AEMC

RULE

Australian Energy Market Commission

CONSULTATION PAPER

NATIONAL ELECTRICITY AMENDMENT (FIVE MINUTE SETTLEMENT AND GLOBAL SETTLEMENT IMPLEMENTATION AMENDMENTS) RULE 2019

PROPONENT

Australian Energy Market Operator

13 JUNE 2019

INQUIRIES

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ABOUT THE AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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1 INTRODUCTION

On 15 March 2019, the Australian Energy Market Commission (Commission) received a rule change request from the Australian Energy Market Operator (AEMO)[1] relating to the implementation of the Five minute settlement[2] and Global settlement and market reconciliation (Global settlement)[3] rules. This rule change seeks to amend six areas of the National Electricity Rules (NER) that AEMO considers would assist in implementing five minute settlement and global settlement effectively and efficiently. The changes seek to improve wholesale market operations under five minute settlement, clarify global settlement arrangements and improve information provision requirements.

On 13 May 2019, the Commission received an addendum to the Five minute settlement and global settlement implementation amendments rule change request from AEMO.[4] The addendum identified three further areas of the NER that AEMO is seeking to have amended as part of this rule change request. The three further areas all seek to clarify global settlement arrangements, to avoid unintended consequences of implementing the global settlement rule.

AEMO has requested that all nine proposed amendments to the NER be part of the same (single) rule change request.

1.1 Treatment as a non-controversial rule change

AEMO considers that all proposed amendments to the NER, in its rule change request, will not have a significant effect on the National Electricity Market (NEM) and are non-controversial. Therefore, AEMO requests that its rule change request is a request for a non-controversial rule and should follow the expedited rule change process under s. 96 of the National Electricity Law (NEL).

The Commission considers that the rule change request is a request for a non-controversial rule (and as such, should be processed on an expedited basis) because the proposed changes to the NER are unlikely to have a significant effect on the NEM. The rule change involves administrative and technical amendments, that are mostly minor, and are unlikely to have a significant effect on the NEM. Rule changes that are considered to be non-controversial may be processed under an expedited (faster) process under which there is only one round of consultation and the AEMC must publish its final rule determination within eight weeks of commencing the rule change process.[5]

The Commission has decided to use an expedited process to consider this rule change request provided that it does not receive any valid requests not to use the expedited process

1 AEMO, *Five-minute settlement and global settlement implementation amendments rule change request*, 15 March 2019.

2 *National Electricity Amendment (Five Minute Settlement)*, Rule 2017 No. 15.

3 *National Electricity Amendment (Global Settlement and Market Reconciliation)*, Rule 2018, No. 14.

4 AEMO, *Addendum to five-minute settlement and global settlement implementation amendments rule change request*, 13 May 2019.

5 Section 96 of the NEL.

by 27 June 2019. To be valid, an objection should set out the reasons why the rule change request will have a significant impact on the NEM.

1.2 Key dates

Key dates for stakeholders in this process are as follows:

- Commencement of this rule change process - 13 June 2019
- Objections to an expedited process to be received by - 27 June 2019
- Submissions to the proposal to be received by - 11 July 2019
- Final determination to be published under an expedited process - 8 August 2019.

Note in contrast to the standard rule making process an expedited rule making process does not include a draft determination.

This paper:

- sets out a summary of, and background to, the rule change request
- identifies questions and issues to facilitate consultation on this rule change request
- outlines the process for making submissions.

2 BACKGROUND

This chapter provides relevant background information to the rule change request. It provides:

- an overview of the Five minute settlement rule
- an overview of the Global settlement rule
- an overview of the rule change request on Five minute settlement and global settlement implementation amendments, that is the subject of this consultation paper.

2.1 Five minute settlement rule

On 28 November 2017, the Commission made a rule to align operational dispatch and financial settlement at five minutes. The five minute settlement rule would reduce the time interval for financial settlement in the NEM from 30 minutes to five minutes. The rule was made in respect of a rule change request received from Sun Metals Corporation Pty Ltd (Sun Metals) in December 2015.[6]

Benefits of five minute settlement rule change

The Commission considered that aligning dispatch and settlement at five minutes would have the following significant enduring benefits, relative to the current arrangements, including:[7]

- improved price signals for more efficient generation and use of electricity
- improved price signals for more efficient investment in capacity and demand response technologies to balance supply and demand
- improved bidding incentives.

Implementation of five minute settlement rule change

The five minute settlement rule allowed for an implementation period of 3 years and 7 months, such that the rule would commence on 1 July 2021. Implementation of five minute settlement requires AEMO and NEM participants to make changes prior to the commencement date. These changes include:

- upgrading metering to provide five minute granularity data (where required)
- updating IT systems to store and process five-minute granularity data
- reviewing and where necessary updating existing contract terms and conditions.

For more information on the five minute settlement rule change, refer to the AEMC project page.[8]

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6 The final rule is a more preferable rule.

7 AEMC, *Five minute settlement*, Final determination, 28 November 2017, p.ii.

8 See AEMC, Five minute settlement, at: https://www.aemc.gov.au/rule-changes/five-minute-settlement

2.2 Global settlement rule change

On 6 December 2018, the Commission made a rule to introduce a 'global settlement' framework for settlement of the demand side of the wholesale electricity market. The global settlement rule moves away from the current 'settlement by difference' approach. The rule was made in respect of a rule change request received from AEMO on 16 March 2018.[9]

Background on settlements, 'settlements by difference' and 'global settlements'

The NEM is a gross electricity pool market operated by AEMO. All electricity supplied to the market and consumed by end users is transacted at the spot price for each trading interval in each region. The market settlement process requires that generators are paid for the energy they provide to the NEM and market customers pay for the energy they use. Market customers are primarily electricity retailers who purchase wholesale electricity to on-sell to their retail customers, but also include some large industrial customers.[10]

Under the current market settlement framework, known as 'settlement by difference', electricity supplied to a distribution area is billed to the incumbent retailer known as the local retailer, except for the loss-adjusted metered electricity that is consumed by the customers of independent retailers within the area. This means that the local retailer for an area bears the risk of all residual electricity losses in that area - known as unaccounted for energy (UFE). UFE includes unaccounted for technical losses, commercial losses and errors in estimating the half-hourly - soon to be five minute - consumption of basic metering installations that do not keep track of how electricity usage varies throughout the day.[11]

Under a global settlement framework, every retailer is billed for the loss-adjusted metered electricity that is consumed by their customers within the area. UFE is allocated to market customers in a local area, pro-rated based on their 'accounted-for' energy.[12]

Benefits of global settlement rule change

The global settlement rule, which will commence on 6 February 2022, moves away from the 'settlement by difference' approach which has been in place since the start of the NEM. When the NEM started in 1998, the local retailer in each local area supplied the vast majority of all customers in the area. It was therefore appropriate for the local retailers to bear the risk of UFE within the local area. With the introduction of retail competition this is no longer the case - the local retailer, a notionally anachronistic role, is just one of a number of competitive retailers servicing an area. Therefore, the Commission agreed with AEMO that settlements by difference is no longer a fit for purpose approach to settlements.[13]

The key benefits of moving to a global settlements framework include:[14]

9 The final rule was a more preferable rule. It is generally consistent with AEMO's rule change request but varies in some specific design elements of global settlements. AEMC, *Global Settlement and Market Reconciliation*, Rule determination, 6 December 2018, p.i.

10 AEMC, *Global Settlement and Market Reconciliation*, Rule determination, 6 December 2018, p.i.

11 Ibid.

12 Ibid.

13 Ibid.

14 Ibid, p.ii.

- improved transparency, leading to fewer settlement disputes between retailers and lower levels of UFE over time
- competition on equal terms between the local retailer and other retailers
- improved risk allocation, so that risks are allocated to those parties that are best placed to manage them.

