

SPOT MARKET OPERATIONS TIMETABLE CONSULTATION

DRAFT REPORT AND DETERMINATION

Published: **June 2019**





NOTICE OF SECOND STAGE CONSULTATION – SPOT MARKET OPERATIONS TIMETABLE CONSULTATION

National Electricity Rules – Rule 8.9

Date of Notice: 7 June 2019

This notice informs all Registered Participants and interested parties (Consulted Persons) that AEMO is starting the second stage of its consultation on the spot market operations timetable.

This consultation is being conducted under clause 3.4.3(b) of the National Electricity Rules (NER) in accordance with the Rules consultation requirements detailed in rule 8.9 of the NER.

Invitation to make Submissions

AEMO invites written submissions on this Draft Report and Determination.

Please identify any parts of your submission that you wish to remain confidential and explain why. AEMO may still publish that information if it does not consider it to be confidential but will consult with you before doing so.

Consulted Persons should note that material identified as confidential may be given less weight in the decision-making process than material that is published.

Closing Date and Time

Submissions in response to this Notice of Second Stage of Rules Consultation should be sent by email to michael.sanders@aemo.com.au by 5.00pm (Melbourne time) on 5 July 2019.

All submissions must be forwarded in electronic format. Please send any queries about this consultation to the same email address.

Submissions received after the closing date and time will not be valid, and AEMO is not obliged to consider them. Any late submissions should explain the reason for lateness and the detriment to you if AEMO does not consider your submission.

Publication

All submissions will be published on AEMO's website, other than confidential content.

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EXECUTIVE SUMMARY

The publication of this Draft Report and Determination (Draft Report) starts the second stage of the Rules consultation process conducted by AEMO to update the spot market operations timetable under the National Electricity Rules (NER).

AEMO proposed to include five-minute pre-dispatch (5MPD) in the spot market operations timetable because 5MPD, which is currently prepared and published voluntarily, will become compulsory from 1 July 2021. AEMO also proposed to take advantage of this consultation to improve other parts of the spot market operations timetable, which currently can be changed only by following the Rules consultation procedures.

AEMO received two submissions on the Issues Paper. Both agreed with the inclusion of 5MPD in the timetable. Stanwell suggested extending the forecast period and adding price sensitivities to the system target for 5MPD. AEMO considers that it is too early to include any extensions because they are still under discussion.

Origin identified an existing error in the timetable and AEMO has suggested other improvements. These modifications are change-marked in the draft timetable published with this Draft Report.

AEMO's draft determination is to amend the spot market operations timetable in the form published with this Draft Report.



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1. STAKEHOLDER CONSULTATION PROCESS

As required by clause 3.4.3(b) of the NER, AEMO is consulting on the spot market operations timetable in accordance with the Rules consultation procedures in rule 8.9.

AEMO's timeline for this consultation is outlined below. Future dates may be adjusted depending on the number and complexity of issues raised in submissions.

Deliverable	Date
Notice of first stage consultation and Issues Paper published	29 March 2019
First stage submissions closed	10 May 2019
Draft Report and Notice of Second Stage Consultation published	7 June 2019
Submissions due on Draft Report	5 July 2019
Final Report published	16 August 2019

The publication of this Draft Report marks the start of the second stage of consultation.

Note that there is a glossary of terms used in this Draft Report at Appendix A.

2. BACKGROUND

2.1. NER requirements

The spot market operations timetable specifies who must do what by when in the spot market.¹ The contents of the timetable are prescribed by the NER. Since the NEM began in 1998 the timetable has evolved to include elements which are related to, but not part of, the spot market. These elements include the energy adequacy assessment projection (EAAP) and congestion information resource (CIR).

The NER clauses that establish the timetable and the procedures for changing it are as follows:

3.4.3 Spot market operations timetable

- (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*.
- (c) If AEMO amends the *timetable* in accordance with paragraph (b), AEMO must:
 - (1) *publish* the amended *timetable*; and
 - (2) operate the *spot market* according to the *timetable* as amended.

2.2. Context for this consultation

National Electricity Amendment (Five Minute Settlement) Rule 2017 No. 15 will make it mandatory for AEMO to prepare and publish a five-minute pre-dispatch schedule.^{2,3} AEMO believes this change

¹ https://www.aemo.com.au/-/media/Files/Electricity/NEM/Security_and_Reliability/Dispatch/Spot-Market-Operations-Timetable.pdf

² <https://www.aemc.gov.au/sites/default/files/2018-07/ERC0201%20note%20and%20amending%20rule.pdf>

³ AEMO already prepares and publishes a five-minute pre-dispatch schedule voluntarily. The schedule is produced every five minutes and forecasts dispatch and prices for each five-minute period over the next hour.



necessitates inclusion of 5MPD in the spot market operations timetable. AEMO is therefore consulting on changing the timetable as required by clause 3.4.3(b) of the NER.

