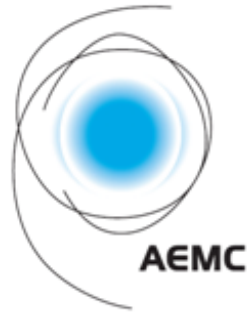


**Note:** Schedules 1 to 6 of the *National Electricity Amendment (Five Minute Settlement) Rule 2017 No. 15* will commence operation on 1 October 2021 as a result of the amendments made under the [\*National Electricity Amendment \(Delayed implementation of five minute and global settlement\) Rule 2020 No. 10.\*](#)



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

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; 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 (Five Minute Settlement) Rule 2017 No. 15**

### **1 Title of Rule**

This Rule is the *National Electricity Amendment (Five Minute Settlement) Rule 2017 No.15*.

### **2 Commencement**

Schedule 7 will commence operation on 19 December 2017.

Schedules 1 to 6 will commence operation on 1 July 2021.

### **3 Amendment of the National Electricity Rules**

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

### **4 Amendment of the National Electricity Rules**

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

### **5 Amendment of the National Electricity Rules**

The National Electricity Rules are amended as set out in Schedule 3.

### **6 Amendment of the National Electricity Rules**

The National Electricity Rules are amended as set out in Schedule 4.

### **7 Amendment of the National Electricity Rules**

The National Electricity Rules are amended as set out in Schedule 5.

### **8 Amendment of the National Electricity Rules**

The National Electricity Rules are amended as set out in Schedule 6.

### **9 Savings and Transitional Amendments to the National Electricity Rules**

The National Electricity Rules are amended as set out in Schedule 7.

## **Schedule 1          Amendment to the National Electricity Rules**

(Clause 3)

### **[1] Clause 3.2.2          Spot market**

In clause 3.2.2(c), after "*spot prices*", insert "*and ancillary service prices*".

### **[2] Clause 3.2.2          Spot market**

Omit clause 3.2.2(c1), and substitute "[Deleted]".

### **[3] Clause 3.4.1          Establishment of spot market**

Omit clause 3.4.1(a)(3), and substitute:

- (3) in respect of each *trading interval*, setting a *spot price* for electricity at each *regional reference node* and *market connection point*, and *ancillary service prices* at each *regional reference node*.

### **[4] Clause 3.4.1          Establishment of spot market**

Omit clauses 3.4.1(b)(1) and (2) and substitute:

- (1) a *spot price* for *energy*; and
- (2) *ancillary service prices*,

to apply at each *regional reference node* for each *trading interval*.

### **[5] Clause 3.4.2          Trading day and trading interval**

Omit clause 3.4.2 in its entirety and substitute "[Deleted]".

### **[6] Clause 3.7.3          Short term PASA**

In clauses 3.7.3(b), (d)(4), (e)(1), (e)(2) and (h), omit "*trading interval*" and substitute "*30-minute period*".

### **[7] Clause 3.8.1          Central Dispatch**

In clause 3.8.1(e), omit "*dispatch interval*" and substitute "*trading interval*".

### **[8] Clause 3.8.4          Notification of scheduled capacity**

In clauses 3.8.4(c)(1), (d)(1) and (e)(1), omit "48" and substitute "288".

### **[9] Clause 3.8.6          Generating unit offers for dispatch**

In clauses 3.8.6(a)(2) and (g), omit "48" and substitute "288".

**[10] Clause 3.8.6A Scheduled network service offers for dispatch**

In clause 3.8.6A(b), omit "48" and substitute "288".

**[11] Clause 3.8.7 Bids for scheduled load**

In clause 3.8.7(c), omit "48" and substitute "288".

**[12] Clause 3.8.7A Market ancillary service offers**

In clause 3.8.7A(b), omit "48" and substitute "288".

**[13] Clause 3.8.11 Ancillary services constraints**

In clause 3.8.11(a1), omit "*dispatch interval*" and substitute "*trading interval*".

**[14] Clause 3.8.20 Pre-dispatch schedule**

Omit clauses 3.8.20(b) and (c) and substitute:

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

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

and no analysis will be made of operations within the *trading interval*, other than to ensure that *contingency capacity reserves* are adequate as set out in Chapter 4.

(c) Subject to paragraph (b), *AEMO* must determine the *pre-dispatch schedule* on the basis of:

- (1) *dispatch bids*, *dispatch offers* and *market ancillary service offers* submitted for the relevant *trading interval* or *trading intervals*;
- (2) *AEMO's forecast power system load* for each *region* for the relevant *trading interval* or *trading intervals*; and
- (3) the *unconstrained intermittent generation forecasts*,

and by using a process consistent with the principles for *central dispatch* as set out in clause 3.8.1.

**[15] Clause 3.8.20 Pre-dispatch schedule**

In clause 3.8.20(j), omit "The" and substitute "Subject to clause 3.8.20(b), the".

### **[16] Clause 3.8.20 Pre-dispatch schedule**

Omit clause 3.8.20(j)(2) and substitute:

- (2) *scheduled trading interval or 30-minute period loading level* (as applicable) for each scheduled entity;

### **[17] Clause 3.8.20 Pre-dispatch schedule**

Omit clauses 3.8.20(j)(6) and (7) and substitute:

- (6) *unconstrained intermittent generation forecasts* for each *trading interval or 30-minute period* (as applicable); and
- (7) for each *semi-scheduled generating unit* and *trading interval or 30-minute period* (as applicable), whether or not a condition for setting a *semi-dispatch interval* or *semi-dispatch intervals* applies.

### **[18] Clause 3.8.21 On-line dispatch process**

Omit clauses 3.8.21(a1), (b) and (c), and substitute:

- (a1) **[Deleted]**
- (b) The *dispatch algorithm* is to be run by *AEMO* for each *trading interval*. If the *dispatch algorithm* is not successfully run for any *trading interval* then the values of the last successful run of the *dispatch algorithm* must be used for that *trading interval*.
- (c) *Central dispatch* results in the setting of *spot prices* and *ancillary services prices* for each *trading interval* in accordance with rule 3.9.

### **[19] Clause 3.8.21 On-line dispatch process**

Omit clauses 3.8.21(j) and (k) and substitute:

- (j) If a *scheduled load, scheduled generating unit* or *semi-scheduled generating unit*, in respect of which a *dispatch inflexibility profile* has been notified to *AEMO* in accordance with clause 3.8.19, is *dispatched* from 0 MW in any *trading interval* by the *central dispatch* process, then the specified *dispatch inflexibility profile* must be used by *AEMO* as a *constraint* on the *dispatch* of that *plant* for the relevant subsequent *trading intervals*.
- (k) A *scheduled load or generating unit* whose *dispatch* is *constrained* in any *trading interval* due to a *dispatch inflexibility profile* submitted under clause 3.8.19 cannot be used as the basis for setting the *spot price* in that *trading interval* at any location.

**[20] Clause 3.8.22A Offers, bids and rebids must not be false or misleading**

Omit clause 3.8.22A(e)(2), excluding the note, and substitute:

- (2) the importance of *rebids* being made, where possible, in sufficient time to allow reasonable opportunity for other *Market Participants* to respond (including by making responsive *rebids*, by bringing one or more *generating units* into operation or increasing or decreasing the *loading level* of any *generating units*, or by adjusting the *loading level* of any *load*) prior to the commencement of the *trading interval* to which the *rebid* relates, and may have regard to any other relevant matter, including any of the matters referred to in sub-paragraphs (c)(1) to (5).