Implementation of global settlement rule change

In addition to the benefits outlined above, the Commission noted in its final determination published in December 2018, that it was the appropriate time to move to a global settlements approach because its implementation could be synchronised with implementation of the five minute settlement rule, which would reduce implementation costs.[15]

For more information on the global settlement rule change, refer to the AEMC project page.[16]

2.3 Overview of AEMO's current rule change request on five minute settlement and global settlement implementation amendments

On 15 March 2019, the Commission received a rule change request from AEMO seeking to amend six areas of the NER, relating to the implementation of the Five minute settlement and Global settlement rules.[17]

On 13 May 2019, the Commission received an addendum to the Five minute settlement and global settlement implementation amendments rule change request from AEMO.[18] The addendum identified three further areas of the NER that AEMO is seeking to amend as part of the Five minute settlement and global settlement implementation amendments rule change request.

Copies of the rule change request dated 15 March 2019, and the addendum to the rule change request dated 13 May 2019, may be found on the AEMC website, www.aemc.gov.au.

The AEMC has grouped the nine issues raised by AEMO in their rule change request into the broad areas of:

- **wholesale market operations for five minute settlement** - three issues discussed in Chapter 3 of this consultation paper
- **clarifying global settlement** - four issues discussed in Chapter 4 of this consultation paper
- **information provision** - two issues discussed in Chapter 5 of this consultation paper.

Table 2.1 below details the issues that are included in each of these broad categories and the sections of Chapters 3, 4 or 5 and 7 that they are discussed in this consultation paper.

15 AEMC, *Global settlement and market reconciliation*, Rule determination, 6 December 2018, p.i.

16 See AEMC, Global settlement and market reconciliation, at: https://www.aemc.gov.au/rule-changes/global-settlement-and-market-reconciliation

17 AEMO, *Five-minute settlement and global settlement implementation amendments rule change request*, 15 March 2019.

18 AEMO, *Addendum to five-minute settlement and global settlement implementation amendments rule change request*, 13 May 2019.

Table 2.1: **Summary of proposals in five minute settlement and global settlement implementation amendments rule change request**

BROAD ISSUE	RULE CHANGE PROPOSAL	SECTION OF THIS CONSULTATION PAPER
Wholesale market operations for five minute settlement	• Resolution for calculating marginal loss factors (MLFs) - 30 minutes or shorter • Accommodating fast-start plant in pre-dispatch • Correction to list of AEMO procedures	3.1 and 7.1 3.2 and 7.2 3.3 and 7.3
Clarifying global settlement	• Assigning non-market unmetered loads to a Transmission Node Identified (TNI) or Virtual Transmission Node (VTN) • Removing retailer financial responsibility at transmission / distribution boundary points • All customer loads to be market loads • UFE not to be allocated to distribution-connected generators.	4.1 and 7.4 4.2 and 7.5 4.3 and 7.6 4.4 and 7.7
Information provision	• Amending the spot market operations timetable • Timing for AEMO to publish UFE data	5.1 and 7.8 5.2 and 7.9

3 RULE CHANGE REQUEST PROPOSALS - WHOLESALE MARKET OPERATIONS FOR FIVE MINUTE SETTLEMENT

This chapter provides a summary of the issues and proposed solutions relating to wholesale market operations for five minute settlement, as outlined in the Five minute settlement and global settlement implementation amendments rule change request.

3.1 Resolution for calculating MLFs - 30 minutes or shorter

BOX 1: SUMMARY

There is currently high industry focus on the methodology for calculating MLFs, due to their effect on wholesale spot prices, and therefore the revenues received by generators. The AEMC has commenced the assessment of two separate rule change requests from Adani Renewables to amend the NER in relation to the transmission loss factors framework in the NEM. The AEMC has consolidated these two rule change requests into a single rule change request that is referred to as Transmission Loss Factors, and is available on the AEMC website below:

https://www.aemc.gov.au/rule-changes/transmission-loss-factors

The rule change request on Transmission Loss Factors is expected to be finalised after the completion of the rule change request that is the subject of this consultation paper. The rule change request on Transmission Loss Factors will consider the basis of the overall calculation of loss factors and is broader in scope than the specific change proposed in this rule change request. If the specific change in this rule change request is made, it would not prevent the AEMC from subsequently considering the timing and granularity of the MLF calculation in the separate rule change request on Transmission Loss Factors.

The specific change proposed in this rule change request is to provide AEMO with the flexibility to calculate MLFs using either 30 minute or shorter (e.g. 5 minute) resolution data. AEMO suggests that the benefits of this proposal are that:

- It would allow AEMO to retain their current method of calculating MLFs on a 30 minute basis and avoid the requirement (in the five minute settlement rule) to update AEMO's calculation to be based on 5 minute data, which would be costly and resource intensive.
- There is negligible benefit (minor accuracy improvements) in calculating MLFs on a 5 minute basis instead of a 30 minute basis, as both methods involve the same inputs into the calculation, which are averaged over a whole year, meaning that the outcomes are similar irrespective of the granularity of this input data.

3.1.1 Background and current arrangements

Electricity losses in transmission occur as electricity flows from generation to load connection points. The amount of electricity lost during transmission is a function of physics. These losses need to be priced and factored into electricity prices paid to generators and recovered from customers.

Intra-regional loss factors (IRLFs) represent the marginal transmission losses between a regional reference node (RRN) and a connection point. The common industry term for IRLFs is MLF. MLF's are used for various purposes, including:

- in the NEM dispatch process to refer bid and offer prices from connection points to the RRN
- in the NEM settlement process to calculate settlement prices for connection points
- as locational signals for investment decision-making.

AEMO is responsible for calculating IRLFs and MLFs used in the NEM, in accordance with the NER. Under clauses 3.6.1 and 3.6.2 of the NER, AEMO currently calculates IRLFs for each transmission network connection point using its *Forward looking transmission loss factors methodology.*[19] This involves:

- **Calculating MLFs -** for each 30 minute period for each connection point for the next financial year, using inputs such as connection point energy forecasts, generator availability and generation, and transmission constraints.
- **Calculating IRLFs -** volume weighting the MLFs for each 30 minute period for each connection point (with respect to the RRN) to provide a static value that applies for the whole of the next financial year. So the published IRLF is an annual average.

3.1.2 Change made in five minute settlement rule

From the commencement of the five minute settlement rule, the definition of trading interval will change from 30 minutes to 5 minutes.[20] This means that for AEMO to comply with clause 3.6.2 of the NER, the IRLF would need to be calculated on a 5 minute basis. It would continue to be averaged over the year.

3.1.3 AEMO's proposal in this rule change request

AEMO suggests there is negligible benefit in calculating MLFs on a 5 minute basis as the current NER (clause 3.6.2) requires AEMO to calculate each IRLF as an annual weighted average of the MLFs. This means that the outcome under the current 30 minute methodology would be similar to a 5 minute methodology, irrespective of the granularity of the input data.

AEMO suggests that, due to current systems, it would be costly and resource-intensive to update the offline calculation tool to calculate 5 minute MLFs.[21] Therefore, AEMO suggests to retain the current approach of calculating MLFs on a 30 minute basis and provide flexibility by

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19 AEMO, *Forward looking transmission loss factors methodology*, version 7, 8 February 2017.

20 AEMC, *Five minute settlement*, Rule determination, 28 November 2017, p.iv.

21 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p.6.

enabling MLFs to be calculated on a shorter period of time in future if there is a case to do so (e.g. data systems are updated for other reasons).

