CHAPTER 3

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3. Market Rules

3.1 Introduction to Market Rules

3.1.1 Purpose

This Chapter sets out the procedures which govern the operation of the *market* relating to the wholesale trading of electricity and the provision of *ancillary services* and includes provisions relating to:

(a) *prudential requirements* to be met for participation in the *market*;

(b) the operation of the *spot market*;

(c) bidding and *dispatch*;

(d) *spot price* determination;

(d1) the determination of *ancillary service prices*;

(e) *AEMO* clearing house and trading functions;

(f) *market* information requirements and obligations;

(g) the conditions and procedures for *market suspension*; and

(h) *settlements*.

3.1.1A Definitions

In this Chapter:

credit limit procedures means the procedures developed, *published* and maintained by *AEMO* under clause 3.3.8.

credit period means the sum of the payment period and the reaction period as determined by *AEMO*.

maximum credit limit means the minimum amount of *credit support* a *Market Participant* must provide to *AEMO* for the relevant credit period, as determined by *AEMO* in accordance with clause 3.3.8.

outstandings limit means *AEMO's* estimate of the maximum value that a *Market Participant's outstandings* can reach over the payment period if the *Market Participant* has lodged *credit support* equal to the maximum credit limit.

payment period means the number of days in a *billing period* plus the number of days until payment is due with respect to transactions for that *billing period*.

prudential margin means the allowance made by *AEMO* in determining a *Market Participant's* maximum credit limit for the accrual of the *Market Participant's outstandings* during the reaction period.

prudential probability of exceedance means the probability of the *Market Participant's* maximum credit limit being exceeded by its *outstandings* at the end of the reaction period following the *Market Participant* exceeding its outstandings limit on any day, and failing to rectify this breach.

prudential settings means the maximum credit limit, outstandings limit and prudential margin as determined by *AEMO* in accordance with clause 3.3.8.

prudential standard means the value of the prudential probability of exceedance, expressed as a percentage, and as specified under clause 3.3.4A, to be used by *AEMO* to determine the prudential settings to apply to *Market Participants*.

reaction period means a period of 7 days. It represents, for the purpose of calculating the prudential settings, the time from the day that a *Market Participant's outstandings* exceeds its *trading limit* to when the *Market Participant* is suspended from trading under clause 3.15.21(c) if the exceedance is not rectified.

3.1.2   [Deleted]

3.1.3   [Deleted]

3.1.4   Market design principles

(a)   This Chapter is intended to give effect to the following market design principles:

    (1)   minimisation of *AEMO* decision-making to allow *Market Participants* the greatest amount of commercial freedom to decide how they will operate in the *market*;

    (2)   maximum level of *market* transparency in the interests of achieving a very high degree of *market* efficiency;

    (3)   avoidance of any special treatment in respect of different technologies used by *Market Participants*;

    (4)   consistency between *central dispatch* and pricing;

    (5)   equal access to the market for existing and prospective *Market Participants*;

    (6)   *ancillary services* should, to the extent that it is efficient, be acquired through competitive market arrangements and as far as practicable determined on a dynamic basis. Where dynamic determination is not practicable, competitive commercial contracts between *AEMO* and

service providers should be used in preference to bilaterally negotiated arrangements;

(7)   the relevant action under section 116 of the *National Electricity Law* or direction under clause 4.8.9 must not be affected by competitive market arrangements;

(8)   where arrangements require participants to pay a proportion of *AEMO* costs for *ancillary services*, charges should where possible be allocated to provide incentives to lower overall costs of the *NEM*. Costs unable to be reasonably allocated this way should be apportioned as broadly as possible whilst minimising distortions to production, consumption and investment decisions; and

(9)   where arrangements provide for *AEMO* to acquire an *ancillary service*, *AEMO* should be responsible for settlement of the service.

(a1) **[Deleted]**

(a2) **[Deleted]**

(b)   This Chapter is not intended to regulate anti-competitive behaviour by *Market Participants* which, as in all other markets, is subject to the relevant provisions of the *Competition and Consumer Act 2010* (Cth) and the Competition Codes of *participating jurisdictions*.

3.1.5   Time for undertaking action

The provisions of clause 1.7.1(l) do not apply to this Chapter and, under the provisions of this Chapter, an event which is required to occur on or by a stipulated *day* must occur on or by that *day* whether or not a *business day*.

3.2   AEMO's Market Responsibilities

3.2.1   Market functions of AEMO

(a)   *AEMO* must operate and administer the *market* in accordance with this Chapter.

(b)   *AEMO* must establish, maintain and *publish* a register of all current *Market Participants*.

(c)   *AEMO* must:

(1)   establish procedures for consultation with *Registered Participants* in respect of the manner in which *AEMO* fulfils its functions and obligations under the *Rules*; and

(2)   *publish* annually performance indicators to monitor *AEMO's* performance in respect of its *market* management functions.

