

Australian Energy Market Commission

## **DRAFT RULE DETERMINATION**

# NATIONAL ELECTRICITY AMENDMENT (PRIORITISING ARRANGEMENTS FOR SYSTEM SECURITY DURING MARKET SUSPENSION) RULE 2021

### PROPONENT

COAG Energy Council

01 APRIL 2021

### **INQUIRIES**

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Reference: ERC0305

## CITATION

AEMC, Prioritising arrangements for system security during market suspension, Draft rule determination, 01 April 2021

## 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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Australian Energy Market Commission

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**Draft rule determination** Prioritising system security during market suspension 01 April 2021

## SUMMARY

- 1 On 26 May 2020, the Council of Australian Governments (COAG) Energy Council<sup>1</sup> submitted a rule change request to the Australian Energy Market Commission (AEMC or Commission) that seeks to explicitly set out the applicability of the National Electricity Rules (NER or the Rules) during periods of market suspension with the aim of providing the Australian Energy Market Operator (AEMO) with appropriate flexibility to prioritise arrangements for system security during such periods.
- 2 The Commission has made a draft rule determination to not make the proposed rule change given that the Rules currently set out clearly what arrangements apply during a period of market suspension, and that attempting to further clarify this may create uncertainty or confusion in relation to the interpretation of the Rules, which do not otherwise need a statement to that effect. Further, circumstances have changed since the rule change was submitted, with a number of the recommendations made by the AER in its BSE report relating to market suspension being actioned.

#### 3 The rule change request

- 4 The rule change request was submitted by the COAG Energy Council (the proponent), following recommendations made by the AEMC in its *Mechanisms to Enhance Resilience in the Power System – Review of the South Australian Black System Event* report (BSE report). The BSE report was published in December 2019 and considered systemic issues that contributed to the black system event in South Australia on 28 September 2016.
- 5 This rule change request is part of a wider work program relating to findings and recommendations following the black system event in 2016. This included reviews by the AER and the AEMC, with many of these other findings and recommendations being progressed.<sup>2</sup>

#### 6 The rule change request suggested that:<sup>3</sup>

- Existing arrangements do not explicitly set out the applicability of what provisions of the NER apply during a period of market suspension, and the extent to which AEMO must comply with these elements. It was suggested that this silence has the potential to create uncertainty for market participants and AEMO, and compromise efforts by AEMO to co-ordinate with market participants to resolve the issues which have resulted in suspension of the market.
- A rigid requirement for AEMO to comply with all elements of the NER, particularly those of a more administrative nature, may compromise its ability to focus on and prioritise actions needed to manage the security and safety of the power system during this period of market suspension.

The rule change request proposed that, when AEMO has declared the spot market to be

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<sup>1</sup> On 29 May 2020, it was announced that the Council of Australian Government will cease and a new National Federation Reform Council (NFRC) will be formed, with National Cabinet at the centre of the NFRC.

<sup>2</sup> These rule change requests are discussed in more detail in Appendix B.

<sup>3</sup> COAG Energy Council, Rule change request: Market suspension, p. 1.

suspended:4

- AEMO continues to comply with existing provisions of the NER that explicitly relate to periods of market suspension (such as pricing arrangements under clause 3.14.5);
- for remaining provisions of the NER, AEMO has some flexibility where compliance with a
  particular rule would impose a material risk on its ability to maintain power system
  security during the market suspension; and
- AEMO reports, as soon as practicable, those provisions of the rules with which compliance would impose a material risk on its ability to maintain power system security, the reasons why it considers that compliance would pose such a risk, and whether it proposes any alternative arrangements to apply.
- 8 The proponent considered that the proposed rule change would enhance AEMO's ability to resolve the matters leading to market suspension events by establishing a transparent and flexible framework, and therefore advance the National Electricity Objective (NEO) by enhancing the safety and security of the national electricity system.<sup>5</sup>

#### 9 The draft determination

- 10 The Commission recognises the importance of the Rules being clear and transparent in terms of how they would apply during periods of market suspension, with this being important for maintaining clear roles and responsibilities during such events. The Commission also agrees that system security should be AEMO's priority during extreme events.
- 11 However, the Commission is not satisfied that the proposal will, or is likely to, contribute to the achievement of the NEO and so therefore proposes not to make the draft rule. This is consistent with stakeholder submissions, none of which supported all aspects of the rule change request. In particular, AEMO submitted that the proposals for additional flexibility are not appropriate or necessary.<sup>6</sup> Similarly, the AER considered that providing AEMO with flexibility as to which NER provisions it does not need to comply with will not lead to a more optimal outcome during market suspension. <sup>7</sup>The Commission's reasons are summarised below.

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#### In relation to the Rules applicability during periods of market suspension:

- Given stakeholder views, the Commission has determined to clarify the Rules applicability during periods of market suspension, but to do this in the determination, rather than in the Rules. The reasons for this decision are detailed below.
- It is clear that the Rules apply during periods of market suspension, as during all other system and market conditions, unless otherwise stated in the Rules.
- The Rules do state that specific alternative provisions will apply in certain market and system conditions, as is the case during market suspension when the application of rule 3.14 is triggered. However, these are cases when *different* provisions of the Rules apply,

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<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> AEMO, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p. 2.

<sup>7</sup> AER, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p.1

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rather than removing applicability of the Rules in general. That is, in the absence of an explicit provision to the contrary, all other obligations under the NER remain in effect.

 The Commission has considered to whether additional clarity could be provided in the Rules but considers that attempting to do so may create a precedent where the Rules applicability needs to be explicitly set out for any varied market and system conditions. Therefore, attempting to clarify arrangements may actually make the arrangements unclear. Therefore, the Commission has determined not to make any changes to explicitly set out what Rules do or do not apply in market suspension in order to avoid such a risk. This determination makes clear that AEMO and market participants must continue to comply with the Rules during periods of market suspension.

# In relation to providing AEMO with flexibility to prioritise system security obligations over other NER requirements during a period of market suspension:

- The Commission considers that circumstances have changed since the Commission's recommendation was first made in the BSE final report and the proponent's rule change request was submitted. In particular, AEMO has implemented the recommendations made by the AER in its *Black system compliance report*, which were aimed at improving AEMO operations during periods of market suspension and ensuring that AEMO would be able to comply with all obligations under the NER in the future. The actions included updating AEMO's internal control room guidance and scripts to publish market notices without delay, revising its Procedures for Issue of Directions and Clause 4.8.9 Instructions, and updating its training program to include regular practice for control room operators in issuing market notices.
- In any compliance review, the AER takes into account all relevant facts and circumstances when assessing compliance against relevant obligations in the NER in accordance with its Statement of Approach.<sup>8</sup> The particular circumstances and AEMO's actions will be relevant considerations for the AER in determining what compliance or enforcement action, if any, is to be taken. Therefore, the existing enforcement regime is a more appropriate mechanism for periods of market suspension, rather than trying to foresee extreme or rare events occurring and amending the Rules to specify arrangements for such events.
- The proposed rule would allow AEMO not to comply with obligations of a more administrative nature (such as issuing market notices prior to intervening) where this would place a material risk on its ability to maintain power system security during a period of market suspension. However, stakeholders were concerned that this would create barriers to market participants making informed and efficient operational decisions, and neither AEMO and the AER supported the proposal. The Commission agrees with stakeholders' views. If AEMO is not providing timely notice of directions or a possible intervention, this would be likely to jeopardise, rather than enhance, system security.

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<sup>8</sup> For more information, see: https://www.aer.gov.au/publications/corporate-documents/aer-compliance-enforcement-policy

 The proponent suggested that additional flexibility provided to AEMO to prioritise rule obligations for system security over others during a period of market suspension should be subject to reporting obligations.<sup>9</sup> The proposed reporting requirements are likely to contribute to the administrative burden on AEMO during periods of market suspension the very problem they are proposed to address.

Submissions on the draft determination are invited by **13 May 2021** via the AEMC website.

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## COUNCIL OF AUSTRALIAN GOVERNMENTS (COAG) ENERGY COUNCIL'S RULE CHANGE REQUEST

## 1.1 The rule change request

On 26 May 2020, the Council of Australian Governments (COAG) Energy Council<sup>10</sup> submitted a rule change request to the Australian Energy Market Commission (AEMC or Commission) to make a rule that seeks to clarify the applicability of the National Electricity Rules (NER or the Rules) during periods of market suspension with the aim of providing the Australian Energy Market Operator (AEMO) with appropriate flexibility to prioritise arrangements for system security during such periods.