**[21] Clause 3.8.24 Scheduling errors**

In clause 3.8.24(a)(3), omit "*dispatch interval*" and substitute "*trading interval*".

**[22] Clause 3.9.1 Principles applicable to spot price determination**

Omit clause 3.9.1(a) and substitute:

- (a) The principles applying to the determination of prices in the *spot market* are as follows:
  - (1) **[Deleted]**
  - (2) a *spot price* at a *regional reference node* is determined by the *central dispatch process* at that *regional reference node* for each *trading interval*;
  - (2A) the *central dispatch process* must determine an *ancillary service price* for each *market ancillary service* at each *regional reference node* for each *trading interval*;
  - (3) *spot prices* determine *dispatch* such that a *generating unit* or *load* whose *dispatch bid* or *dispatch offer* at a location is below the *spot price* at that location will normally be *dispatched*;
  - (3A) *generating units*, *scheduled network services* or *scheduled loads* which operate in accordance with a *direction*, are to be taken into account in the *central dispatch process*, but the *dispatch offer*, in the case of a *generating unit* or *scheduled network service*, which operates in accordance with a *direction*, or the *dispatch bid*, in the case of a *scheduled load* which operates in accordance with a *direction*, will not be

used in the calculation of the *spot price* for the relevant *trading interval*;

- (3B) *ancillary service generating units* and *ancillary service loads* the subject of a fixed constraint (within the meaning of clause 3.8.23(g)) are to be taken into account in the *central dispatch* process, but the price in a *market ancillary service offer* which operates in accordance with a fixed constraint will not be used in the calculation of the *ancillary service price* for that *market ancillary service* for the relevant *trading interval*;
- (3C) *generating units* or *loads* which operate in accordance with a *direction* to provide an *ancillary service* are to be taken into account in the *central dispatch* process, but the price in a *market ancillary service offer* which operates in accordance with a *direction*, will not be used in the calculation of the *ancillary service price* for that *market ancillary service* for the relevant *trading interval*;
- (4) *network losses*, *network constraints*, the availability of *scheduled network services* and *network dispatch offers* are taken into account in the determination of *dispatch* and consequently affect *spot prices* and (apart from *network losses*) *ancillary services prices*;
- (5) where the *energy* output of a *Registered Participant* is limited above or below the level at which it would otherwise have been *dispatched* by AEMO on the basis of its *dispatch offer* or *dispatch bid* due to an *ancillary services direction*, the *Registered Participant's dispatch offer* or *dispatch bid* is taken into account in the determination of *dispatch* but the *dispatch offer* or *dispatch bid* will not be used in the calculation of the *spot price* for the relevant *trading interval*;
- (5A) *market ancillary service offers*, in other *ancillary services markets*, due to an *ancillary services direction* are taken into account in the determination of *dispatch* and consequently affect *ancillary service prices* in those other *ancillary services markets*;
- (6) when the *spot price* is determined, it applies to both sales and purchases of electricity at a particular location and time;
- (6A) when an *ancillary service price* is determined for an *ancillary service*, it applies to purchases of that *ancillary service*;
- (6B) when an *ancillary service price* is determined under paragraph (6A) for a *regulation service*, it applies to purchases of that *regulation service* and, where appropriate, purchases of a *delayed service*;



- (7) *spot prices* provide *Market Participants* with signals as to the value of providing or cost of consuming electricity at a particular location at a particular time; and
- (7A) *ancillary service prices* provide *Ancillary Service Providers* with signals as to the value of providing the relevant *market ancillary service* within a particular *region* at a particular time.

### **[23] Clause 3.9.2 Determination of spot prices**

Omit clauses 3.9.2(c), (d) and (e) and substitute:

- (c) Each time the *dispatch algorithm* is run by *AEMO*, it must determine a *spot price* for each *regional reference node* for a *trading interval* in accordance with clause 3.8.21(b), provided that if *AEMO* fails to run the *dispatch algorithm* to determine *spot prices* for any *trading interval* then the *spot price* for that *trading interval* is the last *spot price* determined by the *dispatch algorithm* prior to the relevant *trading interval*.
- (d) The *spot price* at a *regional reference node* represents the marginal value of *supply* at that location and time, this being determined as the price of meeting an incremental change in *load* at that location and time in accordance with clause 3.8.1(b).
- (e) Notwithstanding paragraphs (c) or (d), for any *trading interval* if:
  - (1) the *spot price* for that *trading interval* has not already been set by the *central dispatch* process and *AEMO* reasonably determines that the *central dispatch* process may determine that all *load* in a *region* could not otherwise be supplied and *AEMO* issues instructions that are current for that *trading interval* to *Network Service Providers* or *Market Participants* to shed *load*, then *AEMO* must set the *spot price* at that *region's regional reference node* to equal the *market price cap*;
  - (2) *AEMO* has declared a *trading interval* to be an *intervention pricing interval* under clause 3.9.3(a), then subject to clauses 3.9.3(c) and 3.9.3(d) *AEMO* must set the *spot price* in accordance with clause 3.9.3;
  - (3) **[Deleted]**
  - (4) an *administered price period* in accordance with rule 3.14.2 applies, then *AEMO* must limit the *spot price* in accordance with clause 3.14.2(d1); and
  - (5) *AEMO* has made a declaration that the *spot market* in a *region* is suspended under clause 3.14.3, then *AEMO* must set the *spot price* for each *trading interval* during the period for

which the *spot market* is suspended in accordance with clause 3.14.5.

#### **[24] Clause 3.9.2 Determination of spot prices**

Omit clause 3.9.2(h) and substitute:

- (h) **[Deleted]**

#### **[25] Clause 3.9.2 Determination of spot prices**

Omit clause 3.9.2(k) and substitute:

- (k) If a test is being conducted on a *generating unit* or *scheduled load* in accordance with clause 3.11.2 and for the purpose of conducting that test, the *generating unit* or *scheduled load* is excluded from *central dispatch*, then that *generating unit* or *scheduled load* cannot be used to set the *spot price* for the relevant *trading interval*.

#### **[26] Clause 3.9.2A Determination of ancillary services prices**

Omit clause 3.9.2A(a) and substitute:

- (a) Each time the *dispatch algorithm* is run by *AEMO*, it must determine an *ancillary service price* for each *market ancillary service* for each *regional reference node* which is to apply until the next time the *dispatch algorithm* is run, provided that if *AEMO* fails to run the *dispatch algorithm* to determine *ancillary service prices* for any *trading interval* then the *ancillary service price* for that *trading interval* is the last *ancillary service price* determined by the *dispatch algorithm* prior to the relevant *trading interval*.

#### **[27] Clause 3.9.2B Pricing where AEMO determines a manifestly incorrect input**

In clause 3.9.2B(a), omit the definition of "**Last correct *dispatch interval***" and substitute:

**Last correct *trading interval*** means the most recent *trading interval* preceding the affected *trading interval* that is not itself an affected *trading interval*.

#### **[28] Clause 3.9.2B Pricing where AEMO determines a manifestly incorrect input**

Omit clauses 3.9.2B(b) to (f) and substitute:

- (b) *AEMO* may apply the automated procedures developed in accordance with paragraph (h), to identify a *trading interval* as subject to review ("a ***trading interval subject to review***").

