



Australian Energy Market Commission

TRANSPARENCY OF OPERATING DATA RULE DETERMINATION

National Electricity Amendment Rule 2009

Rule Proponent(s)

Australian Energy Market Operator

Commissioners

Tamblyn
Henderson

13 May 2010

**RULE
CHANGE**

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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 the 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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Abbreviations

ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator Limited ACN 132 770 104
Basslink	Basslink Pty Ltd
Commission	see AEMC
DPRG	Dispatch & Pricing Reference Group
MCE	Ministerial Council on Energy
NEL	National Electricity Law
NEM	National Electricity Market
NEM operating data	details relating to actual generation data for each scheduled generating unit, semi-scheduled generating unit and non-scheduled generating unit or non-scheduled generating system; actual network service for each scheduled network service; and actual load for each scheduled load (see section 1.1 for further explanation)
NEMMCO	National Electricity Market Management Company Limited
NEO	National Electricity Objective
NGF	National Generators Forum
Rules	National Electricity Rules
Timetable	the spot market operations timetable under clause 3.4.3 of the Rules

Summary

The Commission's determination

In relation to the Australian Energy Market Operator Limited's (AEMO's) Rule change request "Transparency of Operating Data", the Australian Energy Market Commission (Commission) has determined, under sections 102 and 103 of the National Electricity Law (NEL) to make this final Rule determination and the *National Electricity Amendment (Transparency of Operating Data) Rule No 4 2010* (the Rule as Made).

Summary of the Rule change request

On 30 October 2009, AEMO submitted a Rule change request seeking to modify AEMO's requirements under the National Electricity Rules (Rules) to publish the NEM operating data.

The current Rules require AEMO to publish some of the NEM operating data¹ on "each day" and "for the previous trading day". That means AEMO is not required by the Rules to publish the data until the next trading day. The proposed Rule sought to change the data publication timing requirements by requiring AEMO to publish the NEM operating data in dispatch time (that is, near real time every five minutes).

Summary of the Commission's process

The Commission published the Rule change request on 12 November 2009. A Consultation Paper was published on 13 November 2009 to provide guidance to stakeholders in their submissions for the first round consultation. Submissions on the Rule change request closed on 14 December 2009. Submissions were received from the National Generators Forum (NGF) and Ignition Energy. Both submissions broadly supported the proposal to publish the NEM operating data in dispatch time.

On 18 February 2010, the Commission published a notice under section 99 of the NEL and a draft Rule determination in relation to the Rule change request. The draft Rule determination included a draft Rule.

Submissions on the draft Rule determination and draft Rule closed on 5 April 2010. The Commission received a submission from the NGF. This submission is published on the Commission's website. In its submission, the NGF broadly supported the draft Rule.

¹ See section 1.1 of this document for the definition of the term "NEM operating data".

Summary of the Commission’s decision for the Rule determination

The Rule as Made requires that AEMO publishes the NEM operating data in dispatch time. The Commission is satisfied that the Rule as Made will or is likely to contribute to the achievement of the national electricity objective (NEO). This is because the Rule as Made is likely to reduce information asymmetries and improve transparency within the National Electricity Market (NEM). Reducing information asymmetries is likely to reduce a barrier to entry and therefore promote competition in the NEM. Improving transparency is likely to allow NEM participants to become more informed on a timely basis with more accurate market information. This will allow the NEM participants to be able to better respond to market conditions.

The Rule as Made requires that the NEM operating data publication timing requirements be set out in the spot market operations timetable under clause 3.4.3 of the Rules (Timetable), with the Rules giving effect to the Timetable. This is a departure from the current Rules arrangement where the data publication timing requirements are set out in both the Rules and the Timetable, and the Rules also give effect to the Timetable. This eliminates an unnecessary process duplication in the NEM hence reduces an administrative burden on NEM participants.

The Commission also included a transitional provision in the Rule as Made to require AEMO to make changes to the Timetable within 9 months of the Rule commencement. These changes will require AEMO to publish the NEM operating data in dispatch time.

The Commission has included a consequential Rule in its Rule as Made to:

- address an ambiguity relating to clause 3.14.4(n) as a result of the Rule as Made; and
- clarify that AEMO must operate the NEM in accordance with the Timetable as amended, and the amended Timetable must be published by AEMO.

Apart from this consequential Rule, the Commission has adopted the general intent of AEMO’s Rule change request. The Commission has made a number of changes to the drafting of AEMO’s proposed Rule to further streamline the presentation of the Timetable and the Rules. In addition, the transitional provision of the Rule as Made clarifies that the NEM operating data is to be made available to the public in dispatch time.

Reflecting this, the Commission has decided to make a Rule under section 103 of the NEL. In coming to this decision, the Commission has considered the Commission’s powers under the NEL to make the Rule; any relevant Ministerial Council on Energy (MCE) statements of policy principles; AEMO’s declared network function; AEMO’s Rule change request; stakeholder consultation; and an analysis of the ways in which the Rule as Made will or is likely to contribute to the achievement of the NEO so that it satisfies the statutory Rule making test.

1 The AEMO Rule change request

On 30 October 2009, AEMO submitted a Rule change request seeking to modify AEMO's requirements under the Rules to publish the NEM operating data.

The current Rules require AEMO to publish the NEM operating data on the next trading day. AEMO proposed a Rule to modify this publication timing requirement. The proposed modified requirement requires AEMO to publish the NEM operating data in dispatch time (that is, near real time every five minutes).

1.1 Summary of the Rule change request

For the purpose of this Rule determination, "NEM operating data" refers to details relating to:

- actual generation data for each scheduled generating unit², semi-scheduled generating unit³ and non-scheduled generating unit⁴ or non-scheduled generating system⁵;
- actual network service for each scheduled network service^{6;7} and
- actual load for each scheduled load.⁸

Clauses 3.13.4(n), 3.13.4(q) and 3.13.4(r) of the current Rules require AEMO to publish details relating to some components of the NEM operating data, among other spot market information. These clauses require AEMO to publish the details for each trading interval (and dispatch interval in some cases) for the previous trading day. In addition, these clauses require the publishing requirements to be met

² A generating unit with a nameplate rating of 30 MW or greater (or a group of generating units connected at a common connection point with a combined nameplate rating of 30 MW or greater) unless classified otherwise in accordance with clause 2.2.2 of the Rules.

³ A generating unit with a nameplate rating of 30 MW or larger (or is part of a group of generating units connected at a common connection point with a combined nameplate rating of 30 MW or greater) where the output of the generating unit is intermittent, unless classified otherwise in accordance with clause 2.2.7 of the Rules.

⁴ A generating unit with a nameplate rating of less than 30 MW (not being part of a group of generating units classified under clause 2.2.2(a) of the Rules) unless classified otherwise in accordance with clause 2.2.3 of the Rules.

⁵ A generating system comprising non-scheduled generating units.

⁶ A scheduled network service is also a market network service (see clauses 2.5.3(a) and 2.5.3(b) of the Rules).

⁷ At the time of writing Basslink Pty Ltd is the only registered scheduled network service. (see AEMO's Registration and Exemptions List, 20 April 2010, <http://www.aemo.com.au/registration/registration.html>). Basslink is also an interconnector.

⁸ A market load of a market customer that has been classified by AEMO as a scheduled load at the market customer's request. AEMO must classify a market load as a scheduled load if the market customer meets the requirements under clause 2.3.4(e) of the Rules.

in accordance with the Timetable. If AEMO wishes to change the Timetable, it must follow the Rules consultation procedures set out in clause 8.9 of the Rules.

Although the Rules and the Timetable do not require AEMO to publish the above details until the next trading day, AEMO advised that the power station output data is “available in dispatch time for purchase from [third party] private companies”⁹. AEMO also understood that this data is estimated using a technology which remotely senses power line flows, and the estimation “does not rely on market information provided by AEMO”.¹⁰

AEMO considered that “the commercial provision of power flow data by other parties at the time of dispatch is likely to increase information asymmetries and costs in the national electricity market”¹¹, and therefore sought to modify the NEM operating data publishing requirements as set out in the current Rules and the Timetable.¹²

In addition, the NGF requested National Electricity Market Management Company (NEMMCO, now AEMO) to “publish actual scheduled data of power stations in dispatch time to increase spot market data transparency”¹³.

