



**Australian Energy Market Commission**

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## **DRAFT DETERMINATION**

# National Electricity Amendment (Bid and Offer Validation Data) Rule 2009

### **Rule Proponent**

AEMO

### **Commissioners**

Tamblyn  
Ryan  
Woodward

10 September 2009

### **JOHN TAMBLYN**

Chairman

For and on behalf of the Australian Energy Market Commission

**RULE  
CHANGE**

## **Inquiries**

The Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

**E:** [aemc@aemc.gov.au](mailto:aemc@aemc.gov.au)

**T:** (02) 8296 7800

**F:** (02) 8296 7899

## **Citation**

AEMC 2009, *Bid and Offer Validation Data*, Draft Rule Determination, 10 September 2009, Sydney

## **About the AEMC**

The Council of Australian Governments, through its Ministerial Council on Energy, established the Australian Energy Market Commission (AEMC) in July 2005 to be the Rule maker for national energy markets. The AEMC is currently responsible for Rules and policy advice covering the National Electricity Market and elements of natural gas markets. It is a statutory authority. Our key responsibilities are to consider Rule change proposals, conduct energy market reviews and provide policy advice to the Ministerial Council as requested, or on AEMC initiative.

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# Contents

<b>Abbreviations</b> .....	<b>iv</b>
<b>Summary</b> .....	<b>v</b>
1 The AEMO Rule Change Proposal.....	1
1.1 Summary of the Rule Change Proposal .....	1
1.2 Context and Background .....	3
1.3 Consultation .....	5
2 Draft Rule Determination .....	7
2.1 The Commission's power to make the Rule .....	7
2.2 Relevant MCE statements of policy principles.....	7
2.3 The AEMO Rule change proposal and proposed Rule .....	8
2.4 Stakeholder Consultation.....	8
2.5 Differences between Proposed Rule and Draft Rule .....	8
2.6 The Commission's test of the national electricity objective .....	8
A Commission's analysis of the Proposed Rule .....	11

## Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australia Energy Market Operator
AER	Australian Energy Regulator
Commission	see AEMC
FCAS	Frequency Control Ancillary Services
MCE	Ministerial Council on Energy
NEL	National Electricity Law
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company Limited (now AEMO)
NEO	National Electricity Objective
NER	See Rules
Rules	National Electricity Rules

## Summary

On 29 April 2009, NEMMCO (now the Australian Energy Market Operator (AEMO)<sup>1</sup>) submitted a Rule change proposal seeking to address inconsistencies between schedule 3.1 of the National Electricity Rules (Rules) and AEMO's current operating practice.

AEMO contended that these inconsistencies have arisen because schedule 3.1 has not previously been reviewed to reflect changes made to the National Electricity Market's (NEM) dispatch and pricing processes which have evolved since market start.

AEMO's Rule change proposal proposed the following amendments:

- delete those data requirements under schedule 3.1 of the Rules that AEMO asserted are no longer required;
- add a requirement under schedule 3.1 for Market Ancillary Service providers to provide Market Ancillary Service validation data (consistent with the requirement for energy);
- replace the term "registered bid and offer data" (used to describe the data under schedule 3.1) with "bid and offer validation data" to better reflect its meaning; and
- require Market Participants to give AEMO at least six weeks notice for any changes required to existing schedule 3.1 data.

The Australian Energy Market Commission (Commission) published the Rule change proposal in accordance with section 95 of the National Electricity Law (NEL) on 11 June 2009. Submissions on this Rule change proposal closed on 10 July 2009. The Commission received submissions from the National Generators Forum (NGF) and TransGrid, both of which generally supported the Rule change proposal. The NGF also recommended a number of improvements to the proposed Rule which were mostly adopted by the Commission in the draft Rule.

The Commission is satisfied that the draft Rule will or is likely to contribute to the achievement of the national electricity objective (NEO) by aligning the Rules with current dispatch processes which the Commission understands have been generally accepted by industry. The Commission considers that this would clarify the requirements under schedule 3.1, and reduce the uncertainty and inefficiency created by unnecessary requirements. This would promote the long term interests of consumers of electricity with respect to price, reliability and security.

The Commission has adopted the general intent of AEMO's Rule change proposal. The Commission has made a number of changes to the drafting of AEMO's proposed

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<sup>1</sup> AEMO was established on 1 July 2009, and assumed the functions of NEMMCO.

Rule to further streamline the presentation of schedule 3.1, and to incorporate improvements proposed by the NGF.

Following this, the Commission has decided to make a draft Rule under section 99 of the NEL. In coming to this decision, the Commission has considered the Commission's powers under the NEL to make the Rule; relevant MCE statements of policy principles; AEMO's Rule change proposal; stakeholder consultation; and an analysis of the ways in which the draft Rule will or is likely to contribute to the achievement of the NEO so that it satisfies the statutory Rule making test.

In accordance with section 101 of the NEL, any interested person or body may request the Commission hold a pre-final Rule determination hearing in relation to the draft Rule determination. Any request must be received no later than 17 September 2009.

Submissions on the draft Rule determination must be received by the Commission by 23 October 2009. Submissions may be lodged online at [www.aemc.gov.au](http://www.aemc.gov.au). Submissions should be submitted, where practicable, in accordance with the Commission's Guidelines for making written submissions on Rule change proposals. The Commission publishes all submissions on its website subject to a claim of confidentiality.

All enquiries on this project should be addressed to Scott Wallace on (02) 8296 7800.

# 1 The AEMO Rule Change Proposal

On 29 April 2009, NEMMCO (now the Australian Energy Market Operator (AEMO)<sup>1</sup>) submitted a Rule change proposal seeking to address inconsistencies between schedule 3.1 of the National Electricity Rules (Rules) and AEMO's current operating practice.

## 1.1 Summary of the Rule Change Proposal

AEMO's Rule change proposal proposed specific amendments to address the following issues:

1. much of the data required under schedule 3.1 of the Rules is now redundant because the information is either not used by AEMO, is already provided through alternative procedures or is implicit in the bid and offer data;
2. Market Ancillary Service validation data is not currently required under schedule 3.1 despite the fact that Market Ancillary Service providers submit offers to supply Market Ancillary Services in the same way that energy is bid and offered into the energy market;
3. the term "registered bid and offer data" does not reflect the data provided under schedule 3.1; and
4. the Rules do not provide clear guidance in relation to notice requirements for amendments to schedule 3.1 data.

AEMO contended that these issues have arisen because schedule 3.1 has not previously been reviewed to reflect changes made to the National Electricity Market's (NEM) dispatch and pricing systems which have evolved since market start.

These issues are discussed further below.

### 1.1.1 Redundant data

AEMO proposed that the majority of data requirements under schedule 3.1 be modified or deleted.<sup>2</sup> It considered that:<sup>3</sup>

- the majority of information is "already provided through alternative procedures or is implicit in the bid and offer data"; and
- the proposed change would "seek to realign the data requirements of schedule 3.1 to ensure the obligations on AEMO, Scheduled Generators, Semi-Scheduled

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<sup>1</sup> AEMO was established on 1 July 2009, and assumed the functions of NEMMCO.

<sup>2</sup> AEMO, *Rule Change Proposal – Bid and Offer Validation Data*, 29 April 2009, p.3.