3.2.2 Spot market

AEMO must do all things necessary to operate and administer a *spot market* for the sale and purchase of electricity and *market ancillary services* in accordance with this Chapter including:

(a) the provision of facilities for the receipt and processing of *dispatch bids*, *dispatch offers* and *market ancillary service offers* for the *spot market*;

(b) the management of a centralised national *dispatch* process, including the publication of *pre-dispatch schedules* and *spot price forecasts*;

(c) the determination and publication of *spot prices* at each *regional reference node* for each *trading interval*;

(c1) the determination and publication of *ancillary service prices* at each *regional reference node* for each *dispatch interval*;

(d) the compilation and publication of *spot market* trading statistics;

(e) the identification of *regions* and *regional reference nodes* for *spot price* and *ancillary service price* determination;

(f) the determination and publication of *inter-regional loss factors* and *intra-regional loss factors*;

(g) the suspension of the *spot market* under conditions prescribed in rule 3.14; and

(h) the collection and dissemination of information necessary to enable the *market* to operate efficiently.

3.2.3 Power system operations

(a) Subject to Chapter 4, *AEMO* must manage the day to day operation of the *power system*, using its reasonable endeavours to maintain *power system security* in accordance with this Chapter.

(b) *AEMO* must perform *projected assessment of system adequacy processes* (*PASA*) in accordance with rule 3.7, *publish* the details of these assessments in accordance with rule 3.13 and implement an escalating series of *market* interventions in accordance with this Chapter to maintain *power system security*.

3.2.4 Non-market ancillary services function

(a) *AEMO* must determine the *market's* requirements for *non-market ancillary services* in accordance with rule 3.11.

(b) *AEMO* must use reasonable endeavours to acquire *non-market ancillary services* in accordance with rule 3.11.

3.2.5 [Deleted]

3.2.6 Settlements

AEMO must provide a financial *settlements* service in accordance with rule 3.15, including billing and clearance for all *market* trading.

3.3 Prudential Requirements

3.3.1 Market Participant criteria

Each *Market Participant* must whilst participating in the *market*:

(a) be resident in, or have a permanent establishment in, Australia;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) not be under external administration (as defined in the Corporations Act) or under a similar form of administration under any laws applicable to it in any jurisdiction;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c) not be immune from suit in respect of the obligations of the *Market Participant* under the *Rules*; and

(d) be capable of being sued in its own name in a court of Australia.

3.3.2 Credit support

Where at any time a *Market Participant* does not meet the *acceptable credit criteria*, the *Market Participant* must procure that *AEMO* holds the benefit of *credit support* in respect of that *Market Participant*. A *credit support* is an obligation in writing which:

(a) is from an entity (the *Credit Support Provider*) which meets the *acceptable credit criteria* and which is not itself a *Market Participant*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) is a guarantee or bank letter of credit in a form prescribed by *AEMO*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c)   is duly executed by the *Credit Support Provider* and delivered unconditionally to *AEMO*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d)   constitutes valid and binding unsubordinated obligations of the *Credit Support Provider* to pay to *AEMO* amounts in accordance with its terms which relate to obligations of the relevant *Market Participant* under the *Rules*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e)   permits drawings or claims by *AEMO* to a stated certain amount.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.3.3   Acceptable credit criteria

Where the *Rules* require that an entity meet the *acceptable credit criteria*, this means that the entity must:

(a)   be either:

(1)   any entity under the prudential supervision of the Australian Prudential Regulation Authority; or

(2)   a central borrowing authority of an Australian State or Territory which has been established by an Act of Parliament of that State or Territory;

(b)   be resident in, or have a permanent establishment in, Australia;

(c)   not be an externally administered body corporate (as defined in the Corporations Act) or under a similar form of administration under any laws applicable to it in any jurisdiction;

(d)   not be immune from suit;

(e)   be capable of being sued in its own name in a court of Australia; and

(f)   have an *acceptable credit rating*.

3.3.4   Acceptable credit rating

(a)   *AEMO* may from time to time, after complying with the *Rules consultation procedures*, determine what constitutes an *acceptable credit rating* for the purposes of the *Rules*, including (without limitation) determining which organisations publishing ratings will be used for this purpose, which of the type of ratings issued will be used for this purpose, and which level of rating is to be acceptable.

(b)   Until varied by determination of *AEMO*, an *acceptable credit rating* is either:

(1)   a rating of A-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Standard and Poor's (Australia) Pty. Limited; or

(2)   a rating of P-1 or higher for short term unsecured counterparty obligations of the entity, as rated by Moodys Investor Service Pty. Limited.

(c)   Any determination of *AEMO* which varies what constitutes an *acceptable credit rating* will take effect from such date (not being earlier than 30 *business days* after the date of notification of the determination to *Market Participants*) as *AEMO* specifies by notice to the *Market Participants*.

3.3.4A   Prudential standard

The prudential standard is 2%.

3.3.5   Amount of credit support

A *Market Participant* which does not meet the *acceptable credit criteria* must procure that at all times the aggregate undrawn or unclaimed amounts of then current and valid *credit support* held by *AEMO* in respect of the *Market Participant* is not less than the current maximum credit limit for that *Market Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.3.6   Changes to credit support

(a)   If:

(1)   a *credit support* provided to *AEMO* by a *Market Participant* under this rule 3.3 (called the **existing *credit support***), is due to expire or terminate; and

