



National Electricity Amendment (System restart services, standards and testing) Rule 2020 No. 6

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.

John Pierce
Chairman
Australian Energy Market Commission

National Electricity Amendment (System restart services, standards and testing) Rule 2020 No. 6

1 Title of Rule

This Rule is the *National Electricity Amendment (System restart services, standards and testing) Rule 2020 No. 6*.

2 Commencement

Schedule 1 of this Rule commences operation on 2 November 2020.

Schedule 2 of this Rule commences operation on 2 April 2020.

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 3.11.7 Guidelines and objectives for acquisition of system restart ancillary services by AEMO

Omit clause 3.11.7(a1) and substitute "*AEMO* must use reasonable endeavours to acquire *system restart ancillary services* to meet the *system restart standard* at the lowest long-term cost (the *SRAS Procurement Objective*)".

[2] Clause 3.11.7 Guidelines and objectives for acquisition of system restart ancillary services by AEMO

In clause 3.11.7(c), substitute "ensure that the *system restart standard* is met at the lowest cost" with "achieve the *SRAS Procurement Objective*".

[3] Clause 3.11.7 Guidelines and objectives for acquisition of system restart ancillary services by AEMO

After clause 3.11.7(d)(3), insert new subclauses 3.11.7(d)(3A) and (3B):

(3A) guidance to *Registered Participants* on the factors influencing a decision of *AEMO* to conduct a *system restart test*, including (but not limited to) the types of conditions or changes in the *power system* which could necessitate a *system restart test*;

(3B) guidance to *Registered Participants* required to participate in a *system restart test* under clause 4.3.6 on the measurements and data to be reported to *AEMO* about the operation of their *facilities* during the *system restart test*;

[4] Clause 3.11.7 Guidelines and objectives for acquisition of system restart ancillary services by AEMO

After clause 3.11.7(d)(4), insert a new clause 3.11.7(d)(4A):

(4A) requirements designed to identify any inconsistencies between the arrangements used in the testing of *system restart ancillary services* and those planned to be used in the deployment of *system restart ancillary services* following a *major supply disruption* and how the impact of any inconsistencies will be assessed;

[5] Clause 3.11.7 Guidelines and objectives for acquisition of system restart ancillary services by AEMO

After clause 3.11.7(d)(5), insert a new clause 3.11.7(d)(5A):

- (5A) guidance to *Registered Participants* on how *AEMO* will achieve the *SRAS Procurement Objective*;

[6] Clause 3.11.10 Reporting

Omit clause 3.11.10(b) and substitute:

- (b) At least once each year, *AEMO* must *publish* a report on:
- (1) any *electrical sub-network* where *system restart ancillary services* were not acquired by *AEMO* to a level satisfactory to meet the *system restart standard*, and reasons why the *system restart standard* was not met;
 - (2) the process followed by *AEMO* to acquire *system restart ancillary services* for each *electrical sub-network*;
 - (3) the *electrical sub-networks* (if any) in which a *system restart test* was conducted, or was planned but could not be conducted (with reasons);
 - (4) whether or not the results of any *system restart test* indicated the *system restart plan* as it relates to that *electrical sub-network* is likely to be consistent with the achievement of the *system restart standard* and the *AEMO power system security responsibilities*;
 - (5) how *AEMO* satisfied its obligations to consult with *Test Participants* in relation to any *system restart test*; and
 - (6) how *AEMO* sought to minimise the costs and operational impacts of any *system restart tests*.

[7] Clause 3.15.6A Ancillary service transactions

Omit clause 3.15.6A(b1) and substitute:

- (b1) Where an amount is payable by *AEMO*:
- (1) under clause 4.3.6(o); or
 - (2) under paragraph (b) where it is not determined on a *trading interval basis*,

that amount is recovered in accordance with the relevant paragraphs (c8), (c9), (d) and (e), except that a reference to *trading interval* in the calculation of RBF, AGE, AAGE, TGE, ATGE, TSGE, ATSGE,

TCE, ATCE is to be read as "the relevant period", and any other reference to *trading interval* in those paragraphs is to be read as the "relevant *billing period*".

