



National Electricity Amendment (Implementing a general power system risk review) Rule 2021 No. 5

under the National Electricity Law to the extent applied by:

- (a) the National Electricity (South Australia) Act 1996 of South Australia;
- (b) the Electricity (National Scheme) Act 1997 of the Australian Capital Territory;
- (c) the Electricity - National Scheme (Queensland) Act 1997 of Queensland;
- (d) the Electricity - National Scheme (Tasmania) Act 1999 of Tasmania;
- (e) the National Electricity (New South Wales) Act 1997 of New South Wales;
- (f) the National Electricity (Victoria) Act 2005 of Victoria;
- (g) the National Electricity (Northern Territory) (National Uniform Legislation) Act 2015 of the Northern Territory; and
- (h) the Australian Energy Market Act 2004 of the Commonwealth.

The Australian Energy Market Commission makes the following Rule under the National Electricity Law.

Anna Collyer
Chairperson
Australian Energy Market Commission

National Electricity Amendment (Implementing a general power system risk review) Rule 2021 No. 5

1 Title of Rule

This Rule is the *National Electricity Amendment (Implementing a general power system risk review) Rule 2021 No. 5*.

2 Commencement

Schedule 1 of this Rule commences operation on 10 January 2022.

Schedule 2 of this Rule commences operation on 3 June 2021.

3 Amendment to the National Electricity Rules

The National Electricity Rules are amended as set out in Schedule 1.

4 Savings and Transitional Amendment to the National Electricity Rules

The National Electricity Rules are amended as set out in Schedule 2.

Schedule 1 Amendment to the National Electricity Rules

(Clause 3)

[1] Clause 5.10.1 Content of Part D

In clause 5.10.1(m), omit "*power system frequency*" and substitute "*general power system risk*".

[2] Clause 5.12.1 Transmission annual planning review

In clause 5.12.1(b)(3), omit "*power system frequency risk review*" and substitute "*power system frequency* and other *power system risk* management planning".

[3] Clause 5.12.1 Transmission annual planning review

In clause 5.12.1(b)(5), omit "and".

[4] Clause 5.12.1 Transmission annual planning review

In clause 5.12.1(b)(6), omit "." and substitute "; and".

[5] Clause 5.12.1 Transmission annual planning review

After clause 5.12.1(b)(6), insert:

- (7) consider the operation of, and any known or potential interactions between:
 - (i) any *emergency frequency control schemes*, or emergency controls in place under clause S5.1.8, on its *network*; and
 - (ii) *protection systems* or *control systems* of *plant connected* to its *network* (including consideration of whether the settings of those systems are fit for purpose for the future operation of its *network*),

where the *Transmission Network Service Provider* expects that such operation or interactions would be likely to lead to *cascading outages* or *major supply disruptions*.

[6] Clause 5.12.2 Transmission Annual Planning Report

In clause 5.12.2(c)(6A), omit "*power system frequency risk review*" and substitute "*general power system risk review*".

[7] Clause 5.12.2 Transmission Annual Planning Report

After clause 5.12.2(c)(9), insert:

- (9a) the analysis of the operation of, and any known or potential interactions between:

- (i) any *emergency frequency control schemes*, or emergency controls placed under clause S5.1.8, on its *network*; and
- (ii) *protection systems* or *control systems* of *plant connected* to its *network* (including consideration of whether the settings of those systems are fit for purpose for the future operation of its *network*),

undertaken under clause 5.12.1(b)(7), including a description of proposed actions to be undertaken to revise those schemes, controls or systems, or to address any adverse interactions.

[8] Clause 5.13.1 Distribution annual planning review

In clause 5.13.1(d)(3)(ii), omit "and".

[9] Clause 5.13.1 Distribution annual planning review

In clause 5.13.1(d)(4), omit "." and substitute ";".

[10] Clause 5.13.1 Distribution annual planning review

After clause 5.13.1(d)(4), insert:

- (5) take into account the most recent *general power system risk review*; and
- (6) consider the operation of, and any known or potential interactions between:
 - (i) any *emergency frequency control schemes*, or emergency controls in place under clause S5.1.8, on its *network*; and
 - (ii) *protection systems* or *control systems* of *plant connected* to its *network* (including consideration of whether the settings of those systems are fit for purpose for the future operation of its *network*).

where the *Distribution Network Service Provider* expects that such operation or interactions would be likely to lead to *cascading outages* or *major supply disruptions*.