<sup>3</sup> Ibid, p.3.

Generators and Market Participants are consistent with the current market dispatch and pricing process”.

### **1.1.2 Market Ancillary Service validation data**

AEMO submitted that schedule 3.1 be amended to require Market Ancillary Service providers to provide Market Ancillary Service validation data as it considered that:<sup>4</sup>

- this would “ensure AEMO receives technical limit capabilities of generating units or scheduled loads providing ancillary services”;
- “this information is necessary to measure the significance or impact that a FCAS<sup>5</sup> provider can have on the market”;
- “this information is also used by AEMO to ensure that the actual capability of a generating unit is not unnecessarily restricted and capability based participant fees are allocated fairly and transparently”;
- “FCAS providers currently give this data to AEMO in the form of the FCAS trapezium values for each service”;
- this “formalises the requirement for the provision of this information”; and
- this “would create a more appropriate schedule of technical standing data relating to the size and capability of scheduled and semi-scheduled plant which can be regularly updated independently of the registration process”.

### **1.1.3 Renaming registered bid and offer data**

AEMO proposed that the term “registered bid and offer data” be replaced with “bid and offer validation data”.<sup>6</sup> It considered that this “term better reflects the meaning given in schedule 3.1(a) which indicates that schedule 3.1 data is only to be used for verification and compilation (i.e. validation) of dispatch bids and offers in the trading day schedule”.<sup>7</sup>

### **1.1.4 Six weeks’ notice for changes to schedule 3.1 data**

AEMO noted that schedule 3.1(d) of “the Rules allow changes to existing schedule 3.1 data at any time, and these may be subject to audit at AEMO’s request”.<sup>8</sup> It considered that:<sup>9</sup>

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<sup>4</sup> Ibid, p.4.

<sup>5</sup> Note that AEMO uses the term FCAS in place of Market Ancillary Service which is the Rules defined term. Both terms refer to the same concept.

<sup>6</sup> AEMO, *Rule Change Proposal – Bid and Offer Validation Data*, 29 April 2009, p.4.

<sup>7</sup> Ibid, p.4.

<sup>8</sup> Ibid, p.4.

- “In practice, changes to existing schedule 3.1 data are not made at any time because AEMO needs to assess and make the changes”;
- “it is important to make the notice requirements for amendments to schedule 3.1 data consistent with those for new facilities (i.e. six week’s notice) rather than leave it unspecified in the Rules”;
- “the Rules should specify that acceptance of a change to existing schedule 3.1 data is subject to AEMO verifying that any proposed changes are consistent with the registered performance standards for the plant”;
- “Six weeks has been proposed to allow AEMO time to verify that any notified changes to schedule 3.1 data are consistent with other information held by AEMO and allow for implementation of relevant system changes”;
- “This would also allow enough time to resolve any issues with a participant before operating to the new limit”.

## 1.2 Context and Background

### 1.2.1 Existing requirements under the Rules

#### 1.2.1.1 Schedule 3.1 on registered bid and offer data

Registered bid and offer data is defined under Chapter 10 of the Rules as:

Data submitted by *Scheduled Generators, Semi-Scheduled Generators and Market Participants* to AEMO in relation to their *scheduled loads, scheduled generating units, semi-scheduled generating units* and *scheduled market network services* in accordance with schedule 3.1.

It is also defined under schedule 3.1(a):

The *registered bid and offer data* are the standard data requirements for verification and compilation of *dispatch bids* and *dispatch offers* on the *trading day* schedule.

Other requirements under schedule 3.1 include:

- Scheduled Generators, Semi-Scheduled Generators and Market Participants must notify AEMO of their registered bid and offer data in accordance with this schedule 3.1 in respect of each of their scheduled loads, semi-scheduled generating units and scheduled generating units at least six weeks prior to commencing participation in the market;<sup>10</sup>

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<sup>9</sup> Ibid, Pp.4-5.

<sup>10</sup> Schedule 3.1(b) of the Rules.

- Scheduled Generators, Semi-Scheduled Generators and Market Participants must review their registered bid and offer data annually in accordance with the timetable advised by AEMO and provide details of any changes to AEMO;<sup>11</sup>
- Registered bid and offer data may be updated by a Scheduled Generator, Semi-Scheduled Generator or Market Participant at any time but may be subject to audit at AEMO's request;<sup>12</sup>
- A copy of all changes to the data must be returned to each Scheduled Generator, Semi-Scheduled Generator and Market Participant for verification and resubmission by the Scheduled Generator, Semi-Scheduled Generator or Market Participant as necessary;<sup>13</sup> and
- Registered bid and offer data may include tolerance levels.<sup>14</sup>

AEMO considered in its Rule change proposal that the "definition of registered bid and offer data can be interpreted as covering a wide range of data. The current data requirements of schedule 3.1 include information required in support of:

- registration;
- dispatch, pre-dispatch and pricing of energy and frequency control ancillary services (FCAS) markets; and
- identification of performance capabilities of the generating facility.

The majority of the required data is managed by AEMO procedures that have been established to meet the relevant business requirements."<sup>15</sup>

#### **1.2.1.2 Clause 3.13.3 on standing data**

Relevant to schedule 3.1, the following requirements under clause 3.13.3 of the Rules apply as follows:

- AEMO must establish, maintain, update and publish 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 the Scheduled Generator, Semi-Scheduled Generator and Market Participant information as set out in schedule 3.1;<sup>16</sup>
- All Scheduled Generators, Semi-Scheduled Generators and Market Participants must provide AEMO with the registered bid and offer data relevant to their

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<sup>11</sup> Schedule 3.1(c) of the Rules.

<sup>12</sup> Schedule 3.1(d) of the Rules.

<sup>13</sup> Schedule 3.1(e) of the Rules.

<sup>14</sup> Schedule 3.1(f) of the Rules.

<sup>15</sup> AEMO, *Rule Change Proposal – Bid and Offer Validation Data*, 29 April 2009, p.2.

<sup>16</sup> See clause 3.13.3(a)(1) of the Rules.

scheduled loads, scheduled network services and generating units in accordance with schedule 3.1;<sup>17</sup> and

- AEMO must conduct an annual review of Scheduled Generator, Semi-Scheduled Generator and Market Participant registered bid and offer data in consultation with Scheduled Generators, Semi-Scheduled Generators and Market Participants and Scheduled Generators, Semi-Scheduled Generators and Market Participants must advise AEMO of any required changes to the data.<sup>18</sup>

### 1.2.2 AEMO's review of schedule 3.1

AEMO stated in its Rule change proposal "that schedule 3.1 [of the Rules] has not been reviewed since the schedule was included in the National Electricity Code (which became the Rules), although market processes and procedures have continued to evolve".<sup>19</sup> It submitted that "the information requirements predate the detailed development of the current dispatch and pricing systems in 1998/99".<sup>20</sup>

AEMO reviewed schedule 3.1 in consultation with the Dispatch Pricing Reference Group (DPRG<sup>21</sup>).<sup>22</sup> In its review, AEMO found that, broadly, "schedule 3.1 does not reflect the current business requirements of the national electricity market (NEM) dispatch and pricing processes".<sup>23</sup> In particular, the "majority of schedule 3.1 data is inconsistent with the current information required for the verification and compilation of dispatch bids and dispatch offers".<sup>24</sup> AEMO "recommended the removal of unnecessary data requirements and the inclusion of more useful data elements" under schedule 3.1.<sup>25</sup>

AEMO noted that the DPRG "have agreed in principle to the proposed changes" and "since then, AEMO has developed the proposal further".<sup>26</sup>

## 1.3 Consultation

In accordance with section 101 of the NEL, any interested person or body may request the Commission hold a pre-final Rule determination hearing in relation to

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<sup>17</sup> See clause 3.13.3(b) of the Rules.