- (c) *AEMO* may also determine that a *trading interval* is subject to review if *AEMO* considers that it is likely to be subject to a manifestly incorrect input, but only where the *trading interval* immediately preceding it was a *trading interval* subject to review.
- (d) *AEMO* must determine whether a *trading interval* subject to review contained a manifestly incorrect input to the *dispatch algorithm* ("**an affected trading interval**").
- (e) Where *AEMO* determines an affected *trading interval* *AEMO* must:
  - (1) replace all *spot prices* and *ancillary service prices* with the corresponding prices for the last correct *trading interval*; and
  - (2) recalculate, in accordance with paragraph (h), and adjust the *spot price* for each affected *trading interval*.
- (f) *AEMO* may only carry out the action described in paragraph (e) if no more than 30 minutes have elapsed since the publication of the *spot prices* for the *trading interval* subject to review.

### **[29] Clause 3.9.2B Pricing where AEMO determines a manifestly incorrect input**

Omit clauses 3.9.2B(h) and substitute:

- (h) *AEMO* must, in consultation with *Registered Participants*, develop procedures for the automatic identification of *trading intervals* subject to review under paragraph (b) ("**the automated procedures**").

### **[30] Clause 3.9.2B Pricing where AEMO determines a manifestly incorrect input**

Omit clause 3.9.2B(l) and substitute:

- (l) *AEMO* must report on the findings of the review under paragraph (k) and must include in that report details of all *trading intervals* subject to review that were not affected *trading intervals* and an analysis of why such intervals were identified as subject to review.

### **[31] Clause 3.9.3 Pricing in the event of intervention by AEMO**

Omit clauses 3.9.3(a) to (e) and substitute:

- (a) In respect of a *trading interval* where an *AEMO intervention event* occurs *AEMO* must declare that *trading interval* to be an *intervention pricing interval*.

- (b) Subject to paragraphs (c) and (d), *AEMO* must in accordance with the methodology or assumptions *published* pursuant to paragraph (e) set the *spot price* and *ancillary service prices* for an *intervention pricing interval* at the value which *AEMO*, in its reasonable opinion, considers would have applied as the *spot price* and *ancillary service price* for that *trading interval* in the relevant *region* had the *AEMO intervention event* not occurred.
- (c) *AEMO* may continue to set *spot prices* pursuant to clause 3.9.2 and *ancillary service prices* pursuant to clause 3.9.2A until the later of:
  - (1) the second *trading interval* after the first *trading interval* in which the *AEMO intervention event* occurred; or
  - (2) if applicable, the second *trading interval* after the restoration of the *power system* to a *secure operating state* after any *direction* which constitutes the *AEMO intervention event* was issued, provided that *AEMO* must use its reasonable endeavours to set *spot prices* and *ancillary service prices* pursuant to this clause 3.9.3 as soon as practicable following the *AEMO intervention event*.
- (d) *AEMO* must continue to set *spot prices* pursuant to clause 3.9.2 and *ancillary service prices* pursuant to clause 3.9.2A if a *direction* given to a *Registered Participant* in respect of *plant* at the *regional reference node* would not in *AEMO*'s reasonable opinion have avoided the need for any *direction* which constitutes the *AEMO intervention event* to be issued.
- (e) Subject to paragraph (g), *AEMO* must develop in accordance with the *Rules consultation procedures* and *publish* details of the methodology it will use, and any assumptions it may be required to make, to determine *spot prices* and *ancillary service prices* for the purposes of paragraph (b).

### **[32] Clause 3.9.4      Market Price Cap**

Omit clause 3.9.4(a) and substitute:

- (a) The *market price cap* is a price cap which is to be applied to *spot prices*.

### **[33] Clause 3.9.5      Application of the Market Price Cap**

In clause 3.9.5(a), omit "*Dispatch prices*" and substitute "*Spot prices*".

### **[34] Clause 3.9.5      Application of the Market Price Cap**

In clause 3.9.5(b), omit "*dispatch prices*" and substitute "*spot prices*".

### **[35] Clause 3.9.5      Application of the Market Price Cap**

In clause 3.9.5(b), omit "*dispatch price*" wherever occurring and substitute "*spot price*".

**[36] Clause 3.9.5 Application of the Market Price Cap**

In clause 3.9.5(c), omit "*dispatch prices*" and substitute "*spot prices*".

**[37] Clause 3.9.5 Application of the Market Price Cap**

In clause 3.9.5(c), omit "*dispatch price*" and substitute "*spot price*".

**[38] Clause 3.9.5 Application of the Market Price Cap**

In clause 3.9.5(c), omit "*dispatch interval*" and substitute "*trading interval*".

**[39] Clause 3.9.6 Market Floor Price**

In clause 3.9.6(a), omit "*dispatch prices*" and substitute "*spot prices*".

**[40] Clause 3.9.6A Application of the Market Floor Price**

In clause 3.9.6A(a), omit "*Dispatch prices*" and substitute "*Spot prices*".

**[41] Clause 3.9.6A Application of the Market Floor Price**

In clause 3.9.6A(b), omit "*dispatch prices*" and substitute "*spot prices*".

**[42] Clause 3.9.6A Application of the Market Floor Price**

In clause 3.9.6A(b), omit "*dispatch price*" wherever occurring and substitute "*spot price*".

**[43] Clause 3.9.6A Application of the Market Floor Price**

In clause 3.9.6A(c), omit "*dispatch price*" and substitute "*spot price*".

**[44] Clause 3.9.6A Application of the Market Floor Price**

In clause 3.9.6A(c), omit "*dispatch prices*" and substitute "*spot prices*".

**[45] Clause 3.9.6A Application of the Market Floor Price**

In clause 3.9.6A(c), omit "*dispatch interval*" and substitute "*trading interval*".

**[46] Clause 3.9.7 Pricing for constrained-on scheduled generating units**

In clause 3.9.7(a), omit "*dispatch interval*" wherever occurring and substitute "*trading interval*".

**[47] Clause 3.9.7 Pricing for constrained-on scheduled generating units**

In clause 3.9.7(a), omit "*dispatch price*" and substitute "*spot price*".

**[48] Clause 3.9.7 Pricing for constrained-on scheduled generating units**

In clause 3.9.7(b), omit "*dispatch price*" and substitute "*spot price*".

**[49] Clause 3.12.2 Affected Participants and Market Customers entitlements to compensation in relation to AEMO intervention**

In clause 3.12.2, omit "*intervention price trading interval*" wherever it occurs and substitute "*intervention pricing 30-minute period*".

**[50] Clause 3.12.3 Role if Independent Expert in calculating payments in relation to intervention by AEMO**

In clause 3.12.3(c)(1)(i)(A) omit "*intervention price trading interval*" and substitute "*intervention pricing 30-minute period*".

**[51] Clause 3.12A.4 Rebid of capacity under restriction offers**

In clause 3.12A.4, omit "*dispatch interval*" wherever occurring and substitute "*trading interval*".

**[52] Clause 3.12A.5 Dispatch of restriction offers**

In clause 3.12A.5(a), omit "*dispatch interval*" and substitute "*trading interval*".

**[53] Clause 3.12A.6 Pricing during a restriction price trading interval**

In clause 3.12A.6, omit "*dispatch prices*" and substitute "*spot prices*".

**[54] Clause 3.12A.6 Pricing during a restriction price trading interval**

In clause 3.12A.6, omit "*dispatch price*" and substitute "*spot price*".

**[55] Clause 3.13.4 Spot market**

In Clause 3.13.4(c), omit "*trading interval*" and substitute "*30-minute period*".

**[56] Clause 3.13.4 Spot market**

In clause 3.13.4(f), omit "Details" and substitute "Subject to clause 3.8.20(b), details".

**[57] Clause 3.13.4 Spot market**

In clause 3.13.4(f), after "*trading interval*" insert "or *30-minute period* (as applicable)".