AEMO notes that:

- There have been large changes in year-on-year IRLFs, such that AEMO has initiated work with industry on whether the methodology is fit for purpose.
- The AEMC is separately considering two rule change requests from Adani Renewables relating to the transmission loss factors framework in the NEM.

The AEMC has consolidated these two rule change requests from Adani Renewables to enable consideration of broader issues around how the transmission loss factor framework can continue to send the most appropriate signals to investors in the face of power system restructuring. On 6 June 2019, the AEMC published a consultation paper on the consolidated rule change request, referred to as Transmission Loss Factors.[22]

3.2 Accommodating fast start plant into pre-dispatch

BOX 2: SUMMARY

This rule change request seeks to remove the inconsistency between the pre-dispatch schedule and dispatch for fast start plant under five minute settlement, by enabling AEMO to incorporate fast start inflexibility profiles in the pre-dispatch schedule. The proposal supports a key purpose of the five minute settlement rule - to provide incentives for fast start plant (i.e. fast start generators and batteries) to respond to supply and demand changes in the shortest timeframe practicable.

AEMO claims that if dispatch inflexibility profiles are not allowed to be taken into account in the pre-dispatch schedule, this may reduce the ability of fast start plant to comply with their pre-dispatch schedule obligations. This may restrict the ability of fast start plant to participate in the wholesale electricity market.

3.2.1 Background and current arrangements

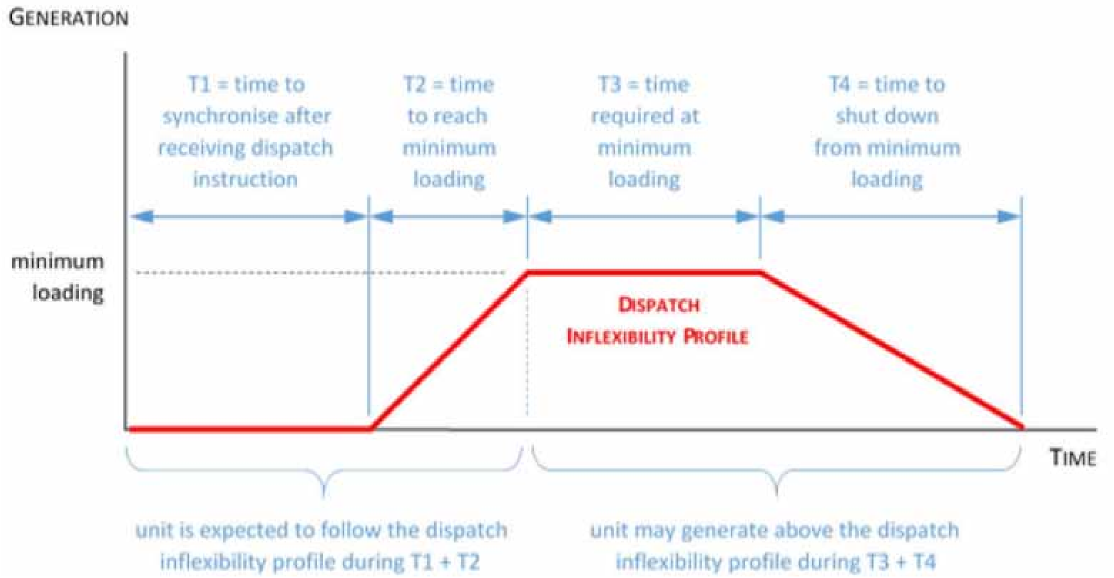
Dispatch inflexibility profiles are commonly known as fast start inflexibility profiles. They include the:

- required time (T1) to increase loading from 0 MW after receiving a dispatch instruction
- required time (T2) to reach minimum load
- required time (T3) at minimum load
- required time (T4) to decrease loading from minimum load to zero

22 For more information on the Transmission Loss Factors rule change process, see https://www.aemc.gov.au/rule-changes/transmission-loss-factors

Figure 3.1 illustrates fast start inflexibility profiles.

Figure 3.1: Fast start inflexibility profile for a generator



Source: AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p7.

Under the current arrangements, fast start inflexibility profiles are incorporated into dispatch, but are prohibited from being incorporated into the pre-dispatch schedule. The current arrangements, specifically, are:

- **Pre-dispatch -** NER clause 3.8.20(d) states that in determining the pre-dispatch schedules AEMO shall not take account of any dispatch inflexibility profile. This clause was in version 1 of the NER,[23] and AEMO suggests a plausible explanation is that because fast-start plant can synchronise and reach minimum load within 30 minutes, and because pre-dispatch had a 30 minute resolution, fast start inflexibility profiles were considered an unnecessary sophistication when calculating pre-dispatch.[24]
- **Dispatch -** fast start inflexibility profiles are used when a generator wants a unit to be committed through the central dispatch process. They ensure that dispatch instructions reflect the physical capabilities of the generating unit. Only generating units that can synchronise and reach minimum load in less than 30 minutes can be committed in this way.

3.2.2 Change made in five minute settlement rule

The Five minute settlement rule in NER cl. 3.8.20(b) requires AEMO to also provide a pre-dispatch schedule covering each 5 minute trading interval for a minimum of 60 minutes prior

23 It is noted that NER clause 3.8.20(d) was in version 1 of the NER, so likely came from the previous Electricity Code.

24 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p7.

to dispatch.[25] As a voluntary initiative, AEMO currently provides a 5 minute pre-dispatch schedule for 60 minutes prior to dispatch.

Once it is mandated under the NER (from 1 July 2021), under NER clause 3.8.20(g), fast start plant will need to ensure that it is able to dispatch its relevant plant as required under the 5 minute pre-dispatch schedule or else rebid.

3.2.3 AEMO's proposal in this rule change request

AEMO suggests that NER clauses 3.8.20(d) and 3.8.20(g) would be mutually incompatible under five minute settlement, and therefore proposes that NER clause 3.8.20(d) be deleted.[26] The relevant clauses are:

- NER clause 3.8.20(d) prevents AEMO from taking account of dispatch inflexibility profiles in determining the 5 minute pre-dispatch schedule
- NER clause 3.8.20(g) requires fast-start plant to be able to dispatch their relevant plant in accordance with the 5 minute pre-dispatch schedule, or else rebid.

AEMO suggests it may be impossible for fast start plant to comply, no matter how often and diligently they rebid.[27] For example if the pre-dispatch schedule does not account for the restriction that a particular fast start plant takes 10 minutes to start generating, that generator may be scheduled to start supplying power from the moment its offer price is less than the clearing price in 5 minute pre-dispatch, even though it is physically incapable of this. The plant may then need to rebid their availability to zero to comply, preventing their participation in the market.

Figure 3.2 below summarises the current and proposed arrangements relating fast start inflexibility profiles in pre-dispatch and the dispatch process.

Figure 3.2: Current arrangements and proposed change to include fast start inflexibility profiles in pre-dispatch

	Pre-dispatch schedule		Dispatch
Time before dispatch:	**24 hours**	**60 mins**	**0 mins**
Current arrangements			
30 minute resolution	Does not take into account fast start inflexibility profiles		n/a
5 minute resolution		*Cannot take into account fast start inflexibility profiles	Fast start inflexibility profiles taken into account
Proposed change in this rule change request			
30 minute resolution	Does not take into account fast start inflexibility profiles		n/a
5 minute resolution		*Takes into account fast start inflexibility profiles.	Fast start inflexibility profiles taken into account

Source: AEMC

25 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p7.
26 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p8.
27 Ibid, p8.