The proponent considered that the proposed rule change would enhance AEMO's ability to resolve the matters leading to the market suspension and therefore advance the National Electricity Objective (NEO) by enhancing the safety and security of the national electricity system. In the proponent's view, the proposed rule change would establish a transparent framework which would provide AEMO and market participants with clarity on the applicability of the Rules during a period of market suspension, and AEMO with clear flexibility to prioritise system security related matters.<sup>11</sup>

The rule change request follows recommendations made by the AEMC in its *Mechanisms to Enhance Resilience in the Power System – Review of the South Australian Black System Event* report (BSE report) published in December 2019, which considered systemic issues that contributed to the black system event in South Australia on 28 September 2016.<sup>12</sup> The rule change request does not include a proposed rule. The rule change request can be found on the AEMC website.<sup>13</sup>

This chapter outlines:

- the context for, and background to, the rule change request
- the market suspension framework set out in the NER
- the rationale for the rule change request and the solutions proposed
- related Commission work
- an overview of the rule making process, including the consultation process for this draft determination.

## 1.2 Context and background

South Australia experienced a 'black system' event at 16:18 Australian Eastern Standard Time (AEST) on Wednesday 28 September 2016. Approximately 850,000 South Australian customers lost electricity supply. Most electricity supply was restored in eight hours; however,

<sup>10</sup> On 29 May 2020, it was announced that the Council of Australian Government (COAG) will cease and a new National Federation Reform Council (NFRC) will be formed, with National Cabinet at the centre of the NFRC.

<sup>11</sup> COAG Energy Council, Rule change request: Market suspension, p. 1.

<sup>13</sup> https://www.aemc.gov.au/rule-changes/prioritising-arrangements-system-security-during-market-suspension

a number of customers suffered a prolonged loss of supply. The economic cost of the black system event was estimated at 367 million dollars.<sup>14</sup>

The South Australian black system event highlighted the fact that the National Electricity Market (NEM) power system faces a new and pressing set of system security challenges. Addressing these challenges is critical to ensuring that the NEM continues to deliver a secure supply of energy for customers.

In response to the black system event in South Australia, the market bodies published the following reports. The below summarises these with a particular focus on the consideration of market suspension arrangements:

- In March 2017, AEMO published a *Black System South Australia* report making 19
  recommendations to improve the resilience of the South Australian power system in the
  context of the changing generation mix. The key conclusion in relation to market
  suspension was that there was a lack of detailed procedures on how to operate the
  power system under extended periods of market suspension. The recommendation was
  for AEMO to develop detailed procedures for power system operations during periods of
  market suspension.<sup>15</sup>
- In December 2018, the Australian Energy Regulator (AER) published the *Black system* compliance report reviewing the compliance by various NEM participants against the NER regarding the operation of the South Australian region of the NEM in the period surrounding the blackout. Specifically, the report looked at the pre-event period, system restoration and market suspension. The AER's report did not cover the Event aspect of the black system event, which was subject to a separate investigation. Some related issues are now before the Federal Court.<sup>16</sup> The report identified 13 recommendations and remedial actions to improve processes and the overall Rules framework in key areas, with the recommendations made in relation to market suspension arrangements summarised in section 3.2 of this determination.<sup>17</sup>
- In December 2019, the AEMC published a final report on *Mechanisms to enhance* resilience in the power system (BSE report). The report identified systemic issues that contributed to the black system event in South Australia and recommended changes to existing regulatory and market frameworks necessary to address these issues. Among other recommendations, the AEMC suggested providing AEMO with greater flexibility to prioritise arrangements for system security during a period of market suspension. This was actioned by the submission of this rule change request.<sup>18</sup>

<sup>14</sup> Business SA, Blackout survey results, <u>https://www.business-sa.com/Commercial-Content/Media-Centre/Latest-MediaReleases/September-Blackout-Cost-State-\$367-Million</u>

<sup>15</sup> AEMO, Black System South Australia 28 September 2016, March 2017, p. 9. For more information, see: <u>https://www.aemo.com.au/-</u> /media/Files/Electricity/NEM/Market\_Notices\_and\_Events/Power\_System\_Incident\_Reports/2017/Integrated-Final-Report-SA-Blac k-System-28-September-2016.pdf

<sup>16</sup> For more information, see: https://www.aer.gov.au/news-release/south-australian-wind-farms-in-court-over-compliance-issuesduring-2016-black-out

<sup>17</sup> For more information, see: <u>https://www.aer.gov.au/wholesale-markets/compliance-reporting/investigation-report-into-south-australias-2016-state-wide-blackout</u>

<sup>18</sup> For more information, see: https://www.aemc.gov.au/markets-reviews-advice/review-of-the-system-black-event-in-south-australi

## 1.3 Summary of the market suspension framework in the NER

Market suspension refers to a situation when AEMO declares the spot market to be suspended in a region. AEMO may declare the spot market suspended if any of the following occur:<sup>19</sup>

- the power system has collapsed to a 'black system'<sup>20</sup>
- a participating jurisdiction has declared a state of emergency under its emergency services or equivalent legislation and has subsequently directed AEMO to suspend the market
- AEMO has determined that it is impossible to operate the spot market in accordance with the NER, for example due to an IT failure or a power system emergency.

Market suspension in the NEM is rare, having occurred only twice since commencement of the NEM in 1998.

- 1. The first market suspension was declared on 8 April 2001 following an IT system failure. All regions of the NEM were suspended for a two-hour period commencing at 23:30.
- 2. The second market suspension was declared on 28 September 2016 following the black system event in South Australia and subsequent ministerial direction. The South Australian region was suspended for nearly two weeks from 16:30 on 28 September to 22:30 on 11 October 2016.

These abnormal circumstances mean that the ordinary operation of the NEM is not possible, and so the market is suspended. Although market suspension is a major event impacting the market, there are relatively few obligations in Chapter 3 of the NER explicitly governing the arrangements for what happens in the market during periods of suspension. These obligations primarily relate to how spot prices will be set. The requirements specifically relating to market suspension are:

- Clause 3.14.3 sets out the circumstances in which AEMO can (and cannot) suspend the spot market and requires AEMO to review and report on the market suspension.
- Clause 3.14.4 sets out the high-level process for declaring a market suspension, and subsequently AEMO's ability to issue clause 4.8.9 directions (see Appendix A of this paper) and to set pricing in accordance with clause 3.14.5. It also reiterates the requirement for AEMO to report on the market suspension.
- Clause 3.14.5 provides for AEMO to determine dispatch, spot and ancillary service prices, which are to continue in accordance with rules 3.8 and 3.9 of the NER (provisions detailing how the spot market is to be dispatched and prices determined when the market is not suspended), to the extent practicable. If not practicable, then the market suspension pricing schedule applies (see Appendix A of this paper). This clause provides AEMO discretion to determine when it is practicable to resume central dispatch and the determination of prices under rules 3.8.and 3.9 (pending approval from the relevant

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<sup>19</sup> Clause 3.14.3(a) of the NER. AEMO lists possible IT failures in its Market Suspension and Systems Failure procedure.

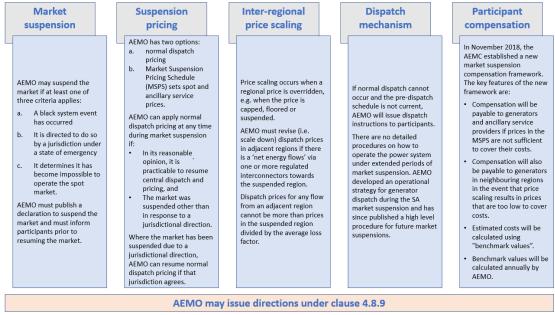
<sup>20</sup> Chapter 10 of the NER defines 'black system' as the absence of voltage on all or a significant part of the transmission system or within a region during a major supply disruption affecting a significant number of customers.

jurisdiction in circumstances where the jurisdiction had directed AEMO to suspend the market).

 Clauses 3.14.5A and 3.14.5B were introduced by the AEMC in November 2018 in response to a rule change request from AEMO in the wake of the 2016 market suspension in South Australia. The AEMC established a new compensation framework so that certain market participants who incur a loss during a market suspension event can be compensated (see Box 1 on page 25).<sup>21</sup>

Figure 1.1 below summarises the market suspension framework currently in place under the Rules. The market suspension framework is discussed in more detail in Appendix A.





Source: AEMC

## 1.4 Rationale for the rule change request

The rule change request proposes that the NER be amended to (1) explicitly set out the applicability of the existing market Rules and (2) provide AEMO with flexibility to prioritise arrangements for system security during periods of market suspension.