<sup>18</sup> See clause 3.13.3(j) of the Rules.

<sup>19</sup> AEMO, *Rule Change Proposal – Bid and Offer Validation Data*, 29 April 2009, p.3.

<sup>20</sup> *Ibid*, p.3.

<sup>21</sup> The DPRG is a reference group which AEMO uses as a point of contact with participants when developing proposals to address current and ad-hoc issues relating to bidding, dispatch, pricing and PASA. The DPRG was established and is convened by AEMO, and its membership consists of broad industry representation. The DPRG is an advisory group to AEMO, and has no decision making authority.

<sup>22</sup> AEMO, *Rule Change Proposal – Bid and Offer Validation Data*, 29 April 2009, p.3.

<sup>23</sup> *Ibid*, p.3.

<sup>24</sup> *Ibid*, p.3.

<sup>25</sup> *Ibid*, p.3.

<sup>26</sup> *Ibid*, p.6.

the draft Rule determination. Any request must be received no later than 17 September 2009.

Submissions on the draft Rule determination must be received by the Commission by 23 October 2009. Submissions may be lodged online at [www.aemc.gov.au](http://www.aemc.gov.au). Submissions should be submitted, where practicable, in accordance with the Commission's Guidelines for making written submissions on Rule change proposals. The Commission publishes all submissions on its website subject to a claim of confidentiality.

All enquiries on this project should be addressed to Scott Wallace on (02) 8296 7800.

## **2 Draft Rule Determination**

The Commission has determined to make a draft Rule in accordance with section 99 of the National Electricity Law (NEL) based on AEMO's proposed Rule.

This draft Rule determination sets out the Commission's reasons for making the draft Rule. The Commission has taken into account:

1. the Commission's powers under the NEL to make the Rule;
2. relevant MCE statements of policy principles;
3. AEMO's Rule change proposal and proposed Rule;
4. stakeholder consultation; and
5. the Commission's analysis on the ways in which the draft Rule will or is likely to contribute to the achievement of the national electricity objective (NEO) so that it satisfies the statutory Rule making test.

### **2.1 The Commission's power to make the Rule**

The subject matters about which the AEMC may make Rules are set out in Section 34 of the NEL and more specifically in Schedule 1 to the NEL.

The Rule proposal falls within the subject matters that the AEMC may make Rules about as it relates to regulating:

- (i) the operation of the NEM (as it relates to the data requirements for the dispatch and pricing systems operated by AEMO);
- (ii) the operation of the national electricity system for the purposes of the safety, security and reliability of that system (as it relates to the verification of data used for the dispatch of plant connected to the national electricity system); and
- (iii) the activities of persons participating in the NEM (as it relates to obligations on participants to supply information to AEMO).

The Commission is satisfied that the Rule proposal is a subject matter about which the Commission may make a Rule.

### **2.2 Relevant MCE statements of policy principles**

The NEL requires the Commission to have regard to any relevant MCE statement of policy principles in applying the Rule making test. The Commission notes that currently there is no relevant MCE statement of policy principles that relate to the issues contained in the Rule proposal.

### **2.3 The AEMO Rule change proposal and proposed Rule**

AEMO's Rule change proposal is outlined in Section 1. The Commission's detailed analysis of each element of the Rule change proposal is contained in Appendix A.

### **2.4 Stakeholder Consultation**

On 11 June 2009, the Commission published a notice under section 95 of the NEL of its intention to commence the Rule change process and the initial consultation on this Rule change proposal. A Consultation Paper was also published on 11 June 2009 to provide guidance to stakeholders in responding to first round consultation.

The Rule change proposal was open for public consultation for four weeks. Submissions on the Rule change proposal closed on 10 July 2009. Submissions were received from the National Generators Forum (NGF) and TransGrid. Both submissions broadly supported the Rule change proposal. The NGF also recommended a number of improvements to the Rule change proposal which the Commission supported (see the Commission's analysis in Appendix A).

No public hearing has been held on this Rule change proposal.

### **2.5 Differences between Proposed Rule and Draft Rule**

The Commission has made a number of minor improvements to the drafting of AEMO's proposed Rule. These improvements largely streamline the presentation of the data requirements in schedule 3.1, and do not affect the intent of AEMO's Rule change proposal. The Commission has also adopted some of improvements recommended by the NGF in its first round submission.

Differences between the proposed Rule and the draft Rule are explained in more detail in Appendix A.

### **2.6 The Commission's test of the national electricity objective**

The NEO is the basis of assessment under the Rule making test and is set out in section 7 of the NEL:

"The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system."

The Rule making test states:

"(1) The AEMC may only make a Rule if it is satisfied that the Rule will or is likely to contribute to the achievement of the national electricity objective;

(2) For the purposes of subsection (1), the AEMC may give such weight to any aspect of the national electricity objective as it considers appropriate in all

circumstances having regard to any relevant MCE statement of policy principles”.<sup>27</sup>

Under section 91A of the NEL, the Commission is also able to make a “more preferable Rule”, if the Commission is satisfied that, having regard to the issue or issues raised by the proposed Rule, the more preferable Rule will or is likely to better contribute to the achievement of the NEO.

The Commission has applied the Rule making test to the draft Rule, and is satisfied that the draft Rule will or is likely to contribute to the achievement of the NEO.

The NEM’s dispatch and pricing systems have evolved since market start, but the requirements under schedule 3.1 have not been updated to reflect these systems changes. The draft Rule would re-align the requirements under schedule 3.1 with those of current practice (which the Commission understands have been generally accepted by industry). In doing this, data requirements that are no longer required have been deleted, new data requirements to support the current market systems have been added, and the description of current data requirements have been improved to clarify the requirement.

The Commission considers that the draft Rule will or is likely to contribute to the achievement of the NEO by meeting the long term interests of consumers of electricity in respect of:

**Price** – Aligning the requirements of schedule 3.1 with current operating practice clarifies the data requirements under schedule 3.1, and reduces the uncertainty and inefficiency created by needless requirements. This reduces the regulatory burden and thus costs for Market Participants participating in the NEM. This would allow Market Participants to bid and offer more competitively resulting in more efficient prices. Providing AEMO with the data to maintain the integrity of the dispatch and pricing process (through the effective validation of bids and offers) would promote efficient dispatch and pricing outcomes, and would give Market Participants and potential investors confidence in NEM dispatch and pricing outcomes. This would provide Market Participant greater confidence to bid and offer at competitive levels, and would reduce regulatory risk (and thus cost) for potential investors.

