



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^{CPT}" and substitute:

BV^{CPT} 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 <i>trading amount</i> to be determined (which is a positive number);
EA (in MW)	=	the amount of the relevant <i>market ancillary service</i> which the <i>ancillary service generating unit</i> or <i>ancillary service load</i> has been <i>enabled</i> to provide in the <i>trading interval</i> ; and
ASP (in \$ per MW per hour)	=	the <i>ancillary service price</i> for the <i>market ancillary service</i> for the <i>trading interval</i> for the <i>region</i> in which the <i>ancillary service generating unit</i> or <i>ancillary service load</i> has been <i>enabled</i> .

[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_i " 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, 3, and 4 *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"> meets the requirements of clause 7.8.2(a)(9); and meets the requirements of clause 7.10.6(d). <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"> meets the requirements of clause 7.8.2(a)(10); and has the capability, if remote access is activated, of providing the services in table S7.5.1.1; and meets the requirements of clause 7.10.7(d). <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>	<p>±20</p> <p>(Item 2a)</p>
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>	<p>±20</p> <p>(Item 3a)</p>

	(Item 3)	3b)	<p><i>meter Wh:</i></p> <ul style="list-style-type: none"> • meets the requirements of clause 7.8.2(a)(10); and • meets the requirements of clause 7.10.7(d). <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*,

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.

[END OF RULE AS MADE]