#### 1.4.1 Issues raised in the rule change request

#### The applicability of the existing market Rules

The rule change request suggested that the existing arrangements do not explicitly set out the applicability of the NER provisions during a period of market suspension, and the extent

<sup>21</sup> For more information, see: https://www.aemc.gov.au/rule-changes/participant-compensation-following-market-suspensi

to which AEMO must comply with these elements. Other than the provisions relating to pricing during periods of market suspension,<sup>22</sup> it was suggested that the NER are silent on the extent other NER provisions apply during a period of market suspension.<sup>23</sup>

It was suggested that the silence on the applicability of other elements of the NER during a period of market suspension has the potential to create uncertainty for market participants and AEMO, and compromise efforts by AEMO to co-ordinate with market participants to resolve the issues which have resulted in suspension of the market.<sup>24</sup>

#### Flexibility to prioritise arrangements for system security

It was noted in the rule change request that a period of market suspension may be accompanied by challenging or uncertain power system conditions. AEMO's power system operations staff may face unique challenges during this time. The proponent argued that a rigid requirement for AEMO to comply with all elements of the NER, particularly those of a more administrative nature, may compromise its ability to focus on and prioritise actions needed to manage the security and safety of the power system during this period.<sup>25</sup>

It was considered that, for AEMO to effectively resolve such issues, it needs to have appropriate levels of flexibility to prioritise. Failure to appropriately prioritise, given limited resources, during a period of market suspension may compromise the safety and security of the power system.<sup>26</sup>

The proponent was concerned that the current rule arrangements do not explicitly provide AEMO with flexibility to prioritise core system security requirements during a period of market suspension. The rule change request seeks to provide AEMO with such flexibility.<sup>27</sup>

#### 1.4.2 Solutions proposed in the rule change request

Given the potential issues it has identified, the rule change request has proposed to amend the NER to clarify which provisions of the NER continue to apply during periods of market suspension. It has proposed that:<sup>28</sup>

- AEMO continues to comply with existing provisions of the NER that explicitly relate to periods of market suspension (such as pricing arrangements under clause 3.14.5); and
- for remaining provisions of the NER, AEMO has some flexibility where compliance with a
  particular rule would impose a material risk on its ability to maintain power system
  security during the market suspension.

The rule change request has also proposed that AEMO be required to inform the market of its decision to prioritise certain obligations during periods of market suspension. In doing so, it has proposed that AEMO report, as soon as practicable, those provisions of the Rules with

<sup>22</sup> Clauses 3.14.4 and 3.14.5 of the NER.

<sup>23</sup> COAG Energy Council, Rule change request: Market suspension, p. 2.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid, p. 2.

<sup>27</sup> Ibid, p. 3.

<sup>28</sup> Ibid, p. 1.

which compliance would impose a material risk on its ability to maintain power system security, the reasons why it considers that compliance would pose such a risk, and whether it proposes any alternative arrangements to apply.<sup>29</sup>

To implement the above proposal, the rule change request seeks amendments to clause 3.14.4 of the NER that:  $^{\rm 30}$ 

- clarify which provisions of the NER continue to apply during periods of market suspension (such as pricing arrangements under clause 3.14.5);
- provide additional flexibility where it is impossible to comply with a rule obligation (particularly an administrative-type requirement) without materially risking AEMO's ability to maintain power system security; and
- impose reporting requirements on AEMO to demonstrate to the market why it chose to prioritise certain system security obligations.

The rule change request does not include a proposed rule. The rule change request can be found on the AEMC website. $^{31}$ 

### 1.5 Related Commission work

This rule change is part of a wider Commission work program on system security, which includes those rule changes seeking to action the recommendations made by the Commission in its BSE review report. Three rule change requests were submitted by the COAG Energy Council<sup>32</sup>:

- Prioritising arrangements for system security during market suspension (the subject of this draft determination);
- Enhancing operational resilience in relation to indistinct events; and
- Implementing a general power system risk review.

An overview of the other two rule change projects related to this draft determination is provided in Appendix B.

## 1.6 The rule making process

On 17 December 2020, the Commission published a notice advising of its commencement of the rule making process and consultation in respect of the rule change request.<sup>33</sup> A consultation paper identifying specific issues for consultation was also published. Submissions closed on 4 February 2021.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid.

<sup>31</sup> https://www.aemc.gov.au/rule-changes/prioritising-arrangements-system-security-during-market-suspension

<sup>32</sup> On 29 May 2020, it was announced that the Council of Australian Government (COAG) will cease and a new National Federation Reform Council (NFRC) will be formed, with National Cabinet at the centre of the NFRC.

<sup>33</sup> This notice was published under s.95 of the National Electricity Law (NEL).

The Commission received seven submissions as part of the first round of consultation. The Commission considered all issues raised by stakeholders in submissions. Issues raised in submissions are discussed and responded to throughout this draft rule determination.

The consultation paper, and submissions to it, are available on the AEMC website.<sup>34</sup>

## 1.7 Consultation on draft rule determination

The Commission invites submissions on this draft rule determination by **13 May 2021**.

Any person or body may request that the Commission hold a hearing in relation to the draft rule determination. Any request for a hearing must be made in writing and must be received by the Commission no later than **8 April 2021**.

Submissions and requests for a hearing should quote project number ERC0305 and may be lodged online at www.aemc.gov.au.

<sup>34</sup> For more information, see: https://www.aemc.gov.au/rule-changes/prioritising-arrangements-system-security-during-marketsuspension

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## DRAFT RULE DETERMINATION

This chapter sets out the Commission's draft determination with a summary of reasons. The chapter includes the following:

- Commission's draft rule determination
- the rule making test for changes to the NER
- the assessment framework for considering the rule change request
- summary of the Commission's reasons

The Commission considerations and additional details supporting the decision are described in Chapter 3.

## 2.1 The Commission's draft rule determination

The Commission's draft rule determination is to not make the proposed rule.

I. The Commission recognises that it is important that it is clear how the Rules apply during periods of market suspension and during all other system and market conditions given the importance of this for the effective operation of the power system in such times. It also notes the proponent's view that system security should be AEMO's priority during extreme events.

However, based on the Commission's analysis, including stakeholder feedback to the consultation paper, the Commission considers that there is nothing in the Rules that introduces uncertainty as to how the Rules apply during a period of market suspension. The Commission is of the view that it is clear that the Rules apply during periods of market suspension, as during all other possible system and market conditions, unless otherwise stated in the Rules.

In relation to the proposal to provide AEMO with flexibility to prioritise system security obligations over other NER requirements during a period of spot market suspension, the Commission considers that since the Commission's recommendation was made in the BSE final report and the proponent's rule change request was submitted to the AEMC, circumstances have changed. In particular, AEMO has completed actions recommended by the AER which were aimed at improving AEMO operations during periods of market suspension and ensuring that AEMO would be able to comply with all obligations under the NER in the future (the AER's recommendations are outlined in section 3.2).

Further, the Commission considers that AEMO's prioritisation of system security, where it is unable to simultaneously comply with an obligation critical to market operations or system security and a more administrative obligation, would be taken into account under the AER's approach to compliance and enforcement, as set out in its Statement of Approach.<sup>35</sup>

The Commission's decision is consistent with stakeholder submissions, none of which supported all aspects of the rule change request. In particular, AEMO submitted that the

<sup>35</sup> For more information, see: https://www.aer.gov.au/publications/corporate-documents/aer-compliance-enforcement-policy

proposals for additional flexibility are not appropriate or necessary.<sup>36</sup> The AER considered that providing AEMO with flexibility as to which NER provisions it does not need to comply with will not lead to a more optimal outcome during market suspension.<sup>37</sup>

The Commission is therefore not satisfied that the proposed rule change will, or is likely to, contribute to the achievement of the NEO. Further, the proposed rule could confuse the interpretation of other aspects of the Rules.

Further information on the legal requirements for making this draft rule determination is set out in Appendix C.

### 2.2 Rule making test

#### 2.2.1 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).<sup>38</sup> This is the decision making framework that the Commission must apply.

The NEO is:39

to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

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

The Commission considers that the most relevant aspects of the NEO for the purpose of this rule change request are the efficient operation and use of electricity services for the long-term interests of consumers of electricity with respect to the safety and security of the national electricity system.

## 2.3 Assessment framework

In assessing the rule change request against the NEO, the Commission has considered the following matters:

Promoting power system security and safety: The operational security of the power system relates to the maintenance of the system within pre-defined limits for technical parameters such as voltage and frequency during normal system operation conditions and in an event of certain pre-defined faults i.e. credible contingencies. System security underpins the operation of the energy market and the supply of electricity to consumers. Safety can be understood to mean that the transmission and distribution systems and the generation and other facilities connected to them are safe from damage and are not a

<sup>36</sup> AEMO, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p.2

<sup>37</sup> AER, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p.1

<sup>38</sup> Section 88 of the NEL.

<sup>39</sup> Section 7 of thence.

source of injury and danger. It is necessary to have regard to whether the proposed changes to the Rules will benefit system security and safety during extreme events, weighed against the likely costs.

- Efficient framework design: When considering potential changes or additions to the regulatory framework we need to consider whether these modifications are made in an efficient way, balancing the benefits against costs in such a way that promotes the long-term interests of consumers.
- Ensuring Rules flexibility and clarity: Regulatory arrangements must be flexible to changing market and external conditions. They must be able to remain effective and clear in achieving desired outcomes not only under a business-as-usual system operation, but also during periods of extreme events, such as a period of market suspension. The market suspension framework is expected to provide AEMO and market participants with clarity on the applicability of the market Rules during a period of market suspension. Solutions implemented in the Rules should be flexible enough to accommodate different circumstances and should be effective in facilitating security outcomes when required, while not imposing undue costs on market participants.