3.3 Correction to list of AEMO procedures for five minute settlement

BOX 3: SUMMARY

This rule change request proposes to transfer the obligation in the transitional provisions of the five minute settlement rule for amending the Reliability standards and settings (RSSR) guidelines from AEMO to the Reliability Panel. AEMO notes that there was an error made in placing this obligation on AEMO, as it has no authority to amend the RSSR guidelines. It is the Reliability Panel's responsibility to make and amend the RSSR guidelines.

AEMO suggests that it may have been possible that AEMO's Reliability Standard Implementation Guideline (RSIG) were instead intended to be included in the five minute settlement transitional arrangements, however AEMO has confirmed that the RSIG does not need to be amended to reflect the five minute settlement rule.

3.3.1 Background and current arrangements

RSSR guidelines

The RSSR guidelines set out the principles and assumptions that the Reliability Panel will use in conducting its four-yearly review of the reliability standard and settings. It is the Reliability Panel's responsibility to develop and publish, and amend from time to time, the RSSR guidelines.[28]

RSIG

The RSIG sets out how AEMO must implement the reliability standard. The RSIG must include the approach AEMO will use and the assumptions it will make in relation to a range of factors, including demand for electricity, the reliability of existing and future generation, and energy constraints and network constraints. It is AEMO's responsibility to develop and publish, and amend from time to time, the RSIG.[29]

3.3.2 Change made in five minute settlement rule

The five minute settlement rule inserted a new transitional clause[30] that lists the procedures and other documents that need to be reviewed and amended to accommodate five minute settlement. This clause requires AEMO, the AER and Information Exchange Committee to review and amend their relevant procedures, generally by 1 December 2019. This clause included a requirement for AEMO to update the RSSR guidelines.[31]

28 NER clause 3.9.3A.

29 NER clause 3.9.3D.

30 NER clause 11.103.3

31 AEMC, *National Electricity Amendment (Five minute settlement) Rule 2017 No. 15*, p39.

3.3.3 AEMO's proposal in this rule change request

RSSR guidelines

AEMO notes that, as the Reliability Panel determines the RSSR guidelines under clause 3.9.3A of the NER, the inclusion of the RSSR guidelines in the list of documents to be reviewed and amended by AEMO under clause 11.103.2(a) appears to be an error. AEMO notes that it has no authority to review the RSSR guidelines, which are to be made and amended by the Reliability Panel.[32]

AEMO notes that the RSSR guidelines will likely require some amendments to reflect the five minute settlement rule. For example, changing references from 'dispatch interval' to 'trading interval' and the number of trading intervals in the cumulative price threshold. AEMO therefore propose that the RSSR guidelines be:

- removed from the list of AEMO documents that need to be reviewed, and where necessary amended, to reflect the five minute settlement rule,
- retained in the transitional provisions for review, and where necessary amendment, by the Reliability Panel.

RSIG

AEMO suggests that it may have been possible that AEMO’s RSIG were intended to be included in the five minute settlement transitional clause. However AEMO has confirmed that the RSIG does not need to be amended to reflect the five minute settlement rule and therefore it does not need to be included in the transitional clause.

32 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, pp8-9.

4 RULE CHANGE REQUEST PROPOSALS - CLARIFYING GLOBAL SETTLEMENT ARRANGEMENTS

This chapter provides a summary of the issues and proposed solutions to clarify global settlement arrangements, as outlined in the Five minute settlement and global settlement implementation amendments rule change request.

4.1 Assigning non-market unmetered loads to TNI or VTN

BOX 4: SUMMARY

This rule change request proposes to clarify the global settlements rule to ensure that the costs of loads such as public BBQs, lighting for sports grounds and NBN cabinets ('non-market unmetered loads') are accurately matched to and thereby paid for by the respective franchise customer (local council or telecommunications company). The proposal clarifies that each load's network connection point can be assigned to the appropriate TNI or VTN rather than all of these loads being assigned to the same (single) TNI/VTN.

4.1.1 Background and current arrangements

This issue relates to the assignment of unmetered non-contestable loads to the appropriate TNI or VTN for the purposes of market settlement.[33] These loads include sports ground lighting, public BBQ's, NBN cabinets and bus shelters. These loads do not meet the criteria for type 7 metering installations because they do not meet the minimum acceptable standard for Type 7 metering arrangements, which require metering data to be calculated, determined, processed and delivered in accordance with the metrology procedure.

These loads are non-contestable customers that are supplied off market by the local retailer. The consumption and costs of those loads are agreed between the local retailer, local network service provider and the local council or telecommunications company. As such, these loads would form part of UFE,[34] if not specifically settled in the NEM.

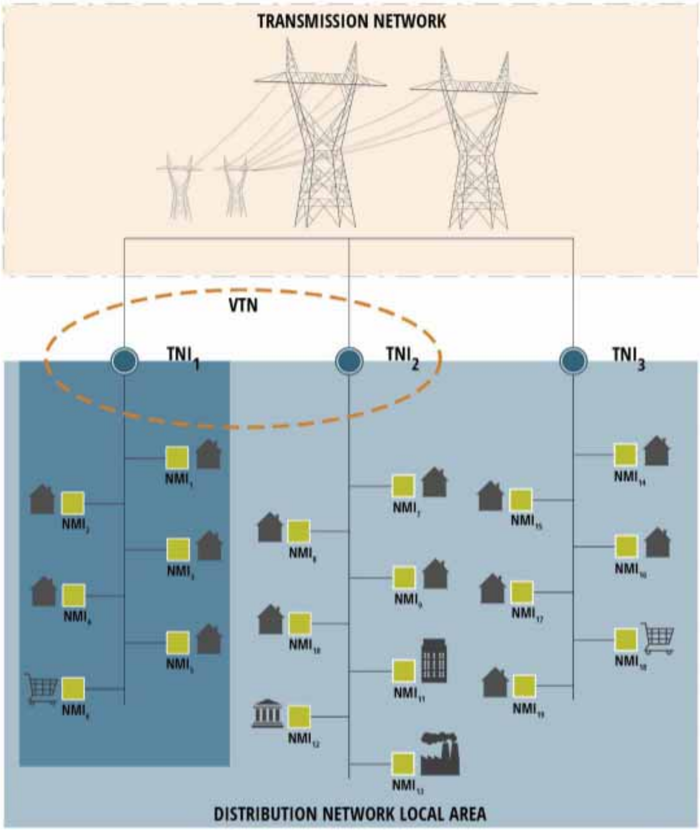
Figure 4.1 below illustrates transmission and distribution connection points, including a VTN, TNI's and National Metering Identifiers (NMIs).[35]

33 A Transmission Node Identifier (TNI) is a code for the metering installation at the point where energy is supplied to the distribution network from the transmission substation. Alternatively, a number of adjacent transmission node connection points used to supply a single distribution local area can, with the approval of the AER, be aggregated to form a Virtual Transmission Node (VTN). AEMC, *Global settlement and market reconciliation*, Rule determination, 6 December 2018, p4.

34 UFE are residual electrical losses in a local area. UFE is made up of errors in the distribution loss factor, commercial losses (e.g. electrical theft, inaccurate meters, estimation errors for unmetered devices) and estimation errors for profiling meters.

35 A National Metering Identifier (NMI) is a code for each metering installation measuring the energy at a customer's connection to the distribution network. AEMC, *Global settlement and market reconciliation*, Rule determination, 6 December 2018, p4.

Figure 4.1: Transmission and distribution network connection points



Source: AEMC, *Global settlement and market reconciliation*, Rule determination, 6 December 2018, p5.