[8] Clause 3.15.6A Ancillary service transactions

In clause 3.15.6A(d), omit the words following "SRP_i (in \$) =" and substitute "the amount payable by *AEMO* in respect of the *trading interval* under an individual *ancillary services agreement* in respect of the provision of a specific *system restart ancillary service* or, for the purposes of clause 4.3.6(q), the compensation payable by *AEMO* under clause 4.3.6(o) for the relevant *billing period*";.

[9] Clause 4.3.1 Responsibility of AEMO for power system security

Omit clause 4.3.1(p) and substitute:

- (p) to manage activities reasonably required to effectively prepare for and coordinate a response to a *major supply disruption*, including (but not limited to):
 - (1) procuring adequate *system restart ancillary services* in accordance with clause 3.11.9 to enable *AEMO* to co-ordinate a response to a *major supply disruption*;
 - (2) developing the *system restart plan* and coordinating activities among *Registered Participants*, including the testing of *system restart ancillary services* or any other equipment, as reasonably necessary to prepare for the implementation of the *system restart plan*; and
 - (3) managing and coordinating the restoration of *supply* following a *major supply disruption*;

[10] Clause 4.3.4 Network Service Providers

After clause 4.3.4(a), insert a new clause 4.3.4(a1):

- (a1) Each *Network Service Provider* must:
 - (1) facilitate testing of *system restart ancillary services* and *system restart tests* and conduct those tests as required;
 - (2) comply with the *SRAS Guideline*; and
 - (3) take all reasonable steps to facilitate the effective deployment of *system restart ancillary services*.

[11] Clause 4.3.6 System restart test obligations

After clause 4.3.5, insert a new clause 4.3.6:

4.3.6 System restart test obligations

Test program

- (a) The relevant *Transmission Network Service Provider* and the *Registered Participants* notified of a *system restart test* under paragraph (b), or identified under paragraph (c), are *Test Participants*.
- (b) *AEMO* may, by notice to the relevant *Transmission Network Service Provider*, *SRAS Providers* and any other *Generator* that *AEMO* considers would be required to participate, request the conduct of a *system restart test* for an *electrical sub-network* to verify whether the *system restart plan* as it relates to that *electrical sub-network* is likely to be consistent with the achievement of the *system restart standard* or the *AEMO power system security responsibilities*.
- (c) If a *Transmission Network Service Provider* receives a notice under paragraph (b), it must, within 10 *business days* or such other period proposed by the *Transmission Network Service Provider* and accepted by *AEMO* (acting reasonably), notify *AEMO* of any other *Registered Participant* in respect of *facilities* connected to its *network* that it considers would be required to participate in the *system restart test*.
- (d) *AEMO* must consult with the *Test Participants* on the timing and scope of the *system restart test* and, after considering any submissions, notify the *Test Participants* of the proposed *energisation path* and approximate timing of the *system restart test*.
- (e) Each *Test Participant* must:
 - (1) within 15 *business days* of receiving notice under paragraph (d), or such longer period agreed to by *AEMO* (acting reasonably), prepare and submit to *AEMO* detailed *system restart test* procedures for its *facilities* that will be included in the *system restart test*; and
 - (2) within 10 *business days* of receiving a request, or such longer period agreed to by *AEMO* or the *Transmission Network Service Provider* (acting reasonably), provide any other information reasonably requested by *AEMO* or the *Transmission Network Service Provider* about the operation of its *facilities*.
- (f) After consulting with the *Test Participants* and incorporating the *system restart test* procedures and any other information provided under paragraph (e), *AEMO* may prepare a *test program* and provide that *test program* to the *Test Participants*.
- (g) The *test program* must be designed to achieve the objective of the *system restart test* set out in paragraph (b) having regard to the following principles:

- (1) *power system security* must be maintained in accordance with Chapter 4;
 - (2) the extent and duration of variation from the *central dispatch* outcomes that would otherwise occur in the absence of the *system restart test* should be minimised; and
 - (3) to the extent reasonably practicable, the timing, duration and technical specifications of the *system restart test* should consider and be coordinated with the operational requirements of the *Test Participants* so as to minimise the cost and impact of the *system restart test* on the operations of all parties.
- (h) The *test program* must include:
- (1) at least 2 periods for testing (each a **test window**) of not more than 4 weeks, in which a *system restart test* may occur;
 - (2) unless otherwise agreed by *AEMO* and all *Test Participants*, a first test window that starts at least 30 *business days* after the date the *test program* is provided to the *Test Participants* under paragraph (f); and
 - (3) a proposed test date that occurs in the first test window.
- (i) If, at any time before or during a *system restart test*, *AEMO* considers that it is necessary to modify the *test program*, *AEMO* may modify the *test program* (including the proposed test date) by giving notice as soon as reasonably practicable to the *Test Participants*. If *AEMO* defers the *system restart test*, it must reschedule the *system restart test* to a date within a test window specified in the *test program* having regard to the principles in paragraph (g), by giving notice to the *Test Participants* as soon as reasonably practicable.
- (j) *AEMO* and the *Test Participants* must conduct the *system restart test* in accordance with the *test program*, as may be modified under paragraph (i).
- (k) Each *Test Participant* must:
- (1) prepare and provide the *system restart test* procedures and information required under paragraph (e) in accordance with *good electricity industry practice*;
 - (2) cooperate with, and comply with instructions given by *AEMO* and the *Transmission Network Service Provider* in conducting the *system restart test*; and
 - (3) act in good faith in respect of, and not unreasonably delay, the preparation for and conduct of the *system restart test*.

Costs

- (l) Each *Test Participant* and *AEMO* must bear its own costs associated with *system restart tests* except to the extent provided for under this clause 4.3.6. Nothing in this clause 4.3.6 prevents recovery of testing costs under an *ancillary services agreement*.
- (m) A *Test Participant* (other than a *Transmission Network Service Provider*, *Distribution Network Service Provider* or *SRAS Provider*) that is required to participate in a *system restart test* may, within 10 *business days* after the date of the *system restart test* or the permanent deferral of a *system restart test*, submit a written claim to *AEMO* for compensation in respect of its direct costs incurred as a result of its participation in the *system restart test* or preparing for a deferred *system restart test*, where direct costs:
 - (1) include fuel costs and incremental operation and maintenance costs attributable to the specific circumstances related to the *facility's* operation during, or in preparation for, a *system restart test*; and
 - (2) exclude claims for loss of revenue (including from the *market*), losses by third parties and opportunity costs.
- (n) A *Test Participant* may only submit one claim under paragraph (m) in respect of each *system restart test* and each claim must contain sufficient detail and supporting information to substantiate each component of the direct costs claimed.
- (o) *AEMO* must:
 - (1) if the total amount of all claims by *Test Participants* in relation to the same *system restart test* is less than \$100,000 and *AEMO* determines, at its sole discretion, that all such claims are reasonable, pay the amount claimed as soon as reasonably practicable; or
 - (2) otherwise, refer the claim to an independent expert to determine the claim and pay the amount determined by the independent expert.
- (p) A referral of a claim by *AEMO* to an independent expert under subparagraph (o)(2), and the determination of the independent expert, must be consistent with the requirements of clause 3.12.3 except that, in applying that clause:
 - (1) each relevant *Test Participant* is taken to be a *Referred Directed Participant* and the *system restart test* is taken to be an *AEMO intervention event*;
 - (2) references to *intervention settlement timetable* are taken to be references to a timetable published by *AEMO* on its website for

the independent expert's appointment and to be included in their terms of engagement, with the objective of publishing the final report within 20 weeks of the date of the referral;

- (3) the independent expert must only apply the principles in paragraph (m) in determining compensation; and
- (4) references to paragraphs in clause 3.12.3 are taken to be references to paragraphs in this clause 4.3.6 as appropriate.
- (q) *AEMO* must recover the amount of any compensation paid under paragraph (o) from relevant *Market Participants* in accordance with clause 3.15.6A(d).
- (r) The *AER* must exclude the impact of any *system restart test* from the operation of a *service target performance incentive scheme* for a *Transmission Network Service Provider*.