(2)   after that *credit support* expires or terminates the total *credit support* held by *AEMO* in respect of that *Market Participant* will be less than the *Market Participant's* maximum credit limit,

then at least 10 *business days* prior to the time at which the existing *credit support* is due to expire or terminate the *Market Participant* must procure a replacement *credit support* which will become effective upon expiry of the existing *credit support* such that it complies with the requirements of this rule 3.3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b)   Where a *credit support* otherwise ceases to be current or valid, whether by reason of the *Credit Support Provider* ceasing to meet the *acceptable credit criteria* or any other reason, the *Market Participant* must procure the replacement of that *credit support* so as to comply with its obligation to maintain aggregate undrawn current and valid *credit support* of not less than the current maximum credit limit for that *Market Participant*. The *Market Participant* must procure that the replacement *credit support* is issued to *AEMO* within 24 hours after the *Market Participant* first becomes aware that the *credit support* has ceased to be current or valid (whether by reason of the *Market Participant's* own knowledge or a notification by *AEMO*).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.3.7   Drawings on credit support

(a)   If *AEMO* exercises its rights under a *credit support* provided by a *Market Participant* under this rule 3.3 in accordance with clause 3.15.21(b)(2), then *AEMO* must notify the *Market Participant*.

(b)   If, as a result of *AEMO* exercising its rights under a *credit support* provided by a *Market Participant* under this rule 3.3 in accordance with clause 3.15.21(b)(2), the remaining *credit support* held by *AEMO* in respect of that *Market Participant* is less than the *Market Participant's* maximum credit limit then, within 24 hours of receiving a notice under clause 3.3.7(a), the *Market Participant* must procure for *AEMO* additional *credit support* complying with the requirements of this rule 3.3, such that the aggregate undrawn and valid *credit support* held by *AEMO* in respect of the *Market Participant* is not less than the amount of *credit support* which that *Market Participant* is required to provide under this rule 3.3.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.3.8 Credit limit procedures and prudential settings

Credit limit procedures

(a)   This clause sets out the framework for the establishment and determination of the prudential settings for *Market Participants* in the *NEM*.

(b)   The objective of the credit limit procedures is to establish the process by which *AEMO* will determine the prudential settings for each *Market Participant* so that the prudential standard is met for the *NEM*.

(c)   *AEMO* must develop, and, at all times, *publish* and maintain the credit limit procedures that details the methodology to be used by it to determine the prudential settings to apply to *Market Participants*.

(d)   Subject to paragraph (e), in developing the methodology to be used by *AEMO* to determine the prudential settings to apply to *Market Participants*, *AEMO* must take into consideration the following factors:

(1)   the *regional reference price* for the *region* for which the prudential settings are being calculated;

(2)   the time of year;

(3)   the volatility of *load* and *regional reference price* for the *regions*;

(4)   *AEMO's* estimate of the *generation* and *load* for each *Market Participant*;

(5)   the relationship between average *load* and *peak load* for each *Market Participant*;

(6)   any *prospective reallocations* for the period being assessed;

(7)   the correlation between *energy*, *reallocations* and the *regional reference price*;

(8)   the statistical distribution of any accrued amounts that may be owed to *AEMO*;

(9)   the relevant time period for which the prudential settings are being calculated; and

(10)   any other factors *AEMO* considers relevant having regard to the objective of the credit limit procedures under paragraph (b).

(e)   In determining the prudential margin, *AEMO* must not take into account estimates of a *Market Participant's*:

(1)   quantity and pattern of *trading amounts* where the estimate of the aggregate of all *trading amounts* for the period being assessed is a positive amount; and

(2)   quantity and pattern of *reallocation amounts* where the estimate of the aggregate of all *reallocation amounts* for the period being assessed is a positive amount.

(f)   At least once a year, *AEMO* must review, prepare and *publish* a report on the effectiveness of the methodology developed under this clause in achieving the objective of the credit limit procedures under paragraph (b), with any recommendations for the enhancement of the methodology.

(g)   Subject to paragraph (h), *AEMO* must comply with the *Rules consultation procedures* when making or amending the credit limit procedures.

(h)   *AEMO* may make minor or administrative amendments to the credit limit procedures without complying with the *Rules consultation procedures*.

Prudential settings

(i)   *AEMO* must determine the prudential settings to apply to *Market Participants* in accordance with:

(1)   the objective of the credit limit procedures under paragraph (b); and

(2)   the credit limit procedures.

(j)   The outstandings limit and prudential margin are interdependent, and *AEMO* must determine these simultaneously to meet the prudential standard for the *NEM*.

(k)   The maximum credit limit for a *Market Participant* is the dollar amount determined by *AEMO* using the following formula:

$$MCL = OSL + PM$$

where:

MCL is the maximum credit limit;

OSL is the outstandings limit; and

PM is the prudential margin.

(l)   *AEMO* must review the prudential settings that apply to each *Market Participant* no later than a year after the last determination or review of the *Market Participant's* prudential settings.

(m)   At any time, and for any reason that is consistent with objective of the credit limit procedures under paragraph (b), *AEMO* may change the prudential settings that apply to a *Market Participant*, provided that any change to the *Market Participant's* prudential settings applies no earlier than one *business day* after the date *AEMO* notifies the *Market Participant* of changes to its prudential settings.

(n)   *AEMO* must notify, in writing, the *Market Participant* of any determination or change of a *Market Participant's* prudential settings, and provide reasons for that determination or change.

3.3.8A   Security Deposits

At any time, a *Market Participant* may provide a security deposit to *AEMO* to secure payment of any amount which may become payable in respect of a *billing period*.