4.1.2 Change made in global settlement rule

The global settlement rule identified and removed non-market unmetered loads from the UFE calculation to avoid double counting by:

- processing unmetered loads through MSATS
- the customer, local network service provider and local retailer agreeing on the load profile and size in accordance with AEMO's updated metrology procedures and unmetered load guidelines
- AEMO updating its metrology procedures and unmetered load guidelines to allow for the creation of NMIs for non-market unmetered loads and assigning non-market unmetered load connection points to TNI or VTN.

4.1.3 AEMO's proposal in this rule change request

AEMO suggests that the wording of the global settlement rule requiring the assignment of non-market unmetered load connection points to TNI or VTN could be read as requiring all unmetered loads in a given network area to be assigned to the same (single) TNI or VTN. To avoid ambiguity, AEMO suggests it would be preferable to clarify that each non-market unmetered load be assigned to the TNI or VTN that is most appropriate.

4.2 Removing retailer financial responsibility for transmission / distribution boundary points

BOX 5: SUMMARY

This rule change request seeks to realise the policy intent of the global settlements rule of apportioning the costs of UFE between all retailers, rather than UFE costs being borne by the local retailer. It proposes to do so by removing remaining references to the local retailer having financial responsibility at a transmission/distribution boundary point.

AEMO suggests that the proposed rule:

- clarifies that no retailer has financial responsibility at a transmission / distribution boundary point
- enables NEM settlements to be reconciled, providing more accurate information to the market.

4.2.1 Background and current arrangements

Under the current NEM 'settlement by difference' framework, local retailers have financial responsibility for connection points that connect distribution networks to the transmission network. This means the local retailer is invoiced the UFE based on the amount of electricity that was measured at transmission/distribution boundary points, minus the electricity invoiced to the independent retailer(s) in the local area.

4.2.2 Change made in global settlement rule

The global settlement framework aims to improve competition and risk allocation by:[36]

- apportioning UFE to all retailers based on their accounted for energy within each local area
- calculating each retailer's settlement amount as the sum of its loss-adjusted energy consumption and share of UFE
- removing the need for retailers to have financial responsibility at transmission/distribution boundary points.

The global settlements rule:

- amended NER clause 3.15.4(a) to describe how the adjusted gross energy amounts are calculated for each market connection point that is a transmission network connection point (i.e. at transmission/distribution boundary points)

36 AEMO, *Addendum to five minute settlement and global settlement implementation amendments rule change request*, 13 May 2019, p3.

- amended NER clause 3.15.3 to assign financial responsibility for market connection points.

4.2.3 AEMO's proposal in this rule change request

AEMO suggests that the NER, as amended by the global settlements rule, do not fully reflect the policy intent of removing retailer financial responsibility at transmission/distribution boundary points. Table 4.1 presents the two amendments proposed by AEMO.

Table 4.1: **AEMO's proposed changes to global settlement rule to remove retailer financial responsibility at transmission / distribution boundary points**

NER CLAUSE	AMENDMENTS TO NER	
	MADE IN GLOBAL SETTLEMENT RULE	PROPOSED IN THIS RULE CHANGE REQUEST
2.3.4(h)	No change.	Remove entire clause. ~~"A Customer who is also a Local Retailer must classify any connection point which connects its local area to another part of the power system as a market load".~~
3.15.3(b)	Previous cl. 3.15.3(b) omitted and replaced with: "No person is financially responsible for a virtual transmission node".	Further amend clause to: "No person is financially responsible for a virtual transmission node <u>or a connection point which connects a local area to another part of the power system</u>".

4.3 Clarifying that customer loads are market loads

BOX 6: SUMMARY

This rule change request seeks to realise the policy intent of the global settlement rule that non-market unmetered loads (e.g. public BBQ's, street lighting and NBN cabinets) are accounted for in settlement. Under global settlement all customer connections must be classified as market loads, so they can be settled through the NEM. The proposal in this rule change clarifies that these loads be classified as market loads. This allows them to be accounted for in settlement, removed from UFE and continued to be paid for by local councils and telecommunications companies.

If the proposed rule is not made, these unmetered loads would be incorrectly distributed to other retailers as part of the UFE calculation.

AEMO also proposes to remove the inconsistency of having these market loads defined as a 'non-market' unmetered load. As these loads must be non-contestable, AEMO propose to relabel this category as 'non-contestable unmetered loads'.

4.3.1 Background and current arrangements

As outlined in section 4.1.2 of this consultation paper, non-market unmetered loads that do not meet the criteria for type 7 metering installation include sports ground lighting, public BBQ's, NBN cabinets and bus shelters.

These loads are non-contestable customers that are settled out of the market through a negotiated agreement. The consumption and costs of those loads are agreed between the local retailer, local network service provider and the local council or telecommunications company. The local council or telecommunications company pays the local network service provider and local retailer for network provision and the energy, respectively, associated with these loads.

Currently, these unmetered loads that do not meet the criteria for type 7 metering installation, do not enter NEM settlements, are served by the local retailer and are therefore part of 'settlement by difference'.

4.3.2 Change made in global settlement rule

The global settlement rule requires non-market unmetered loads to be accounted for in settlements and removed from UFE. This avoids retailers being charged for load that the local retailer is being paid for. The global settlement rule defines these loads as "*unmetered load that does not meet the criteria in the Rules or procedures authorised under the Rules for classification as a type 7 metering installation".*

The global settlement rule captures non-market unmetered loads in settlements through an obligation on AEMO to update its metrology procedure to require:

- the creation of NMI for each non-market unmetered load
- assign each non-market unmetered loads NMI to an appropriate TNI or VTN
- a methodology for calculating a load and load profile for non-market unmetered loads, and
- estimates of non-market unmetered load volumes to be included in settlements.

4.3.3 AEMO's proposal in this rule change request

AEMO notes that the intent of the global settlement rule is for non-market unmetered loads to be accounted for in settlements and removed from UFE. For this to occur, these loads need to be:

- classified as market loads so this classification can be reflected in MSATS and settlement can occur through the NEM
- charged to the local retailer.

As the NER currently do not provide for non-market unmetered loads to be classified as market loads, AEMO proposed the following amendments:

- amend NER clause 2.3.4(a) to ensure that a market classification requirement applies to all customer loads (i.e. changing from 'may' to 'must'), including contestable loads purchased from the entity who is the local retailer
- introduce a new NER clause 2.3.4(i) requiring local retailers to classify any connection points in its local area at which electricity is purchased by franchise customers (including non-market unmetered loads) as market loads
- amend new NER clause 7.16.3(c)(6A) to require AEMO's metrology procedures to include non-market unmetered loads that have been classified as market loads in settlements, and change the defined term from 'non-market unmetered load' to 'non-contestable unmetered load'.

4.4 Clarifying that UFE will not be allocated to distribution-connected generators

> BOX 7: SUMMARY
>
> This rule change request seeks to realise the policy intent of the global settlement rule that distribution-connected generators are not to pay a share of UFE costs if they consume energy. Under the global settlement framework, the cost of UFE is only allocated to retailers, as they are best placed to manage the risk and are therefore provided with improved incentives to reduce it.

4.4.1 Background and current arrangements

Distribution-connected generators are generators that are connected to the distribution network.

4.4.2 Change made in global settlement rule

The policy intent of the global settlement rule was to apportion UFE to all retailers based on their accounted for energy within each local area because retailers are best placed to mitigate the risk of and manage UFE.

AEMO suggests that the current global settlement rule will have the effect of allocating UFE to distribution connected generators if they consume energy. This is because new clause 3.15.5(c) allocates UFE to import energy for every distribution network connection point in the local area.