The Commission also acknowledges the importance of continued learning from past examples of market suspension events and improving practices and procedures. If the frameworks are very specific, adoption and continued improvement may not be possible. Further, simple frameworks tend to result in more predictable outcomes and are lower cost to implement and administer.

 Promoting transparency and predictability: There is likely to be significant uncertainty as to the safety and security of the national electricity system during a market suspension event. In these circumstances, it is important to maintain predictability and transparency of AEMO's potential actions for market participants to make informed and efficient operational decisions.

The costs of potential uncertainty should be weighed against the benefits of this additional flexibility provided to AEMO.

- **Maintaining clear and singular accountability:** Organisations should be accountable for how they have met their objectives. System security is managed directly by AEMO in accordance with applicable technical standards. Maintaining the security of the power system is one of AEMO's key functions. Following a contingency event or significant change in power system conditions, AEMO must take all reasonable actions to return the power system to a secure operating state within 30 minutes.<sup>40</sup>
- **Minimising administrative burden during a period of market suspension:** A period of market suspension may be associated with a significant level of uncertainty in terms of underlying power system conditions. The power system is likely to be in a condition where system security is compromised, and new risks may emerge rapidly.

<sup>40</sup> Clause 4.2.6(b) of the NER.

Having regard to possible resourcing constraints in addressing highly uncertain conditions during a period of market suspension, it should be considered whether some NER provisions may impose an unnecessary administrative burden on AEMO during this challenging period.

• **Ensuring appropriate governance arrangements are in place**: The rule change request proposes to provide significant flexibility to AEMO in complying with the NER during periods of market suspension. When assessing the proposal, we considered whether it adheres to good governance principles.

## 2.4 Summary of reasons

Having regard to the issues raised in the rule change request and during consultation, the Commission is not satisfied that the proposed rule will, or is likely to, contribute to the achievement of the NEO and has evaluated the proposed rule change request against the assessment framework set out above.

In light of further analysis undertaken on the benefits and risks associated with the proposed rule change and views expressed by stakeholders in submissions, the Commission has determined not to make a draft rule for the following reasons.<sup>41</sup>

#### In relation to the Rules applicability during periods of market suspension:

- The Commission has concluded that it is clear that the Rules apply during periods of market suspension, as during all other system and market conditions, unless otherwise stated in the Rules.
- Where specified in the Rules, alternative provisions may apply in certain market and system conditions, as is the case during market suspension when the application of rule 3.14 is triggered. However, these are cases when *different* provisions of the Rules apply, rather than removing applicability of the Rules in general. That is, in the absence of an explicit provision to the contrary, all other obligations under the NER remain in effect.
- The Commission has given consideration as to whether additional clarity could be provided in the Rules but considers that attempting to do so may create a precedent where the Rules applicability needs to be clarified for any varied market and system conditions. Therefore, the Commission has determined not to make such clarification in the Rules to avoid such a risk. However, to the extent there is doubt among stakeholders, this determination should act to explain that AEMO and market participants must continue to comply with the Rules during periods of market suspension (see section 3.1).

# In relation to providing AEMO with flexibility to prioritise system security obligations over other Rules requirements during a period of market suspension:

• The Commission considers that circumstances have changed since the Commission's recommendation was made in the BSE final report and the proponent's rule change request was submitted. In particular, AEMO has implemented the recommendations made by the AER in its *Black system compliance report*, which were aimed at improving AEMO

<sup>41</sup> Further detail on the Commission's reasons for making the draft determination in each of these areas are presented in Chapter 3.

operations during periods of market suspension and ensuring that AEMO would be able to comply with all obligations under the NER in the future.

- In any compliance review, the AER takes into account all relevant facts and circumstances when assessing compliance against relevant obligations in the NER in accordance with its Statement of Approach.<sup>42</sup> The particular circumstances will be relevant considerations for the AER in determining what compliance or enforcement action, if any, is to be taken. The Commission considers that the existing enforcement regime is appropriate for periods of market suspension and is a better mechanism to allow AEMO to prioritise its actions where this is unavoidable, rather than trying to foresee extreme or rare events occurring and amending the Rules to specify arrangements for such events.
- The proposed rule would allow AEMO not to comply with obligations of a more administrative nature (such as issuing market notices prior to intervening) where this would place a material risk on its ability to maintain power system security during a period of market suspension. However, the Commission is of the view that this would create barriers to market participants making informed and efficient operational decisions. If AEMO is not providing timely notice of directions or a possible intervention, this would be likely to jeopardise, rather than enhance, system security.
- The rule change request suggested that additional flexibility provided to AEMO to
  prioritise rule obligations for system security over others during a period of market
  suspension should be subject to reporting obligations.<sup>43</sup> The Commission considers that
  the proposed reporting requirements are likely to contribute to the administrative burden
  on AEMO during periods of market suspension the very problem they are proposed to
  address.

Because of the reasons outlined above, the Commission's draft determination is not to make a draft rule.

<sup>42</sup> For more information, see: https://www.aer.gov.au/publications/corporate-documents/aer-compliance-enforcement-policy

<sup>43</sup> Ibid.

3

## COMMISSION CONSIDERATIONS

This chapter sets out the Commission's considerations and analysis in forming its draft determination. The Commission's considerations are divided into the following sections:

- applicability of the Rules; and
- providing AEMO with additional flexibility to comply with the NER.

### 3.1 Applicability of the rules

#### 3.1.1 Issue raised

The proponent has requested amendments be made to the NER to explicitly set out the applicability of market Rules during a period of market suspension, which it suggests would thereby reduce uncertainty for AEMO and market participants.<sup>44</sup>

To achieve this, the rule change request proposed an amendment to clause 3.14.4 of the NER that will specify that AEMO must continue to comply with existing provisions of the NER that explicitly relate to periods of market suspension (such as pricing arrangements under clause 3.14.5).<sup>45</sup> This will effectively mean that for remaining provisions of the NER, AEMO would have some flexibility where compliance with a particular rule would impose a material risk on its ability to maintain power system security during the market suspension.<sup>46</sup>

The rule change request also states that the potential uncertainty as to how AEMO may choose to use its power to prioritise compliance is countered by the fact that the proposed rule retains the overarching requirement for AEMO to comply with the NER and new transparency obligations (an issue of providing AEMO with additional flexibility is discussed in section 5.3 of this paper). We note that the proposed amendments to clause 3.14.4 of the NER do not explicitly mention this overarching requirement for AEMO to comply with the NER during periods of market suspension.

#### 3.1.2 Stakeholder views

Stakeholders did not support the proponent's proposal to explicitly set out in the Rules that:47

- AEMO must continue to comply with existing provisions of the NER that explicitly relate to periods of market suspension; and
- for remaining provisions of the NER, AEMO has some flexibility where compliance with a
  particular rule would impose a risk on its ability to maintain power system security during
  the market suspension.

A number of stakeholders saw a benefit in explicitly setting out that the Rules apply unaffected during periods of market suspension. CS Energy supported explicit provision being made in the NER to confirm the NER applies unaffected during the period of market

<sup>44</sup> COAG Energy Council, Rule change request: Market suspension, p. 3.

<sup>45</sup> Ibid, p. 1.

<sup>46</sup> Ibid.

<sup>47</sup> Submissions to the AEMC's *Prioritising arrangements for system security during market suspension* consultation paper: AER, p. 1; AEMO, p. 15; AGL, p. 1; CS Energy, p. 1; ERM Power, p. 1; Energy Users Australia Association, p. 2; Major Energy Users, p. 2.

suspension.<sup>48</sup> While being of the view that all obligations under the NER remain in effect in the absence of an explicit provision to the contrary, the AER suggested that it is important to clarify the Rules applicability during periods of market suspensions in order to provide certainty to market participants.<sup>49</sup>

AEMO noted, to the extent that clarification of the application of the NER during market suspension is still considered desirable, the Rules should be clarified that AEMO and market participants must continue to comply with the NER during a period of market suspension. AEMO considered this approach would rely on enforcement action decisions from the AER in relation to non-compliances, which would take into account all the circumstances that existed at the time.<sup>50</sup>

Some stakeholders did not consider the issues raised in the rule change request to be material enough to warrant a rule change. While agreeing there was a need for clarity around the obligations on AEMO during a market suspension, EUAA was unclear about why the materiality of the issues raised would increase in the future.<sup>51</sup> ERM Power considered that the issue raised by the proponent does not appear to be material, and there is no evidence that it will become material in the future.<sup>52</sup> Major Energy Users (MEU) did not consider the issue material as there have only been two instances over the life of the NEM where the issue has been seen to be a problem. MEU is of the view that AEMO used its powers sensibly to manage the problem when it occurred and there is no evidence of significant harm to the market as a result of the lack of the proposed rule.<sup>53</sup>

#### 3.1.3 Commission's analysis and determination

The Commission considers that, in the absence of an explicit provision to the contrary, all obligations in the NER apply, whether in a period of market suspension or otherwise. However, feedback provided by some stakeholders, including the AER, suggests that this is not necessarily clear to all stakeholders, particularly during exceptional circumstances, and there may be a benefit in explicitly setting out the Rules applicability during periods of market suspension. Therefore, the Commission has determined to clarify the Rules applicability during periods of market suspension, but to do this in the determination, rather than in the Rules. The reasons for this are detailed below.