In this Rule change request, AEMO sought to modify the publication timing arrangement to require it to publish the NEM operating data in dispatch time, rather than on the next trading day. AEMO sought to achieve this by:

- modifying the Rules to change the publication timing requirements for the details relating to the actual generation data for each scheduled generating unit, semi-scheduled generating unit, and non-scheduled generating unit or non-scheduled generating system. The proposed Rule requires that AEMO publishes these details in solely in accordance with the Timetable (that is, the expressed publication timing requirements for these details were proposed to be removed from the Rules) (see section 1.1.1 for further discussion).
- modifying the Rules to change the publication timing requirements for the details relating to actual network service for each scheduled network service. The proposed Rule requires that AEMO publishes these details solely in accordance with the Timetable (that is, there are no expressed publication timing requirements for these details in the proposed Rule) (see section 1.1.2 for further discussion).
- modifying the Rules to require AEMO to publish actual load for each scheduled load. The proposed Rule requires that AEMO publishes these details in

⁹ As advised by the DPRG, see Rule change request, page 3.

¹⁰ Ibid.

¹¹ Rule change request, page 3.

¹² Currently, clauses 3.13.4(q)(1) and 3.13.4(r) of the Rules and the Timetable require AEMO to publish most of the NEM operating data. The Rules and the Timetable require the data to be published on the next trading day.

¹³ Rule change request, page 2.

accordance with the Timetable. There are currently no Rules provisions requiring AEMO to publish these details (see section 1.1.3 for further discussion).

- amending the Timetable to require AEMO to publish the NEM operating data in dispatch time, and proposing a transitional provision in Chapter 11 of the Rules to facilitate this amendment (see section 1.1.4 for further discussion).

1.1.1 Publication timing requirements for details relating to actual generation data

The publication timing requirements for details relating to actual generation data are set out in clauses 3.13.4(q)(1)¹⁴ and 3.13.4(r)¹⁵ of the Rules. The proposed changes to these clauses of the Rules are set out in Appendix B of this final Rule determination. It is recommended that this section 1.1.1 be read in conjunction with the appendix.

Clause 3.13.4(q)(1) currently sets out the publication timing requirements for details relating to the following data:

- actual generation for each scheduled generating unit and semi-scheduled generating unit (item 1);
- dispatched generation for each scheduled generating unit and semi-scheduled generating unit (item 2);
- dispatched network service for each scheduled network service (item 3); and
- dispatched load for each scheduled load (item 4).

Clause 3.13.4(r) currently sets out the publication timing requirements for details relating to actual generation for each non-scheduled generating unit or non-scheduled generating system (item 5).

Both clauses require AEMO to publish the above details “each day”, for “each trading interval” and “for the previous trading day”. In addition, clause 3.13.4(q)(1) requires AEMO to publish the details relating to the data specified in this clause for “each dispatch interval”.

AEMO proposed to modify the publication timing requirements for details relating to actual generation by:

- deleting references to “each day”, “in each trading interval” and “for the previous trading day” in clause 3.13.4(r);
- removing the provision for the publication timing requirements for item 1 from clause 3.13.4(q)(1), and move this provision to clause 3.13.4(r)(1);

¹⁴ See section 1.2.1.1 for the wording of clause 3.13.4(q) of the Rules.

¹⁵ See section 1.2.1.2 for the wording of clause 3.13.4(r) of the Rules.

- removing the provision for the publication timing requirements for item 5 from clause 3.13.4(r), and move this provision to clause 3.13.4(r)(1);
- amending the Timetable to require AEMO to publish details relating to actual generation data in dispatch time. This is further discussed in section 1.1.4.

These changes to the Rules will:

- leave clause 3.13.4(q)(1) of the proposed Rule stating only the publication timing requirements for details relating to the dispatch quantities (items 2 to 4), without any publication requirements for the actual quantities (item 1). It should be noted that this Rule change request did not seek to amend the publication requirements of the details relating to items 2 to 4;
- leave clause 3.13.4(r)(1) of the proposed Rule stating the publication timing requirements for details relating to the actual generation (including the publication timing requirements for item 1 which were proposed to be moved from clause 3.13.4(q)(1) of the current Rules, and item 5 which were proposed to be moved from clause 3.13.4(r) of the current Rules). Clause 3.13.4(r) of the proposed Rule gives effect to the Timetable by requiring AEMO to publish the details relating to actual generation in accordance with the Timetable (without the publication timing requirements being expressed in the Rules). This is a departure from the current arrangement where the data publication timing requirements are specified in both the Rules and the Timetable, and the Rules also give effect to the Timetable.

1.1.2 Publication timing requirements for details relating to actual network service for each scheduled network service

AEMO also sought to change the data publication timing requirement for details relating to actual network service for each scheduled network service. AEMO sought to achieve this by introducing these requirements in clause 3.13.4(r)(2).

This clause requires AEMO to publish these details in accordance with the Timetable. The proposed changes to the Timetable will require AEMO to publish the details in dispatch time.

The proposed change to the Rules relating to this publication timing requirement is illustrated in section B.2 of Appendix B.

At the time of writing, Basslink Pty Ltd (Basslink) is the only registered scheduled network service in the NEM. Therefore, this clause of the proposed Rule and the proposed changes to the Timetable will require AEMO to publish the details relating to Basslink interconnector flows in dispatch time.

Currently, clause 3.13.4(n)¹⁶ of the Rules also requires AEMO to publish the Basslink interconnector flow data. However, this clause requires AEMO to publish the data

¹⁶ See section 1.2.1.3 for the wording of clause 3.13.4(n) of the Rules.

daily for each trading interval, for the previous trading day. The difference between clause 3.13.4(r)(2) of the proposed Rule and clause 3.13.4(n) of the current Rules (in relation to the publication requirement for Basslink) may give rise to an ambiguity in the Rules. This is further discussed in section A.1.7 of this document.

1.1.3 Publication timing requirements for details relating to actual load for each scheduled load

AEMO also sought to change the data publication timing requirement for details relating to actual load for each scheduled load. AEMO sought to achieve this by introducing this requirement in clause 3.13.4(r)(3).

This proposed clause requires AEMO to publish these details in accordance with the Timetable. The proposed changes to the Timetable require AEMO to publish the details in dispatch time.

There are currently no provisions in the Rules requiring AEMO to publish these details.

The proposed change to the Rules relating to this publication timing requirement is illustrated in section B.2 of Appendix B.

1.1.4 Amending the Timetable, and transitional provision of the proposed Rule

In order to amend the Timetable, clause 3.4.3(b) of the Rules will require AEMO to follow the Rules consultation procedures under clause 8.9 of the Rules.

For this Rule change request, however, AEMO requested that the Commission resolves the timing requirements for publication of the NEM operating data as part of its Rule determination process. AEMO considered this would allow publication of the NEM operating data to be expedited, and this approach would result in a more efficient implementation process.

In order to allow the Commission to consult (and hence make a determination) on the publication timing requirements, AEMO included the proposed publication timing requirements in the transitional provision of the proposed Rule. The proposed publication timing requires AEMO to publish the NEM operating data in dispatch time.

This transitional provision also requires AEMO to amend the Timetable to modify the publication timing requirements to those as determined by the Commission. The provision requires this to be carried out within 9 months of the commencement of the Rule.

AEMO considered that this would remove the need for AEMO to follow the Rules consultation procedures under clause 8.9 of the Rules to amend the Timetable (as required under clause 3.4.3(b) of the Rules) in this instance.

1.1.5 Aggregation of data to be published

AEMO proposed to publish the NEM operating data of individual scheduled entities, rather than data aggregated to power station level as was initially contemplated by the Dispatch and Pricing Reference Group (DPRG). This is because the data currently published on the following trading day is at the scheduled entity level and the aggregation of the data will require additional work and create less transparency, and AEMO saw no clear market benefit from this approach.

1.1.6 Is a Rule change actually required?

The NGF, in its letter dated 11 November 2008 to NEMMCO (now AEMO)¹⁷, raised that a Rule change is not required to publish the NEM operating data in dispatch time. This is because clause 3.13.1(a) of the Rules would already allow these details to be made available to some of the NEM participants in dispatch time.

Clause 3.13.1(a) states that:

“In addition to any specific obligation or power of AEMO under the Rules to provide information, AEMO must make available to *Scheduled Generators, Semi-Scheduled Generators* and *Market Participants* on request any information concerning the operation of the *market* not defined by the AEMC or the Rules as confidential or commercially sensitive and may charge a fee reflecting the cost of providing any information under this clause 3.13.1(a).”