4.4.3 AEMO's proposal in this rule change request

The rule change request proposes to clarify that distribution-connected generators will not receive an allocation of UFE. It proposes to amend new clause 3.15.5(c) so that:

- UFE allocated to distribution network connection points in a local area that are classified as market loads
- the definition of ADMELA is applied to market customers rather than market participants[37]
- for consistency throughout the clause, 'connection point' is replaced with 'market connection point' in the definitions of UFEA,[38], DME[39] and DLF.[40]

37 AEMO's proposed change to ADMELA is "the aggregate of the amounts represented by DME for that trading interval for each market connection point in that local area, for which a Market Customer ~~Participant~~ (other than a suspended Market Participant) is financially responsible".

38 AEMO proposes to change the definition of UFEA to "the allocation of the unaccounted for energy amount (in MWh) for the relevant market connection point and trading interval"

39 AEMO's proposes to change the definition of DME to "the amount represented by (ME- x DLF) for the relevant market connection point and trading interval..."

40 In its rule change request, AEMO proposed to change the definition of DLF to "the distribution loss factor applicable at that ~~market~~ connection point". AEMO subsequently clarified to the AEMC that this change was made in error, as AEMO intended for the word 'market' to be included in the definition of DLF in NER clause 3.15.5(c).

5 RULE CHANGE REQUEST PROPOSALS - INFORMATION PROVISION

This chapter provides a summary of the issues and proposed solutions relating to information provision, as outlined in the Five minute settlement and global settlement implementation amendments rule change request.

5.1 Amending the spot market operations timetable

BOX 8: SUMMARY

This rule change seeks to reduce the administrative burden on AEMO and participants by allowing AEMO to make minor or administrative changes to the spot market operations timetable, without the need to run a Rules consultation process. The Rules Consultation procedures require a two stage process that takes at least 4 months. The proposal avoids the time and resources required to consult and amend the spot market operations for changes that could be made more easily and in a more timely manner.

The rule change request is consistent with the approach applied for amending a number of other AEMO procedures, where the NER provide that AEMO does not need to follow the Rules consultation procedures for minor or administrative changes.

5.1.1 Background and current arrangements

The purpose of the spot market operations timetable is to outline the schedule for key spot market operations, including:[41]

- offers and bids
- short term projected assessment of system adequacy
- energy adequacy assessment projection
- pre-dispatch and dispatch
- market information
- settlement.

The contents of the timetable are largely determined by the NER.

Currently, any changes to the spot market operations timetable require AEMO to comply with the Rules consultation procedures. This requires AEMO to conduct a two stage process for consulting on changes to documents made under the NER. At a minimum, the process requires:[42]

- three sets of notices and consultation or determination documents

41 AEMO, *Spot market operations timetable*, version 1.3, October 2016.

42 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p4.

- receive, consider and respond to submissions from stakeholders as inputs to its draft and final determinations
- a period of 4 months from the time AEMO initiates it, but it can take longer to complete.

5.1.2 AEMO's proposal in this rule change request

The rule change request proposes to allow AEMO to make minor or administrative changes to the timetable without the requirement for AEMO to run a full Rules consultation procedures process. This would reduce the administrative burden for changes such as updating information and references to clauses in the Rules, to reflect revisions or new Electricity Rules.

AEMO is not required to follow the Rules consultation procedures in amending some other AEMO procedures for minor or administrative changes. AEMO notes that this avoids the time and resources that AEMO and participants would otherwise need to spend consulting and responding on corrections, updates or other minor changes, that may have been made quickly and are not controversial.[43]

5.2 Timing for AEMO to publish UFE data

BOX 9: SUMMARY

This rule change request seeks to clarify the timing at which metering data providers (MDPs) are required to send AEMO data to calculate UFE for the soft start period of global settlements. It would do so by changing the requirement to provide this data from "by 1 July 2021" to "for each trading interval in the period commencing on 1 July 2021 and ending immediately prior to commencement on 6 February 2022". The proposal is intended to support the policy intent of the global settlement rule, that AEMO calculates and publishes aggregate UFE quantities during the soft start period, so market customers can calculate the UFE allocation they would have received.

5.2.1 Background and current arrangements

The global settlement rule introduces a requirement for AEMO to provide UFE information to each market customer so they can verify the UFE being apportioned to them at each of their market connection points. The UFE reporting requirements on AEMO include:

- **soft start begins 1 July 2021 –** the transitional provision require AEMO to publish the information necessary to verify UFE allocations by 1 July 2021, which is the date of the 'soft start' of global settlements
- **full commencement of global settlement rule -** 6 February 2022
- **annual reporting –** AEMO to publish the first annual UFE report on 1 March 2022 and finalise the UFE reporting guidelines by 1 December 2022.

43 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p4.

5.2.2 Change made in global settlement rule change

The global settlement rule introduced a requirement for AEMO to provide UFE information to each market customer so that they could verify the UFE apportioned to them at each of their market connection points.[44]

The policy intent of the 'soft start' period for global settlement included that AEMO calculate and report UFE quantities from 1 July 2021, and that no allocations of UFE would be made until the full commencement of global settlement on 6 February 2022.[45] Under the global settlement rule, MDPs are expected to start sending AEMO the required data inputs for UFE calculation and publication *from* 1 July 2021 (under AEMO's amended metering procedures).[46]

5.2.3 AEMO's proposal in this rule change request

AEMO also notes that the transitional provision does not seem to fully capture the policy intent of the global settlement rule that AEMO calculates and publishes aggregate UFE quantities for each local area during the soft start period. This is intended to allow market customers to calculate the UFE allocation they would have received during the soft start period, as if the new global settlement rule were in effect from 1 July 2021.[47]

The transitional NER clause 11.112.5 requires AEMO to publish the information necessary to verify UFE allocations *by* 1 July 2021. AEMO notes that MDPs are only expected to start sending AEMO the required data inputs for UFE calculation and publication *from* 1 July 2021 (under AEMO's amended metering procedures). Therefore, AEMO suggests changing the transitional provision from "<u>by</u> 1 July 2021" to "for each trading interval in the period commencing on 1 July 2021 and ending immediately before the commencement date".[48]

44 AEMO, *Five minute settlement and global settlement implementation amendment rule change request*, 15 March 2019, p9

45 The soft start period was also adopted to avoid the full commencement of global settlement on 1 July 2021, the same day as the commencement of five minute settlement, to reduce financial risk associated with the relevant system changes. AEMC, *Global settlement and market reconciliation*, Rule determination, 6 December 2018, pv.

46 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p9.

47 Ibid, p9.

48 Ibid, p9.

6 ASSESSMENT FRAMEWORK

The Commission assessment of the Five minute settlement and global settlement implementation amendments rule change request must consider whether it meet the National Electricity Objective (NEO).

6.1 Achieving the NEO

Under the NEL the Commission 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 (NEO).[49] This is the decision making framework that the Commission must apply.

The NEO is:[50]

> To promote efficient investment in, and efficient operation and use of, electricity services for the longer 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.

Based on a preliminary assessment of the rule change request, the Commission considers that the most relevant aspects of the NEO are the efficient investment in, and efficient operation and use of, electricity services with respect to:

- the price and reliability of supply of electricity, and
- the reliability of the national electricity system.

6.2 Proposed assessment framework

To determine whether the rule change request promotes the NEO, the Commission will assess the rule change request against an assessment framework. The framework may be refined during the rule change process.

The Commission is seeking stakeholder views on its proposed assessment framework, which includes the following criteria

- **Risk allocation -** whether the rule change request supports the allocation of risk to those parties that are best able to manage them.
- **Price -** whether the rule change supports efficient investment and operation in the supply of electricity, with respect to price.
- **Reliability -** whether the rule change supports efficient operation and use of electricity services, with respect to the reliability of the national electricity system
- **Regulatory burden -** whether the cost of implementing a solution are proportional with the benefits of that solution.