3.3.9   Outstandings

At any time the *outstandings* of a *Market Participant* is the dollar amount determined by the formula:

$$OS = -(A + B + SDA)$$

where:

OS is the amount of the *outstandings* of the *Market Participant*;

A is the aggregate of the net *settlement amounts* payable in respect of *billing periods* prior to the current *billing period* which remain unpaid by, or to, the *Market Participant* whether or not the *payment date* has yet been reached;

B is the net *settlement amount* payable by, or to, the *Market Participant* in respect of *transactions* for *trading intervals* that have already occurred in the current *billing period*; and

SDA is the balance (if any) of the *Market Participant* in the security deposit fund, in which case a credit balance will be a positive amount and a debit balance will be a negative amount.

The amounts to be used in this calculation will be the actual *settlement amounts* for *billing periods* where *final statements* have been issued by *AEMO* or *AEMO's* reasonable estimate of the *settlement amounts* for *billing periods* (where *final statements* have not been issued by *AEMO*).

Note:

Where the value of *outstandings* of a *Market Participant* is a negative amount the absolute value of the *outstandings* amount will, for the purposes of rule 3.3, be treated as if it were an amount payable by *AEMO* to the *Market Participant*.

3.3.10 Trading limit

The *trading limit* for a *Market Participant* is the dollar amount determined by *AEMO* using the following formula

$$TL = CS - PM$$

where:

TL is the *trading limit*;

CS is the *credit support* provided by the *Market Participant*; and

PM is the prudential margin determined by *AEMO* in accordance with clause 3.3.8

Note:

If the prudential margin exceeds the *credit support*, the *trading limit* will have a negative value.

3.3.11 Call notices

(a)   If at any time the *outstandings* of a *Market Participant* is greater than the *trading limit* for that *Market Participant*, *AEMO* may do either or both of the following:

(1)   give the *Market Participant* an *"interim statement"* covering any *transactions* for *trading intervals* not already the subject of issued *preliminary statements* or *final statements* or another *interim statement*, notwithstanding that the usual time for the issue of a *preliminary statement* or *final statement* for those *trading intervals* has not been reached; and

(2)   give the *Market Participant* a notice (a *call notice*) that specifies an *invoiced amount*, the current maximum credit limit for the *Market Participant*, the current *trading limit* for the *Market Participant*, and the *call amount*, where:

Call Amount = the higher of:

(OS – TypA); and

(OS – TL)

except where the formula produces a negative result, in which case the *call amount* is zero,

where:

OS is the *outstandings* for the *Market Participant* as at the date of the issue of the *call notice*; and

TypA is the *typical accrual* for the *Market Participant* as at the date of the issue of the *call notice*; and

TL is the *trading limit* for the *Market Participant* as at the date of the issue of the *call notice*.

Note:

If the value of *outstandings* of a *Market Participant* has a negative value and the *trading limit* also has a negative value, the *outstandings* will be greater than the *trading limit* if the absolute value of the *trading limit* is greater than the absolute value of the *outstandings*, in which case *AEMO* may exercise its powers under either or both of clauses 3.3.11(a)(1) or 3.3.11(a)(2).

(b)   *AEMO* may, in its absolute discretion, cancel a *call notice* or *interim statement* issued under this clause at any time. The cancellation of a *call notice* or *interim statement* does not affect *AEMO's* rights to issue a further *call notice* or *interim statement* on the same grounds that gave rise to *AEMO* issuing the cancelled *call notice* or *interim statement*.

3.3.12   Typical accrual

(a)   The *typical accrual* for a *Market Participant* at any time is the amount which *AEMO* determines would have been the *outstandings* of the *Market Participant* at that time had the *spot prices* and *ancillary service prices* and the *trading amounts* of the *Market Participant* been at the level of the average *spot price* and *ancillary service prices* and average *trading amounts* of the *Market Participant* used by *AEMO* for the purposes of the most recent determination of the maximum credit limit of the *Market Participant*.

Note:

The value of the *typical accrual* of a *Market Participant* will be a negative amount if the average *settlement amount* of the *Market Participant* is a positive amount.

(b)   *AEMO* must, on request from a *Market Participant*, provide that *Market Participant* with details of any *typical accrual* for that *Market Participant*.

3.3.13   Response to Call Notices

(a)   Subject to clause 3.3.13(b), where *AEMO* has given a *call notice* to a *Market Participant*, the *Market Participant* must before 11.00 am (*Sydney time*) on the next *business day* following the issue of the *call notice* either:

(1)   agree with *AEMO* to an increase in the *Market Participant's* maximum credit limit by an amount not less than the *call amount*, and provide to *AEMO* additional *credit support* where, by virtue of the increase in the maximum credit limit, the *Market Participant* no longer complies with its obligations under clause 3.3.5;

(2)   (where clause 3.3.13(a)(1) is not satisfied) pay to *AEMO* in cleared funds a security deposit of an amount not less than the *call amount*;

(3)   lodge a *reallocation request* of an amount which is not less than the *call amount* and which is accepted by *AEMO*; or

(4)   provide to *AEMO* any combination of clauses 3.3.13(a)(1), (2) and (3) such that the aggregate of the amount which can be drawn under the additional *credit support* provided and the amount of the security deposit paid and the amount of the *reallocation request* accepted by *AEMO* is not less than the *call amount*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b)   If *AEMO* gives a *call notice* to a *Market Participant* after noon (*Sydney time*), then *AEMO* is deemed to have given that *call notice* on the next *business day* for the purposes of this clause.