The Five-Minute Settlement rule will come into effect on 1 July 2021.⁴

2.3. First stage consultation

AEMO issued a Notice of First Stage Consultation and Issues Paper on 29 March 2019.⁵ The key changes proposed in the Issues Paper were:

- Adding five-minute pre-dispatch to the spot market operations timetable
- Removing all references to the interim nature of the congestion information resource
- Correcting any errors in the timetable

AEMO received two written submissions in the first stage of consultation. The submissions were made by Origin Energy and Stanwell Corporation.

3. SUMMARY OF MATERIAL ISSUES

The key material issues arising from the proposal and raised by Consulted Persons are summarised in the following table:

No.	Issue	Raised by
1.	Addition of 5MPD to the spot market operations timetable	AEMO, Origin, Stanwell
2.	Extension of 5MPD beyond the minimum NER requirements	Stanwell
3.	Interim CIR in the spot market operations timetable	AEMO
4.	Other errors in the spot market operations timetable	AEMO, Origin

A detailed summary of the issues raised by Consulted Persons in submissions, together with AEMO's responses, is contained in Appendix B.

4. DISCUSSION OF MATERIAL ISSUES

4.1. Addition of 5MPD to the spot market operations timetable

4.1.1. Issue summary and submissions

AEMO asked whether 5MPD should be included in the spot market operations timetable, and if so, how the requirements should be specified.

Both submissions supported inclusion of 5MPD in the spot market operations timetable.

Origin said that the system target should require 5MPD to be prepared and published every five minutes. Stanwell suggested that the system target should include an extended forecast horizon and the addition of price sensitivities. Stanwell's suggested expansion of 5MPD beyond the minimum NER requirements is discussed separately in Section 4.2.

⁴ The Five-Minute Settlement rule also redefines the current dispatch intervals as trading intervals, and the current trading intervals as 30-minute periods. This is important for interpreting the Five-Minute Settlement rule clauses cited in this Draft Report.

⁵ <https://www.aemo.com.au/Stakeholder-Consultation/Consultations/Spot-Market-Operations-Timetable?Convenor=AEMO%20NEM>.



4.1.2. AEMO's assessment

AEMO considers that 5MPD should be included in the spot market operations timetable. The submissions agree.

The Five-Minute Settlement rule adds 5MPD to the definition of pre-dispatch but makes no changes to NER 3.8.20(h) and 3.13.4(i), which require AEMO to prepare and publish pre-dispatch results in accordance with the timetable. Consequently, it seems essential to include 5MPD in the spot market operations timetable to comply with NER 3.8.20(h) and 3.13.4(i).

AEMO also considers that 5MPD should be prepared and published every five minutes, as suggested by Origin.

NER 3.13.4(i) allows AEMO up to three hours between pre-dispatch runs, including when pre-dispatch must include 5MPD. In practice AEMO runs half-hourly pre-dispatch every half hour, and 5MPD every five minutes. For half-hourly pre-dispatch, the current spot market operations timetable records the three-hourly NER requirement but specifies a half-hourly system target. AEMO proposes to follow a similar formulation for 5MPD.

4.1.3. AEMO's conclusion

AEMO will include 5MPD in the relevant sections of the spot market operations timetable, with a system target to prepare and publish 5MPD every five minutes.

The changes are marked up in the draft timetable that is published with this Draft Report.

4.2. Extension of 5MPD beyond the minimum NER requirements

4.2.1. Issue summary and submissions

The Five-Minute Settlement rule allows for the extension of the forecast horizon for 5MPD and the addition of price sensitivities.

The new clause 3.8.20(b)(2) in the Five-Minute Settlement rule says that the minimum forecast horizon for 5MPD is 60 minutes but can be longer:

3.8.20(b) The *pre-dispatch process* is to have a resolution of:

- (1) one 30-minute period; and
- (2) one *trading interval*, for the period of 60 minutes from the time that the relevant *pre-dispatch schedule* is published by AEMO, provided that AEMO may at any stage provide the resolution required by this clause 3.8.20(b)(2) for a period longer than 60 minutes.

The new clause 3.13.4(h1) says that 5MPD may also include price sensitivities:⁶

3.13.4(h1) Together with its forecast *spot prices*, AEMO may *publish* details of the expected sensitivity of the forecast *spot prices* for each *trading interval* to changes in the forecast *load* or *generating unit* availability.

AEMO has been discussing the possible extension of 5MPD with participants as part of the five-minute settlement work programme. Stanwell's submission supports the addition of an extended forecast horizon and price sensitivities to the system target for 5MPD. Stanwell's submission adds that:

⁶ 5MPD currently contains no price sensitivities.