**Reliability** – Clarifying schedule 3.1 requirements would reduce uncertainty for potential investors. Creating a more certain investment environment in the NEM would encourage more investment in the NEM which would have a positive impact on NEM reliability.

**Security** – The integrity of dispatch relies on the validation of bids and offers submitted by Market Participants. Errors in bids and offers submitted to the dispatch and pricing process could lead to NEM security events when the physical performance of NEM plant does not align with what the NEM dispatch engine believes the item of plant is capable of achieving. Effective validation of dispatch bids and offers would reduce the likelihood of such events. In addition, some of the

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<sup>27</sup> Section 88 of the NEL.

schedule 3.1 data requirements are ambiguous and could be misinterpreted. Clarifying these requirements will help to ensure the correct data is provided by Market Participants.

Appendix A presents the Commission's detailed reasoning on each element of the draft Rule.

## A Commission's analysis of the Proposed Rule

In this appendix, the Commission addresses a number of issues that have been raised during the public consultation or that have emerged during its analysis.

This section details the Commission's analysis and reasons underlying its draft Rule in relation to each of the issues identified above.

The tables below outlines the data requirements under schedule 3.1 of the existing Rules, the equivalent data requirements under the draft Rule, and the Commission's reasons for any changes.

1. The table titled "Scheduled Generating Unit Data" in schedule 3.1 has been modified as outlined below. Reasons for modifying the data items in the "Scheduled Generating Unit Data" table are outlined below.

### Scheduled Generating Unit Data:

Existing Rules	Draft Rule		Reason for Change
Data	Data	Units of Measurement	
<i>Power station information:</i>	<i>Power station information:</i>		
node number/identifier	<i>power station name</i>		<i>AEMO's Proposal</i> AEMO proposed replacing "node number/identifier" with " <i>power station name</i> ".  <i>Submissions</i>

		<p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO dispatches plant on a unit basis, not a power station basis. Hence, AEMO does not use identifiers for power stations in the dispatch and pricing processes.</p> <p>In place of a numerical label for this data block, AEMO has proposed using the power station name which is more meaningful and easily understood.</p> <p>For these reasons the Commission agrees with this proposed amendment.</p>
		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed a new data item "Dispatchable unit identifier (DUID) for stations with a single generating unit of a single aggregated scheduled generating unit."</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>The Commission considered this new data item to</p>

			<p>be unnecessary because stations with a single generating unit of a single aggregated scheduled generating unit are able to enter data for their unit in the “Scheduled generating unit information” section of the table below, in same way as stations with multiple units provide data.</p> <p>Hence, the Commission disagrees with AEMO’s proposal to add this new data item.</p>
total station registered capacity	[Deleted]		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed replacing “total station registered capacity” with “Maximum generation of the station or single aggregated scheduled generating unit”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>AEMO dispatches plant on a unit basis, not a power station basis. As such a data item for total power station capacity is not required for the validation of dispatch offers. For other AEMO processes that require total power station capacity, this can be obtained by summing the maximum generation for each individual generating unit.</p> <p>For these reasons the Commission disagrees with</p>

			AEMO's proposed amendment, and has deleted the data item "total station registered capacity".
total station <i>sent out generation</i> at registered capacity	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the data item "total station <i>sent out generation</i> at registered capacity".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data.<sup>28</sup></p> <p>As such, the Commission agrees with AEMO's proposal to delete this data item.</p>
daily <i>energy constraint</i> , if applicable	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the data item "daily <i>energy constraint</i>, if applicable".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this</p>

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<sup>28</sup> AEMO, *Rule Change Proposal – Bid and Offer Validation Data*, 29 April 2009, p. 15

		<p>proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data.<sup>29</sup> Longer term energy constraint information is provided through the Energy Adequacy Assessment Projection.</p> <p>As such, the Commission agrees with AEMO's proposal to delete this data item.</p>
		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed adding the data item "Maximum ramp rate of the station or single aggregated scheduled generating unit".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>The Commission considered this new data item to be unnecessary because stations with a single generating unit of a single aggregated scheduled generating unit are able to enter the maximum</p>

<sup>29</sup> Ibid. p. 15

			<p>ramp rate for their unit in the “Scheduled generating unit information” section of the table below, in same way as stations with multiple units provide data.</p> <p>Hence, the Commission disagrees with AEMO’s proposal to add this new data item.</p>
<b>Generating unit information:</b>	<p><b>Scheduled generating unit information:</b></p> <p><i>Note:</i> Repeat the following items for each <i>scheduled generating unit</i> where there are two or more <i>scheduled generating units</i> in the <i>power station</i>.</p>		<p><i>The Commission’s Analysis and Decision</i></p> <p>The Commission has added this note for clarification purposes.</p>
	<p><i>scheduled generating unit name</i></p> <p><i>Note:</i> This may be the same name as the <i>power station</i> name when the <i>power station</i> has only one single or aggregated <i>scheduled generating unit</i>.</p>		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed adding “<i>Scheduled generating unit name (or physical generating unit names forming an aggregated scheduled generating unit)</i>”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>A group of physical units that are aggregated to form an aggregated scheduled generating unit are</p>

			<p>dispatched as that single scheduled generating unit. Information on individual physical units is not required for the purposes of dispatch and pricing.</p> <p>As such the Commission has not added the requirement for physical generating unit names.</p> <p>The Commission has added a note for clarification purposes.</p>
	<i>dispatchable unit identifier</i>		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed adding the data item "Dispatchable unit identifier".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>This new data item provides a unique identifier and aligns with the reference label for generating unit used in AEMO's Market Management Systems.</p> <p>Hence the Commission agrees with AEMO's proposal to add this data item.</p>
<i>full load (generated and sent out)</i>	<i>maximum generation of the</i>	<i>MW</i>	<i>AEMO's Proposal</i>

	<p><i>scheduled generating unit, to which the scheduled generating unit may be dispatched</i></p>	<p>(generated)</p>	<p>AEMO proposed replacing “full load (<i>generated and sent out</i>)” with “maximum generation of the <i>scheduled generating unit</i>”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>The current data item is not well defined, and could be interpreted as representing registered capacity or nameplate rating. The data requirement for the dispatch process is the maximum generation to which the unit may be dispatched. This may not be the same as the total registered capacity or the nameplate rating. The 'sent out' value is not relevant to dispatch offer validation. The new data item better defines the required information.</p> <p>Hence the Commission agrees with AEMO’s proposed amendment, and has added “to which the <i>scheduled generating unit</i> may be dispatched” for further clarification.</p>
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<p>normal or technical minimum load (generated and sent out)</p>	<p>[Deleted]</p>	<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the data item "normal or technical minimum load (generated and sent out)".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data. AEMO explained that "Minimum load as generated is indicated implicitly through negatively priced dispatch offers. Sent out value is independently nominated for the generator frequency control performance standard under clause S5.2.5.11 and is not required for dispatch bid and offer validation."<sup>30</sup></p> <p>As such, the Commission agrees with AEMO's proposal to delete this data item.</p>
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<sup>30</sup> Ibid, p. 15