3.3.13A   Application of monies in the security deposit fund

(a)   Subject to clauses 3.3.13A(b) and (e), *AEMO* may apply money from the security deposit fund recorded as a credit balance in the name of a *Market Participant* in payment of monies owing by that *Market Participant* to *AEMO*:

(1)   in respect of any *final statement* previously given to that *Market Participant* which has not been fully paid by the appointed time on the due date and remains unpaid; or

(2)   at the time of issuing any *final statement*,

in which case *AEMO* may set off all, or part of, any amount by which a *Market Participant* is in credit in the security deposit fund at that time against any amounts owing to *AEMO* under the *final statement*.

(b)   Subject to clause 3.3.13A(c):

(1)   a *Market Participant* may, by giving notice at least one *business day* prior to the due time for the issue of a *final statement*, seek agreement with *AEMO* on the arrangements to apply to the application of security deposits paid by that *Market Participant* under clause 3.3.8A against amounts owing to *AEMO* under a particular *final statement* or *final statements*; and

(2)   *AEMO* must apply the security deposits in accordance with an agreement reached under clause 3.3.13A(b)(1).

If agreement is not reached between *AEMO* and the *Market Participant* under this clause, then *AEMO* has a discretion to apply the security deposit funds of that *Market Participant* in payment of moneys that the *Market Participant* owes *AEMO* as set out in clauses 3.3.13A(a)(1) and (2).

(c)   Despite any agreement under clause 3.3.13A(b), if a *default event* occurs in relation to a *Market Participant*, then *AEMO* has a discretion as to which amounts owing to *AEMO* under *final statements* it applies or partially applies security deposits paid by that *Market Participant* under clause 3.3.8A.

(d)   In the case of security deposits paid by a *Market Participant* in the security deposit fund under clause 3.3.13, *AEMO* has a discretion as to which *final statements* it applies or partially applies those monies against.

(e)   However, in exercising its discretion in clauses 3.3.13A(b), (c) or (d), if a *Market Participant* pays *AEMO* a security deposit, then *AEMO* must apply any remaining portion of the security deposit (taking into account deductions for any liabilities or expenses of the security deposit fund) against the longest outstanding amounts owing to *AEMO* under *final statements* issued not later than the *final statement* for the *billing period* in which the security deposit was paid to *AEMO*. If, for any reason, *AEMO* has not fully applied such security deposit within this time, then *AEMO* must apply the remainder to amounts owing to *AEMO* under the next *final statement* or *statements* until it has been fully applied.

(f)   If:

   (1)   a *Market Participant* has a credit balance in the security deposit fund and ceases, or intends to cease, being a *Market Participant*; and

   (2)   that *Market Participant* has paid all money owing to *AEMO* and *AEMO* reasonably considers that the *Market Participant* will not owe any money to *AEMO* in the future arising from that person's activities as a *Market Participant*,

   then *AEMO* must return any credit balance for that *Market Participant* in the security deposit fund to that *Market Participant* (subject to deduction for any liabilities and expenses of the security deposit fund).

(g)   If, for any reason, there is a debit balance in the security deposit fund for a *Market Participant*, then the *Market Participant* must pay that amount to *AEMO*. For this purpose, *AEMO* may:

   (1)   include that amount in the next *final statement*; or

   (2)   issue an account to that *Market Participant* for payment of that debit balance and the *Market Participant* must pay that amount within 2 *business days*.

3.3.14   Potential value of a transaction

At any time, the *potential value* of a *transaction*, or of any bid or offer by a *Market Participant* to effect a *transaction*, under which the *trading amount* payable to *AEMO* is determined by reference to one or more specified *regional*

reference prices or *ancillary service prices*, is the dollar amount determined by this procedure:

(a)   the *transaction* is first tested to determine the *trading amount* which would result for the *Market Participant* if the *regional reference price* or *ancillary service price* applicable to the *transaction* was equal to the *scheduled high price*;

(b)   the *transaction* is then tested to determine the *trading amount* which would result for the *Market Participant* if the *regional reference price* or *ancillary service price* applicable to the *transaction* was equal to the *scheduled low price*;

(c)   if the *trading amount* resulting for both tests is a positive amount or zero, then the *potential value* of the *transaction* is zero;

(d)   if the *trading amount* resulting for either test is a negative amount, then the *potential value* of the *transaction* is the absolute value of the negative amount (or, where both tests produce a negative amount, the *potential value* of the *transaction* is the absolute value of the most negative amount).

3.3.15   Trading margin

At any time, the *trading margin* for a *Market Participant* is a dollar amount equal to the amount by which its *trading limit* exceeds its current *outstandings* due to *AEMO* and if the *outstandings* are equal to or exceed the *trading limit*, the *trading margin* is zero.

3.3.16   Limitation on entry of transactions

(a)   A *Market Participant* must not submit any bid or offer to effect any *transaction* with *AEMO* where the *potential value* of that *transaction*, plus the *potential value* of all other *uncompleted transactions*, exceeds the *trading margin* for the *Market Participant*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b)   A *transaction* is an *uncompleted transaction* if some or all of the *trading intervals* to which that *transaction* relates have not yet occurred.