Despite this clause, AEMO considered “an unambiguous NER [Rules] obligation is required for AEMO to accelerate the publication of this information to the market”¹⁸ due to the following reasons:

- although the Rules do not explicitly state that NEM operating data is confidential or commercially sensitive, the AEMO considered that “implicit in the requirement to publish it the next day is a prohibition against publishing it earlier.”¹⁹; and
- AEMO considered that publishing NEM operating data in dispatch time on the same day is a significant change from the current market information publication schedule.

¹⁷ Letter from NGF to NEMMCO, 11 November 2008, *Spot Market Data Transparency Request*, <http://www.aemc.gov.au/Electricity/Rule-changes/Open/Transparency-of-Operating-Data.html>

¹⁸ See the Rule change request, page 3.

¹⁹ Ibid.

1.2 Context and background

1.2.1 Existing requirements under the Rules

1.2.1.1 AEMO publication requirements under clause 3.13.4(q)(1) of the Rules

Clause 3.13.4(q)(1) of the Rules requires AEMO to publish details relating to dispatch and actual data for spot market operations.

Clause 3.13.4(q) states that:

“Each *day*, in accordance with the *timetable*, AEMO must *publish* details of:

- (1) *actual generation, dispatched generation, dispatched network service or dispatched load for each scheduled generating unit, semi-scheduled generating unit, scheduled network service and scheduled load respectively in each trading interval and dispatch interval; and*
- (2) [...]

for the previous *trading day*.”

1.2.1.2 AEMO publication requirements under clause 3.13.4(r) of the Rules

Clause 3.13.4(r) of the Rules requires AEMO to publish details relating to actual generation for non-scheduled generating unit or non-scheduled generating system. This clause states that:

“Each *day*, in accordance with the *timetable*, AEMO must *publish* details of *actual generation for each non-scheduled generating unit or non-scheduled generating system, in each trading interval for the previous trading day*.”

1.2.1.3 AEMO requirements to publish actual network service for each scheduled network service

Clause 3.13.4(n) of the Rules states that:

“Each *day*, in accordance with the *timetable*, AEMO must *publish* the *actual regional reference prices, ancillary service prices, regional and total interconnected system loads and energies, inter-regional flows, inter-regional loss factors and details of any network constraints for each trading interval in the previous trading day*.”

This clause requires AEMO to publish the interconnector flows data for Basslink, among other data.

1.2.1.4 Timetable under clause 3.4.3 of the Rules

Clauses 3.13.4(q) and 3.13.4(r) require AEMO to publish spot market operations data in accordance with the timetable under clause 3.4.3 of the Rules.

Clause 3.4.3 states that: “

- (a) *AEMO must operate the spot market according to the timetable which must be approved by the AEMC and published by AEMO following compliance with the Rules consultation procedures.*

- (b) *If AEMO wishes to change the timetable at any time, it may do so following compliance with the Rules consultation procedures.”*

The Timetable is available on AEMO’s website.²⁰

The Timetable currently requires AEMO to publish most of the NEM operating data daily, for each trading interval (and dispatch interval in some cases), on the next trading day.

²⁰ AEMO, 2009, *Spot Market Operations Timetable – Version 6.0*,
<http://www.aemo.com.au/electricityops/108-0029.html>

2 Final Rule determination

The Commission has determined to make a Rule in accordance with sections 102 and 103 of the NEL based on AEMO's proposed Rule. The Rule as Made includes a consequential Rule which is not part of the proposed Rule. This consequential Rule was made in accordance with section 91B of the NEL.

The Rule as Made is published with this Rule determination. The Rule as Made commences on 13 May 2010. The key features of the Rule as Made are described in section 2.7 of this final Rule determination.

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

1. the Commission's powers under the NEL to make the Rule (see section 2.1);
2. relevant MCE statements of policy principles (see section 2.2);
3. AEMO's declared network function (see section 2.3);
4. AEMO's Rule change request and proposed Rule (see section 2.4);
5. stakeholder consultation including submissions received during the first and second rounds of consultation (see section 2.5); and
6. the Commission's analysis of the ways in which the Rule as Made will or is likely to contribute to the achievement of the NEO so that it satisfies the statutory Rule making test under section 88 of the NEL (see section 2.7).

2.1 The Commission's power to make the Rule

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

The Rule change request falls within the subject matters that the Commission may make a Rule as it relates to regulating of the following matters under section 34(1)(a) of the NEL:

- (i) the operation of the NEM (as it deals with publication requirements of data relating the operation of the NEM); and
- (ii) the activities of persons participating in the NEM (as it deals with AEMO's obligations to publish data relating to participants' activities in the NEM).

The Rule change request also falls under the following subject matters under Schedule 1 of the NEL:

- Item 11: the operation of generating systems, transmission systems, distribution systems or other facilities (as the Rule change request deals with the publication requirements relating to the operation of the generating systems and transmission systems); and

- Item 31: the calculation or estimation of use of electricity (as the Rule change request deals with the publication requirements relating to the data which is used to calculate or estimate the use of electricity).

The Commission is therefore satisfied that the Rule change request relates to 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 are no relevant MCE statement of policy principles that relate to the issues contained in the Rule change request.

2.3 AEMO's declared network function

Under section 91(8) of the NEL, the Commission "may only make a Rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed Rule is compatible with the proper performance of AEMO's declared network functions". This Rule as Made is compatible with AEMO's declared functions because it is unlikely to have an impact on AEMO's performance of these functions.²¹

2.4 The AEMO Rule change request and proposed Rule

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

2.5 Stakeholder Consultation

2.5.1 First round consultation

On 12 November 2009, the Commission published a notice under section 95 of the NEL of its intention to commence the Rules change process and the initial consultation on this Rule change request. A Consultation Paper was also published on 13 November 2009 to provide guidance to stakeholders in their submissions for the first round consultation.

The Rule change request was open for public consultation for four weeks. Submissions on the Rule change request closed on 14 December 2009. Submissions were received from the NGF and Ignition Energy. Both submissions broadly supported the proposal to publish the NEM operating data in dispatch time.

Issues raised in the submissions are summarised in section D.1 of this final Rule determination document.

²¹ These functions are set out in section 50C of the NEL.

2.5.2 Second round consultation

On 18 February 2010, the Commission published a notice under section 99 of the NEL and a draft Rule determination in relation to the Rule change request. The draft Rule determination included a draft Rule.

Submissions on the draft Rule determination and draft Rule closed on 5 April 2010. The Commission received a submission from the NGF. This submission is published on the Commission's website.

In its submission, the NGF broadly supported the draft Rule.

It was noted in the submission that the NGF do not oppose the Commission's determination that "the relevant data [that is, the NEM operating data] should be made available to the public, not solely to market participants." However, the NGF submitted that this determination "should not preclude the information also being available through the Market Management System, as this system would generally be more convenient for market participants who already receive related information in this way. "

The Commission considers making the data publicly available will not preclude it from being made available through the Market Management System.

Issues raised in this submission are summarised in section D.2 of this document.

2.5.3 Public hearing

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

2.6 Differences between the proposed Rule, draft Rule and Rule as Made

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 the Rules and the Timetable. The improvements do not affect the intent of AEMO's Rule change request.

The Rule includes a consequential Rule in respect of clauses 3.13.4(n), 3.13.4(n1) and 3.4.3(c). This consequential Rule was made in accordance with section 91B of the NEL.

In addition, the transitional provision of the Rule as Made requires the NEM operating data to be made publicly available, as opposed to only the NEM registered participants in the proposed Rule.

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

The only differences between the draft Rule and the Rule as Made are numbering changes in the Chapter 11 provisions (the transitional provisions) to reflect amendments to Chapter 11 since the draft Rule was published.

2.7 The Commission’s test of the national electricity objective

The NEO is the basis of assessment under the Rule making test²² 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 the circumstances having regard to any relevant MCE statement of policy principles”.

Under section 91B of the NEL, the Commission “may, having regard to a request to make a Rule under section 91(1), make a Rule that is necessary or consequential to the Rule that is to be made on that request.”