<p>additional emergency generation above registered capacity</p>	<p>[Deleted]</p>		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the data item "additional emergency generation above registered capacity".</p> <p><i>Submissions</i></p> <p>TransGrid, in its first round submission<sup>31</sup>, stated that " this removes a risk that generators may operate in an overloaded capacity where the consequences to the national electricity system have not been adequately assessed".</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data. AEMO explained that "emergency capacity is included in the proposed maximum generation data requirement above. If that change is made, then this data requirement is redundant."<sup>32</sup></p> <p>The Commission agrees with AEMO's proposed amendment.</p>
<p><i>maximum ramp rate</i></p>	<p><i>maximum ramp rate of the scheduled generating unit</i></p>	<p>MW/minute</p>	<p><i>AEMO's Proposal</i></p> <p>AEMO proposed replacing the data item</p>

<sup>31</sup> TransGrid, *Rule Change – Bid and Offer Validation Data (ERC0091)*, 10 July 2009, p.1

<sup>32</sup> AEMO, *Rule Change Proposal – Bid and Offer Validation Data*, 29 April 2009, p.16

			<p><i>“maximum ramp rate” with “maximum ramp rate of the scheduled generating unit”.</i></p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>This amendment clarifies the data item.</p> <p>The Commission agrees with this amendment.</p>
response time to full <i>load</i> from cold standby	[Deleted]		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed deleting the data item “response time to full <i>load</i> from cold standby”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data. AEMO explained that “for fast start units, this is conveyed in the dispatch inflexibility profile submitted in the daily offer. Slow start units self-commit and this information is conveyed and updated through the daily capacity offer. This information is not related</p>

			<p>or applicable to the verification of dispatch bids and offers.”<sup>33</sup></p> <p>The Commission agrees with AEMO’s proposal to delete this data item.</p>
aggregation data	[Deleted]		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed deleting the data item “aggregation data”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data. AEMO explained that “Aggregation is managed by listing all units comprising an aggregated unit within the schedule 3.1 tables.”<sup>34</sup></p> <p>The Commission agrees with AEMO’s proposal to delete this data item.</p>

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<sup>33</sup> Ibid, p.16

<sup>34</sup> Ibid, p.16

capability chart	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the data item "capability chart".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data. AEMO explained that capability charts are "treated as confidential information except where it is shared with relevant Transmission Network Service Providers for purposes of power system analysis and investigation. Therefore, this information cannot be published, and it is not suitable for validation of offers." <sup>35</sup></p> <p>The Commission agrees with AEMO's proposal to delete this data item.</p>
notice to <i>synchronise</i>	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the data item "notice to <i>synchronise</i>".</p>

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<sup>35</sup> Ibid, p. 16

			<p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data. AEMO explained that "Generators routinely provide this through their availability offers. For fast start units, the time from commitment to synchronising is implicit in the dispatch inflexibility profile and the Generator must advise if this target cannot be met. For self committing units, clause 4.9.6(a)(1) requires the Generator to advise NEMMCO at least one hour prior to synchronising and update five minutes prior to synchronising." <sup>36</sup></p> <p>The Commission agrees with AEMO's proposal to delete this data item.</p>
minimum shutdown time	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the data item "minimum shutdown time".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this</p>

<sup>36</sup> Ibid, p. 16

			<p>proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data. AEMO explained that "this information is implicit in the dispatch inflexibility profile of fast start units and the availability offer of slow start units." <sup>37</sup></p> <p>The Commission agrees with AEMO's proposal to delete this data item.</p>
maximum shutdowns per day	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the data item "maximum shutdowns per day".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and offer data. AEMO explained that "this information is implicit in the availability offer and often depends on the circumstances of previous shutdowns such as</p>

<sup>37</sup> Ibid, p. 17

			<p>notice provided, period off-line, and period on-line before shutdown.”<sup>38</sup></p> <p>The Commission agrees with AEMO’s proposal to delete this data item.</p>
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2. The table titled “ Semi-Scheduled Generating Unit Data” in schedule 3.1 has been modified as outlined below. Reasons for modifying data items in the “Semi-Scheduled Generating Unit Data” table are outlined below.

**Semi-Scheduled Generating Unit Data:**

Existing Rules	Draft Rule		Reason for Change
Data	Data	Units of Measurement	
<i>Power station information:</i>	<i>Power station information:</i>		
node number/identifier	<i>power station name</i>		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed replacing “node number/identifier” with “<i>power station name</i>”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address</p>

<sup>38</sup> Ibid, p. 17

		<p>this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with this proposed amendment.</p>
		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed a new data item "Dispatchable unit identifier (DUID) for stations with a single generating unit of a single aggregated scheduled generating unit."</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission disagrees with AEMO's proposal to add this new data item.</p>
total registered capacity	[Deleted]	<p><i>AEMO's Proposal</i></p>

		<p>AEMO proposed replacing “total registered capacity” with “Maximum generation of the semi-scheduled generating unit”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission disagrees with AEMO’s proposed amendment, and has deleted the data item “total registered capacity”.</p>
		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed adding the data item “Maximum ramp rate of the station or single aggregated semi-scheduled generating unit”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p>

			<p>The Commission considered this new data item to be unnecessary because stations with a single generating unit of a single aggregated scheduled generating unit are able to enter the maximum ramp rate for their unit in the “Scheduled generating unit information” section of the table below, in same way as stations with multiple units provide data.</p> <p>Hence, the Commission disagrees with AEMO’s proposal to add this new data item.</p>
<b>Generating unit information</b>	<p><b><i>Semi-scheduled generating unit information:</i></b></p> <p><b>Note:</b></p> <p>Repeat the following items for each <i>semi-scheduled generating unit</i> where there are two or more <i>semi-scheduled generating units</i> in the <i>power station</i>.</p>		<p><i>The Commission’s Analysis and Decision</i></p> <p>The Commission has added this note for clarification purposes.</p>
	<p><i>semi-scheduled generating unit name</i></p> <p><i>Note:</i> This may be the same name as the <i>power station</i> name when the <i>power station</i> has only one <i>semi-</i></p>		<p><i>The Commission’s Analysis and Decision</i></p> <p>The Commission has added this note for clarification purposes.</p>

	<i>scheduled generating unit.</i>		
	<i>dispatchable unit identifier</i>		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed adding the data item "Dispatchable Unit Identifier (DUID) by which the semi-scheduled generating unit is dispatched".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO's proposal to add this data item. The Commission has added a chapter 10 definition for <i>Dispatchable Unit Identifier</i> and as such has not included the second part of AEMO's proposed text for this data item.</p>
capacity	maximum generation of the semi-scheduled generating unit, to which the semi-scheduled generating unit may be dispatched.	MW (generated)	<p><i>AEMO's Proposal</i></p> <p>AEMO proposed replacing "capacity" with "Maximum generation of the semi-scheduled generating unit".</p>

			<p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO's proposal to modify this data item.</p>
<i>maximum ramp rate</i>	<i>maximum ramp rate of the semi-scheduled generating unit</i>	MW/minute	<p><i>AEMO's Proposal</i></p> <p>AEMO proposed replacing "maximum ramp rate" with "maximum ramp rate of the semi-scheduled generating unit".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO's proposal to modify this data item.</p>

aggregation data	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the term "aggregation data".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO's proposal to delete this data item.</p>
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3. The table titled “ Scheduled Load Data” in schedule 3.1 has been modified as outlined below. Reasons for modifying “Scheduled Load Data” items in this table are outlined below. Note that this table has been modified to a consistent format as the generator tables, so that a single load installation can consist of multiple *scheduled loads*.