3.3.17   Scheduled prices

(a)   The *scheduled high price* and the *scheduled low price* are amounts determined by *AEMO* in its absolute discretion from time to time as a basis upon which to determine the *potential value* of a *transaction* in accordance with clause 3.3.14.

(b)   *AEMO* may determine different *scheduled high prices* and *scheduled low prices* for each *region*.

(c)   The *scheduled high price* for *energy* and *market ancillary services* cannot be greater than the *market price cap* and the *scheduled low price* for:

(i)   *energy*, cannot be less than the *market floor price*; and

(ii)   *market ancillary services*, cannot be less than zero.

(d)   *AEMO* must notify all *Market Participants* without delay of any determination of *scheduled high prices* and *scheduled low prices*.

(e)   For *Market Participants* who do not trade in the *spot market*, the *scheduled high price* shall be the *market price cap* and the *scheduled low price* shall be zero.

3.3.18   Additional credit support

(a)   Where at any time the aggregate *potential value* of a *Market Participant's uncompleted transactions* exceeds the *trading margin* for the *Market Participant* (including without limitation where this is a result of a redetermination of *scheduled high prices* or *scheduled low prices*) the *Market Participant* must provide to *AEMO* additional *credit support* satisfying the criteria in clause 3.3.2 for an amount not less than the amount by which the *trading margin* is exceeded. The *Market Participant* must procure that the additional *credit support* is provided to *AEMO* within 24 hours after *AEMO* has notified the *Market Participant* that additional *credit support* is required.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b)   *Credit support* required pursuant to this clause 3.3.18 is in addition to and not inclusive of the *credit support* which a *Market Participant* is required to procure pursuant to other provisions of the *Rules*.

3.3.19   Consideration of other Market Participant transactions

(a)   For the purposes of determining the *prudential requirements* to be satisfied by *Market Participants* in accordance with this rule 3.3, *AEMO* must consult with *Market Participants* and any other person *AEMO* considers appropriate.

(b)   *AEMO* is not required to meet its obligations under clause 3.3.19(a) in any way which increases *AEMO's* risks in the collection of moneys owed to it in accordance with any of the provisions of the *Rules*.

3.4   Spot Market

3.4.1   Establishment of spot market

(a)   *AEMO* must establish and operate a *spot market* as a mechanism for:

    (1)   balancing electricity *supply* and demand;

    (2)   acquiring *market ancillary services*; and

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

(b)   *AEMO* must determine and *publish* in accordance with rule 3.9:

    (1)   a *spot price* for *energy* to apply at each *regional reference node* in each *trading interval*; and

    (2)   *ancillary service prices* to apply at each *regional reference node* for each *dispatch interval*.

3.4.2   Trading day and trading interval

(a)   A *trading interval* is a 30 minute period ending on the hour or on the half hour.

(b)   A *trading interval* is identified by the *time* at which it ends.

(c)   The *trading day* in the *spot market* will be the 24 hour period commencing at 4.00 am Eastern Standard Time.

3.4.3   Spot market operations timetable

(a)   *AEMO* must operate the *spot market* according to the *timetable* which must be approved by the *AEMC* and *published* by *AEMO* following compliance with the *Rules consultation procedures*.

(b)   If *AEMO* wishes to change the *timetable* at any time, it may do so following compliance with the *Rules consultation procedures*.

(c)   If *AEMO* amends the *timetable* in accordance with paragraph (b), *AEMO* must:

    (1)   *publish* the amended *timetable*; and

    (2)   operate the *spot market* according to the *timetable* as amended.

3.5   Regions

3.5.1   [Deleted]

3.5.2   [Deleted]

3.5.3   [Deleted]

3.5.4   [Deleted]

3.5.5   [Deleted]

3.5.6   Abolition of Snowy region

(a)   In this clause 3.5.6:

current *Regions Publication* means the document published by *NEMMCO* entitled "List of Regional Boundaries and Marginal Loss Factors for the 2007/08 Financial Year".

New South Wales *region* comprises the *region* as identified in the current *Regions Publication*.

Snowy *region* comprises the *region* as identified in the current *Regions Publication*.

Victoria *region* comprises the *region* as identified in the current *Regions Publication*.

(b)   Despite any other provision of the *Rules*, at 00:00 hours *EST* on 1 July 2008:

(1)   the Snowy *region* is abolished;

(2)   the *regional reference node* known as the Murray 330kV node is abolished;

(3)   the New South Wales *region* and the Victoria *region* are modified by the allocation of the *loads* and *generators* to each *region* as set out in clause 11.13.8; and

(4)   the location of the *region* boundary between the New South Wales *region* and the Victoria *region* is as set out in clause 11.13.9.

(c)   For the avoidance of doubt:

(1)   the *regional reference node* (known as the Sydney West 330kV node) for the New South Wales *region*; and

(2)   the *regional reference node* (known as the Thomastown 66kV node) for the Victoria *region*,

are not affected by the abolition of the *regional reference node* known as the Murray 330kV node for the Snowy *region*.

3.6 Network Losses and Constraints

3.6.1 Inter-regional losses

(a) *Inter-regional losses* are *electrical energy losses* due to a notional transfer of electricity through *regulated interconnectors* from the *regional reference node* in one *region* to the *regional reference node* in an adjacent *region*.