[11] Clause 5.14.1 Joint planning obligations of Transmission Network Service Providers and Distribution Network Service Providers

In clause 5.14.1(d)(3)(ii), omit "and".

**[12] Clause 5.14.1 Joint planning obligations of
Transmission Network Service Providers
and Distribution Network Service
Providers**

After clause 5.14.1(d)(3), insert:

- (3a) assess the known or potential interactions between:
- (i) any *emergency frequency control schemes*, or emergency controls in place under clause S5.1.8, on their *networks*; and
 - (ii) *protection systems* or *control systems* of *plant connected* to their *networks*,

as identified under clauses 5.12.1(b)(7) and 5.13.1(d)(6) with a view to addressing any adverse impacts through joint planning; and

**[13] Clause 5.14.1 Joint planning obligations of
Transmission Network Service Providers
and Distribution Network Service
Providers**

In clause 5.14.1(d)(4), omit "subparagraph (3)" and substitute "subparagraphs (3) or (3a)".

**[14] Clause 5.14.3 Joint planning obligations of
Transmission Network Service Providers**

Omit clause 5.14.3 (excluding the heading) and substitute:

Transmission Network Service Providers must undertake joint planning:

- (a) if a possible credible option to address a *constraint* in a *transmission network* is an *augmentation* to the *transmission network* of another *Transmission Network Service Provider*, and that *constraint* is not already being considered under other processes under the *Rules*; or
- (b) to assess the known or potential interactions between:
 - (1) any *emergency frequency control schemes*, or emergency controls in place under clause S5.1.8, on their *networks*; and
 - (2) *protection systems* or *control systems* of *plant connected* to their *networks*,

as identified under clause 5.12.1(b)(7) with a view to addressing any adverse impacts through joint planning.

[15] Clause 5.20A Frequency management planning

Omit the title of rule 5.20A and substitute "Frequency and other power system risk management planning".

[16] Clause 5.20A.1 Power system frequency risk review

Omit the title of clause 5.20A.1 and substitute "General power system risk review".

[17] Clause 5.20A.1 General power system risk review

Omit paragraphs (a) and (b) of clause 5.20A.1 and substitute:

- (a) *AEMO* must, in respect of a prioritised set of risks determined by *AEMO* (**priority risks**), review through a *general power system risk review* under this rule:
 - (1) *non-credible contingency events* the occurrence of which *AEMO* expects, alone or in combination, would be likely to involve uncontrolled increases or decreases in *frequency* leading to *cascading outages*, or *major supply disruptions*;
 - (2) events and conditions not referred to in subparagraph (1), including *contingency events*, the occurrence of which *AEMO* expects, alone or in combination, would be likely to lead to *cascading outages* or *major supply disruptions*;
 - (3) current arrangements for management of the priority risks described in sub-paragraphs (1) and (2);
 - (4) options for future management of the *non-credible contingency events* referred to in paragraph (1); and
 - (5) options for future management of the events and conditions referred to in paragraph (2).
- (a1) *AEMO's* identification of priority risks for a *general power system risk review* under paragraph (a) must have regard to:
 - (1) the severity of the likely *power system security* outcomes if the events or conditions occur, and the likelihood of the event or condition occurring;
 - (2) whether, in *AEMO's* opinion, technically feasible and (on the basis of *AEMO's* preliminary assessment of the estimated costs and benefits of that option) economically feasible options for management of the event or condition are likely to be available;
 - (3) information provided by *Network Service Providers* and any other persons consulted in accordance with clause 5.20A.2(b); and
 - (4) any other factors that *AEMO* considers relevant.

- (b) The options referred to in subparagraph (a)(4) may include:
 - (1) new or modified *emergency frequency control schemes*;
 - (2) declaration of the event as a *protected event*;
 - (3) *network augmentation*; and
 - (4) non-*network* alternatives to *augmentation*.
- (b1) For the purposes of subparagraph (a)(2) *AEMO* may consider events and conditions that present a material risk of *cascading outages* or *major supply disruptions* associated with any factors that *AEMO* considers appropriate, including events or conditions arising on *distribution networks*.