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

Having considered the NEO and the Rule making test, the Commission determined that:

- AEMO will be required to publish all components of the NEM operating data in dispatch time (that is, near real time every five minutes), rather than on the following trading day as required by the current Rules and the Timetable;
- the requirements to publish the NEM operating data in dispatch time will be set out in the Timetable, and the Rules will give effect to this Timetable (there will be no expressed publication timing requirements for the NEM operating data in the Rule as Made);
- the revised publication timing requirements for the NEM operating data will be set out in the transitional provision of the Rule as Made. This transitional provision also requires AEMO to amend the Timetable to modify the timing

²² See section 88 of the NEL.

requirements to those as set out in this transitional provision. The provision requires AEMO to amend the Timetable within 9 months of the commencement of the Rule as Made;

- the operating data will be made publicly available;
- there will be no change to the manner in which the NEM operating data is aggregated. That is, the NEM operating data will be published for each scheduled entity. An exception is the case for non-scheduled generating unit – where AEMO will be required to publish the operating data for a non-scheduled generating unit or a non-scheduled generating system (see section A.1.5 for further discussion);
- a consequential Rule was made as part of the Rule as Made in respect of clauses 3.13.4(n)²³ and 3.4.3(c)²⁴.

The Commission considers that the Rule as Made will or is likely to contribute to the achievement of the NEO by promoting efficient investment and operation which serve the long term interests of consumers of electricity in respect of price, and reliability and security. This is discussed further in section 2.7.1 below.

The Commission notes that clause 3.13.4(s) of the Rules requires AEMO to publish only the NEM operating data that is available to AEMO.

2.7.1 Promoting efficient investment and operation in the NEM

The Commission considers the Rule as Made will promote efficient investment in, and operation of, the NEM in the following ways:

- reducing information asymmetries in the NEM (see section 2.7.1.1);
- eliminating process duplication (see section 2.7.1.2);
- not resulting in material cost increases (see section 2.7.1.3);
- improving transparency and improving NEM participants' ability to respond to supply shortage (see section 2.7.1.4); and
- promoting regulatory certainty (see section 2.7.1.5).

2.7.1.1 Reducing information asymmetries in the NEM

The availability of technology which senses the power line flows is likely to give rise to information asymmetry risks in the NEM. Larger firms are more likely to be able to justify and afford the expense of collecting the best available information on

²³ See section A.1.7 for further discussion.

²⁴ See section A.1.4.3 for further discussion.

market outcomes using this technology. This may therefore disadvantage the smaller firms who may not be as well resourced to take advantage of this technology.

Requiring AEMO to publish the NEM operating data in dispatch time is likely to reduce these information asymmetry risks, and eliminate the advantages of the larger firms over the smaller ones hence reducing a barrier to entry into the NEM by the smaller firms.

Reducing a barrier to entry is likely to strengthen competition in the NEM. Competition is likely to provide NEM participants with the incentives to allocate resources more efficiently, hence promoting efficiency. Greater efficiency in the provision of electricity services is likely to result in more efficient price outcomes. This is likely to serve the long term interests of consumers of electricity with respect to price, and contribute towards the achievement of the NEO.

2.7.1.2 Eliminating process duplication

Currently, the publication timing requirements for details relating to clause 3.13.4(r) are set out in the Rules as well as in the Timetable. In addition, the Rules also give effect to the Timetable.

Under this current arrangement, changes to the publication timing requirements will require changes to the Rules as well as the Timetable. A change to the Rules will need to be dealt with under the Rules change process under the NEL, and a change to the Timetable will need to be dealt with under the Rules consultation procedures under clause 8.9 of the Rules.

The Commission considers this duplication of processes to be unnecessary and is likely to impose unnecessary administrative burdens on NEM participants. To eliminate this duplication, the Rule as Made requires AEMO to publish the NEM operating data in accordance with the Timetable, with the Timetable being given effect by the Rules. The expressed publication timing requirements are removed from this clause of the Rules.

In addition, the Commission has included the revised publication timing requirements for NEM operating data in the transitional provision of the Rule as Made. The revised publication timing will require AEMO to publish the NEM operating data in dispatch time (as opposed to on the next trading day under the current publication timing requirements). As discussed earlier, the transitional provision also requires AEMO to make changes to the Timetable to reflect the revised publication timing requirements.

The transitional provision of the Rule as Made sets out the revised publication timing requirements as determined by the Commission. The revised publication timing requirements are shown in the table in section C of this final Rule determination document.

This Rule as Made will eliminate the process duplication for this Rule change request. It will also eliminate the process duplication for making future changes to the data publication timing requirements of the NEM operating data.

Eliminating duplication is likely to reduce administrative burdens on NEM participants, hence will also reduce the unnecessary associated costs that are likely to be passed on to electricity consumers. This is likely to promote efficient operation of electricity services for the long term interests of consumers of electricity with respect to price. This is likely to contribute towards the achievement of the NEO.

The Commission notes that future changes to the publication timing requirements for the NEM operating data will be determined by AEMO following compliance with the Rules consultation procedures under clause 8.9 of the Rules. Section 49(3) of the NEL requires AEMO to have regard to the NEO in carrying out its function which will include making future changes to the Timetable.

Clause 3.4.3(b) of the Rules enables AEMO to make amendments to the Timetable following compliance with the Rules consultation procedures under clause 8.9. It should be clarified in the Rules that AEMO must operate the NEM in accordance with this amended Timetable, and the amended Timetable must be published. The Commission made a consequential Rule in relation to clause 3.4.3(c) of the Rule as Made to reflect these clarifications. This consequential Rule was not part of the proposed Rule.

2.7.1.3 Not resulting in material cost increases

The proposed Rule would not result in material cost increases. Implementation costs will be of an incremental nature to advance publication date of the information. There are expected to be no ongoing cost increases.

AEMO currently publishes NEM operating data on the next trading day and has advised that the Rule change would result in incremental one-off costs to amend existing processes.

Market participants may incur incremental costs to amend processes for the receipt of information. Those participants who currently contract for the provision of estimated operating data may be able to avoid these costs.

The Commission notes Ignition Energy's submission (as part of the first round consultation) that the costs are expected to be small.

The Commission considers the efficiency benefits brought about by the Rule as Made exceed these costs.

2.7.1.4 Improving transparency and improving NEM participant's ability to response to supply shortage

Publishing the NEM operating data in dispatch time is likely to improve the transparency of the NEM and enable its participants to become better informed on a more timely basis. The Commission considers that an informed market is more likely to be able to function effectively and efficiently in order to clear short term constraints in ways which best serve customer and end user interests.

For example, with the NEM operating data published in dispatch time, generators will be able to better identify a low electricity supply situation, and can be better prepared to increase their electricity outputs to alleviate the supply shortage. Similarly, a demand side participant may also be better prepared to reduce its load in response to a low supply situation.

The Commission notes that AEMO is currently already publishing some of the NEM data in real time, and this data is being used to signal supply shortage in the NEM (for example, dispatch prices). Publishing the NEM operating data in dispatch time is likely to further improve the ability of NEM participants to identify a supply shortage situation, particularly if the supply shortage occurs at a sub-regional level.

By enabling NEM participants to be better prepared for supply shortage conditions, the Rule as Made will promote efficient operation in the NEM and also improve the reliability and security of the power system in the NEM. This will serve the long term interests of consumers of electricity with respect to reliability and security of electricity supply, and contribute towards achieving the NEO.

While publishing the NEM operating data is likely to contribute towards improving the transparency of the NEM, it may also increase the opportunities for collusion.

In particular, the Commission is mindful that that the provision of generation data in dispatch time may increase the opportunities for coordinated behaviours that seek to take advantage of conditions of reduced supply. The Commission notes that potential anti-competitive behaviours have been a concern associated with releasing NEM market information since the inception of the NEM.²⁵

However, the Commission considers that this Rule as Made is unlikely to alter the collusion risks in the NEM for the following reasons:

- not publishing the NEM operating data in dispatch time will not stop a third party from making it available for purchase, and used by NEM participants for market collusion purposes; and
- the dispatch prices which are currently published in advance of each dispatch interval are already used as a significant but less accurate indicator of unplanned changes to supply conditions. This dispatch price information may potentially be used for collusion purposes irrespective of whether the NEM operating data is published in dispatch time.

In addition, not publishing the NEM operating data in dispatch time would increase information asymmetry risks. Information asymmetries is likely to give parties with access to more information the increased opportunities to exercise market power in the NEM.

In order to further promote market transparency, the Rule as Made also requires that AEMO not aggregate the NEM operating data²⁶ to allow NEM participants to receive

²⁵ ACCC, 10 December 1997, *Determination – Application for Authorisation – National Electricity Code*.

²⁶ Except for non-scheduled generation units as discussed section A.1.5.

maximum possible information from this data. Aggregating the data can result in loss of information which may be needed to promote the transparency of the NEM.