**[58] Clause 3.13.4 Spot market**

In clause 3.13.4(g) omit "or *dispatch interval* (as applicable)" and insert "or *30-minute period* (as applicable)".

**[59] Clause 3.13.4 Spot market**

Omit clause 3.13.4(h), and substitute:

- (h) Together with its forecast *spot prices*, AEMO must *publish* details of the expected sensitivity of the forecast *spot prices* for each *30-minute period* to changes in the forecast *load* or *generating unit* availability.

**[60] Clause 3.13.4 Spot market**

After clause 3.13.4(h), insert:

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

**[61] Clause 3.13.4 Spot market**

In clause 3.13.4(l) omit "*dispatch price*" and insert "*spot price*".

**[62] Clause 3.13.4 Spot market**

After clause 3.13.4(l), insert:

- (11) In addition to the *spot price*, AEMO must *publish* a *30-minute price* for a *regional reference node* for each *30-minute period*.

**[63] Clause 3.13.4 Spot market**

In clause 3.13.4(p)(7), omit "*dispatch interval*" and substitute "*trading interval*".

**[64] Clause 3.13.4 Spot market**

In clause 3.13.4(p)(8), omit "*dispatch interval*" and substitute "*trading interval*".

**[65] Clause 3.13.4 Spot market**

In clause 3.13.4(q)(1), omit "and *dispatch interval*".

**[66] Clause 3.13.4 Spot market**

In clause 3.13.4(q)(2), omit "and *dispatch interval*".

**[67] Clause 3.13.4 Spot market**

In clause 3.13.4(u), omit "*dispatch interval*" and substitute "*trading interval*".

**[68] Clause 3.13.4 Spot market**

In clause 3.13.4(u) (3), omit "*dispatch price*" and substitute "*spot price*".

**[69] Clause 3.13.7 Monitoring of significant variation between forecast and actual prices by AER**

Omit clause 3.13.7(d) and substitute:

- (d) The *AER* must, within 40 *business days* of the end of a week in which any *30 minute price published* under clause 3.13.4(11) exceeded \$5,000/MWh, prepare and *publish* a report which must:
- (1) describe the significant factors that contributed to the *30 minute price* exceeding \$5,000/MWh, including the withdrawal of *generation capacity* and *network availability*;
  - (2) assess whether *rebidding* pursuant to clause 3.8.22 contributed to the *30 minute price* exceeding \$5,000/MWh; and
  - (3) identify the marginal *scheduled generating units* and *semi-scheduled generating units* for the relevant period and all *scheduled generating units* and *semi-scheduled generating units* for which any *dispatch offer* for a *trading interval* in the relevant period was equal to or greater than \$5,000/MWh and compare these *dispatch offers* to relevant *dispatch offers* in previous *trading intervals*.

**[70] Clause 3.13.7 Monitoring of significant variation between forecast and actual prices by AER**

In clause 3.13.7(e), after "Where" insert ":"

**[71] Clause 3.13.7 Monitoring of significant variation between forecast and actual prices by AER**

In clause 3.13.7(e)(1), after "relevant *spot price*" omit "for *energy*"

**[72] Clause 3.13.7 Monitoring of significant variation between forecast and actual prices by AER**

In clause 3.13.7(e)(2), omit "*trading intervals*" and substitute "*30-minute periods*".



**[73] Clause 3.13.7 Monitoring of significant variation between forecast and actual prices by AER**

In clause 3.13.7(e)(5), omit "\$5,000/Mwh." and substitute "\$5,000/MWh."

**[74] Clause 3.14.1 Cumulative Price Threshold and Administered Price Cap**

In clause 3.14.1(e), omit the formula term for "BV<sup>CPT</sup>" and substitute:

BV<sup>CPT</sup> is \$1,125,000 (being 6 times the value of the *cumulative price threshold* prior to 1 July 2012 calculated on a 30-minute basis;

**[75] Clause 3.14.2 Application of Administered Price Cap**

In clause 3.14.2(c)(1), omit "336" and substitute "2,016".

**[76] Clause 3.14.2 Application of Administered Price Cap**

Omit clause 3.14.2(c)(1A) and substitute:

(1A) a *trading interval*, where the sum of the *ancillary service prices* for a *market ancillary service* in the previous 2,016 *trading intervals*, calculated as if this clause did not apply, exceeds the *cumulative price threshold*; or

**[77] Clause 3.14.2 Application of Administered Price Cap**

In clause 3.14.2(c)(2), omit ";" and substitute ".".

**[78] Clause 3.14.2 Application of Administered Price Cap**

Omit clause 3.14.2(c)(2A) and substitute "[Deleted]".

**[79] Clause 3.14.2 Application of Administered Price Cap**

Omit clause 3.14.2(c)(2B) and substitute "[Deleted]".

**[80] Clause 3.14.2 Application of Administered Price Cap**

In clauses 3.14.2(d1), (d1)(1) and (d1)(2), omit "*dispatch price*" and substitute "*spot price*".

**[81] Clause 3.14.2 Application of Administered Price Cap**

In clause 3.14.2(e), omit "*dispatch price*" and substitute "*spot price*".

**[82] Clause 3.14.2 Application of Administered Price Cap**

In clause 3.14.2(e)(2) and (e)(4), omit "*dispatch prices*" and substitute "*spot prices*".

**[83] Clause 3.14.2 Application of Administered Price Cap**

In clause 3.14.2(e)(2) and (e)(4), omit "*dispatch interval*" and substitute "*trading interval*".

**[84] Clause 3.14.3 Conditions for suspension of the spot market**

In clauses 3.14.3(b)(1) and (b)(1A), omit "*dispatch prices*" and substitute "*spot prices*".

**[85] Clause 3.14.4 Declaration of market suspension**

In clause 3.14.4(c), omit "*dispatch interval*" and substitute "*trading interval*".

**[86] Clause 3.14.4 Declaration of market suspension**

In clause 3.14.4(e)(2), omit "*dispatch prices*" and substitute "*spot prices*".

**[87] Clause 3.14.5 Pricing during market suspension**

Omit clause 3.14.5, excluding the heading, and substitute:

- (a) Subject to paragraph (b), if the *spot market* is suspended in a *region* then *central dispatch* and the determination of *spot prices* and *ancillary service prices* in the *suspended region* are to continue in accordance with rules 3.8 and 3.9.
- (b) If, in AEMO's reasonable opinion, it is not practicable to operate *central dispatch* and determine *spot prices* and *ancillary service prices* in a *suspended region* in accordance with rules 3.8 and 3.9, AEMO must set *spot prices* and *ancillary service prices* for the *suspended region* at the prices applicable to the relevant *trading interval* in the current estimated price schedule developed and published in accordance with paragraph (e)
- (c) *Spot prices* and *ancillary service prices* determined in accordance with paragraph (b) for a *suspended region*:
  - (1) continue to be subject to the application of clause 3.14.2(d1) and clause 3.14.2(d2) in respect of *administered price periods*, and are to be adjusted (where applicable) in accordance with clause 3.14.2(e);
  - (2) are not to be adjusted in the circumstances set out in clause 3.9.2(e)(1) or clauses 3.9.2(e)(2) and 3.9.3;
  - (3) are not subject to review under clause 3.9.2B; and
  - (4) are not subject to clause 3.12A.6.