The Commission has assessed the proposed rule against the NEO and the assessment framework outlined in section 2.3 of this draft determination. The Commission is not satisfied that the rule will, or is likely to, contribute to the achievement of the NEO. This is because the proposed rule is unlikely to promote the flexibility and clarity of the Rules.

Regulatory arrangements must be able to remain effective and clear in achieving desired outcomes not only under a business-as-usual system operation, but also during periods of

<sup>48</sup> CS Energy, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p. 2.

<sup>49</sup> AER, Submission to the *Prioritising arrangements for system security during market suspension* consultation paper, p. 1.

<sup>50</sup> AEMO, Submission to the *Prioritising arrangements for system security during market suspension* consultation paper, p. 2.

<sup>51</sup> EUAA, Submission to the *Prioritising arrangements for system security during market suspension* consultation paper, p. 2.

<sup>52</sup> ERM Power, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p. 2.

<sup>53</sup> MEU, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p. 1.

extreme events, such as a period of market suspension. The Commission considers that the Rules are clear what arrangements apply during such extreme events and do not require clarification. Further, including a provision that attempts to do so may create uncertainty or confusion in relation to the interpretation of the Rules, which do not otherwise need a statement to that effect. Such clarification in the Rules may also create a precedent where general Rules applicability is expected to be stated for all market and system conditions.

Given the identified risk, the Commission has determined that the proposed rule is unlikely to satisfy the NEO and it would be inappropriate to attempt to provide additional clarity in the Rules. However, to the extent there is doubt for certain stakeholders, this determination should act to explain that AEMO and market participants must continue to comply with the Rules notwithstanding the market suspension, absent an express provision to the contrary.

During a market suspension event, different pricing rules can apply as a result of the suspension of the spot market. However, in this case, the Rules specify certain conditions, that when satisfied, trigger the application of *different* provisions of the Rules (i.e. the market suspension provisions in rule 3.14). Except to the extent set out in those provisions, the Rules remain otherwise unaffected.

## 3.2 Providing AEMO with additional Flexibility

#### Issues raised

3.2.1

The rule change request proposed to amend the NER by providing AEMO with flexibility to prioritise system security obligations if compliance with a rule provision (particularly an obligation of a more administrative nature) would place a material risk on its ability to maintain power system security during a period of spot market suspension.<sup>54</sup>

In the rule change request it was considered that this amendment to the NER would enhance AEMO's ability to resolve the matters leading to the market suspension and therefore advance the NEO by enhancing the safety and security of the national electricity system. It was also considered that the change would help market participants and policymakers make more efficient decisions during a period of market suspension since arrangements applying to all parties will be clearer.<sup>55</sup>

The rule change request recognised that it is possible that participants may face some uncertainty as to how AEMO may choose to use its power to prioritise compliance with power system security elements of the NER. More specifically, participants may face some uncertainty as to AEMO's actions, if it elects to not comply with administrative elements of the NER, such as the issuance of market notices. This uncertainty may create some costs for market participants, and ultimately customers, if it results in less efficient operational decision-making.<sup>56</sup>

<sup>54</sup> COAG Energy Council, Rule change request: Market suspension, p. 3.

<sup>55</sup> Ibid, p. 4.

<sup>56</sup> Ibid.

The proponent argued that this uncertainty is countered by the fact that the proposed rule retains the overarching requirement for AEMO to comply with the NER.<sup>57</sup> AEMO must also follow transparency obligations when it decides to use these powers. In the proponent's view, this should help to limit the degree of uncertainty, by providing some transparency as to how AEMO will use its powers. It therefore considers any costs of uncertainty are outweighed by the benefits gained through providing additional flexibility.<sup>58</sup>

The rule change request proposed to amend clause 3.14.4 of the NER to impose reporting requirements on AEMO to demonstrate to the market why it chose to prioritise certain system security obligations.<sup>59</sup> This includes requiring AEMO, as soon as practicable, to inform the AER and all affected participants of:<sup>60</sup>

- the provisions of the NER with which compliance would pose a direct risk to AEMO's ability to maintain power system security during the suspension
- the reasons why AEMO considers that compliance would pose such a risk, and
- whether AEMO proposes any alternative arrangements to apply.

The proponent's view was that this requirement should help to limit the degree of uncertainty, by providing some transparency as to how AEMO will use its powers. It wast considered that enhanced transparency would assist the AER in its compliance activities, would enhance market participant confidence in AEMO's actions and assist co-ordination between AEMO and market participants.<sup>61</sup>

#### 3.2.2 Stakeholder views

Stakeholders did not support the proposal to provide AEMO with flexibility to prioritise system security obligations if compliance with a rule provision (particularly an obligation of a more administrative nature) would place a material risk on its ability to maintain power system security during a period of spot market suspension.<sup>62</sup>

The AER considered that providing AEMO with flexibility as to which NER provisions it does not need to comply with will not lead to a more optimal outcome during market suspension. The AER was of the view that some administrative obligations, like issuing market notices prior to intervening, are critical to providing transparency to all participants.<sup>63</sup>

AEMO considered that the proposal for additional flexibility is not appropriate or necessary. AEMO's view is that the proposed process for advising the AER and participants about anticipated noncompliance or modified compliance may well be more administratively

<sup>57</sup> We note that the proposed amendments to clause 3.14.4 of the NER do not explicitly mention this overarching requirement for AEMO to comply with the NER.

<sup>58</sup> COAG Energy Council, Rule change request: Market suspension, p. 4.

<sup>59</sup> Ibid, p.1.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid, p. 4.

<sup>62</sup> Ibid, p. 3.

<sup>63</sup> AER, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p. 1.

onerous than complying with the relevant NER obligation. To implement the process AEMO would, in some manner, have to:  $^{\rm 64}$ 

- actively consider and identify which clauses it cannot comply with;
- work out whether alternative arrangements are possible/needed; and
- notify the market and report on outcomes in or close to real time.

AGL, CS Energy, ERM Power and MEU were of the view that issuing market notices is an important obligation which allows industry to effectively respond to the system requirements and make appropriately informed operational decisions throughout the market suspension period.<sup>65</sup>

AGL noted that the compliance framework rests on providing the AER with the necessary discretion to assess compliance issues given the circumstance in which they arise, and this discretion is needed given the complexity and dynamic nature of these compliance obligations and the physical realities of operating the power system.<sup>66</sup>

CS Energy considered that the delivery of resources and required competency levels to comply with all NER requirements should be the areas for attention rather than the proposed rule change that does not demonstrate the value that would be achieved.<sup>67</sup>

EUAA was not convinced the evidence provided proves that not providing the proposed flexibility would place a material risk on AEMO's ability to maintain system security during a period of market suspension.<sup>68</sup>

#### 3.2.3 Commission's analysis and determination

In line with the views of stakeholders, the Commission does not consider that the proposed rule will, or is likely to, contribute to the achievement of the NEO. This is because the proposed rule is unlikely to satisfy the following assessment criteria:

- **Promoting power system security and safety:** The Commission considers that, if AEMO is not providing timely and sufficient notice of a direction or other possible intervention, this would be likely to jeopardise, rather than enhance, system security.
- Promoting transparency and predictability: The proposed rule is unlikely to
  promote predictability of AEMO's actions during extreme events in the future. A potential
  lack of information can increase uncertainty and the costs of that uncertainty would be
  passed onto consumers.
- **Minimising administrative burden during a period of market suspension:** The proposed rule is unlikely to minimise administrative burden for AEMO and simplify AEMO's operations during periods of market suspension compared to the existing requirements.

<sup>64</sup> AEMO, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p. 2.

<sup>65</sup> Submissions to the AEMC's *Prioritising arrangements for system security during market suspension* consultation paper: AGL, p. 1; CS Energy, p. 2; ERM Power, p. 2; Major Energy Users, p. 2.

<sup>66</sup> AGL, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p. 1.

<sup>67</sup> CS Energy, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p. 2.

<sup>68</sup> EUAA, Submission to the Prioritising arrangements for system security during market suspension consultation paper, p. 2.

• **Ensuring appropriate governance arrangements are in place**: The Commission considers that the proposed reporting requirements would not adhere to good governance principles. A certain level of detail must be recorded during the market suspension period to ensure transparency of AEMO's actions in post event reporting.

The Commission has determined it is not necessary to provide AEMO with additional flexibility to comply with the NER during a period of market suspension. When making its decision, and in addition to the assessment framework, the Commission has considered the following matters.

#### AEMO has completed actions to improve its operations during periods of market suspension

The Commission considers that circumstances have changed since the Commission's recommendation was made in the BSE final report and the proponent's rule change request was submitted. In particular, AEMO has implemented recommendations made by the AER in its *Black system compliance report*, which were aimed at improving AEMO operations during periods of market suspension and ensuring that AEMO would be able to comply with all obligations under the NER in the future. In relation to the market suspension compliance, the AER made the recommendations set out in Table 3.1, which AEMO then implemented.