“The extended 5 minute pre-dispatch should be as defined in previous market working and focus groups of a period of six hours of five minute resolution pre-dispatch. Stanwell suggests that run/publication of pre-dispatch schedules for the trading intervals should be defined as:

- for the first 60 minutes be defined as occurring every five minutes,
- for trading intervals beyond the first 60 minutes - run/publication of pre-dispatch schedules should occur every 30 minutes.”

4.2.2. AEMO’s assessment

AEMO considers it premature to add a longer forecast horizon and price sensitivities to the system target for 5MPD because the extent of any additions is still under discussion.

AEMO is aware of the industry’s interest in extending the scope of 5MPD. However, discussions on extending the scope of 5MPD have taken longer than anticipated. Until there is a clear specification on what, if any, extensions should be made to 5MPD, it is too early to include them in the spot market operations timetable.

AEMO notes that it can implement any agreed extensions to 5MPD without them being specified in the spot market operations timetable, just as AEMO performs 5MPD even though it is not yet an NER requirement. If considered desirable, the timetable could be further amended later to incorporate any extensions.

4.2.3. AEMO’s conclusion

AEMO will not add an extended forecast horizon or price sensitivities to the system target for 5MPD in the spot market operations timetable.

4.3. Interim CIR in the spot market operations timetable

4.3.1. Issue summary and submissions

The spot market operations timetable contains a section on an interim congestion information resource with references to transitional rule 11.30 of the NER. AEMO proposed removing all references to the interim nature of the CIR and updating the NER references.

There were no submissions on this issue.

4.3.2. AEMO’s assessment

The interim CIR was required by National Electricity Amendment (Congestion Information Resource) Rule 2009 No. 16.⁷ The Congestion Information Resource rule required AEMO to develop an interim CIR by 1 March 2010 and include the intervals for updating and publishing the CIR in the spot market operations timetable.

The interim CIR was superseded by the CIR developed under rule 3.7A of the NER and first published on 1 September 2011. The spot market operations timetable was not updated at that time.

⁷ <https://www.aemc.gov.au/sites/default/files/content/a2377738-0e2e-407b-a5eb-281580cc70f8/Congestion-Information-Resource-Rule.PDF>.



4.3.3. AEMO's conclusion

AEMO will remove all references to the interim nature of the CIR and update the associated NER references.

The changes are marked up in the draft timetable that is published with this Draft Report.

4.4. Other errors in spot market operations timetable

4.4.1. Issue summary and submissions

AEMO noted that miscellaneous errors had entered the spot market operations timetable over time, and that errors could be corrected only in accordance with the Rules consultation procedures. AEMO invited identification of errors in the timetable during the current consultation.

Origin submitted that:

- Daily MT PASA publication is missing from the timetable; and
- The market information intended specifically for constrained generators and their network service providers should be removed from the timetable because the enabling clause 3.13.4(o) has been deleted.

4.4.2. AEMO's assessment

AEMO does not agree with Origin's view that daily MT PASA publication is missing from the spot market operations timetable. MT PASA has a daily resolution but requires only weekly publication under NER 3.7.2(a).⁸ Unlike pre-dispatch and ST PASA, AEMO has not set a system target that is higher than the Rules requirement for MT PASA. Weekly publication of MT PASA, with daily resolution, is included in the final row of Section 2.2 PASA.

AEMO agrees with Origin that the specific requirement to provide constraint information to constrained generators and their network service providers should be removed from the spot market operations timetable following the deletion of NER 3.13.4(o). For information, the deleted clause said:

3.13.4(o) Within 2 *business days* of an event whereby a *scheduled generating unit* has been *constrained off or constrained on* in the *central dispatch* by a *network constraint* within its own *region*, NEMMCO must advise the *Scheduled Generator* and *Network Service Provider*, with whom the relevant *Scheduled Generator* has a *connection agreement* in respect of that *scheduled generating unit*, of the following information:

- (1) the *dispatch intervals* in which the *constraint* applied; and
- (2) NEMMCO's reasonable estimate of the MW quantities at which the *scheduled generating unit* would otherwise have been *dispatched* in each relevant *trading interval* in accordance with its *dispatch offer* and in the absence of the *network constraint*.

AEMO thanks Origin for identifying this redundant provision.

AEMO has identified other errors and change-marked them in the draft timetable that is published with this Draft Report. The most noteworthy of these changes are:

⁸ NER 3.7.2(b) allows AEMO to publish MT PASA more often in the event of changes that AEMO considers materially significant. Normally AEMO publishes MT PASA, with a daily resolution and a two-year time horizon, every Tuesday.