- (d) If the *spot prices* and *ancillary service prices* in a *suspended region* are being determined in accordance with paragraph (b), they must continue to be determined in accordance with that paragraph until the earlier of:
- (1) the *time* that the *spot market* is no longer suspended in the relevant *region*; and
  - (2) if AEMO declared the *spot market* to be suspended for the reason set out in clause 3.14.3(a)(1) or (3), the *time* that, in AEMO's reasonable opinion, it is practicable to resume *central dispatch* and the determination of *spot prices* and *ancillary service prices* in the *suspended region* in accordance with rules 3.8 and 3.9; and
  - (3) if AEMO declared the *spot market* to be suspended for the reason set out in clause 3.14.3(a)(2), the *time* that, in AEMO's reasonable opinion, it is practicable to resume *central dispatch* and the determination of *spot prices* and *ancillary service prices* in the *suspended region* in accordance with rules 3.8 and 3.9, provided that the *participating jurisdiction* that directed AEMO under clause 3.14.3(a)(2) has agreed to the resumption of *central dispatch* and the determination of *spot prices* and *ancillary service prices* in the *suspended region* in accordance with rules 3.8 and 3.9.
- (e) AEMO must:
- (1) develop in accordance with the *Rules consultation procedures* a methodology to be used by AEMO (**estimated price methodology**) to prepare and update schedules containing reasonable estimates of typical *market prices* during the periods to which the schedules relate (**estimated price schedules**);
  - (2) develop and update estimated price schedules in accordance with the estimated price methodology, to be used during any period in which the *spot market* is suspended; and
  - (3) *publish* the estimated price methodology promptly after it has been developed and *publish* the estimated price schedule at least 14 days prior to the first day to which the schedule relates
- (f) If a *spot price* is set in accordance with paragraph (b) at a *regional reference node* (**suspension node**), then *spot prices* at all other *regional reference nodes* connected by one or more *regulated interconnectors* that have a net *energy* flow towards the suspension node must not exceed the *spot price* in the *suspended region* divided by the average *loss factor* that applies for *energy* flow in that direction for that *trading interval*.

- (g) Paragraph (f) does not apply to a *spot price* at another *regional reference node* that has been replaced in accordance with clause 3.9.2B or where clause 3.8.21(b) applies
- (h) *AEMO* must use reasonable endeavours to ensure that any adjustments required to *spot prices* so that they do not exceed the limits set by paragraph (f) are finalised as soon as practicable but in any event by the end of the next *business day* following the day on which the *spot market* in the *region* ceased to be suspended
- (i) *AEMO* must determine the average *loss factor* applicable to paragraph (f) by reference to the *inter-regional loss factor* equations relating to the relevant *regulated interconnectors*.

### **[88] Clause 3.14.6 Compensation due to the application of an administered price cap or administered floor price**

In clause 3.14.6, omit the definition of "**eligibility period**" and substitute:

**eligibility period** means the period starting at the beginning of the first *trading interval* in which the price limit event occurs in a *trading day* and ending at the end of the last *trading interval* of that *trading day*.

### **[89] Clause 3.14.6 Compensation due to the application of an administered price cap or administered floor price**

In clause 3.14.6, omit the definition of "**price limit event**" and substitute:

**price limit event** means:

- (1) for *Scheduled Generators* and *Non-Scheduled Generators*:
  - (i) the *spot price* for a *trading interval* is set by the *administered price cap* during an *administered price period*; or
  - (ii) the *spot price* for a *trading interval* is set as a result of the application of clause 3.14.2(e)(2);
- (2) for *Market Participants* in respect of *scheduled load*:
  - (i) the *spot price* for a *trading interval* is set by the *administered floor price* during an *administered price period*; or
  - (ii) the *spot price* for a *trading interval* is set as a result of the application of clause 3.14.2(e)(4); and
- (3) for *Scheduled Network Service Providers*:
  - (i) the *spot price* for a *trading interval* for a *region* towards which the *Scheduled Network Service Provider* is transporting power is set by the *administered price cap* during an *administered price period*; or

(ii) the *spot price* for a *trading interval* for a *region* towards which the *Scheduled Network Service Provider* is transporting power is set as a result of the application of clause 3.14.2(e)(2).

(4) for *Ancillary Service Providers*, in respect of an *ancillary generating unit* or an *ancillary service load*, the *ancillary service price* for a *trading interval* is set by the *administered price cap* during an *administered price period*.

### [90] Clause 3.14.6 Compensation due to the application of an administered price cap or administered floor price

In clause 3.14.6, omit the definition of "**relevant region**" and substitute:

**relevant region** means a *region* in which the *spot price* or *ancillary service price* (as relevant) is set by the price limit event.

### [91] Clause 3.15.6A Ancillary service transactions

In clause 3.15.6A(a), omit the formula and substitute:

$TA = \text{the aggregate of } \frac{EA \times ASP}{(12)}$  for each trading interval

where:

TA (in \$) = the *trading amount* to be determined (which is a positive number);

EA (in MW) = the amount of the relevant *market ancillary service* which the *ancillary service generating unit* or *ancillary service load* has been *enabled* to provide in the *trading interval*; and

ASP (in \$ per MW per hour) = the *ancillary service price* for the *market ancillary service* for the *trading interval* for the *region* in which the *ancillary service generating unit* or *ancillary service load* has been *enabled*.

### [92] Clause 3.15.6A Ancillary service transactions

In clause 3.15.6A(f), after "in respect of each" omit "*dispatch interval* which falls within the".

### [93] Clause 3.15.6A Ancillary service transactions

In clause 3.15.6A(f)(1), after "allocate for each *region* and for" omit "each *dispatch interval* within".

**[94] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(f)(2), omit "calculate for each relevant *dispatch interval*" and substitute "calculate for the relevant *trading interval*".

**[95] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(f)(3), omit "allocate for each relevant *dispatch interval*" and substitute "allocate for the relevant *trading interval*".

**[96] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(f)(3)(i), omit "all *dispatch intervals* in".

**[97] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(f)(3)(ii), omit "all *dispatch intervals* in".

**[98] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(f), in the formula term definition of "RTCRSP (in \$)" omit "*dispatch intervals* which fall in"

**[99] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(g), omit "*dispatch interval* which falls within the".

**[100] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(g)(1), omit "each *dispatch interval* within".

**[101] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(g)(2), omit "calculate for each relevant *dispatch interval*" and substitute "calculate for the relevant *trading interval*".

**[102] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(g)(3), omit "allocate for each relevant *dispatch interval*" and substitute "allocate for the relevant *trading interval*".

**[103] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(g)(3)(i), omit "all *dispatch intervals* in".

**[104] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(g)(3) (ii), omit "all *dispatch intervals* in".

**[105] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(g), in the formula term definition of "RTCLSP (in \$)" omit "*dispatch intervals* which fall in"

**[106] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(h), omit "*dispatch interval* which falls within the".

**[107] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(h)(1), omit "each *dispatch interval* within".

**[108] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(h)(2), omit "calculate for each relevant *dispatch interval*" and substitute "calculate for the relevant *trading interval*".

**[109] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(i)(1), omit "*dispatch interval* in the".

**[110] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(i)(1), in the formula term definition of "TSFCAS (in \$)" omit "*dispatch interval*" and substitute "*trading interval*".

**[111] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(i)(1), in the formula term definition of "AMPF (a number)" omit "*dispatch interval*" and substitute "*trading interval*".

**[112] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(i)(2), omit "*dispatch interval* in the".

**[113] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(i)(2), in the formula term definition of "AMPF (a number)" omit "*dispatch interval*" and substitute "*trading interval*".

**[114] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(k)(5), omit "*dispatch interval*" and substitute "*trading interval*".

**[115] Clause 3.15.6A Ancillary service transactions**

In clause 3.15.6A(k)(7), omit "*dispatch interval*" and substitute "*trading interval*".