# Table 3.1: Summary of the AER's recommendations in relation to market suspension arrangements and their status to date

RECOMMENDATION	IMPLEMENTATION STATUS
Improved training for AEMO operators regarding the specific language used to ensure operators clearly state whether they are making a request, issuing instructions, or otherwise issuing clause 4.8.9 directions.	<b>Completed.</b> AEMO updated its training program to include regular practice for control room operators in issuing market notices. Scripts for issuing directions were improved, and AEMO conducts biannual market intervention scenario-based training, which includes practising scripts.
AEMO ensures that it publishes market notices, without delay, after it becomes aware of any foreseeable circumstances that may require AEMO to implement an intervention event and that it updates its procedures and guidelines accordingly.	<b>Completed.</b> AEMO updated its internal control room guidance to reflect this requirement.
AEMO ensures that its procedures more closely align with what is prescribed in the Rules particularly regarding directions (clause 4.8.9) and market notices (clause 4.8.5A).	<b>Completed.</b> AEMO conducted public consultation on its Procedures for Issue of Directions and clause 4.8.9 Instructions, with revised procedures published September 2019. Amongst other things, the procedures were

RECOMMENDATION	IMPLEMENTATION STATUS
	rewritten to provide a more comprehensive description of the AEMO processes before and after issuing a direction or clause 4.8.9 instruction.

Source: AER, The Black System Event Compliance Report: Recommendations Outcomes, 28 February 2020.

# The existing compliance and enforcement framework provides the AER with an opportunity to consider the circumstances in any enforcement action

The Commission considers that, in the extraordinary circumstances where either AEMO or a market participant is unable to simultaneously comply with an obligation critical to market operations or system security and other obligations under the NER, it is appropriate that the more critical obligation is prioritised. However, this does not mean that compliance with other obligations under the NER is not required. Rather, all of the facts and circumstances must be assessed by the AER to determine whether other requirements in the Rules should have been followed and, if so, these will be relevant considerations for the AER in determining what compliance or enforcement action, if any, is to be taken.

As evident in the AER's compliance assessment of the South Australian black system event, the AER had regard to the circumstances at the time and considered AEMO's overarching obligation to meet system security requirements during market suspension. Despite administrative breaches, the AER found that overall AEMO satisfied its obligation to use reasonable endeavours to maintain power system security during the pre-event period considering the various steps it took to maintain a secure operating state. In making these findings, the AER did not elect to take any enforcement action.<sup>69</sup>

The Commission has concluded that the existing AER compliance framework is a better mechanism to allow AEMO to prioritise its actions where this is unavoidable, rather than trying to foresee extreme or rare events occurring and amending the Rules to specify arrangements for such events.

# Administrative obligations (such as publication of market notices) are an integral part of the market design.

Operating the power system during a period of market suspension is likely to be challenging. However, the Commission considers that providing AEMO with flexibility as to which NER provisions it does not need to comply with will not lead to a more optimal outcome during market suspension. While certain obligations may be considered more administrative in nature (like issuing market notices), these requirements are especially important during uncertain periods, such as a market suspension event. If AEMO is not providing timely and sufficient notice of a direction or other possible intervention:

• this would be likely to jeopardise, rather than enhance, system security, and

<sup>69</sup> For more information, see: https://www.aer.gov.au/wholesale-markets/compliance-reporting/investigation-report-into-southaustralias-2016-state-wide-blackout

 it does not allow market participants the opportunity to address AEMO's concerns with a market-based solution.

Allowing AEMO not to publish notices during an extreme event would undermine market participants' ability to make informed decisions and create uncertainty as to AEMO's actions. This uncertainty may lead to some costs for market participants, and ultimately customers, if it results in less efficient operational decision-making.

The Commission notes that, while the rule change request refers to obligations of an "administrative nature", it does not specify other administrative arrangements, besides an obligation to publish notices under clause 4.8.5A of the NER.<sup>70</sup> Further, the reports published by the market bodies that considered AEMO's operations during the black system event in South Australia referred solely to the obligation to publish market notices. No other administrative requirements have been identified which could challenge AEMO's compliance with the Rules during periods of market suspension.

## Proposed reporting requirements are likely to contribute to the administrative burden on AEMO during periods of market suspension

The proponent considered that additional flexibility provided to AEMO to prioritise rule obligations for system security over others during a period of market suspension should be subject to transparency and governance obligations.<sup>71</sup> Through the consultation process, AEMO noted that the reporting requirements proposed may well be more onerous than complying with the NER.<sup>72</sup> In addition, it also stated that the proposed reporting requirements are unlikely to simplify its operations during periods of market suspension compared to the existing administrative requirements i.e. issuing notices.

On this basis the Commission has concluded that the proposed requirements may contribute to the administrative burden on AEMO during periods of market suspension – the very problem they are proposed to address.

<sup>70</sup> COAG Energy Council, Rule change request: Market suspension, p. 4.

<sup>71</sup> COAG Energy Council, Rule change request: Market suspension, p. 1.

<sup>72</sup> AEMO, Submission to the *Prioritising arrangements for system security during market suspension* consultation paper, p. 2.

## **ABBREVIATIONS**

AEMC	Australian Energy Market Commission
	Australian Energy Market Operator
AER	Australian Energy Regulator
COAG	Council of Australian Governments
Commission	See AEMC
MSPS	Market Suspension Pricing Schedule
NEL	National Electricity Law
NEM	National Electricity Market
NEMDE	National Electricity Market Dispatch Engine
NEO	National Electricity Objective
NER	National Electricity Rules
NFRC	National Federation Reform Council
Rules	see NER

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## A MARKET SUSPENSION FRAMEWORK

This appendix provides further detailed background to the market suspension framework introduced in section 2.2 of this paper and summarised in Figure 1.1.

## A.1 Declaration of market suspensions and recommencement

NER clause 3.14.4 provides for AEMO to declare a market suspension in the circumstances described in section 2.2 of this paper. Such a declaration:

- allows AEMO to suspend central dispatch if necessary, and to determine prices in accordance with the market suspension pricing schedule,<sup>73</sup> while the underlying problem is being resolved (AEMO can revert to dispatch pricing during a market suspension period in certain circumstances)
- informs market participants that a significant issue is occurring in the market.

In its *Market Suspension and Systems Failure* procedure, AEMO defines the threshold for suspending the spot market. If the impact of a jurisdictional direction or the impact of a power system emergency results in dispatching generation, load or market network services using manual dispatch instructions with a cumulative effect on at least 20 per cent of the predicted regional load, then AEMO will determine that it is impossible to operate the market in accordance with the provisions of the Rules. However, AEMO may suspend the market where the impact is less than 20 per cent, if AEMO determines that it is nevertheless not possible to operate the spot market.<sup>74</sup>

NER clause 3.14.4(d) provides the mechanism for concluding a market suspension event. For this to occur, AEMO must inform all market participants that the spot market is to resume and the time that this will occur. The NER do not set out the decision-making criteria for AEMO to determine if a market suspension event can be concluded. AEMO, therefore, has some discretion in determining when the spot market is to resume. In the *Market Suspension and Systems Failure* procedure, AEMO specifies the following conditions for market resumption:<sup>75</sup>

- 1. (if applicable) the black system condition no longer exists
- 2. (if applicable) the jurisdictional direction to suspend the spot market has been revoked
- 3. the original cause of the market suspension has been eliminated or sufficient steps have been taken to exclude its influence on market processes and AEMO assesses that the possibility of suspending the spot market within the next 24 hours due to the same cause is minimal, and
- 4. AEMO determines that it can operate the market in accordance with the provisions of the NER.

<sup>73</sup> Section A.3 of this paper explains how AEMO may choose to apply the Market Suspension Pricing Schedule.

<sup>74</sup> AEMO, Market Suspension and Systems Failure procedure, December 2017, p. 6.

<sup>75</sup> Ibid, p. 11.

## A.2 Dispatch during market suspension

If a market suspension is in effect, AEMO is required to follow normal dispatch procedures where possible.<sup>76</sup> However, the NER are not prescriptive about what the dispatch procedures are if AEMO cannot use normal central dispatch processes. The NER also do not specify how AEMO should assess if normal dispatch is possible. In its *Market Suspension and Systems Failure* procedure, AEMO defines a failure of the dispatch process as follows:<sup>77</sup>

- six or more consecutive dispatch intervals have been missed, leading to a failure to communicate dispatch instructions to a significant proportion of Market Participants within the region; and
- 2. the appropriate IT system is not expected to be available within a further 10 minutes; and
- 3. changes in power system conditions since the last valid dispatch run result in errors in dispatch exceeding:
- 200 MW in the New South Wales region (suspension in the NSW region only); or
- 200 MW in the Victorian Region (suspension in the VIC region only); or
- 150 MW in the Queensland region (suspension in the QLD region only); or
- 80 MW in the South Australian region (suspension in the SA region only); or
- 80 MW in the Tasmanian region (suspension in the TAS region only); or
- 350 MW in two or more regions (suspension in all regions).