2.7.1.5 Promoting regulatory and information certainty

The Commission considers this Rule as Made will reduce ambiguities and promote regulatory and information certainty within the NEM. This is because:

- requiring AEMO to publish the NEM operating data in dispatch time will enable NEM participants to access the more accurate data in a timely manner, rather than sourcing it from a third party where the accuracy of the data can not be assured. Publishing the data in dispatch time is therefore likely to promote accuracy of the data;
- requiring AEMO to publish every component of the NEM operating data in dispatch time (rather than withholding some of this data) will allow NEM participants to receive more market information on a timely manner. This will allow the market to become better informed and hence reduce uncertainties about market conditions;
- this Rule as Made will provide AEMO with an unambiguous obligation to publish the NEM operating data in dispatch time. AEMO's obligations to publish this data is unclear under the current Rules;
- this Rule as Made will assist in addressing an ambiguity involving the publication timing requirements for Basslink's interconnector. Under clause 3.13.4(r)(2) of the proposed Rule, the details relating to the flows of Basslink's interconnector are intended to be published in dispatch time (this is because Basslink is registered as a scheduled network service provider). However, as Basslink is also an interconnector, clause 3.13.4(n) requires its interconnector flows²⁷ to be published on the next trading day;
- this Rule as Made clarifies AEMO's obligations to operate the NEM spot market in accordance with the Timetable as amended and publish the amended Timetable (these obligations are not clear in the current Rules).

Regulatory and information certainty is likely to create a more efficient investment environment in the NEM which will serve the long term interests of consumers of electricity with respect to reliability and security of supply of electricity. This is likely to contribute towards the achievement of the NEO.

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

²⁷ "Interconnector flows" are referred to as "inter-regional flows" in clause 3.13.4(n) of the Rules.

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A Commission’s analysis of the proposed Rule

This Appendix sets out the Commission’s assessment and analysis of the Rule change request, including consideration of issues raised in stakeholder submissions.

A.1 Commission’s consideration of the relevant issues

The Commission considered the following issues in making this final Rule determination:

- Would publishing the NEM operating data in dispatch time contribute towards promoting the NEO (see section A.1.1)?
- Which of the individual components of the NEM operating data should be published in dispatch time (see section A.1.2)?
- Who should the NEM operating data be made available to (see section A.1.3)?
- Instruments setting out the publication requirements for the NEM operating data (see section A.1.4).
- Should the NEM operating data be aggregated (see section A.1.5)?
- Amending the Timetable using the transitional Rule provision (see section A.1.6).
- Is there a need for consequential amendments for clause 3.13.4(n) of the Rules? (see section A.1.7)?

In making this final Rule determination, the Commission has considered all submissions received. The Commission considers these submissions broadly support the proposal to publish the NEM operating data in dispatch time.

Issues raised in these submissions are summarised in section D of this final Rule determination document.

A.1.1 Publishing the NEM operating data in dispatch time

The Commission notes that there are both advantages and disadvantages associated with publishing the NEM operating data in dispatch time (rather than on the following trading day). On the balance, however, the Commission considers that a more timely publication of data will contribute towards promoting the NEO, and the advantages are likely to outweigh the disadvantages.

Importantly, publishing the NEM operating data in dispatch time is likely to reduce information asymmetry risks in the NEM (see A.1.1.1 for further discussion).

In addition to reducing information asymmetry risks in the NEM, publishing the NEM operating data in dispatch time is likely to also bring about other benefits to the NEM. These additional benefits are as follows:

- contributing towards promoting market transparency and improving power system reliability (see section A.1.1.2); and
- promoting NEM information accuracy (see A.1.1.3 for further discussion).

On the other hand, publishing the NEM operating data in dispatch time may give rise to increased opportunities for collusion using this newly available information. However, for the reasons set out in section A.1.1.4, the Commission considers that the impact of this Rule as Made on collusion risks is minimal.

The Commission has also considered the following factors in this final Rule determination:

- unintended signal discouraging future entrepreneurial activities which may assist in promoting the NEO (see A.1.1.5 for further discussion); and
- cost burdens on NEM participants (see A.1.1.6 for further discussion).

A.1.1.1 Reducing information asymmetry risks

The Commission considers the availability of technology which senses the power line flows is likely to give rise to information asymmetry risks in the NEM, if AEMO does not publish the NEM operating data until the next trading day.

Larger firms are more likely to be able to justify and afford the expense of collecting the best available information on market outcomes using this technology. This may therefore disadvantage the smaller firms who may not be as well resourced to take advantage of this technology.

The Commission considers information asymmetries disadvantaging the smaller firms can create an unnecessary barrier to entry into the NEM. Requiring AEMO to publish the NEM operating data in dispatch time will ensure that all interested parties, large and small alike, receive the information at the same time. This is likely to eliminate the advantages of the larger firms over the smaller ones hence reduces a barrier to entry into the NEM by the smaller firms.

Reducing a barrier to entry is likely to strengthen competition in the NEM.

A.1.1.2 Promoting market transparency and improving power system reliability

Publishing the NEM operating data in dispatch time is likely to promote transparency in the NEM. This will enable NEM participants to become better informed about market conditions on a more timely basis. An informed market is more likely to be able to function effectively and efficiently in order to clear short term constraints in ways which best serve customer and end user interests.

For example, with the NEM operating data published in dispatch time, generators will be able to better identify a low electricity supply situation, and can be better prepared to increase their electricity outputs to alleviate the supply shortage.

Similarly, a demand side participant may also be better prepared to reduce its load in response to a low supply situation.

The Commission notes that AEMO is currently already publishing some of the NEM data in real time, and this data (for example, dispatch prices) is being used to signal supply shortage in the NEM. Publishing the NEM operating data in dispatch time is likely to further improve the ability of NEM participants to identify a supply shortage situation, particularly if the supply shortage occurs at a sub-regional level.

NEM participants' improved ability to respond to supply shortage is likely to improve reliability and security of electricity supply.

A.1.1.3 Promoting NEM information accuracy

If AEMO does not publish the NEM operating data in dispatch time, some market participants can derive this data using some other means (for example, using the service of a third party to estimate the data - as outlined by AEMO in the Rule change request).

A risk of relying on other means to derive the NEM operating data is that the estimated data may not be sufficiently accurate.

Publishing the NEM operating data in dispatch time would remove some of the NEM participants' reliance on the estimated data. This promotes the accuracy of the NEM operating data.

A.1.1.4 Potential collusion opportunities by market participants

In making this Rule as Made, the Commission has also considered that releasing the NEM operating data in dispatch time could potentially lead to opportunities for collusion - hence increases the opportunities to exercise market power in the NEM.

In particular, the Commission is mindful that that the provision of generation data in dispatch time may increase the opportunities for coordinated behaviours that seek to take advantage of conditions of reduced supply. The Commission notes that potential anti-competitive behaviours have been a concern associated with releasing NEM market information since the inception of the NEM.²⁸

The Commission considers that this Rule as Made is unlikely to alter the collusion risks in the NEM for the following reasons:

- not publishing the operating data in dispatch time will not stop a third party from making it available for purchase, and used by NEM participants for market collusion purposes; and
- the dispatch prices which are currently published in advance of each dispatch interval are already used as a significant but less accurate indicator of unplanned

²⁸ ACCC, 10 December 1997, *Determination – Application for Authorisation – National Electricity Code*.

changes to supply conditions. This dispatch price information may potentially be used for collusion purposes irrespective of whether the NEM operating data is published in dispatch time.

In addition, not publishing the NEM operating data in dispatch time would increase information asymmetry risks. Information asymmetries would give parties with access to more information the increased opportunities to exercise market power in the NEM.

A.1.1.5 Unintended signal discouraging future entrepreneurial activities

The provision of power station output estimation service is an entrepreneurial initiative providing value-added service to the NEM. The Commission notes that this Rule would make the service redundant, and could have negative financial impacts on the service providers. It should be noted that the Commission has considered the potential financial impacts on the service providers in making this Rule as Made, and is mindful that these potential negative financial impacts may send an unintended signal discouraging future entrepreneurial activities in the NEM.

On the balance, however, the Commission determined that the NEO is still best achieved by publishing the NEM operating data in dispatch time.

The Commission notes that the publication of data in dispatch time may provide an opportunity for a party to provide a service by processing the data in a way to allow it to be more easily analysed and understood by NEM participants.