**Scheduled Load Data**

Existing Rules	Draft Rule		Reason for Change
Data	Data	Units of Measurement	
	<b><i>Load installation Information</i></b>		<p><i>The Commission’s Analysis and Decision</i></p> <p>This heading has been added to be consistent with the tables for generators.</p>
node number/identifier	<i>Load installation name</i>		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed replacing “node number/identifier” with “<i>Load installation name</i>”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with this proposed</p>

			amendment.
<i>normally on or normally off</i>	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting the data item "normally on or normally off".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>AEMO does not use this data item in the validation of dispatch and bid data. AEMO explained that this information is already provided in daily bids.<sup>39</sup> For these reasons the Commission agrees with AEMO's proposal to delete this data item.</p>
	<p><b><i>Scheduled load information:</i></b></p> <p><b><i>Note:</i></b></p> <p>Repeat the following items for</p>		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed adding "<i>Scheduled load information (for each scheduled load where there are two or more scheduled loads)</i>".</p>

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<sup>39</sup> Ibid, p. 17

	<p>each scheduled load where there are two or more scheduled loads.</p>		<p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>This label and note has been added for clarification purposes. The Commission agrees with AEMO's proposal to add this label and note.</p>
	<p><i>scheduled load name</i></p> <p><i>Note: This may be the same name as the load installation name when the load installation has only one scheduled load.</i></p>		<p><i>The Commission's Analysis and Decision</i></p> <p>The Commission has added this note for clarification purposes.</p>
	<p><i>dispatchable unit identifier</i></p>		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed adding the data item "Dispatchable Unit Identifier (DUID)".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled</p>

			generating unit data table (above), the Commission agrees with AEMO's proposal to add this data item.
<i>maximum load</i>	Maximum <i>load</i> of the <i>scheduled load</i> , to which the <i>scheduled load</i> may be dispatched.	MW	<p><i>AEMO's Proposal</i></p> <p>AEMO proposed replacing "maximum load" with "Maximum <i>load</i> of the <i>semi-scheduled generating unit</i>".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO's proposal to modify this data item.</p>
<i>daily energy constraint, if applicable</i>	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting this data item.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p>

			For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO's proposal to delete this data item.
<i>maximum ramp rate</i>	<i>maximum ramp rate of the scheduled load</i>	MW/minute	<p><i>AEMO's Proposal</i></p> <p>AEMO proposed replacing "<i>maximum ramp rate</i>" with "<i>maximum ramp rate of the scheduled load</i>".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO's proposed change.</p>
<i>aggregation data</i>	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting this data item.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address</p>

			<p>this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO's proposal to delete this data item.</p>
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4. The table titled “ Scheduled Network Service Data” in schedule 3.1 has been modified as outlined below. Reasons for modifying data items in this table are outlined below.

**Scheduled Network Service Data**

Existing Rules	Draft Rule		Reason for Change
Data	Data	Units of Measurement	
	Installation/link name		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed adding the data item “Installation/link name”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>This new data item provides a meaningful and easily understood identifier to the data block. The Commission agrees with AEMO’s proposal to add this data item.</p>
	<i>dispatchable unit identifier</i>		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed adding the data item “Dispatchable Unit Identifier (DUID)”.</p>

			<p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO's proposal to add this data item.</p>
node number/identifier for connection points A and B	connection point identifiers for terminal nodes A and B		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed replacing "node number/identifier for connection points A and B" with "connection point identifiers for terminal nodes A and B".</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>The Commission agrees with AEMO's proposed change to the description of this data item because it provides greater clarity.</p>

<p>registered <i>power transfer capability</i> to node 1 (may be seasonal etc)</p>	<p>Maximum <i>power transfer capability</i> to node A</p>	<p>MW</p>	<p><i>AEMO's Proposal</i></p> <p>AEMO proposed replacing “registered <i>power transfer capability</i> to node 1 (may be seasonal etc)” with “Maximum <i>power transfer capability</i> to node A”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>The current data item is not consistent with the power transfer capability measurement used in the dispatch process. AEMO explained that the data requirement for the dispatch process is the maximum power transfer capability to which the link may be dispatched.<sup>40</sup> This may not be the same as the registered power transfer capability. The new data item better defines the required information.<sup>41</sup></p> <p>As such, the Commission agrees with AEMO's proposed change to this data</p>
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<sup>40</sup> Ibid. p.18

<sup>41</sup> Ibid. p.18

			item.
registered <i>power transfer capability</i> to node 2 (may be seasonal etc)	Maximum <i>power transfer capability</i> to node B	MW	See reasons for the data item above.
additional transient <i>power transfer capability</i> in each direction	[Deleted]		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting this data item .</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>This data item is no longer required for the validation of dispatch bid and offer data. AEMO explained that transient power transfer capability is now included in the new data item above "Maximum power transfer capability".<sup>42</sup></p> <p>As such, the Commission agrees with AEMO's proposal to delete this data item.</p>

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<sup>42</sup> Ibid. p. 18

<p><i>maximum ramp rates for transfer (if applicable)</i></p>	<p><i>maximum ramp rate of power transfer capability of the installation</i></p>	<p>MW/minute</p>	<p><i>AEMO's Proposal</i></p> <p>AEMO proposed replacing “<i>maximum ramp rates for transfer (if applicable)</i>” with “<i>maximum ramp rate of power transfer capability of the installation</i>”.</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>The Commission agrees with AEMO's proposed change because it adds clarity to this data item.</p>
<p>loss vs. flow as piecewise linear relationships for each direction which, taken together, are convex over the entire range of <i>power transfer capabilities</i> in both directions</p>	<p>[Deleted]</p>		<p><i>AEMO's Proposal</i></p> <p>AEMO proposed deleting this data item .</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission's Analysis and Decision</i></p> <p>This data item is not longer required for the validation of dispatch bid and offer data. AEMO explained that the “Relationship is determined from detailed technical data provided by the</p>

			<p>Network Service Provider. The relationship is published by NEMMCO annually as an interconnector loss factor equation.”<sup>43</sup></p> <p>As such, the Commission agrees with AEMO’s proposal to delete this data item.</p>
aggregation data	[Deleted]		<p><i>AEMO’s Proposal</i></p> <p>AEMO proposed deleting this data item .</p> <p><i>Submissions</i></p> <p>Submissions did not specifically address this proposed amendment.</p> <p><i>The Commission’s Analysis and Decision</i></p> <p>For the reasons outlined for the equivalent data item in the scheduled generating unit data table (above), the Commission agrees with AEMO’s proposal to delete this data item.</p>

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<sup>43</sup> Ibid, p. 18

5. *AEMO's Proposal*

AEMO proposed deleting the table titled "Dispatch Inflexibility Profile" in schedule 3.1.

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission's Analysis and Decision*

AEMO does not use this data item in the validation of dispatch bid and offer data. AEMO explained that "all of these items are covered specifically in the dispatch inflexibility profile submitted and published with daily bids and offers."<sup>44</sup> As such, the Commission agrees with AEMO's proposal to delete this table.