As set out in its Procedures, AEMO has developed a tiered approach to bidding and dispatch during market suspension, depending on the circumstances of the market suspension:

- bidding and dispatch will continue normally where AEMO considers it is practical and reasonably possible to do so. Where possible, dispatch instructions will be issued electronically via the automatic generation control system. Otherwise, AEMO may issue dispatch instructions in any form that is practical in the circumstances
- if, in AEMO's reasonable opinion, it is not possible to continue bidding and dispatch normally, then AEMO may use the most recent published valid pre-dispatch schedule if it is still current
- if necessary, AEMO will issue directions to market participants in accordance with the National Electricity Law (NEL) and NER.<sup>78</sup>

## A.3 Market suspension pricing

This section describes how electricity and ancillary service prices are set during a market suspension. It reflects amendments to the NER made in late 2017 and therefore these arrangements differ from those that governed the market suspension in SA in late 2016.

<sup>76</sup> NER, clause 3.14.5(a)

<sup>77</sup> AEMO, Market Suspension and Systems Failure procedure, December 2017, p. 7.

<sup>78</sup> See AEMO website: https://aemo.com.au/energy-systems/electricity/emergency-management/guide-to-market-suspension-inthe-nem, viewed 2 December 2020. Under clause 4.8.9 of the NER, AEMO may require a registered participant to do any act or thing if AEMO is satisfied that it is necessary to do so to maintain or re-establish the power system to a secure operating state, a satisfactory operating state, or a reliable operating state.

Under the current Rules, there are two options for setting prices during a market suspension:

- normal dispatch pricing: if the cause of a market suspension is not affecting AEMO's ability to run central dispatch and determine dispatch prices, spot prices and ancillary service prices in accordance with rules 3.8 and 3.9 of the NER, this process should continue to be used. It allows for orderly bidding and dispatch, supporting efficient market outcomes.<sup>79</sup>
- 2. market suspension pricing schedule: if, in AEMO's reasonable opinion, it is not practicable to operate central dispatch and pricing then AEMO must set dispatch and ancillary service prices in accordance with the Market Suspension Pricing Schedule. This schedule is published weekly, 14 days in advance of the first day to which the schedule relates.<sup>80</sup> AEMO calculates a rolling average of half-hourly prices for weekdays and weekends, using spot prices over the previous four weeks.<sup>81</sup>

AEMO can apply normal dispatch pricing at any time during a market suspension if, in its reasonable opinion, it is practicable to continue or resume central dispatch and the determination of dispatch prices and ancillary service prices. The exception is where the market was suspended in response to a jurisdictional direction. If the Market Suspension Pricing Schedule was used to set prices, the relevant jurisdiction must agree to a return to normal dispatch pricing before AEMO can apply this pricing regime.<sup>82</sup>

#### Inter-regional price scaling

The NER require prices in a neighbouring region or regions to be scaled when:<sup>83</sup>

- the Market Suspension Pricing Schedule is being used to set prices in the suspended region, and
- there is a net energy flow on one or more regulated interconnectors from the neighbouring region/s toward the suspended region.

Prices in neighbouring region/s must not exceed the Market Suspension Pricing Schedule price, scaled by the average loss factor applicable to the energy flow from the neighbouring region to the suspended region.<sup>84</sup> The purpose of price scaling is to prevent, or manage, the accumulation of negative inter-regional settlement residues, which consumers end up paying for. During the South Australia market suspension, prices were scaled in Victoria, New South Wales and Queensland as a result of the application of the Market Suspension Pricing Schedule in South Australia.<sup>85</sup>

<sup>79</sup> NER, clause 3.14.5(a)

<sup>80</sup> For more information, see: https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/data-nem/marketmanagement-system-mms-data/market-suspension-pricing-schedule

<sup>81</sup> NER, clauses 3.9.2(e)(5), 3.14.5(b) and 3.14.5(e).

<sup>82</sup> NER, clause 3.14.5(d)(3).

<sup>83</sup> NER, clause 3.14.5(f).

<sup>84</sup> NER, clause 3.14.5(f)

<sup>85</sup> Further detail on the extent of the price scaling is available in section 6.3.2 of the AEMO report on the Black System event. See: AEMO, Black System South Australia 28 September 2016, March 2017, p. 85

#### BOX 1: RECENT RULE CHANGES RELATED TO MARKET SUSPENSION

#### Participant compensation following market suspension

On 15 November 2018, the Commission made a final rule establishing a new compensation framework so that certain market participants who incur a loss during a market suspension event can be compensated. This responded to a rule change request from AEMO in the wake of the 2016 market suspension in South Australia.

The aim of the framework is to make sure that, when prices in the Market Suspension Pricing Schedule are too low to cover generators' short run costs, compensation is available so that generators do not incur a loss. This was designed to remove the incentive that previously applied for generators to withdraw from the market and await direction by AEMO when Market Suspension Pricing Schedule prices are low.

#### **Pricing during market suspension**

On 10 October 2017, the AEMC made a rule in relation to pricing arrangements during periods of spot market suspension. The final rule simplified the process for setting prices if the spot market is suspended, and establishes a simpler, more workable market suspension pricing framework.

The new rule removed two market suspension pricing regimes from the NER: neighbouring region pricing and pre-dispatch pricing schedule regimes. It also allowed AEMO to apply dispatch pricing at any time during a market suspension if: it is practicable to resume central dispatch and the determination of dispatch prices and ancillary service prices, and the market was suspended other than in response to a jurisdictional direction. Where AEMO has suspended the market in response to a jurisdictional direction, the relevant jurisdiction must agree to a return to dispatch pricing before this pricing regime can apply.

Note: For more information on *Participant compensation following market suspension* rule change see: <u>https://www.aemc.gov.au/rule-changes/participant-compensation-following-market-suspensi</u>

Note: For more information on *Pricing during market suspension* rule change, see: <u>https://www.aemc.gov.au/rule-changes/pricing-during-market-suspension</u>

## A.4 Power system security

Clause 4.3.1 of the Rules sets out AEMO's responsibilities regarding power system security. It stipulates, among other things, AEMO's obligation to maintain power system security and to ensure that the power system is operated within the limits of the technical envelope (which is defined under clause 4.2.5). The NER requires AEMO to use reasonable endeavours to maintain power system security.<sup>86</sup>

The power system is secure when technical parameters such as voltage and frequency are maintained within defined limits and will remain so following the occurrence of a credible contingency event. Credible contingency events are events that AEMO considers to be reasonably possible to occur; and have the potential for a significant impact on the power

<sup>86</sup> NER, clause 3.8.1(a).

system e.g. the loss of a single element or generation; or a single phase or phase to phase line fault.

AEMO's obligations to maintain power system security are unchanged during times of market suspension.

## A.5 Notices

Under clause 4.8.5A of the NER, AEMO must immediately publish a notice of any foreseeable circumstances that may require AEMO to implement an intervention event. AEMO issues market notices through its Market Management System. AEMO's website states they are updated in real time to notify Market Participants about events that impact the market. These include advising of low reserve conditions, status of market systems, over-constrained dispatch, price adjustments, constraints, market directions, market interventions, and market suspensions.<sup>87</sup>

As part of AEMO's responsibilities and obligations in managing power system security, it must publish as appropriate, information about the potential for, or the occurrence of, a situation which could significantly impact, or is significantly impacting, power system security.<sup>88</sup>

The AER's assessment of the South Australian black system event revealed that there are different interpretations of the NER in relation to the applicability of the requirement to publish market notices during a period of market suspension.<sup>89</sup>

## A.6 Constraints

Network limits are managed through constraint equations in which the National Electricity Market Dispatch Engine (NEMDE) determines the optimal dispatch of generators, subject to these technical limits defined by the constraints. These "network constraints" determine the maximum allowable output of multiple generators in proportion to the impact of each generator on the flow on the relevant transmission element that the constraint is managing as variables in the one constraint equation. AEMO's ability to utilise network constraints is predominantly set out in clause 3.8.10 of the NER.

Sometimes, however, a constraint can be applied to a single generator to determine that generator's output. This mechanism can be used even if a generator has not been formally directed. Typically, these "quick energy constraints" are used when:

- a generator fails to respond to a dispatch instruction and is deemed to be "nonconforming", or
- a generator is issued a formal clause 4.8.9 direction to ensure that the generator is dispatched consistent with the direction, noting that the generator offer may mean that it would not normally be dispatched. When a generator is directed this results in its

<sup>87</sup> AEMO, Events and Reports—https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Market-notices-and-events

<sup>88</sup> NER, clause 4.3.1(m).

<sup>89</sup> Further information can be found: AER, *The Black System Event Compliance Report*, November 2018.

dispatch being out of merit order and it may be compensated for any financial loss it incurs.

AEMO's explicit authority to modify or override dispatch outcomes in these two situations is set out in clause 3.8.21(i) of the NER.