49 Section 88 of the NEL.

50 Section 7 of the NEL.

- **Administrative issues and corrections** to clarify or provide certainty.

6.3 Making a more preferable rule

Under s. 91A of the NEL, the Commission may make a rule that is different (including materially different) to a proposed rule (a more preferable rule) if it is satisfied that, having regard to the issue or issues raised in the rule change request, the more preferable rule will or is likely to better contribute to the achievement of the NEO.

6.4 Treatment as a non-controversial rule

AEMO considers that all proposed amendments to the NER, in their rule change request, will not have a significant effect on the NEM and are therefore non-controversial. Therefore, AEMO requests an expedited rule change process in accordance with s. 96 of the NEL.

The Commission considers that the rule change request is a request for a non-controversial rule because the proposed changes to the NER are unlikely to have a significant effect on the NEM. The rule change involves administrative and technical amendments, that are mostly minor, and are unlikely to have a significant effect on the NEM.

7 ISSUES FOR CONSULTATION

This chapter identifies issues for consultation in relation to the Five minute settlement and global settlement implementation amendments rule change request. The issues below are provided as guidance for submissions. Stakeholders are encouraged to comment on these issues as well as any other aspect of the rule change request or this paper, including the proposed assessment framework.

The issues for consultation relate to:

- resolution for calculating MLFs - 30 minutes or shorter
- accommodating fast-start plant in pre-dispatch
- correction to list of AEMO procedures
- assigning non-market unmetered loads to a TNI or VTN
- removing retailer financial responsibility at transmission / distribution boundary points
- all customer loads to be market loads
- UFE not to be allocated to distribution-connected generators
- amending the spot market operations timetable
- timing for AEMO to publish UFE data.

7.1 Resolution for calculating MLF's - 30 minutes or shorter

There is currently high industry focus on the methodology for calculating MLFs, due to their effect on wholesale spot prices, and therefore the revenues received by generators. The AEMC recently received two rule change requests from Adani Renewables to amend the NER in relation to transmission loss factor frameworks and is currently considering these through a consolidated rule change request, referred to as Transmission Loss Factors. The AEMC is considering the rule change request on Transmission Loss Factors through a separate process from the rule change request that is the subject of this consultation paper.

The rule change request on Transmission Loss Factors will consider the basis of the overall calculation of loss factors and is therefore broader in scope than the specific change proposed in this rule change request. It is noted that if the specific change in this rule change request is made, it would not prevent the AEMC from subsequently considering the timing and granularity of the MLF calculation in the separate rule change request on Loss Factor Frameworks.

In this rule change request, AEMO suggests that MLFs should be able to be calculated on a 30 minute or 5 minute resolution basis as:

- this would allow AEMO to retain their current method of calculating MLFs on a 30 minute basis
- there is negligible benefit in calculating MLFs on a 5 minute basis instead of a 30 minute basis, and

- it provides AEMO with flexibility to transition over time from the current approach of using 30 minute resolution data to a shorter (e.g. 5 minute) resolution in the future.

AEMO states that there would be no additional cost to AEMO to implement the proposed rule because it maintains the status quo.[51]

> QUESTION 1: RESOLUTION FOR CALCULATING MLFS
>
> Are there any issues with the proposal to allow AEMO to continue to use 30 minute data when calculating MLFs?

7.2 Accommodating fast start plant in pre-dispatch

The rule change request seeks to remove a potential inconsistency between the pre-dispatch schedule and dispatch for fast start plant under five minute settlement, by enabling AEMO to incorporate fast start inflexibility profiles in the pre-dispatch schedule. The proposal supports the purpose of the Five minute settlement rule to provide incentives for fast start plant (i.e. fast start generators and batteries) to respond to supply and demand changes in the shortest timeframe practicable, to provide more efficient market outcomes.

If dispatch inflexibility profiles are not allowed to be taken into account in the pre-dispatch schedule, this may reduce the ability of fast start plant to dispatch their relevant plant in accordance with their pre-dispatch schedule without rebidding, and therefore restrict their ability to participate in the wholesale market.

AEMO notes that there is no incremental implementation cost from the proposed rule because AEMO already produces a voluntary five-minute pre-dispatch that includes fast start inflexibility profiles.[52]

> QUESTION 2: FAST START INFLEXIBILITY PROFILES IN PRE-DISPATCH
>
> Are there any issues with the proposal to allow AEMO to take into account fast start inflexibility profiles in pre-dispatch?

7.3 Correction to list of AEMO procedures for five minute settlement

The rule change proposes to transfer the obligation for amending the Reliability standard and settings (RSSR) guidelines, to reflect the five minute settlement rule, from AEMO to the Reliability Panel. AEMO notes that this obligation was made in error as AEMO has no authority to amend the RSSR guidelines, which is the responsibility of the Reliability Panel.

51 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p14.

52 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p15.

The primary purpose of the transitional arrangement[53] was to set out the industry procedures and methodologies that would need to be updated to reflect five minute settlement by December 2019 or earlier. This would provide sufficient time for market participants to update their own processes and systems to meet these new requirements, before commencement of the rule on 1 July 2021.

While amendments are likely to be required to the RSSR guidelines to reflect the five minute settlement rule, these amendments could potentially be relatively minor (e.g. changing references from 'dispatch interval' to 'trading interval' and the number of trading intervals in the cumulative price threshold). Importantly, these updates are not necessary to assist market participants in implementing their own process and system updates in preparation for the commencement of the five minute settlement rule.

Given the transition underway in the NEM, and a number of changes since the last time the reliability standard and settings were reviewed (e.g. the introduction of the retailer reliability obligation, introduction of five minute settlement, the publication of the AER's value of customer reliability (VCR) figures at the end of 2019, and the commentary around the appropriateness of the reliability standard in the enhancement to the Reliability and Emergency Reserve Trader (RERT) final determination), the Reliability Panel is already aware that its guidelines will require a review prior to the next reliability standards and settings review. This review will need to assess the impact of all of these changes on the reliability standard and settings.

The next reliability standard and settings review is scheduled to cover the four year period from 2024 to 2028 and is expected to start around 2021. However, the Reliability Panel has flagged that the review may occur earlier, particularly if the AER's VCR numbers reveal that there is a material change in the value of customer reliability. Therefore, given the flexibility around when this will occur, it is not appropriate for the Reliability Panel to have a set date as to when the RSSR guidelines will be updated. Maintaining flexibility about when the RSSR guidelines are updated is preferred.

QUESTION 3: RSSR GUIDELINES

Given the above, do stakeholders agree that it is the best for the Reliability Panel to have flexibility about when the RSSR guidelines are updated?

7.4 Assigning non-market unmetered loads to TNI or VTN

The rule change request proposes to clarify the global settlements rule to enable the costs of loads such as public BBQs, lighting for sports grounds and NBN cabinets ('non-market unmetered loads') to be accurately matched to and thereby paid for by the respective local council or telecommunications company. The proposal clarifies that each load's network

53 AEMC, *National Electricity Amendment (Five minute settlement) Rule 2017 No. 15*, clause 11.103.2, p39.

connection point can be assigned to the appropriate TNI or VTN rather than all of these loads being assigned to the same (single) TNI/VTN.

AEMO suggests that there is no incremental implementation cost from the proposed rule, as it has no impact on the process and effort of assigning non-market unmetered loads in MTATS.[54]

> QUESTION 4: ASSIGNING NON-MARKET UNMETERED LOADS TO A TNI OR VTN
>
> Are there any issues with the proposed clarification of the global settlements rule in relation to assigning non-market unmetered loads to an appropriate TNI or VTN?