(b) *Inter-regional loss factors*:

    (1) describe the *marginal electrical energy losses* for electricity transmitted through *regulated interconnectors* from a *regional reference node* in one *region* to the *regional reference node* in an adjacent *region* for a particular time period and a defined range of operating conditions;

    (2) to apply between each pair of adjacent *regional reference nodes* are to be determined as part of the *central dispatch* process using *inter-regional loss factor* equations derived in accordance with the methodology determined by *AEMO* pursuant to clause 3.6.1(c); and

    (3) are to be used in the *central dispatch* process as a notional adjustment to relate the prices of electricity at *regional reference nodes* in adjacent *regions* so as to reflect the cost of *inter-regional losses*.

(c) *AEMO* must determine, *publish* and maintain, in accordance with the *Rules consultation procedures*, a methodology for the determination of *inter-regional loss factor* equations for a *financial year*, describing *inter-regional loss factors* between each pair of adjacent *regional reference nodes* in terms of significant variables.

(d) In preparing the methodology for the determination of *inter-regional loss factor* equations referred to in clause 3.6.1(c), *AEMO* must implement the following principles:

    (1) *Inter-regional loss factor* equations are to apply for a *financial year*.

    (2) *Inter-regional loss factor* equations must be suitable for use in *central dispatch*.

    (3) *Inter-regional loss factors* are determined as part of the *central dispatch* process using *inter-regional loss factor* equations. The *inter-regional loss factors* must:

        (i) as closely as is reasonably practicable, describe the *marginal electrical energy losses* for electricity transmitted through the relevant *regulated interconnector* between the 2 relevant *regional reference nodes* in adjacent *regions* for each *trading*

interval of the *financial year* in respect of which the relevant *inter-regional loss factor* equations apply; and

(ii) aim to minimise the impact on the *central dispatch* process of *generation* and *scheduled load* as compared to the *dispatch* of *generation* and *scheduled load* which would result from a fully optimised dispatch process taking into account the effect of losses.

(4) *Inter-regional loss factor* equations are determined using forecast *load* and *generation* data and, if required, modelled *load* and *generation* data for the *financial year* in which the *inter-regional loss factor* equations are to apply. The forecast *load* and *generation* data and modelled *load* and *generation* data, if any, used must be that *load* and *generation* data prepared by *AEMO* pursuant to clause 3.6.2A.

(5) *Inter-regional loss factor* equations are determined by applying regression analysis to the *load* and *generation* data referred to in clause 3.6.1(d)(4) to determine:

(i) the variables which have a significant effect on the *marginal electrical energy losses* for electricity transmitted through each *regulated interconnector* for both directions of flow on those *regulated interconnectors*; and

(ii) the parameters that represent the relationship between each of those variables and the *marginal electrical energy losses*.

(e) *AEMO* must determine the *inter-regional loss factor* equations used to calculate *inter-regional loss factors* in each *financial year* in accordance with the methodology prepared and *published* by *AEMO* under clause 3.6.1(c).

(f) *AEMO* must *publish* the *inter-regional loss factor* equations determined under clause 3.6.1(e) by 1 April prior to the *financial year* in which they are to apply.

3.6.2 Intra-regional losses

(a) *Intra-regional losses* are *electrical energy losses* that occur due to the transfer of electricity between a *regional reference node* and *transmission network connection points* in the same *region*.

(b) *Intra-regional loss factors*:

(1) notionally describe the *marginal electrical energy losses* for electricity transmitted between a *regional reference node* and a *transmission network connection point* in the same *region* for a defined time period and associated set of operating conditions;

(2) will be either:

(i) two *intra-regional loss factors* where *AEMO* determines, in accordance with the methodology determined under clause 3.6.2(d), that one *intra-regional loss factor* does not, as closely as is reasonably practicable, describe the average of the *marginal electrical energy losses* for electricity transmitted between a *transmission network connection point* and the *regional reference node* for the *active energy* generation and consumption at that *transmission network connection point*; or

(ii) one static *intra-regional loss factor* in all other circumstances;

(2A) must be determined in accordance with the methodology determined by *AEMO* under clause 3.6.2(d) for each *transmission network connection point*;

(2B) apply for a *financial year*; and

(3) may, with the agreement of the *AER*, be averaged over an adjacent group of *transmission network connection points* within a single *region*. If averaging is used, the relevant *transmission network connection points* will be collectively defined as a *virtual transmission node* with a *loss factor* calculated as the volume weighted average of the *transmission loss factors* of the constituent *transmission network connection points*.

(b1) If *AEMO* determines two *intra-regional loss factors* for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* must apply the *intra-regional loss factors* in *central dispatch* and *spot market transactions* in accordance with the procedure determined by *AEMO* under clause 3.6.2(d1).

(c) An *intra-region*al *loss factor* is to be used as a price multiplier that can be applied to the *regional reference price* to determine the *local spot price* at each *transmission network connection point* and *virtual transmission node*.

(d) *AEMO* must determine, *publish* and maintain, in accordance with *Rules consultation procedures*, a methodology for the determination of *intra-regional loss factors* to apply for a *financial year* for each *transmission network connection point*.

(d1) *AEMO* must determine, *publish* and maintain, in consultation with *Registered Participants*, a procedure that includes a description of the manner in which *AEMO* will, if two *intra-regional loss factors* apply to a *transmission network connection point*, apply two *intra-regional loss factors* in *central dispatch* and *spot market transactions*. The procedure determined under this paragraph (d1) must describe how *AEMO* will identify and measure the *generation* and *load* at each *transmission network connection point* and apply the relevant *intra-regional loss factor* against that *generation* or *load*.