Results and reporting

- (s) Each *Test Participant* must:
 - (1) within 1 month of completion of a *system restart test*, give *AEMO* any relevant data, measurements, results and analysis required by the *SRAS Guideline* or the *test program*; and
 - (2) promptly comply with any reasonable request by *AEMO* for other data, measurements, results and analysis of the performance of its *facilities* in the *system restart test*.
- (t) Within 3 months of completion of a *system restart test*, *AEMO* must:
 - (1) provide a detailed report to the *Transmission Network Service Provider* on the results of the *system restart test*; and
 - (2) report to each other *Test Participant* on the performance of its *facilities* in the *system restart test*.

[12] Clause 4.8.12 System restart plan and local black system procedures

Before clause 4.8.12(a), insert a new heading, "System restart plan".

[13] Clause 4.8.12 System restart plan and local black system procedures

Before clause 4.8.12(d), insert a new heading, "Local black system procedures".

[14] Clause 4.8.12 System restart plan and local black system procedures

In clause 4.8.12(f)(1), after "*system restart plan*;" omit "and".

[15] Clause 4.8.12 System restart plan and local black system procedures

After clause 4.8.12(f)(1), insert a new clause 4.8.12(f)(1A):

- (1A) include any action the *Generator* or *Network Service Provider* must take following any *major supply disruption* prior to *energisation* or *synchronisation*; and

[16] Clause 4.8.12 System restart plan and local black system procedures

Before clause 4.8.12(j), insert a new heading, "Communication protocols".

[17] Clause 4.8.12 System restart plan and local black system procedures

Omit clause 4.8.12(j) and substitute:

- (j) *AEMO* and *Network Service Providers* must jointly develop, and may jointly amend, written communication protocols to facilitate the exchange of all information relevant to the roles played by *AEMO* and other *Registered Participants* in the preparation and implementation of the *system restart plan*.

[18] Clause 4.8.12 System restart plan and local black system procedures

After clause 4.8.12(j), insert:

- (k) The written communication protocols prepared under clause 4.8.12(j) must:
 - (1) specify the categories of information required to, and the timing and process by which information will, be exchanged between:
 - (i) *AEMO* and *Registered Participants* as relevant, in order for *AEMO* to prepare and implement the *system restart plan* and for *AEMO* and the relevant parties to give effect to the *system restart plan*;
 - (ii) *Transmission Network Service Providers* and parties connected to the *Transmission Network Service Provider's transmission network* regarding the nature of *connection point* and *load* characteristics;
 - (iii) *Network Service Providers* and *Generators* regarding *connection point* characteristics and the steps that may need to be conducted before or during the process of restoring the *power system*; and

- (iv) *Distribution Network Service Providers* and parties connected to the *Distribution Network Service Provider's distribution network* regarding the nature of *connection point* and *load* characteristics.
- (2) where the communication protocols prepared under clause 4.8.12(j) are constituted by a number of documents, be clearly identifiable as the communication protocols established under that clause; and
- (3) where the communication protocols incorporate procedures or protocols in other documents, the document must be clearly identified and referenced and the circumstances under which those procedures or protocols are to be used in a *major supply disruption* must be clearly identified.
- (l) *AEMO* and relevant *Registered Participants* must take all reasonable steps to comply with the written communication protocols developed pursuant to clause 4.8.12(j).
- (m) *AEMO* and relevant *Registered Participants* must comply with a reasonable request for information made by *AEMO* or a *Network Service Provider* pursuant to the written communication protocols prepared pursuant to clause 4.8.12(j).

[19] Chapter 10 Substituted Definitions

In Chapter 10, substitute the following definitions in alphabetical order:

black start capability

A capability that allows a *generating unit, facility* or a combination of *facilities* following *disconnection* from the *power system*, to be able to deliver electricity to either:

- (a) a *connection point*; or
- (b) a suitable point in the *network* from which *supply* can be made available to other *generating units*,

without taking *supply* from any part of the *power system* following *disconnection*.

system restart ancillary service or SRAS

A service provided by *plant* or *facilities* with:

- (a) *black start capability*; or
- (b) the capabilities described in the *SRAS Guideline* to supply one or more services to sustain the stable *energisation* of *generation* and *transmission*,

sufficient to facilitate the restoration and maintenance of *power system security* and the restart of *generating units* following a *major supply disruption*.

test program

In respect of an *inter-network test* or a *system restart test*, means the program and co-ordination arrangements for the test including (without limitation):

- (1) test procedures;
- (2) the proposed timing of the test;
- (3) operating procedures to manage *power system security* during the test;
- (4) required *power system* conditions for conducting the test;
- (5) for an *inter-network test*, test facilitation services including, as necessary, *ancillary services* required to achieve those *power system* conditions;
- (6) criteria for continuing or concluding a test and the decision-making process relevant to the test; and
- (7) contingency arrangements.

[20] Chapter 10 New definitions

Insert the following definitions in alphabetical order:

system restart test

A test conducted for the purpose of verifying whether the *system restart plan* is likely to be consistent with the achievement of the *system restart standard* or the *AEMO power system security responsibilities* in accordance with clause 4.3.6.

Test Participant

The *Transmission Network Service Provider* and the *Registered Participants* notified of a *system restart test* under clause 4.3.6.

Schedule 2 Savings and Transitional Amendment to the National Electricity Rules

(Clause 4)

[1] Chapter 11 Savings and Transitional Rules

In Chapter 11, insert a new Part ZZZY:

Part ZZZY System restart services, standards and testing

11.123 Rules consequential on the making of the National Electricity Amendment (System restart services, standards and testing) Rule 2020

11.123.1 Definitions

For the purposes of this rule 11.123:

Amending Rule means the National Electricity Amendment (System restart services, standards and testing) Rule 2020.

commencement date means the date of commencement of Schedule 1 of the Amending Rule.

new clause 3.15.6A means clause 3.15.6A of the *Rules* as will be in force immediately after the commencement date.

new clause 4.3.6 means clause 4.3.6 of the *Rules* as will be in force immediately after the commencement date.

transitional date means the date of commencement of Schedule 2 of the Amending Rule.

Test Participant has the meaning given to it in new clause 4.3.6.

11.123.2 SRAS Guideline

- (a) By the commencement date, and in accordance with the *Rules consultation procedures*, AEMO must amend the *SRAS Guideline* to take into account the Amending Rule.
- (b) If, prior to the transitional date and for the purposes of amending the *SRAS Guideline* in anticipation of the Amending Rule, AEMO undertook consultation or a step equivalent to that required in the *Rules consultation procedures*, then that consultation or step is taken to satisfy the equivalent consultation or step under the *Rules consultation procedures*.

11.123.3 System restart standard

- (a) As soon as practicable after the transitional date, and in accordance with the consultation requirements in clause 8.8.3, the *Reliability*

Panel must update the *system restart standard* to take into account the Amending Rule.

- (b) On and from the commencement date and until such time as the *system restart standard* is updated in accordance with paragraph (a), the *system restart standard* is to be interpreted as if it applied to *system restart ancillary services* as defined under the Amending Rule.

11.123.4 Communication protocols

By 30 April 2021, and in accordance with the *Rules consultation procedures*, *AEMO* and *Network Service Providers* must jointly update the communication protocols prepared under clause 4.8.12(j) to take into account the Amending Rule.

11.123.5 System restart tests

- (a) If, prior to the commencement date:
 - (1) *AEMO* and a *Transmission Network Service Provider* agree to conduct a test of a kind contemplated by new clause 4.3.6; and
 - (2) the date of that test is after the transitional date,then new clause 4.3.6 is taken to apply in respect of that test as modified in accordance with this clause 11.123.5.
- (b) Any steps agreed and taken by *AEMO* and the Test Participants in planning that test before the transitional date are taken to have satisfied the requirements of new clause 4.3.6(b) to (h).
- (c) Any steps taken by *AEMO* and the Test Participants in planning that test after the transitional date must meet the applicable requirements of new clause 4.3.6(b) to (t) except as otherwise agreed by *AEMO* and the Test Participants.
- (d) Paragraphs (i) to (t) of new clause 4.3.6 and new clause 3.15.6A apply in respect of that test.

[END OF RULE AS MADE]