A.1.1.6 Cost burdens on NEM participants

The Commission expects that there will be costs associated with setting up procedures or systems to enable AEMO to publish the NEM operating data in dispatch time. In addition, the Commission also expects that there will be costs incurred by NEM participants to set up their procedures or systems to receive the NEM operating data in dispatch time.

The costs associated with setting up AEMO's systems and procedures to implement the Rule are expected to be minimal. This is because AEMO is already publishing the NEM operating data, but on the next trading day. Changes AEMO needs to make to its existing systems and procedures to implement the Rule are therefore expected to be incremental. This view is supported by AEMO in its Rule change request document.

Likewise, as NEM participants are already able to receive the NEM operating data on the next trading day, the Commission anticipates that the additional costs incurred by these participants to set up the facilities to receive the data in dispatch time are also likely to be minimal.

The Commission notes Ignition Energy's submission that the costs are expected to be small.

A.1.2 Individual components of the NEM operating data that should be published in dispatch time

The individual components of the NEM operating data are set out in section 1.1.

The Commission does not see any reasons to treat any of the above components as more confidential than the others. The Commission therefore determined that all of these individual components be published in dispatch time.

In addition, publishing the data for all of the above components in dispatch time will allow NEM participants to receive more market information on a timely manner, compared to the arrangement where some of the above details are to be withheld until the next trading day. This will promote the transparency of the NEM and allow the market to become better informed.

A.1.3 Who should the NEM operating data be made available to?

The Commission determined that the NEM operating data should be made publicly available in dispatch time, rather than limiting access to the NEM participants or certain stakeholders.

While the NEM operating data will be mostly used by the NEM registered participants, the Commission considers there could be some non-NEM participants who may require access to the data in order to provide services to the NEM. These service providers include, for example, industry observers who are actively involved in the monitoring of the NEM.

The Commission notes NGF's submission²⁹ that "[t]his [determination] should not preclude the information also being available through the Market Management System, as this system would generally be more convenient for market participants who already receive related information in this way. "

The Commission considers making the data publicly available will not preclude it from being made available through the Market Management System.

A.1.4 Instruments setting out the publication requirements for the NEM operating data

The Commission determined that the NEM operating data publication timing requirements should be set out in the Timetable, with the Timetable being given effect by the Rules. This is a departure from the current arrangement where the data publication timing requirements are specified in both the Rules and the Timetable, and the Rules also give effect to the Timetable.

In making this final Rule determination, the Commission has considered the following options:

²⁹ Submission received in the second round consultation (received on 31 March 2010).

- Option 1: as per the current arrangement, the data publication timing requirements are to be specified in both the Rules and the Timetable.
- Option 2: the data publication timing requirements are to be specified in the Rules only, without specifying any such requirements in the Timetable.
- Option 3: the data publication timing requirements are to be specified in the Timetable only, and the Timetable is being given effect by the Rules. This is the option determined by the Commission to be appropriate.
- Option 4: no Rule change required. The AEMO is to publish the NEM operating data in dispatch time under clause 3.13.1(a) of the Rules.

A.1.4.1 Option 1 – Rules and Timetable (current arrangement)

Currently, the data publication timing requirements are set out in the Rules as well as in the Timetable. In addition, the Rules also give effect to the Timetable.

Under this current arrangement, future changes of the publication timing requirements will require changes to the Rules as well as Timetable. A change to the Rules will need to be dealt with under the Rules making process under Part 7 of the NEL, and a change to the Timetable will need to be dealt with under the Rules consultation procedures under clause 8.9 of the Rules.

The Commission considers this to be an unnecessary duplication, and is likely to impose unnecessary administrative burdens on NEM participants. Unnecessary administrative burdens also means that participants would incur unnecessary costs which are likely to be passed on to the electricity consumers.

Eliminating the duplication is likely reduce administrative burdens on the NEM participants and the unnecessary associated costs. This is likely to promote an efficient operation and use of electricity services for the long term interests of consumers of electricity with respect to price.

A.1.4.2 Option 2 – Rules only

To eliminate the duplication of the data publication timing requirement specification as discussed in section A.1.4.1, the Commission has considered removing the specification of the requirements from the Timetable, leaving the data publication timing requirements in the Rules.

Specifying the data publication timing requirements in the Timetable has been a practice in the NEM since its inception. The Commission considers deviating from this well established practice will only create regulatory uncertainty in the NEM. Unnecessary regulatory uncertainty does not promote the creation of a more efficient investment environment in the NEM, hence is unlikely to promote the long term interests of electricity consumers with respect to reliability of electricity supply.

A.1.4.3 Option 3 Timetable only (Commission’s preferred option)

Under this option, the Rules will be modified to require AEMO to publish the NEM operating data in accordance with the Timetable, and the Timetable will be given effect by the Rules. The expressed data publication timing requirements will be removed from the Rules.

This option will eliminate the duplication as discussed in section A.1.4.1 while minimising the regulatory uncertainty as discussed in section A.1.4.2.

The Commission notes that future changes to the publication timing requirements for the NEM operating data will be determined by AEMO following compliance with the Rules consultation procedures under clause 8.9 of the Rules. Section 49(3) of the NEL requires AEMO to have regard to the NEO in carrying out its function which will include making future changes to the Timetable.

Clause 3.4.3(b) of the Rules enables AEMO to make changes to the Timetable following compliance with the Rules consultation procedures under clause 8.9. It should be clarified in the Rules that AEMO must operate the NEM spot market in accordance with the amended Timetable, and the amended Timetable must be published. The Commission made a consequential Rule in relation to clause 3.4.3(c) of the Rule as Made to reflect these clarifications. This consequential Rule was not part of the proposed Rule.

A.1.4.4 Option 4 – No Rule change

The Commission notes that the NGF, in its letter dated 11 November 2008 to NEMMCO (now AEMO),³⁰ raised that a Rule change is not required to publish the details relating to NEM operating data in dispatch time. This is because clause 3.13.1(a) of the Rules would already allow these details to be made available to some of the NEM participants in dispatch time.

Clause 3.13.1(a) states that:

“In addition to any specific obligation or power of AEMO under the Rules to provide information, AEMO must make available to *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* on request any information concerning the operation of the *market* not defined by the AEMC or the Rules as confidential or commercially sensitive and may charge a fee reflecting the cost of providing any information under this clause 3.13.1(a).”

The Commission believes that this clause does not meet the intention of this Rule as Made. This is because the Rule as Made requires AEMO to make the data publicly available in dispatch time (see discussion in section A.1.3), while this clause only requires AEMO to make the information available only to “Scheduled Generators, Semi-Scheduled Generators and Market Participants”.

³⁰ Letter from NGF to NEMMCO, 11 November 2008, *Spot Market Data Transparency Request*, <http://www.aemc.gov.au/Electricity/Rule-changes/Open/Transparency-of-Operating-Data.html>

In addition, the Commission considers that publishing the NEM operating data in dispatch time on the same day is a significant change from the current market information publication schedule. Therefore, an unambiguous provision in the Rules on the obligation of AEMO is required to eliminate any regulatory uncertainty.

Regulatory certainty is likely to contribute towards creating a more certain investment environment in the NEM, which is likely to promote the long term interests of consumers of electricity with respect to reliability of electricity.

A.1.5 Should the NEM operating data be aggregated?

The Commission determined that the aggregation of NEM operating data should not be changed from the current arrangement. That is, AEMO will be required to publish data for each individual scheduled entity, rather than data aggregated to power station level as was initially contemplated by the DPRG. An exception applies to the data for the non-scheduled generating units – where AEMO will have the discretion to publish data for either the non-scheduled generating unit or the non-scheduled generating system. This exception is allowed because the generation data for each individual non-scheduled generation unit may not be available.³¹ The Commission notes that this exception is also granted under clause 3.13.4(t) of the Rules.

The Commission considers aggregating the data can result in loss of information which may be needed to promote the transparency of the NEM.

In addition, level of the aggregation useful to different individuals will vary. Providing disaggregated data will accommodate the needs of a wider range of users, and the users will be able to perform the aggregation themselves to suit their needs.

The Commission notes that this view is supported by Ignition Energy in its submission as part of the first round consultation process.

A.1.6 Amending the Timetable using the transitional Rule provision

In order to amend the Timetable, clause 3.4.3(b) of the current Rules will require AEMO to follow the Rules consultation procedures under clause 8.9 of the Rules.