6. *AEMO's Proposal*

AEMO proposed deleting the heading "Aggregation Data" in schedule 3.1 and the two paragraphs below this heading.

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission's Analysis and Decision*

AEMO does not use this data in the validation of dispatch bid and offer data. Aggregated units submit bids and offers and receive dispatch instructions for the aggregated unit as a whole, not for the individual physical units that the aggregated unit is comprised of. AEMO explained that this information is "not required since details about individual generating units that comprise an aggregated

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<sup>44</sup> Ibid. p. 19

scheduled generating unit are not part of bid and offer validation data.”<sup>45</sup> As such, the Commission agrees with AEMO’s proposal to delete this heading and these paragraphs.

7. *AEMO’s Proposal*

AEMO proposed adding a new table “Ancillary Service Generating Unit and Ancillary Service Load Data” (see below) to schedule 3.1 after the table titled "Scheduled Network Service Data".

**Ancillary Service Generating Unit and Ancillary Service Load Data:**

Data	Units of Measurement
<b><i>Power station/Load installation information:</i></b>	
<i>power station/load installation name</i>	
<b><i>Ancillary service generating unit and ancillary service load information:</i></b>	
<b><i>Note:</i></b>	
<b><i>Repeat the following items for each Dispatchable Unit Identifier where there are two or more of them in the power station/installation.</i></b>	
<i>Unit/load name</i>	
<i>dispatchable unit identifier</i>	
<i>market ancillary service*</i>	
<i>maximum market ancillary service capacity*</i>	MW

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<sup>45</sup> Ibid. p. 19

<i>minimum enablement level*</i>	MW
<i>maximum enablement level*</i>	MW
<i>maximum lower angle*</i>	Degrees
<i>maximum upper angle*</i>	Degrees
<p>Note:</p> <p><i>For those items marked with an asterisk, repeat the block of data for each market ancillary service offered.</i></p>	

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission’s Analysis and Decision*

AEMO explained that “this information is necessary to measure the significance or impact that a FCAS<sup>46</sup> provider can have on the market. This information is also used by AEMO to ensure that the actual capability of a generating unit is not unnecessarily restricted and capability based participant fees are allocated fairly and transparently.”<sup>47</sup> FCAS providers currently provide this information to AEMO in their offers (in the form of FCAS trapezium values). AEMO explained that the data in this table would be “used to validate the FCAS offers such that dispatch time offers cannot exceed the limits determined by these validation trapeziums”.<sup>48</sup> For these reasons the Commission agrees with AEMO’s proposal to add this new table to schedule 3.1.

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<sup>46</sup> Note that AEMO uses the term FCAS in place of the Rule defined term “market ancillary service”. Both these terms refer to the same concept.

<sup>47</sup> Ibid p. 4

<sup>48</sup> Ibid. p. 4

## 8. AEMO's Proposal

AEMO proposed replacing the term “*registered bid and offer data*” with “*bid and offer validation data*” in the following places .

- (a) rule 3.7B(c)(1), clauses 3.8.1(b)(7), 3.8.1(b)(10), 3.8.8(d), 3.12A.1(b)(1), 3.12A.1(b)(6), 3.13.3(b), 3.13.3(h), 3.13.3(j), and 3.13.3(k)(1);
- (b) the heading of schedule 3.1; and
- (c) clauses S3.1(a), S3.1(b), S3.1(c)

### *Submissions*

The NGF disagreed with AEMO's proposal to replace the words “*registered bid and offer data*” in clause 3.8.1(b)(7) with “*bid and offer validation data*”.

The NGF in its submission<sup>49</sup> explained that “this provision is incorrect as it stands; registered bid and offer data is not used as a basis for constraints on dispatch, nor should it be. It is in fact dispatch bid and offer data which forms the basis of such constraints. The registered bid and offer data is used solely to determine whether or not a particular dispatch bid or offer is accepted for inclusion in dispatch, and does not play any part in the formation of constraints.” The NGF stated that it would be more correct to replace the words “*registered bid and offer data*” in clause 3.8.1(b)(7) with “*dispatch bid and offer data*”.

The NGF also disagreed with AEMO's proposal to replace the words “*registered bid and offer data*” in clause 3.8.1(b)(10) with “*bid and offer validation data*”.

The NGF in its submission<sup>50</sup> explained that “this provision is incorrect as it stands; registered bid and offer data could not be used for this purpose, as the term “*tied*” refers to price, and the registered bid and offer data does not include prices. Again the correct reference here is

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<sup>49</sup> National Generators Forum, *National Generators Forum submission in relation to ERC0091*, 10 July 2009, p.2

<sup>50</sup> National Generators Forum, *National Generators Forum submission in relation to ERC0091*, 10 July 2009, p.2

to “dispatch bid and offer data”, as this is where the relevant prices appear.” The NGF stated that it would be more correct to replace the words “registered bid and offer data” in clause 3.8.1(b)(7) with “dispatch bid and offer data”.

Submissions address no other aspects of this amendment.

#### *The Commission’s Analysis and Decision*

AEMO submitted that the term “*bid and offer validation data*” “better reflects the meaning given in schedule 3.1(a) which indicates that schedule 3.1 data is only to be used for verification and compilation (i.e. validation) of dispatch bids and offers in the trading day schedule.<sup>51</sup> The Commission agrees with AEMO’s reasoning, and considers that the proposed amendments provide further clarity to the Rules. The Commission also agrees with the corrections recommended by the NGF as schedule 3.1 data should not be used for constraint formulation or arrangements for managing tied prices.

As such, the Commission agrees with AEMO’s proposal to replace the term “*registered bid and offer data*” with “*bid and offer validation data*” in the above listed clauses, except for clauses 3.8.1(b)(7) and 3.8.1(b)(10) where the term “*registered bid and offer data*” should be replaced with the term “dispatch bid and offer data”.

#### 9. *AEMO’s Proposal*

AEMO proposed deleting schedule 3.1(d) and replacing with “(d) A *Scheduled Generator, Semi-Scheduled Generator or Market Participant* must notify *NEMMCO* of any proposed change to its *bid and offer validation data* at least six weeks prior to the date of the proposed change. The proposed change may be subject to audit at *NEMMCO*’s request and must be consistent with *NEMMCO*’s register of *performance standards* for the relevant *plant*.”

