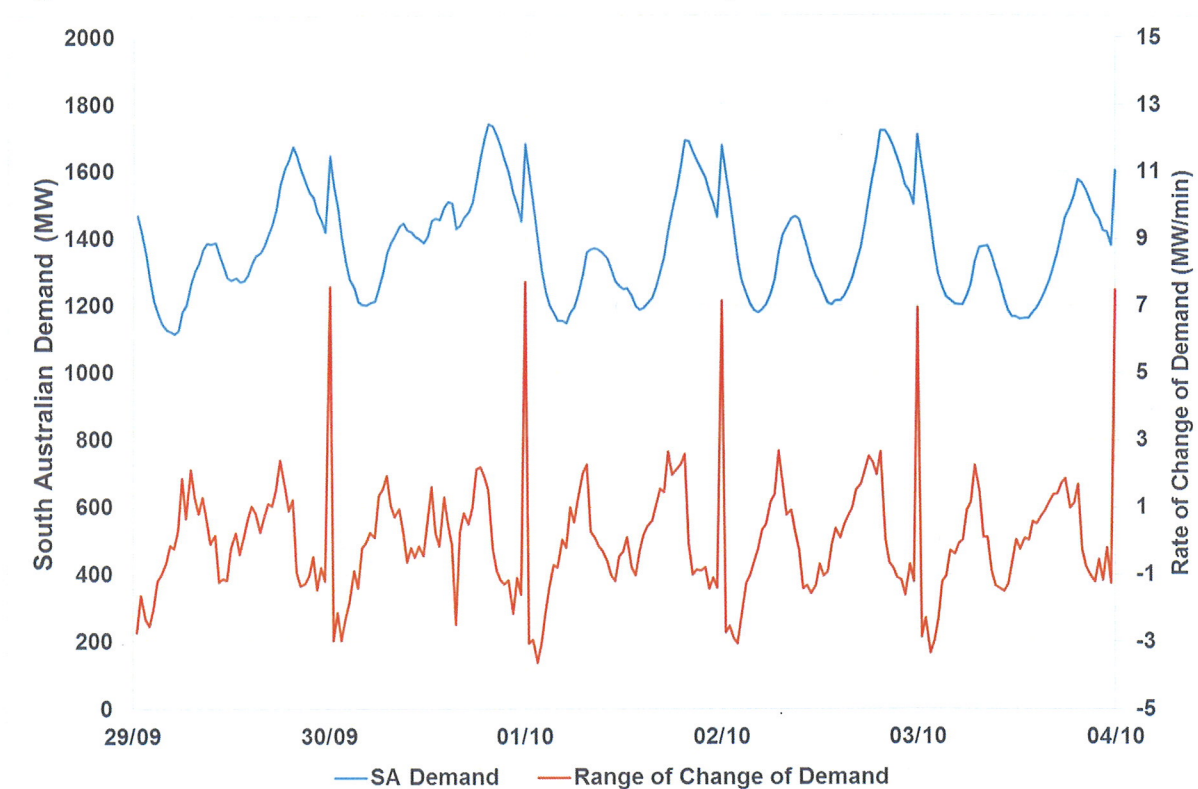
- At times of high wind generation where a reduced amount of synchronous generation is in service, exposing South Australia to disruption of supply if the Heywood interconnector were to trip. Note that wind generation is generally unable to increase output to match demand requirements.
- Hot water switching at approximately 23:30 hrs each day, causing the interconnection from Victoria and available thermal plant to be operated for longer periods at their capacities.

Figure 1 shows the impact of the hot water pickup during mild weather conditions (week ending 4 October 2014) on the South Australia demand and the required ramp rate to maintain power system security within South Australia alone.

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<sup>1</sup> Australian Energy Regulator. *Request for Rule Change – Requirement for ramp rates and dispatch inflexibility profiles to reflect technical capabilities*. Section 5 Statement of Issues.

**Figure 1 – South Australia Hot Water Demand Pickup**



AEMO has not attempted to quantify the impact of the draft rule on the market's ability to deliver a secure power system. However, the draft rule would reduce the available ramping capability under these conditions to a greater extent than the originally proposed rule.

### 3. Impact of High Ramp Rates on Prices

To avoid any misconceptions, higher ramp rates may have some unexpected outcomes for participants wishing to maximise the value of their generation. This is because high ramp rates have the effect of smoothing out price volatility – suppressing the size of both high and low price events. This can have a perverse outcome on both investment and operating decisions because ramping is not explicitly valued in calculating the NEM spot price.

There are market mechanisms available for valuing ramp rates, such as providing for ramp rate price offers and market ancillary services. AEMO would be available to assist with any investigation into the costs and benefits of any such mechanisms.

### 4. Aggregated Units

Ramp rates for units aggregated under clause 3.8.3 of the Rules will need to be offered below the minimum requirements of the draft Rule when there are a small number of the aggregated generating units actually in service. AEMO holds data on the number of units in service and the maximum capacities of individual units that are aggregated. This information could be made available to the AER if it requires.



## 5. Implementation

AEMO's implementation of the current requirements permits participants to offer ramp rates below the minimum specified in the Rules when:

- The ramp rate offered is greater than or equal to the ramp rate capacity in Schedule 3.1. This applies to generating units with an exemption from the AER to meet the minimum rule requirements. AEMO anticipates that this would continue under the draft rule.
- The participant has provided a reason as part of its bid or offer. The content of the reason is a matter for the participant and would be subject to review by the AER.

If the draft Rule is progressed, AEMO would need to modify software to change the bid validation calculation to be based on 1% of maximum capacity rather than the current 3%/3MW/min rule. AEMO targets to implement this as part of the Market Management System (MMS) release and requests the commencement date allow for the software changes to be made.