**[116] Clause 3.15.7B Claim for additional compensation by Directed Participants**

In clause 3.15.7B(a4), omit "*intervention price trading interval*" wherever it occurs and substitute "*intervention pricing 30-minute period*".

**[117] Clause 3.15.8 Funding of compensation for directions**

In clause 3.15.8(b) in the formula term definition of "E", omit "*intervention price trading interval*" wherever it occurs and substitute "*intervention pricing 30-minute period*".

**[118] Clause 3.15.10 Administered price cap or administered floor price compensation payments**

In clause 3.15.10(a1), in the definition of "**cost recovery region**" omit "*dispatch price*" and substitute "*spot price*".

**[119] Clause 3.15.10 Administered price cap or administered floor price compensation payments**

In clause 3.15.10(b), in the formula term definition of "E<sub>i</sub>" omit "region-i." and substitute "region."

**[120] Clause 3.16.2 Dispute resolution panel to determine compensation**

In clause 3.16.2(f), omit "*dispatch price*" and substitute "*spot price*".

**[121] Clause 3.16.2 Dispute resolution panel to determine compensation**

In clause 3.16.2(h)(1), omit "*dispatch interval*" and substitute "*trading interval*".



**[122] Clause 3.16.2 Dispute resolution panel  
to determine compensation**

In clause 3.16.2(h)(2), omit "*dispatch interval*" and substitute "*trading interval*".

## **Schedule 2          Amendment to the National Electricity Rules**

(Clause 4)

### **[1] Clause 4.9.1          Load forecasting**

In clause 4.9.1(a)(1) and (2), omit "*trading interval*" and substitute "*30-minute period*".

### **[2] Clause 4.9.5          Form of dispatch instructions**

Omit clause 4.9.5(a)(6)(i) and substitute:

- (i) a notification as to whether the *trading interval* to which the *dispatch instruction* relates is a *semi-dispatch interval* or a *non semi-dispatch interval*; and

## **Schedule 3          Amendment to the National Electricity Rules**

(Clause 5)

### **[1] Clause 6.20.1          Billing for distribution services**

In clause 6.20.1(a)(2)(i), omit "half hourly".

### **[2] Clause 6.20.1          Billing for distribution services**

In clause 6.20.1(e), omit "type 1, 2, 3 or 4" and substitute "type 1, 2 or 3".

### **[3] Clause 6.20.1          Billing for distribution services**

In clause 6.20.1(e), omit "type 4A, 5, 6 or 7" and substitute "type 4, 4A, 5, 6 or 7".

## **Schedule 4          Amendment to the National Electricity Rules**

(Clause 6)

### **[1] Clause 7.3.2          Role of the Metering Coordinator**

In clause 7.3.2(e)(4), omit “;” and substitute “; and”.

### **[2] Clause 7.3.2          Role of the Metering Coordinator**

In clause 7.3.2(e)(5), omit “; and” and substitute “.”.

### **[3] Clause 7.3.2          Role of the Metering Coordinator**

Omit clause 7.3.2(e)(6).

### **[4] Clause 7.8.2          Metering installation components**

After clause 7.8.2(a), insert:

(a1) *AEMO* may exempt a *Metering Provider* at a *connection point* from complying with the data storage requirements under subparagraph (a)(9) for:

- (1) types 1, 2, and 3 *metering installations*; and
- (2) Type 4 *metering installations* referred to in clause 7.8.2(b1)

installed prior to 1 July 2021. *AEMO* may only grant an exemption under this clause where it is reasonably satisfied that the *Metering Provider* will be able to otherwise satisfy the requirements of Chapter 7.

(a2) *AEMO* must establish, maintain and *publish* a procedure setting out the requirements for applying for an exemption under paragraph (a1).

### **[5] Clause 7.8.2          Metering installation components**

After clause 7.8.2(b), insert:

(b1) Any type 4 *metering installation* at a:

- (1) *transmission network connection point*; or
- (2) *distribution network connection point* where the relevant *financially responsible Market Participant* is a *Market Generator* or *Small Generation Aggregator*,

must be capable of recording and providing, and configured to record and provide, *trading interval energy data*.

**[6] Clause 7.8.2 Metering installation components**

In clause 7.8.2(f)(5), omit "*interval energy*," and substitute "*interval energy data*,"

**[7] New Clause 7.8.2A New or replacement metering installations**

After clause 7.8.2 insert:

**7.8.2A New or replacement metering installations**

The *Metering Coordinator* at a *connection point* must ensure that all new or replacement *metering installations* are capable of recording and providing, and configured to record and provide, *trading interval energy data*.

**Note**

Additional requirements with respect to new and replacement *metering installations* at *small customer connection points* are set out in clause 7.8.3.

**[8] Clause 7.8.8 Metering installation types and accuracy**

In clause 7.8.8(b), after “must ensure that” omit "is" and substitute “it”.

**[9] Clause 7.10.2 Data management and storage**

In clause 7.10.2(j) omit ", if any,".

**[10] Clause 7.10.5 Periodic energy metering**

Omit clause 7.10.5(a) and substitute:

- (a) The *Metering Data Provider* must, for:
  - (1) types 1, 2 and 3 *metering installations*; and
  - (2) types 4, 4A and 5 *metering installations* that are capable of providing *trading interval energy data*,collate *metering data* relating to:
  - (3) the amount of *active energy* and;
  - (4) *reactive energy* (where relevant) passing through a *connection point*,

in *trading intervals* within a *metering data services database* unless it has been agreed between *AEMO*, the *Local Network Service Provider*, *Embedded Network Manager* in relation to *child connection points* and the *financially responsible Market Participant* that *metering data* may be recorded in sub-multiples of a *trading interval*.

**[11] Clause 7.10.5 Periodic energy metering**

In clause 7.10.5(b), omit "For type 6 *metering installations*," and substitute "For type 6 *metering installations* and types 4, 4A and 5 *metering installations* that are not capable of providing *trading interval energy data*,"

**[12] Clause 7.16.3 Requirements of the metrology procedure**

Omit clause 7.16.3(c)(6)(iii)(A) and substitute:

- (A) by which *interval metering data* for types 4A and 5 *metering installations* and type 4 *metering installations* that do not provide *trading interval energy data*, and *accumulated metering data* is to be converted by AEMO into *trading interval metering data*; and

**[13] Clause 7.16.4 Jurisdictional metrology material in metrology procedure**

Omit clause 7.16.4(d) and substitute:

- (d) *Jurisdictional metrology material* may address the specification of the *type 5 accumulation boundary*.

**[14] Clause S7.1.2 Metering register information**

In clause S7.1.2(e)(1) and (2), omit "half hourly" and substitute "*trading interval*".

**[15] Clause S7.3.3 Capabilities of Metering Data Providers**

Omit clause S7.3.3(d) and substitute:

- (d) Authorised access to *metering* software for the:
  - (1) collection of *metering data*;
  - (2) establishment, maintenance and operation of a *metering data services database* for the storage and management of *metering data* and *NMI Standing Data*; and
  - (3) the validation, substitution and estimation of *metering data*.