[18] Clause 5.20A.1 General power system risk review

In clause 5.20A.1(c), omit "*power system frequency risk review*" and substitute "*general power system risk review*".

[19] Clause 5.20A.1 General power system risk review

Omit clause 5.20A.1(c)(1) and substitute "[Deleted]".

[20] Clause 5.20A.1 General power system risk review

In clause 5.20A.1(c)(2), omit "events identified under subparagraph (1):" and substitute "priority risks identified under clause 5.20A.1(a):".

[21] Clause 5.20A.1 General power system risk review

In clause 5.20A.1(c)(2)(i), after "event", insert "or condition".

[22] Clause 5.20A.2 Power system frequency risk reviewprocess

Omit the title of clause 5.20A.2 and substitute "General power system risk review process".

[23] Clause 5.20A.2 Power system frequency risk reviewprocess

Omit clause 5.20A.2 (excluding the heading) and substitute:

- (a) *AEMO* must undertake a *general power system risk review* no less than annually.
- (b) For the purposes of *AEMO* identifying the priority risks to be assessed in a *general power system risk review* under clause 5.20A.1(a):

- (1) *AEMO* must put in place arrangements it considers appropriate to consult with and take into account the views of relevant *Transmission Network Service Providers* and relevant *Distribution Network Service Providers*;
 - (2) relevant *Transmission Network Service Providers* and relevant *Distribution Network Service Providers* must, on request from *AEMO* and taking into account any analysis conducted as part of their annual planning review under clause 5.12.1 or 5.13.1 respectively, provide to *AEMO* all information and assistance reasonably required by *AEMO*; and
 - (3) *AEMO* may consult with any other parties it considers appropriate, including without limitation, *Jurisdictional System Security Coordinators*.
- (c) When undertaking a *general power system risk review*:
- (1) *AEMO* must consult with and take into account the views of relevant *Network Service Providers*;
 - (2) *AEMO* may consult with any other parties it considers appropriate, including without limitation, *Jurisdictional System Security Coordinators*; and
 - (3) *AEMO* must, on commencement of the *general power system risk review*, publish an approach paper setting out:
 - (i) the priority risks to be assessed by *AEMO* in the *general power system risk review* including:
 - (A) the *non-credible contingency events* identified by *AEMO* under clause 5.20A.1(a)(1); and
 - (B) the events and conditions identified by *AEMO* under clause 5.20A.1(a)(2),and an explanation for why *AEMO* considers those priority risks should be priorities for assessment;
 - (ii) the approach and methodologies used in assessing each priority risk;
 - (iii) information inputs and assumptions used by *AEMO* in assessing each priority risk; and
 - (iv) *AEMO's* approach to consulting with relevant parties for the purposes of the *general power system risk review*,and invite submissions within a period of at least 20 *business days* of the publication date of the approach paper.
- (d) A *Network Service Provider* must co-operate with *AEMO* in the conduct of a *general power system risk review* and provide to *AEMO*

all information and assistance reasonably requested by *AEMO* in connection with a *general power system risk review* to enable *AEMO* to undertake the review expeditiously, including by providing *AEMO* with:

- (1) any options the *Network Service Provider* has identified for mitigating the priority risks to be assessed by *AEMO* in the *general power system risk review*; and
 - (2) any information and computer models (including models of *emergency frequency control schemes* or emergency controls on its network) that *AEMO* reasonably requires.
- (e) Where *AEMO* is considering a new or modified *emergency frequency control scheme*, as part of a *general power system risk review*, *AEMO* must consult with *Distribution Network Service Providers* whose *distribution systems* are likely to be directly affected by the scheme.

[24] Clause 5.20A.3 Power system frequency risk review report

Omit the title of clause 5.20A.3 and substitute "General power system risk review report".

[25] Clause 5.20A.3 General power system risk review report

Omit clause 5.20A.3(a) and substitute:

- (a) As soon as reasonably practicable following the completion of a *general power system risk review*, *AEMO* must publish a report setting out its findings and recommendations on the matters set out in clause 5.20A.1, including its conclusions in response to any submissions received to the approach paper under clause 5.20A.2(c)(3).