For this Rule change request, however, AEMO requested that the Commission resolves the timing requirements for publication of the NEM operating data as part of its Rule determination process.

In order to allow the Commission to consult (and hence make a determination³²) on the publication timing requirements, the Commission has included the revised

³¹ AEMC, 2005, *Final Rule determination - Publication of information for non-scheduled generation*, <http://www.aemc.gov.au/Electricity/Rule-changes/Completed/Publication-of-Information-for-Non-scheduled-Generation.html>

³² The Commission made the final Rule determination on the publication timing requirements for the NEM operating data – see discussion in section A.1.1.

publication timing requirements for the NEM operating in the transitional provision of the Rule as Made. The revised publication timing will require AEMO to publish the NEM operating data in dispatch time (as opposed to on the next trading day under the current publication timing requirements).

This transitional provision also requires AEMO to amend the Timetable to modify the timing requirements to those as set out in this transitional provision. The provision requires this to be carried out within 9 months of the commencement of the Rule (AEMO advised that it will require 9 months to make the necessary changes to implement the revised publication timing requirements).

This will remove the need for AEMO to follow the Rules consultation procedures under clause 8.9 of the Rules to amend the Timetable (as required under clause 3.4.3(b) of the Rules) in this instance.

The Commission considers this would allow publication of the NEM operating data to be expedited, and resulting in a more efficient implementation process for the revised data publication arrangement. The efficiency gain is likely to result in a cost saving in the NEM, and the cost saving can be passed on to the electricity consumers. This will promote the long term interests of the electricity consumers in term of price.

As discussed in section A.1.4 of this document, this Rule as Made also eliminates the requirement to carry out the duplicated processes if changes to the data publication timing requirements for NEM operating data need to be made in the future.

The transitional provision of the Rule as Made sets out the revised publication timing requirements as determined by the Commission. The revised publication timing requirements are shown in the table in section C of this final Rule determination document.

A.1.7 Consequential Rule with respect to clause 3.13.4(n)

Clause 3.13.4(n) of the current Rules states that:

“Each day, in accordance with the timetable, AEMO must publish the actual regional reference prices, ancillary service prices, regional and total interconnected system loads and energies, inter-regional flows, inter-regional loss factors and details of any network constraints for each trading interval in the previous trading day.”

The Commission considers that this clause would give rise to an ambiguity, given the intent of clause 3.13.4(r)(2) of the Rule as Made. Under this clause of the Rule as Made, the details relating to the flows of Basslink’s interconnector are intended to be published in dispatch time (this is because Basslink is registered as a scheduled network service provider). However, as Basslink is also an interconnector, clause 3.13.4(n) requires its interconnector flows data to be published on the next trading day.

The Commission notes that the transitional provision of this Rule as Made would also give rise to an ambiguity of the same nature in the Timetable. That is, the

transitional provision of the Rule as Made will require AEMO to publish the details relating to the flows of Basslink's interconnector every five minutes (this is because Basslink is registered as a scheduled network service provider). However, as Basslink is also an interconnector, the Timetable requirements relating to clause 3.13.4(n) of the Rules³³ requires the Basslink interconnector flows data to be published on the next trading day.

AEMO did not propose a Rule to address this potential ambiguity. Consequently, the Commission determined to include a consequential Rule in the Rule as Made to assist AEMO in addressing this issue.

The consequential Rule removes the expressed publication timing requirements for inter-regional flows data from the Rules, and require AEMO to publish this data solely in accordance with the Timetable. This is to be achieved by:

- removing the data publication timing requirement for inter-regional flow from 3.13.4(n) of the current Rules; and
- moving the data publication timing requirement for inter-regional flows to a new clause 3.13.4(n1) of the Rule as Made. This clause requires AEMO to publish the data for inter-regional flows in accordance with the Timetable, without any expressed publication timing requirements in the Rules.

By eliminating the expressed publication timing requirement for inter-regional flows from the Rules, this Rule as Made would allow AEMO to resolve the ambiguity in the Timetable using the Rules consultation procedures under clause 8.9 of the Rules.

The Commission considers AEMO addressing this ambiguity will promote regulatory certainty which is likely to create a more certain investment environment in the NEM.

The consequential Rule was made under section 91B of the NEL.

³³ See page 14 of the Timetable (Version 6.0), <http://www.aemo.com.au/electricityops/108-0029.html>

Table 1: Publication timing requirements for NEM operating data – current requirements versus Rule determination

Details relating to NEM operating data	Current publication timing requirement	Publication timing requirements determined by the Commission
Actual generation for each scheduled generating unit and semi-scheduled generating unit.	Clause 3.13.4(q)(1) of the Rules requires AEMO to publish these details on each day, for each trading interval and dispatch interval, for the previous trading day, and in accordance with the Timetable.	Clause 3.13.4(r)(1) of the Rule as Made requires AEMO to publish these details in accordance with the Timetable. The Timetable requires these details to be published in dispatch time.
Actual generation for non-scheduled generating unit or non-scheduled generating system.	Clause 3.13.4(r) of the Rules requires AEMO to publish these details on each day, for each trading interval, for the previous trading day, and in accordance with the Timetable.	Clause 3.13.4(r)(1) of the Rule as Made requires AEMO to publish these details in accordance with the Timetable. The Timetable requires these details to be published in dispatch time.
Actual network service for each scheduled network service.	Clause 3.13.4(n) of the Rules requires AEMO to publish the inter-regional flows ³⁴ on each day, for each trading interval, for the previous trading day, and in accordance with the Timetable.	Clause 3.13.4(r)(2) of the Rule as Made requires AEMO to publish details for “actual network service for each scheduled network service” ³⁵ in accordance with the Timetable. The Timetable requires these details to be published in dispatch time. ³⁶
Actual load for each scheduled load.	No current Rule requirements to publish these details.	Clause 3.13.4(r)(3) of the Rule as Made requires AEMO to publish these details in accordance with the Timetable. The Timetable requires these details to be published in dispatch time.

³⁴ This includes the Basslink interconnector flows data. Basslink is also a registered scheduled network service – whose publication timing requirements are also set out in clause 3.13.4(r)(2) of the Rule as Made.

³⁵ At the time of writing, Basslink is the only registered scheduled network service provider. Basslink is also an interconnector - whose publication timing requirements are also set out in clause 3.13.4(n) of the current Rules [referred to as inter-regional flows in this clause of the Rules].

³⁶ This could result in an ambiguity in the Rules. This is because the intent of clause 3.13.4(r)(2) of the Rule as Made requires details relating to Basslink’s interconnector to be published in dispatch time, while clause 3.13.4(n) requires the Basslink interconnector flows data to be published only on the next trading day. Ambiguity of the same nature also arise in the Timetable. Consequential Rule was made to assist AEMO in addressing this ambiguity. See section A.1.7 for further discussion.

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B AEMO’s proposed amendments to clauses 3.13.4(q) and 3.13.4(r)

This appendix illustrates the proposed amendments to clauses 3.13.4(q) and 3.13.4(r) of the Rules. The purpose of this illustration is to clarify the description of the proposed amendments discussed in sections 1.1.1, 1.1.2 and 1.1.3 of this final Rule determination.

B.1 Proposed amendments to clause 3.13.4(q) of the Rules

Clause 3.13.4(q) of the Rules is proposed to be amended as follows:

“Each *day*, in accordance with the *timetable*, AEMO must *publish* details of:

- (1) ~~actual generation, dispatched generation, dispatched network service or dispatched load for each scheduled generating unit, semi-scheduled generating unit, scheduled network service and scheduled load respectively in each trading interval and dispatch interval; and~~
- (2) for each *semi-scheduled generating unit* in each *trading interval* and *dispatch interval*, whether or not a condition for setting a *semi-dispatch interval* applied;

for the previous *trading day*.”

B.2 Proposed amendments to clause 3.13.4(r) of the Rules

Clause 3.13.4(r) of the Rules is proposed to be amended as follows:

~~“Each *day*, iIn accordance with the *timetable*, AEMO must publish details of: actual generation for each non-scheduled generating unit or non-scheduled generating system, in each trading interval for the previous trading day.~~

- (1) actual generation for each scheduled generating unit, semi-scheduled generating unit and non-scheduled generating unit or non-scheduled generating system; and
- (2) actual network service for each scheduled network service; and
- (3) actual load for each scheduled load.”