**[16] Table S7.4.3.1 Overall Accuracy Requirements of Metering installation Components**

In table S7.4.3.1 omit the text from the rows for Type 4, 4A and 5 and substitute:

4	less than 750	1.5	n/a	Either 0.5 CT and 1.0 <i>meter Wh</i> ; or whole	±20
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	MWh (Item 2)			<p>current general purpose <i>meter Wh</i>:</p> <ul style="list-style-type: none"> <li>meets the requirements of clause 7.8.2(a)(9); and</li> <li>meets the requirements of clause 7.10.6(d).</li> </ul> <p>(Item 1)</p> <p>For type 4 <i>metering installations</i> that do not provide <i>trading interval energy data</i>, processes used to convert the <i>interval metering data</i> into <i>trading interval metering data</i> and <i>estimated metering data</i> where necessary are included in the <i>metrology procedure</i>.</p>	(Item 2a)
4A	less than x MWh Item 3	1.5	3.0	<p>Either 0.5 CT and 1.0 <i>meter Wh</i>; or whole current general purpose <i>meter Wh</i>:</p> <ul style="list-style-type: none"> <li>meets the requirements of clause 7.8.2(a)(10); and</li> <li>has the capability, if remote access is activated, of providing the services in table S7.5.1.1; and</li> <li>meets the requirements of clause 7.10.7(d).</li> </ul> <p>Processes used to convert the <i>interval metering data</i> for type 4A <i>metering installations</i> into <i>trading interval metering data</i> and <i>estimated metering data</i> where necessary are included in the <i>metrology procedure</i>.</p>	±20 (Item 2a)
5	less than x MWh	1.5 (Item	n/a	<p>Either 0.5 CT and 1.0 <i>meter Wh</i>; or whole current general purpose</p>	±20 (Item 3a)

	(Item 3)	3b)	<p><i>meter Wh:</i></p> <ul style="list-style-type: none"> <li>• meets the requirements of clause 7.8.2(a)(10); and</li> <li>• meets the requirements of clause 7.10.7(d).</li> </ul> <p>Processes used to convert the <i>interval metering data</i> for type 5 <i>metering installation</i> into <i>trading interval metering data</i> and <i>estimated metering data</i> where necessary are included in the <i>metrology procedure</i>.</p>	
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**[17] Clause S7.4.4 Check metering**

In clause S7.4.4(d), omit "30 min" and substitute "*trading interval*".



## **Schedule 5          Amendment to the National Electricity Rules**

(Clause 7)

### **[1] Schedule 9G1      Metering Transitional Arrangements**

In Clause 3. of Schedule 9G1, omit "half hour energy flows" and substitute "*interval energy data*".

## Schedule 6            Amendment to the National Electricity Rules

(Clause 8)

### [1] Chapter 10            New Definitions

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

#### *30-minute period*

A 30 minute period ending on the hour (*EST*) or on the half-hour, and comprising 6 consecutive *trading intervals*. Where a *30-minute period* is identified by a time, it means the 30-minute period ending at that time.

#### *30-minute price*

The price for electricity in a *30-minute period* calculated in the same way as the *spot price* was calculated under Chapter 3 of the *Rules* and all related definitions in the *Rules* as in force immediately prior to 1 July 2021.

#### *intervention pricing 30-minute period*

A *30-minute period* in which *AEMO* has declared an *intervention pricing interval* in accordance with clause 3.9.3.

#### *intervention pricing interval*

A *trading interval* declared by *AEMO* to be an *intervention pricing interval* in accordance with clause 3.9.3.

#### *trading interval energy data*

*Interval energy data* prepared and recorded by a *metering installation* in intervals which correspond to a *trading interval*.

### [2] Chapter 10            Substituted Definitions

In Chapter 10, substitute the following definitions:

#### *Affected Participant*

- (a) In respect of a particular *direction* in an *intervention pricing 30-minute interval*:
  - (1) A *Scheduled Generator* or *Scheduled Network Service Provider*:
    - (i) which was not the subject of the *direction*, that had its *dispatched* quantity affected by that *direction*; or
    - (ii) which was the subject of the *direction*, that had its *dispatched* quantity for other *generating units* or other

services which were not the subject of that *direction* affected by that *direction*, however, the *Scheduled Generator* or *Scheduled Network Service Provider* is only an *Affected Participant* in respect of those *generating units* and services which were not the subject of that *direction*; or

- (2) an *eligible person* entitled to receive an amount from AEMO pursuant to clause 3.18.1(b)(1) where there has been a change in flow of a *directional interconnector*, for which the *eligible person* holds units for the *intervention pricing 30-minute period*, as a result of the *direction*; and

(b) in relation to the exercise of the *RERT* under rule 3.20:

- (1) a *Scheduled Generator* or *Scheduled Network Service Provider*:

- (i) whose *plant* or *scheduled network service* was not *dispatched* under a *scheduled reserve contract*, that had its *dispatched* quantity affected by the *dispatch* of *plant* or *scheduled network service* under that *scheduled reserve contract*; and

- (ii) who was not the subject of *activation* under an *unscheduled reserve contract*, that had its *dispatched* quantity affected by the *activation* of *generating units* or *loads* under that *unscheduled reserve contract*;

- (2) a *Scheduled Generator* or *Scheduled Network Service Provider* whose *plant* or *scheduled network service* was *dispatched* under a *scheduled reserve contract*, that had its *dispatched* quantity for other *generating units* or other services which were not *dispatched* under the *scheduled reserve contract* affected by that *dispatch* of *plant* or *scheduled network service* under that *scheduled reserve contract*, however, the *Scheduled Generator* or *Scheduled Network Service Provider* is only an *Affected Participant* in respect of those *generating units* and services which were not *dispatched* under that *scheduled reserve contract*; or

- (3) an *eligible person* entitled to receive an amount from AEMO pursuant to clause 3.18.1(b)(1) where there has been a change in flow of a *directional interconnector*, for which the *eligible person* holds units for the *intervention pricing 30-minute period*, as a result of the *dispatch* of *plant* or *scheduled network service* under a *scheduled reserve contract* or the *activation* of *generating units* or *loads* under an *unscheduled reserve contract*.

***accumulated energy data***

The data that results from the measurement of the flow of electricity in a power conductor where the data represents a period in excess of a *30-minute period*. *Accumulated energy data* is held in the *metering installation*. The measurement is carried out at a *metering point*.

***administered price cap***

A price cap to apply to a *regional reference price* or *ancillary service price* as specified in clause 3.14.1.

***ancillary service price***

In respect of a *trading interval*, for a *market ancillary service*, the common clearing price for the *market ancillary service* determined in accordance with clause 3.9.

***billing period***

The period of *7 days* commencing at the start of the *trading interval* ending 12.05 am Sunday.

***dispatch level***

Means:

- (a) for a *semi-dispatch interval*, the amount of electricity specified in a *dispatch instruction* as the *semi-scheduled generating unit's* maximum permissible *active power* at the end of the *trading interval* specified in the *dispatch instruction*; and
- (b) for a non *semi-dispatch interval*, an estimate of the *active power* at the end of the *trading interval* specified in the *dispatch instruction*.

***interval energy data***

The data that results from the measurement of the flow of electricity in a power conductor where the data is prepared and recorded by the *metering installation* in intervals which:

- (a) for:
  - (1) types 1, 2 and 3 *metering installations*; and
  - (2) types 4, 4A and 5 *metering installations* that are capable of providing such data at intervals that correspond to a *trading interval*,correspond to a *trading interval* or are submultiples of a trading interval; and
- (b) for types 4, 4A, and 5 *metering installations* that are not capable of providing such data in intervals which correspond to a *trading interval*

*interval*, correspond to a *30-minute period* or are submultiples of a *30-minute period*,

Interval energy data is held in the *metering installation*.

### ***late rebidding period***

In respect of a *trading interval*, the period beginning 30 minutes before the commencement of the *trading interval*.