- Deletion of a repeated row beginning “Day-1” in Section 2.1 Offers and bids.
- Removal of the requirement to publish half-hourly regional non-scheduled generation. AEMO publishes the information specified in NER 3.13.4(x), but the Rules do not require this to be done in accordance with the timetable.
- Correction to the timing and frequency of the publication of ancillary services costs associated with NER 3.13.5(a).
- Changes to the details of participant payments in cases when AEMO receives late payment for a payment default.
- Removal of the requirement to publish quarterly mis-pricing information. AEMO publishes the information specified in NER 3.7A(b)(2), but following the 2015 CIR consultation this information is published in the DISPATCH_LOCAL_PRICE table of the MMS Data Model in real time.

4.4.3. AEMO’s conclusion

AEMO will remove the requirement to provide constraint information to generators and their network service providers from the spot market operations timetable, together with the deletion of other unnecessary or redundant provisions, updates for consistency with current NER and the correction of minor errors, as marked up in the draft timetable published with this Draft Report.

5. OTHER MATTERS

Origin submitted that the Rules requirement to perform and publish pre-dispatch at least every three hours seemed too infrequent for 5MPD and suggested that AEMO consider proposing a rule change to require 5MPD to be run at least every 30 minutes.

AEMO agrees that allowing up to three hours between consecutive 5MPD runs seems unusual and believes that this was most likely an oversight in the Five-Minute Settlement rule change. However, as AEMO can run 5MPD more frequently (with a target of every five minutes) and still meet the rule requirement, AEMO does not currently intend to propose a rule change to shorten the interval.

6. DRAFT DETERMINATION

Having considered the matters raised in the submissions, AEMO’s draft determination is to amend the spot market operations timetable in the form published with this Draft Report, in accordance with clause 3.4.3 of the NER.



APPENDIX A. GLOSSARY

Term or acronym	Meaning
5MPD	five-minute pre-dispatch
CIR	congestion information resource
Draft Report	Draft Report and Determination
EAAP	energy adequacy assessment projection
NER / Rules	National Electricity Rules
timetable	spot market operations timetable



APPENDIX B. SUMMARY OF SUBMISSIONS AND AEMO RESPONSES



No.	Consulted person	Issue	AEMO response
1.	Origin	Five-minute pre-dispatch should be included in the spot market timetable	Agree. (Section 4.1.2 of the Draft Report.)
2.	Origin	<p>Assuming pre-dispatch is defined in the Rules as 5 minutes or 30 minutes resolution, existing pre-dispatch time frames can be slightly modified.</p> <p><i>In Section 4.3 Pre-Dispatch and Dispatch:</i> Day-1: Frequency: system target is 5 minutes. Comments: Pre-dispatch schedule is provided as combinations of 5 minutes and 30 minutes resolutions.</p> <p><i>In Section 4.4 Market Information:</i> All sections related to pre-dispatch would need to be adjusted to cater for 5 minutes and 30 minutes resolution. Also, system target must be 5 minutes.</p>	Agree that system target should be five-minute frequency for 5MPD. (Section 4.1.2 of the Draft Report.)
3.	Origin	<p><i>In Section 4.2 PASA</i> Daily MTPASA publication is missing from the timetable.</p> <p><i>In Section 4.4 Market Information:</i> Rule 3.13.4 (o) has been removed from the NER – so suggest removing the relevant obligations in the timetable (Day 0).</p>	Disagree that daily MT PASA publication is missing. Agree that obligations from deleted 3.13.4(o) should be removed. (Section 4.4.2 of the Draft Report.)
4.	Origin	<p>Rule 3.13.4 (i) requires changes in light of 5 minutes settlement: With the 30 minutes pre-dispatch minimum time requirement is 3 hours and seems reasonable. However, with 5 minutes pre-dispatch 3 hours minimum requirement seems too long. We suggest AEMO consider a future rule change to reduce the minimum requirement to 30 minutes.</p>	Agree that the three-hour period is incongruent with the aims of 5MPD. Decline to propose a rule change request. (Section 5 of the Draft Report.)
5.	Stanwell	Stanwell supports the inclusion of five-minute pre-dispatch in the spot market operations timetable.	Agree. (Section 4.1.2 of the Draft Report.)



No.	Consulted person	Issue	AEMO response
6.	Stanwell	<p>Stanwell supports AEMO's approach of a statement of minimum NER requirements plus extended system target. Stanwell agrees that both the sensitivities and extended 5 minute pre-dispatch should be included in the extended system target.</p> <p>The extended 5 minute pre-dispatch should be as defined in previous market working and focus groups of a period of six hours of five minute resolution pre-dispatch. Stanwell suggests that run/publication of pre-dispatch schedules for the trading intervals should be defined as:</p> <ul style="list-style-type: none">• for the first 60 minutes be defined as occurring every five minutes,• for trading intervals beyond the first 60 minutes - run/publication of pre-dispatch schedules should occur every 30 minutes.	<p>5MPD extensions have not been agreed and so are not ready to include as system targets. (Section 4.2.2 of the Draft Report.)</p>