[26] Clause 5.20A.3 General power system risk review report

In clause 5.20A.3(b), omit "*power system frequency risk review*" and substitute "*general power system risk review*".

[27] Clause 5.20A.3 General power system risk review report

In clause 5.20A.3(c), omit "*power system frequency risk review*" and substitute "*general power system risk review*".

[28] Clause 5.20A.4 Request for protected event declaration

In clause 5.20A.4(a), omit "*power system frequency risk review*" and substitute "*general power system risk review*".

[29] Clause 5.20A.5 Request to revoke a protected event declaration

In clause 5.20A.5(a), omit "*power system frequency risk review*" wherever occurring and substitute "*general power system risk review*".

[30] Clause 5.22.10 Preparation of ISP

After clause 5.22.10(a)(5)(vi), insert:

(viA) outcomes of the *general power system risk review*;

[31] Clause 5.22.10 Preparation of ISP

After clause 5.22.10(b)(7), insert:

(7a) the most recent *general power system risk review*;

[32] Clause S5.1.10.1a Emergency frequency control schemes

Omit clause S5.1.10.1a(a)(1) and substitute "[Deleted]".

[33] Clause S5.1.10.1a Emergency frequency control schemes

In clause S5.1.10.1a(c), omit "*power system frequency risk review*" and substitute "*general power system risk review*".

[34] Schedule 5.8 Distribution Annual Planning Report

At the end of Schedule 5.8(n)(2), omit "." and substitute "; and".

[35] Schedule 5.8 Distribution Annual Planning Report

After paragraph (n) of Schedule 5.8, insert:

- (o) the analysis of the known and potential interactions between:
 - (1) any *emergency frequency control schemes*, or emergency controls in place under clause S5.1.8, on its *network*; and
 - (2) *protection systems* or *control systems* of *plant connected to its network* (including consideration of whether the settings of those systems are fit for purpose for the future operation of its *network*),

undertaken under clause 5.13.1(d)(6), including a description of proposed actions to be undertaken to address any adverse interactions.

[36] Clause 8.8.1 Purpose of Reliability Panel

In clause 8.8.1(a)(2d), omit "*power system frequency risk reviews*" and substitute "*general power system risk reviews*".

[37] Chapter 10 New definition

In Chapter 10, insert the following new definition in alphabetical order:

general power system risk review

A review described in clause 5.20A.1.

[38] Chapter 10 Omitted definition

In Chapter 10, omit the following definition:

power system frequency risk review

Schedule 2 Savings and Transitional Amendment to the National Electricity Rules

(Clause 4)

[1] New Part ZZZZN Implementing a general power system risk review

In Chapter 11, after Part ZZZZM, insert:

Part ZZZZN Implementing a general power system risk review

11.138 Rules consequential on the making of the National Electricity Amendment (Implementing a general power system risk review) Rule 2021

11.138.1 Definitions

For the purposes of this rule 11.138:

Commencement Date means 10 January 2022.

new Chapter 5 means Chapter 5 of the *Rules* and all related definitions in the *Rules* as in force on and from the Commencement Date.

new clause 5.20A means clause 5.20A of the *Rules* and all related definitions in the *Rules* as in force on and from the Commencement Date.

new clause 5.20A.2(a) means clause 5.20A.2(a) of the *Rules* and all related definitions in the *Rules* as in force on and from the Commencement Date.

old Chapter 5 means Chapter 5 of the *Rules* and all related definitions in the *Rules* as in force immediately prior to the Commencement Date.

11.138.2 First general power system risk review

Despite new clause 5.20A.2(a), *AEMO* must complete the first *general power system risk review* by 31 July 2023.

11.138.3 Last power system frequency risk review

Despite new clause 5.20A:

(a) *AEMO* must must complete the last *power system frequency risk review* under old Chapter 5 by 31 July 2022; and

(b) *Network Service Providers* must co-operate with *AEMO* in the conduct of the *power system frequency risk review* referred to in paragraph (a), and provide to *AEMO* all information and assistance reasonably requested by *AEMO* in connection with this *power system frequency risk review*.