The AER's assessment of the South Australian black system event revealed that there are differing interpretations as to whether a constraint (where the generator was constrained on at an output level above the output level it had offered to be dispatched at, a particular price) is an AEMO intervention event<sup>90</sup> during a period of market suspension and so whether or not clause 4.8.5A (regarding the publication of market notices) applies.<sup>91</sup>

### A.7 Directions

Under clause 4.8.9 of the NER, AEMO may issue directions to market participants where it is necessary to do so to maintain or return the power system to a secure or reliable operating state. These are most likely to be:

- a direction to a scheduled generator to achieve a particular output level to the extent that this is physically possible and safe to do so, or
- a clause 4.8.9 instruction to a network service provider to disconnect load.

AEMO formally intervened on two occasions by issuing clause 4.8.9 directions during the market suspension period of the SA Black System Event. The clause sets out a process for AEMO to follow when it may need to intervene in the market, including the timely publication of market notices.

# BOX 2: DIFFERENCES BETWEEN A DIRECTION, A CONSTRAINT AND A DISPATCH INSTRUCTION

There are fundamental differences between a direction, a constraint and a dispatch instruction:

- A **dispatch instruction** is a product of the automated processes of NEMDE to achieve an efficient dispatch of all generation.

- A **constraint** is an obligation or restriction applied by AEMO that alters the normal NEMDE processes/outcomes for relevant generators for technical reasons to manage the power system.

- A **direction** is a formal intervention in the market by AEMO to a Market Participant (under clause 4.8.9 of the NER) which alters normal market outcomes for that generator, typically for reliability or security reasons, and for which Market Participants may be eligible to claim

<sup>90 &#</sup>x27;AEMO intervention event' is defined in Chapter 10 of the NER as an event where AEMO intervenes in the market under the Rules by: (a) issuing a direction in accordance with clause 4.8.9; or (b) exercising the reliability and emergency reserve trader in accordance with rule 3.20 by dispatching scheduled generating units, scheduled network services or scheduled loads in accordance with a scheduled reserve contract; or activating loads or generating units under an unscheduled reserve contract.

<sup>91</sup> Further information can be found: AER, *The Black System Event Compliance Report*, November 2018.

compensation.

Additionally, a constraint that requires a generator to run in circumstances where it otherwise would not under normal NEMDE processes only applies where a generator has made a bid to participate in the dispatch but has not been selected by NEMDE "in merit". A generator that has bid itself "unavailable" is not able to be constrained on by AEMO in this manner. In that sense, a generator has some measure of control over whether it is subject to this kind of constraint, as opposed to when it receives a direction.

During the market suspension period, some participants advised that there was confusion as to whether they were being directed by AEMO under clause 4.8.9 or being asked by AEMO to follow dispatch instructions which were a result of the constraints used to maintain sufficient inertia to manage power system security.

Source: AER, Black system compliance report, December 2018, p. 163.

В

## RELATED COMMISSION WORK

This rule change is part of a wider Commission work program on system security, which includes those rule changes seeking to action the recommendations made by the Commission in its BSE review report. Three rule change requests were submitted by the COAG Energy Council:<sup>92</sup>

- Prioritising arrangements for system security during market suspension (the subject of this draft determination);
- Enhancing operational resilience in relation to indistinct events; and
- Implementing a general power system risk review.

The latter two are discussed below.

## B.1 Enhancing operational resilience in relation to indistinct events

On 26 May 2020, the AEMC received a rule change request from the COAG Energy Council to amend the NER to introduce a framework to manage indistinct events.<sup>93</sup>

Indistinct events are events that can impact multiple generators or transmission lines in an unpredictable and uncertain manner. Indistinct events may include major storms, widespread fires and cyber attacks, which may trigger unpredictable responses in an increasingly complex power system.

In the BSE review report, the AEMC found that the existing system security framework may be ill-suited to managing indistinct events and recommended introducing a framework for protected operation, as a new operational tool for AEMO to enhance the resilience of the power system to indistinct events.<sup>94</sup>

The proposed rule would:

- introduce the new definition of an 'indistinct event'
- clarify that standing risks from indistinct events can be managed as a type of protected event
- enhance the protected event approval process to manage standing indistinct events
- implement a new operational tool, protected operation, allowing AEMO to more effectively manage condition-dependent indistinct events
- set out two types of protected operation:
  - pre-defined protected operation, and
  - ad-hoc protected operation

<sup>92</sup> On 29 May 2020, it was announced that the Council of Australian Government (COAG) will cease and a new National Federation Reform Council (NFRC) will be formed, with National Cabinet at the centre of the NFRC.

<sup>93</sup> For more information, see the project page: <u>https://www.aemc.gov.au/rule-changes/enhancing-operational-resilience-relation-indistinct-events#:~:text=Rule%20Change%3A%20Open&text=Indistinct%20events%20are%20events%20that,an%20increasingly%20complex%20power%20system.</u>

<sup>94</sup> Mechanisms to Enhance Resilience in the Power System – Review of the South Australian Black System Event, final report, December 2019, p. i.

• specify governance arrangements for protected operation.

On 17 December 2020, the Commission published a consultation paper for this rule change request, with the submissions due on 11 February 2021.

The draft rule determination is due on 22 April 2021.

## B.2 Implementing a general power system risk review

On 26 May 2020, the AEMC received a rule change request from the COAG Energy Council seeking to implement a General Power System Risk Review (GPSRR) into the NER. <sup>95</sup>

The COAG Energy Council considered there are a range of shortcomings with the existing Power System Frequency Risk Review (PSFRR) given the changing power system risk and resilience profile. The COAG Energy Council was of the view that there is a need to broaden the scope of the existing PSFRR beyond frequency, to become a more frequent and holistic GPSRR process for effectively identifying a range of emerging risks to the power system. In particular, the COAG Energy Council seek to amend the rules in order: <sup>96</sup>

- for the GPSRR to consider all events and conditions (including contingency events as defined in the NER) the occurrence of which AEMO expects, alone or in combination, would be likely to lead to cascading outages, or major supply disruptions
- to enhance the breadth of the sources of risk considered in the GPSRR to include a wider range of sources of risk beyond frequency
- to deepen the review to formally include distribution network service providers
- to increase the speed and frequency of the review process, and
- to integrate the review with other AEMO and NSP planning processes.

On 4 February 2021, the Australian Energy Market Commission published a draft determination, and draft more preferable rule, for the implementing a general power system risk review rule change request, for consultation.

The final rule determination is currently expected to be published on 29 April 2021.

<sup>95</sup> For more information, see the project page: https://www.aemc.gov.au/rule-changes/implementing-general-power-system-riskreview

<sup>96</sup> COAG Energy Council, Rule Change Request – Implementing a general power system risk review, May 2020.

## C LEGAL REQUIREMENTS UNDER THE NEL

This appendix sets out the relevant legal requirements under the NEL for the AEMC to make this draft rule determination.

## C.1 Draft rule determination

In accordance with s. 99 of the NEL the Commission has made this draft rule determination in relation to the rule proposed by the COAG Energy Council.<sup>97</sup>

The Commission has determined not to make a draft rule.

The Commission's reasons for making this draft rule determination are set out in section 2.4 of this determination, and in more detail in Chapter 3.

## C.2 Commission's considerations

In assessing the rule change request the Commission considered:

- it's powers under the NEL to make the rule
- the rule change request
- submissions received during first round consultation
- the Commission's analysis as to the ways in which the proposed rule will or is likely to, contribute to the NEO.

There is no relevant Ministerial Council on Energy (MCE) statement of policy principles for this rule change request.<sup>98</sup>

## C.3 Northern Territory

From 1 July 2016, the NER, as amended from time to time, apply in the Northern Territory, subject to derogations set out in regulations made under the Northern Territory legislation adopting the NEL (referred to here as the NT Act).<sup>99</sup>

The NT Act provides for an expanded definition of the national electricity system in the context of the application of the NEO to rules made in respect of the Northern Territory, as well as providing the Commission with the ability to make a differential rule that varies in its terms between the national electricity system and the Northern Territory's local electricity system.

<sup>97</sup> On 29 May 2020, the Prime Minister announced the establishment of the National Federation Reform Council and the disbanding of the COAG. New arrangements for the former COAG Energy Council will be finalised following the National Cabinet Review of COAG Councils and Ministerial Forums. The Prime Minister has advised that, while this change is being implemented, former Councils may continue meeting as a Ministerial Forum to progress critical and/or well-developed work.

<sup>98</sup> Under s. 33 of the NEL the AEMC must have regard to any relevant MCE statement of policy principles in making a rule. The MCE is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory Ministers responsible for energy. On 1 July 2011, the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated council is now called the COAG Energy Council.

<sup>99</sup> NT Act: National Electricity (Northern Territory) (National Uniform Legislation) Act 2015. Regulations: National Electricity (Northern Territory) (National Uniform Legislation) (Modifications) Regulation.

The Commission has determined not to make a draft rule and, consequently, has not made a differential rule in respect of the Northern Territory.