Note: the way the proposed amendments for clause 3.13.4(r) was marked-up differs from that shown in the Rule change request document³⁷. The Commission amended the mark-ups to further illustrate the proposed changes to this clause of the Rules. This change in presentation does not alter the intent of the Rule change request.

³⁷ See page 5 of the rule change request.

C Table of the revised publication timing requirements (part of the transitional provision of the Rule as Made)

DAY	TIME OF DAY (EST)	EVENT	PROVIDED BY	PROVIDED TO	PERIOD COVERED	FREQUENCY	COMMENTS	RULES REQUIREMENT
Day + 1	ASAP after start of trading day.	<ul style="list-style-type: none"> • Publish for Day 0: • Regional reference prices; • Ancillary service prices; • Regional and total interconnected system loads and energies; • Inter-regional flows; • Inter-regional loss factors; • Network constraints. 	NEMMCO AEMO	Participants	Day 0	Daily	Half hourly resolution.	3.13.4(n)
Day + 1	ASAP after start of trading day	Publish for Day 0, inter-regional flows	AEMO	Participants	Day 0	Daily	Half hourly resolution	3.13.4(n1)
Day + 1	ASAP after start of trading day.	<p>Publish actual generation, dispatched generation, dispatched network service and dispatched load.</p> <p>Publish application of semi-dispatch cap to each semi-scheduled generating unit.</p> <p>Publish dispatched generation, dispatched network service, dispatched load for each scheduled generating unit, semi-scheduled generating unit, scheduled network service and scheduled load respectively. Publish application of semi-dispatch cap to each semi-scheduled generating unit.</p>	NEMMCO AEMO	Participants	Day 0	Daily	5 minute resolution for dispatch interval and half-hourly resolution for trading interval.	3.13.4(q)
Day 0	ASAP after start of dispatch interval	<p>Publish actual generation of scheduled generating unit, semi-scheduled generating unit and non-scheduled generating unit or non-scheduled generating system.</p> <p>Publish actual network service for</p>	AEMO	Public	Current dispatch interval	Every 5 minutes	The actual generation is measured at the beginning of each dispatch interval.	3.13.4(r)

DAY	TIME OF DAY (EST)	EVENT	PROVIDED BY	PROVIDED TO	PERIOD COVERED	FREQUENCY	COMMENTS	RULES REQUIREMENT
		scheduled network service. Publish actual load for scheduled load.						

Note: Publication timing requirements relating to clause 3.13.4(r) in the current version of the Timetable³⁸ are to be deleted.

³⁸ At the time of writing, version 6.0 is the current version.

D Summary of Submissions

D.1 First round of consultation

This table provides a summary of the issues raised in submissions received in the first round of consultation on the Rule change request. Submissions were received from the NGF and Ignition Energy.

Issue	Stakeholder	Issue	AEMC responses
1	NGF	There should be an unambiguous obligation for AEMO to publish details relating to the NEM operating data “in each trading interval in dispatch time”, despite clause 3.13.1(a) ³⁹ of the Rules. This is because “the [current Rules] requirement to publish this NEM operating data on the next day - as opposed to in dispatch time, represents a prohibition against publishing it earlier.”	<p>The draft Rule required AEMO to publish the NEM operating data in dispatch time (near real time every five minutes). This would negate the need for AEMO to publish the data in each half-hourly trading interval.</p> <p>The Commission considers that a draft Rule needed to be made despite clause 3.13.1(a) because:</p> <ul style="list-style-type: none"> it is not clear as to whether clause 3.13.1(a) of the Rules allows AEMO to publish the NEM operating data in dispatch time without a Rule change. The draft Rule clarified the Commission’s intention to oblige AEMO to

³⁹ See sections 1.1.6 or A.1.4.4 for the wording of this clause. This clause requires AEMO to make information “available to *Scheduled Generators, Semi-Scheduled Generators* and *Market Participants* on request any information concerning the operation of the *market* not defined by the *AEMC* or the *Rules* as confidential or commercially sensitive and may charge a fee reflecting the cost of providing [this] information”. The NGF considered that this clause allows the NEM operating data to be published without a Rule change.

Issue	Stakeholder	Issue	AEMC responses
			<p>publish the NEM operating data in dispatch time.</p> <ul style="list-style-type: none"> • clause 3.13.1(a) does not meet the intention of the draft Rule requiring the NEM operating data to be made publicly available. <p>The Commission retained this view in the Rule as Made.</p>
2	NGF	Publishing operating data in dispatch time on the same day is a significant change from the current market information publication schedule. Therefore, there should be an unambiguous obligation for AEMO under the Rules to publish details relating to the NEM operating data in dispatch time.	<p>The Commission agrees and made the draft Rule to reflect this view.</p> <p>The Commission retained this view in the Rule as Made.</p> <p>This is discussed in further details in section A.1.4.4.</p>
3	Ignition Energy	“Information is a key component of increasing competition, so long as barriers to entry enable market signals to be acted upon by prospective participants. So while increased transparency is not the only component, Ignition does have the view that increased and broad transparency of market data does assist in the achievement of the national electricity objective”.	<p>The Commission agrees and made the draft Rule to reflect this view.</p> <p>The Commission retained this view in the Rule as Made.</p> <p>In section A.1.1.2, the Commission notes that transparency in the NEM allows its participants to become better informed, and this is likely to improve reliability and security of the power</p>

Issue	Stakeholder	Issue	AEMC responses
			system.
4	Ignition Energy	Some participants may be concerned that publishing the NEM operating data in dispatch time will allow exercise of “some degree of market power”. This Rule change, however will not change whether or not market power will be exercised in the NEM.	<p>The Commission agrees that the draft Rule is unlikely to alter the collusion risks in the NEM.</p> <p>The Commission retained this view in the Rule as Made.</p> <p>This is further discussed in sections 2.7.1.4 and A.1.1.4.</p>
5	Ignition Energy	“Ignition's view is that it is reasonable to assume that the parties who stand most to gain from having this information [relating to the NEM operating data before it is published] are some of those who have sourced it from other providers or sources already. Thereby, the broad public release of the market data by AEMO will not so much equip generators to increase incidence of market power, but more over better equip others to compete on a fair and even basis while still providing the correct signals for future investment.”	<p>The Commission considers that not publishing NEM operating data in dispatch time will not stop some parties from purchasing it from a third party using the technology which senses power line flows. Larger firms more likely to gain access to this technology. This is likely to give rise to information asymmetry risks in the NEM. The draft Rule is likely to reduce these information asymmetry risks.</p> <p>The Commission retained this view in the Rule as Made.</p> <p>This is further discussed in sections 2.7.1.1 and A.1.1.1.</p>
6	Ignition Energy	Ignition Energy does not see any valid reasons not to make the NEM operating data publicly available.	The Commission agrees and made the draft Rule to reflect this view.

Issue	Stakeholder	Issue	AEMC responses
			<p>The Commission retained this view in the Rule as Made.</p> <p>This is further discussed in section A.1.3.</p>
7	Ignition Energy	“Ignition does not favour aggregation [of the NEM operating data]. The level of aggregation useful to different participants will vary and hence Ignition sees it as each participant’s responsibility to aggregate or otherwise using their own or third party software.”	<p>The Commission agrees and made the draft Rule to reflect this view.</p> <p>The Commission retained this view in the Rule as Made.</p> <p>This is further discussed in section A.1.5.</p>

D.2 Second round of consultation

This table provides a summary of the issues raised in the submission received in the second round of consultation on the Rule change request. The submission was received from the NGF.

Issue	Stakeholder	Issue	AEMC responses
1	NGF	“We had hoped that this outcome could be achieved without the need for a Rule change, but we recognise that this Rule change, if made, will lead to a clearer and more secure outcome.”	The Commission considers that the draft Rule and Rule as Made will clarify AEMO’s obligation under the Rules to publish the NEM operating data in dispatch time. This is further discussed in section A.1.4.4.

2	NGF	The NGF supports making changes to the Timetable in the transitional provisions of the Rule, thus enabling increased transparency to be achieved without the need for a separate consultation by AEMO on these Timetable changes.	The Commission agrees with this comment and reflects this view in the draft Rule and the Rule as Made. This is discussed in section A.1.4.
3	NGF	The NGF submitted that the draft Rule “should not preclude the information also being available through the Market Management System, as this system would generally be more convenient for market participants who already receive related information in this way.”	As discussed in sections 2.5.2 and A.1.3, the Commission does not consider the Rule as Made will preclude the NEM operating data from being made available through the Market Management System.