### ***MLEC CRNP Methodology***

For the purposes of calculating the *modified load export charges*, the *CRNP Methodology* (and for the avoidance of doubt, not the *modified CRNP Methodology*) provided that each of the following is satisfied:

- (a) for the purposes of clause S6A.3.2(1), network ‘costs’ are attributed to all *transmission systems* assets of the relevant *Transmission Network Service Provider*; and
- (b) for the purposes of clause S6A.3.2(3):
  - (1) every *30-minute period* of the previous *regulatory year* in order to determine the range of actual operating conditions from the previous *regulatory year*; and
  - (2) the peak usage of each *transmission system* asset by each *load* is used to determine the allocation of dispatched *generation* to *loads* from the previous *regulatory year*.

### ***non semi-dispatch interval***

For a *semi-scheduled generating unit*, a *trading interval* other than a *semi-dispatch interval*.

### ***semi-dispatch interval***

For a *semi-scheduled generating unit*, a *trading interval* for which either:

- (a) a *network constraint* would be violated if the *semi-scheduled generating unit’s generation* were to exceed the *dispatch level* specified in the related *dispatch instruction* at the end of the *trading interval*; or
- (b) the *dispatch level* specified in that *dispatch instruction* is less than the *unconstrained intermittent generation forecast* at the end of the *trading interval*,

and which is notified by *AEMO* in that *dispatch instruction* to be a *semi-dispatch interval*.

***spot price forecast***

A forecast of the *spot price* published by *AEMO* in accordance with clause 3.13.4.

***trading day***

The 24 hour period commencing at 4.00 am (*EST*) and finishing at 4.00 am on the following *day*.

***trading interval***

A 5 minute period ending on the hour (*EST*) and each continuous period of 5 minutes thereafter and, where identified by a time, means the 5 minute period ending at that time.

**[3] Chapter 10 Omitted Definitions**

Omit the definitions of "*dispatch interval*", "*dispatch price*", "*intervention price dispatch interval*" and "*intervention price trading interval*".

## Schedule 7 Savings and Transitional Amendments to the National Electricity Rules

(Clause 9)

### [1] Chapter 11 Savings and Transitional Amendments to the National Electricity Rules

After Part ZZZD, insert:

#### Part ZZZE Five Minute Settlement

##### 11.103 Rules consequential on the making of the National Electricity Amendment (Five Minute Settlement) Rule 2017

###### 11.103.1 Definitions

For the purposes of this rule 11.103:

**Amending Rule** means the National Electricity Amendment (Five Minute Settlement) Rule 2017.

**commencement date** means 1 July 2021.

**Excluded metering installations** means:

- (a) types 1,2,3 and 7 *metering installations*; and
- (b) the *metering installations* referred to in new clause 7.8.2(b1).

**new Chapter 7** means Chapter 7 of the *Rules* as in force immediately after the commencement date.

**new clause 7.8.2(b1)** means clause 7.8.2(b1) as in force immediately after the commencement date.

**new Chapter 10** means Chapter 10 of the *Rules* as in force immediately after the commencement date.

**new clause 3.8.9** means clause 3.8.9 of the *Rules* as in force immediately after the commencement date.

**new clause 7.8.2(a2)** means clause 7.8.2(a2) of the *Rules* as in force immediately after the commencement date.

**new clause 7.8.2(b1)** means clause 7.8.2(b1) of the *Rules* as in force immediately after the commencement date.

**new clause 7.8.2A** means clause 7.8.2A of the *Rules* as in force immediately after the commencement date.

**old clause 3.8.9** means clause 3.8.9 of the *Rules* as in force immediately prior to the commencement date.

### **11.103.2 Amendments to procedures**

- (a) By 1 December 2019, *AEMO* must review and where necessary amend and *publish* the following documents to apply from the commencement date to take into account the Amending Rule:
- (1) the credit limit procedures in accordance with clause 3.3.8;
  - (2) the *spot market* operations timetable in accordance with clause 3.4.3;
  - (3) the automated procedures relating to *dispatch intervals* subject to review in accordance with clause 3.9.2B;
  - (4) the methodology for determining *dispatch prices* and *ancillary services prices* in the event of intervention by *AEMO* in accordance with clause 3.9.3;
  - (5) the *reliability standards and settings guidelines*;
  - (6) the estimated price methodology and estimated price schedules for periods of *market suspension* in accordance with clause 3.14.5;
  - (7) the *reallocation procedures*;
  - (8) the *settlement residue* auction rules in accordance with clause 3.18.3;
  - (9) the methodology relating to *dispatch* pricing for *unscheduled reserve contracts* in accordance with clause 3.20.4;
  - (10) the procedures relating to the exercise of the *RERT* in accordance with clause 3.20.7;
  - (11) the procedures maintained under clause 7.8.3(b) in respect of the *minimum services specification*;
  - (12) the *meter churn procedures* in accordance with clause 7.8.9;
  - (13) the *metering data provision procedures*;
  - (14) the *Market Settlement and Transfer Solution Procedures*;
  - (15) the *metrology procedure*; and
  - (16) the *service level procedures*.



- (b) The *Information Exchange Committee* must make an *Information Exchange Committee Recommendation* to change the *B2B Procedures (B2B Recommendation)* to take into account the Amending Rule by 1 July 2019.
- (c) Subject to clause 7.17.5(b), *AEMO* must *publish* the *B2B Procedures* in accordance with the *B2B Recommendation* within 10 *business days* of the *Information Exchange Committee* making the *B2B Recommendation*.
- (d) By 1 December 2019, the *AER* must amend and *publish* the following documents to apply from the commencement date to take into account the Amending Rule:
  - (1) the methodology relating to the *distribution loss factor* in accordance with clause 3.6.3;
  - (2) guidelines maintained under clause 3.8.22 in respect of *rebidding*; and
  - (3) criteria that the *AER* will use to determine whether there is a significant variation between the *spot price forecast* and the actual *spot price* in accordance with clause 3.13.7.

### **11.103.3. Exemption for certain metering installations**

From the commencement date:

- (a) all *metering installations* (other than Excluded metering installations and type 4A *metering installations*) that were installed prior to 1 December 2018; and
- (b) type 4A *metering installations* that were installed prior to 1 December 2019,

do not have to be capable of recording and providing, or configured to record and provide, *trading interval energy data* (as defined under new Chapter 10) until they are replaced in accordance with new clause 7.8.2A.

### **11.103.4 New or replacement meters**

The *Metering Coordinator* at a *connection point* must ensure that:

- (a) all new or replacement *metering installations* (other than type 4A *metering installations*) installed between 1 December 2018 and the commencement date; and
- (b) all new or replacement type 4A *metering installations* installed between 1 December 2019 and the commencement date,

are capable of recording and providing *trading interval energy data* as defined under new Chapter 10.

**11.103.5 Metering installations exempt from metering data provision requirements**

*Metering installations* (other than Excluded metering installations) do not have to be configured to record and provide *trading interval energy data* (as defined under new Chapter 10) prior to 1 December 2022.

**11.103.6 Exemption from meter data storage requirements**

By 1 December 2019, AEMO must *establish* and *publish* the procedure required by new clause 7.8.2(a2) in respect of exemptions from data storage requirements.

**11.103.7 Default offers and bids submitted prior to the commencement date**

Any *dispatch offer* or *dispatch bid* submitted pursuant to old clause 3.8.9 for a *trading interval* prior to the commencement date will, from the commencement date, be deemed to be 6 equal *dispatch offers* or *dispatch bids* submitted in respect of the 6 consecutive *trading intervals* within the relevant *30-minute period* until such time as that *dispatch offer* or *dispatch bid* is resubmitted under new clause 3.8.9.

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[END OF RULE AS MADE]

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