#### *Submissions*

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<sup>51</sup> AEMO, *Rule Change Proposal – Bid and Offer Validation Data*, 29 April 2009, p.4

The NGF in its submission<sup>52</sup>, explained that the Rules provide provisions for bid and offer validation data in both clause 3.13.3(h) and schedule 3.1(d)<sup>53</sup>. The NGF stated that “ the NEMMCO proposal includes re-drafting of schedule 3.1(d) with the result that it conflicts with 3.13.3(h). The conflict involves both different timing requirements (6 weeks compared with 4 weeks) and also in the proposed new clause failing to recognise the difference between planned and unplanned changes.”<sup>54</sup> The NGF also contended that AEMO provided no justification for this change in timing requirement.<sup>55</sup>

TransGrid, in its submission, stated that the change to schedule 3.1(d) to include the phrase “... must be consistent with NEMMCO’s register of performance standards for the relevant plant” will enhance the alignment between the market systems, AEMO’s registered performance standards and therefore the connection agreements between network service providers and generators. This will increase the assurance that the market systems direct the market within its technical envelope.”<sup>56</sup>

#### *The Commission’s Analysis and Decision*

In its Rule proposal, AEMO stated “NEMMCO considers that it is important to make the notice requirements for amendments to schedule 3.1 data consistent with those for new facilities (i.e. six week’s notice) rather than leave it unspecified in the Rules. Additionally, NEMMCO considers that the Rules should specify that acceptance of a change to existing schedule 3.1 data is subject to NEMMCO verifying that any proposed changes are consistent with the registered performance standards for the plant. Six weeks has been proposed to allow NEMMCO time to verify any notified changes to schedule 3.1 data are consistent with other information held by NEMMCO and allow for implementation of relevant system changes. This would also allow enough time to resolve any issues with a participant before operating to the new limit.”<sup>57</sup>

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<sup>52</sup> National Generators Forum, *National Generators Forum submission in relation to ERC0091*, 10 July 2009, p.1

<sup>53</sup> *Ibid*, p.1

<sup>54</sup> *Ibid*, p.1

<sup>55</sup> *Ibid*, p.1

<sup>56</sup> TransGrid, *Rule Change – Bid and Offer Validation Data (ERC0091)*, 10 July 2009, p.1

<sup>57</sup> AEMO, *Rule Change Proposal – Bid and Offer Validation Data*, 29 April 2009, p.5

The Commission considers that AEMO requires six weeks notice to verify changes to schedule 3.1 data and make the required system changes. The Commission understands that AEMO's change management processes take 15 business days, which would leave AEMO just five days to assess and verify any proposed changes (should AEMO only be given 1 month notice as proposed by the NGF). The Commission considers that 5 days would not always be sufficient to assess and verify any proposed changes to schedule 3.1 data.

As such the Commission agrees with AEMO's proposal to amend schedule 3.1(d) to provide for a six week notification period. The Commission also agrees with the inconsistency identified by the NGF. To address this inconsistency, the Commission has linked clause 3.1(d) to 3.13.3(h), and modified clause 3.13.3(h) to provide 6 weeks notification in place of the current 1 month requirement.

#### 10. *AEMO Proposal*

AEMO proposed to delete schedule 3.1(f).

##### *Submissions*

Submissions did not specifically address this proposed amendment.

##### *The Commission's Analysis and Decision*

Tolerance levels are not relevant to any of the data items in the new tables in Schedule 3.1, as all of them will be entered into AEMO's Market Management Systems as absolutes with no tolerances accepted. For this reason the Commission agrees with AEMO's proposal to delete schedule 3.1(f).

#### 11. *AEMO Proposal*

AEMO proposed replacing the words "total registered capacity" in clause 3.7B(c)(1) with the words "maximum generation of the semi-scheduled generating unit".

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission's Analysis and Decision*

This change is consistent with changes made to the "Semi-Scheduled Generating Unit Data" table in schedule 3.1. As such, the Commission agrees with this change.

12. *AEMO Proposal*

AEMO proposed replacing the words "registered full load (MW generated)" in clause 3.8.3A(b)(1)(ii)(A), with the words "maximum generation".

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission's Analysis and Decision*

This change is consistent with changes made to the "Scheduled Generating Unit Data" table in schedule 3.1. As such, the Commission agrees with this change.

13. *AEMO Proposal*

AEMO proposed replacing the words "registered capacity" in clause 3.8.3A(b)(1)(ii)(B), with the words "maximum generation".

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission's Analysis and Decision*

This change is consistent with changes made to the "Semi-Scheduled Generating Unit Data" table in schedule 3.1. As such, the Commission agrees with this change.

14. *AEMO Proposal*

AEMO proposed amending clause 3.8.6A(g) as follows:

FA and FB are deemed to be related by the loss vs flow relationship published by NEMMCO ~~notified in accordance with schedule 3.1;~~

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission's Analysis and Decision*

This change is consistent with changes made to the "Scheduled Network Service Data" table in schedule 3.1. As such, the Commission agrees with this change.

15. *AEMO Proposal*

AEMO proposed replacing the words "registered bid and offer data" in clause 3.8.19(d), with the words "a dispatch offer or dispatch bid".

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission's Analysis and Decision*

This change is consistent with changes made to the tables in schedule 3.1. As such, the Commission agrees with this change.

16. *AEMO Proposal*

AEMO proposed amending clause 3.13.3(a)(1) as follows:

(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 ~~the *Scheduled Generator, Semi-Scheduled Generator* and *Market Participant* information as set out in schedule 3.1~~ *bid and offer validation data*;

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission's Analysis and Decision*

This change is consistent with changes made to the tables in schedule 3.1. As such, the Commission agrees with this change.

17. *AEMO Proposal*

AEMO proposed amending clause S5.2.5.11(a) as follows:

For the purpose of this clause S5.2.5.11:

**maximum operating level** means in relation to:

- (1) a *non-scheduled generating unit*, the maximum *sent out generation* consistent with its *nameplate rating*;
- (2) a *scheduled generating unit* or *semi-scheduled generating unit*, the maximum *sent out generation* (but not *emergency generation*) ~~consistent with its registered bid and offer data~~;
- (3) a *non-scheduled generating system*, the combined maximum *sent out generation* consistent with the *nameplate ratings* of its *in-service generating units*; and
- (4) a *scheduled generating system* or *semi-scheduled generating system*, the combined maximum *sent out generation* (but not *emergency generation*) of its *in-service generating units*, ~~consistent with its registered bid and offer data~~.

**minimum operating level** means in relation to:

- (1) a *non-scheduled generating unit*, its minimum *sent out generation* for continuous stable operation;
- (2) a *scheduled generating unit* or *semi-scheduled generating unit*, its minimum *sent out generation* for continuous stable operation ~~consistent with its registered bid and offer data~~;
- (3) a *non-scheduled generating system*, the combined *minimum operating level* of its *in-service generating units*; and
- (4) a *scheduled generating system* or *semi-scheduled generating system*, the combined minimum *sent out generation* of its *in-service generating units*, ~~consistent with its registered bid and offer data~~.

#### *Submissions*

Submissions did not specifically address this proposed amendment.

#### *The Commission's Analysis and Decision*

This change is consistent with changes made to the tables in schedule 3.1. As such, the Commission agrees with this change.

18. *AEMO Proposal*

AEMO proposed amending the defined term “registered bid and offer data” in Chapter 10 as follows:

**registered-bid and offer validation data**

(The definition of this item remains unchanged)

*Submissions*

Submissions did not specifically address this proposed amendment.

*The Commission’s Analysis and Decision*

This change is consistent with changes made to the tables in schedule 3.1. As such, the Commission agrees with this change.

19. *The Commission’s Analysis and Decision*

The Commission has added the following new defined terms to Chapter 10:

*dispatchable unit identifier*

*minimum enablement level*

*maximum enablement level*

*maximum lower angle*

*maximum upper angle*

These new definitions have been added to provide clarity.