7.5 Removing retailer financial responsibility for transmission / distribution boundary points

The rule change request seeks to realise the policy intent of the global settlements rule, that the costs of UFE are apportioned between all retailers, rather than being borne by the local retailer. That is, the decision to re-allocate UFE costs between all retailers was made in the global settlements rule, and this rule change request is an administrative change that seeks to implement the intent of the global settlement rule.

It proposed to do so by removing remaining references to the local retailer having financial responsibility at a transmission/distribution boundary point. AEMO suggests that the proposed rule:

- clarifies that no retailer has financial responsibility at a transmission / distribution boundary point
- implements the global settlements framework as intended
- enables NEM settlements to be reconciled, providing more accurate information to the market.

AEMO suggests that there no costs from the proposed rule that are additional to existing and planned five minute settlement and global settlement implementation costs. AEMO notes that, if the rule is not made, the local retailer will be financially responsible for the UFE and metered energy for all transmission / distribution boundary points as well as for their customers' distribution connection points in the local area. This results in double counting of the associated energy and incorrect settlement outcomes.[55]

54 AEMO, *Five minute settlement and global settlement implementation amendments rule change request,* 15 march 2019, p16.

55 AEMO, *Addendum to Five minute settlement and global settlement implementation amendments rule change request*, 13 May 2019, p8.

> QUESTION 5: REMOVING RETAIL FINANCIAL RESPONSIBILITY FOR TRANSMISSION / DISTRIBUTION BOUNDARY POINTS
>
> Are there any issues with the proposed clarification of the global settlements rule to remove retailer financial responsibility at transmission / distribution boundary points?

7.6 Clarifying that all customer loads are market loads

The rule change request seeks to avoid incorrectly smearing the cost of unmetered loads that do not meet type 7 metering requirements (e.g. public BBQ, street lighting and NBN cabinets) across all retailers. Under global settlement all customer connections must be classified as market loads, so they can be settled through the NEM. The proposed clarification implements the intent of the global settlement rule, such that these unmetered loads are classified as market loads, accounted for in settlements, removed from UFE, and continue to be borne by local councils and telecommunications companies.

AEMO also proposes to remove the inconsistency of having a market load defined as a 'non-market' unmetered load. As these loads must be non-contestable, AEMO propose that this category be labelled as 'non-contestable unmetered loads'.

AEMO suggests that there no costs from the proposed rule that are additional to existing and planned five minute settlement and global settlement implementation costs. AEMO notes that, if the rule is not made, the energy associated with non-market unmetered loads would be incorrectly distributed to other retailers as part of the UFE calculation.[56]

> QUESTION 6: CLARIFYING THAT ALL CUSTOMER LOADS ARE MARKET LOADS
>
> Are there any issues with the proposed changes that clarify that all customer loads are market loads?

7.7 Clarifying that UFE will not be allocated to distribution-connected generators

The rule change request seeks to clarify the global settlement rule, to reflect the policy intention of the rule, that distribution-connected generators will not pay a share of UFE costs if they consume energy. Under the global settlement framework, the cost of UFE is only allocated to retailers, as they are best placed to manage the risk and are therefore provided with improved incentives to reduce it.

56 AEMO, *Addendum to five minute settlement and global settlement implementation amendments rule change request*, 13 May 2019, p9.

AEMO suggests that there is no incremental implementation cost to AEMO or market participants from the proposed rule. AEMO notes that, if the proposed rule is not made:[57]

- AEMO will face additional costs to update MSATS so that it can apportion UFE to distribution connected generators for settlement, and
- distribution connected generators will be responsible for UFE charges.

> QUESTION 7: CLARIFYING THAT UFE WILL NOT BE ALLOCATED TO DISTRIBUTION-CONNECTED GENERATORS
>
> Are there any issues with the proposal to clarify the global settlement rule such that UFE will not be allocated to distribution-connected generators?

7.8 Amending the spot market operations timetable

The rule change seeks to reduce the administrative burden on AEMO and participants by allowing AEMO to make minor or administrative changes to the spot market operations timetable, without the need to run a Rules consultation process, which takes at least 4 months. The rule change request is consistent with the approach applied for some other procedures, where the NER provide that AEMO does not need to follow the Rules consultation procedures for minor or administrative changes.

AEMO suggests that the implementation of this rule change proposal would not result in any costs to AEMO or market participants.[58]

> QUESTION 8: AMENDING THE SPOT MARKET OPERATIONS TIMETABLE
>
> Are there any issues with the proposal to allow AEMO to amend the spot market operations timetable, for minor or administrative changes, without the need to follow the Rules consultation procedures?

7.9 Timing for AEMO to publish UFE

The rule change request seeks to clarify the timing at which MDPs are required to send AEMO data to calculate UFE for the soft start period of global settlements. It would do so by changing the requirement to provide this data from 'by 1 July 2021' to "for each trading interval in the period commencing 1 July 2021 and ending immediately prior to commencement on 6 February 2022". The proposal is intended to support the policy intent of the global settlement rule, that AEMO calculates and publishes aggregate UFE quantities

57 AEMO, *Addendum to five minute settlement and global settlement implementation amendments rule change request*, 13 May 2019, p9.

58 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p15.

during the soft start period, so market customers can calculate the UFE allocation they would have received.

AEMO suggests that it would not incur any incremental cost from the proposed rule as it adjusts the timing of information publication only.[59]

QUESTION 9: TIMING FOR AEMO TO PUBLISH UFE

Are there any issues with the proposal to clarify the timing for AEMO to publish UFE during the soft start period of global settlement?

59 AEMO, *Five minute settlement and global settlement implementation amendments rule change request*, 15 March 2019, p16.

8 LODGING AN OBJECTION OR SUBMISSION

8.1 Key dates

Key dates for stakeholders in this process are as follows:

- Commencement of this rule change process - 13 June 2019
- Objections to an expedited process to be received by - 27 June 2019
- Submissions to the proposal to be received by - 11 July 2019
- Final determination to be published under an expedited process - 8 August 2019.

8.2 Objections to use of expedited process

As noted in section 1.1, the Commission has decided to use an expedited process to consider this rule change request, provided that it does not receive any valid requests not to use the expedited process by 27 June 2019. To be valid, an objection should set out the reasons why the rule change request will have a significant impact on the NEM.

8.3 Submissions on this consultation paper

Written submissions on this rule change request must be lodged with Commission by **Thursday 11 July** online via the Commission's website, www.aemc.gov.au, using the "lodge a submission" function and selecting the project reference code ERC0267.

The submission must be on letterhead (if submitted on behalf of an organisation), signed and dated.

Where practicable, submissions should be prepared in accordance with the Commission's guidelines for making written submissions on rule change requests.[60] The Commission publishes all submissions on its website, subject to a claim of confidentiality.

All enquiries on this project should be addressed to Andrew Pirie on (02) 8296 7867 or andrew.pirie@aemc.gov.au.

60 This guideline is available on the Commission's website www.aemc.gov.au.

ABBREVIATIONS

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
Commission	See AEMC
IRLF	Intra-regional loss factors
LNSP	Local network service provider
LR	Local retailer
MLF	Marginal loss factor
MDP	Metering data provider
MSATS	Market settlement and transfer solutions
NEL	National Electricity Law
NEM	National electricity market
NEO	National electricity objective
NMI	National Metering Identifier
RRN	Regional reference node
RSIG	Reliability Standard Implementation Guidelines
RSSR	Reliability Standard and Settings Review
RSSR guidelines	Reliability Standards and Settings Review guidelines
TNI	Transmission Node Identifier
UFE	Unaccounted for energy
VCR	Value of customer reliability
VTN	Virtual Transmission Node