(e)   In preparing the methodology referred to in clause 3.6.2(d), *AEMO* must implement the following principles:

    (1)   *Intra-regional loss factors* are to apply for a *financial year*.

    (2)   An *intra-regional loss factor* must, as closely as is reasonably practicable, describe the average of the *marginal electrical energy losses* for electricity transmitted between a *transmission network connection point* and the *regional reference node* in the same *region* for each *trading interval* of the *financial year* in which the *intra-regional loss factor* applies.

    (2A)   *Intra-regional loss factors* must aim to minimise the impact on the *central dispatch* process of *generation* and *scheduled load* compared to that which would result from a fully optimised dispatch process taking into account the effect of losses.

    (3)   Forecast *load* and *generation* data for the *financial year* for which the *intra-regional loss factor* is to apply must be used. The forecast *load* and *generation* data used must be that *load* and *generation* data prepared by *AEMO* pursuant to clause 3.6.2A.

    (4)   The *load* and *generation* data referred to in clause 3.6.2(e)(3) must be used to determine *marginal loss factors* for each *transmission network connection point* for each *trading interval* in the *financial year* to which the *load* and *generation* data relates.

    (5)   An *intra-regional loss factor* for a *transmission network connection point* is determined using a volume weighted average of the *marginal loss factors* for the *transmission network connection point*.

    (6)   In determining an *intra-regional loss factor* for a *transmission network connection point*, flows in *network elements* that solely or principally provide *market network services* will be treated as invariant, as the methodology is not seeking to calculate the marginal losses within such *network elements*.

(f)   *AEMO* must calculate *intra-regional loss factors* for each *transmission network connection point* for each *financial year* in accordance with the methodology prepared and published by *AEMO* under clause 3.6.2(d).

(f1)   By 1 April in each year, *AEMO* must *publish* the *intra-regional loss factors* revised under clause 3.6.2(f) and to apply for the next *financial year*.

(g)   *AEMO* must, in accordance with the *Rules consultation procedures*, determine, *publish* and maintain the methodology which is to apply to the calculation of average *transmission loss factors*, determined in accordance with clause 3.6.2(b)(3), for each *virtual transmission node* proposed by a *Distribution Network Service Provider*.

(h)   As soon as practicable after the *publication* of the methodology referred to in clause 3.6.2(g), and thereafter by 1 April in each year, *AEMO* must

calculate and *publish* the *transmission loss factors* for each *virtual transmission node*, determined in accordance with clause 3.6.2(b)(3), that are to apply for the next *financial year*.

(i)   Notwithstanding clauses 3.6.2(a) to (f1), *AEMO* must:

(1)   determine an *intra-regional loss factor* in the *financial year* in which an *intra-regional loss factor* is to apply for a *transmission network connection point* which is established in that *financial year* in accordance with the procedure for establishing *connection* set out in rule 5.3, provided that *AEMO* did not determine an *intra-regional loss factor* for the *transmission network connection point* pursuant to clause 3.6.2(f1) in the *financial year* preceding that in which the *connection point* is established; or

(2)   revise an *intra-regional loss factor* in the *financial year* in which an *intra-regional loss factor* is to apply for a *transmission network connection point* which is modified in that *financial year* in accordance with the procedure for modifying *connection* set out in rule 5.3, provided that, in *AEMO's* reasonable opinion, the modification to that *connection point* results in a material change in the capacity of the *connection point*.

(j)   *AEMO* must, where required to determine an *intra-regional loss factor* for an established or modified *transmission network connection point* under clause 3.6.2(i), do so as far as practicable in accordance with the methodology *published* by *AEMO* pursuant to clause 3.6.2(d).

(k)   For the purposes of clause 3.6.2(j), the forecast *load* and *generation* data used to calculate an *intra-regional loss factor* for the *transmission network connection point* must be determined using the forecast *load* and *generation* data determined by *AEMO* under clause 3.6.2A for other *transmission network connection points* in the same *region* for that *financial year* adjusted to take into account the effect of the established or modified *connection point*. Notwithstanding this clause 3.6.2(k), *Registered Participants* must comply with their obligations with respect to the provision of information to *AEMO*, for the purpose of determining new or revised *intra-regional loss factors* for *connection points* that are established or modified during the *financial year* in which the *intra-regional loss factors* are to apply, specified by the methodology developed and *published* by *AEMO* under clause 3.6.2A.

(l)   In the case of a *connection point* that is established in the *financial year* in which an *intra-regional loss factor* is to apply:

(1)   an *intra-regional loss factor* determined by *AEMO* in accordance with clause 3.6.2(i) will apply from the time an *intra-regional loss factor* is determined and *published* by *AEMO*; and

(2)   *AEMO* must use reasonable endeavours to determine and *publish* an *intra-regional loss factor* at least 45 *business days* prior to the

commencement of operation of the established *connection point*, where the relevant *Registered Participants* comply with any applicable requirements and deadlines for the provision of information to *AEMO* specified by the methodology *published* by *AEMO* under clause 3.6.2A.

(m) In the case of a *connection point* that is modified in the *financial year* in which an *intra-regional loss factor* is to apply:

(1) an *intra-regional loss factor* determined by *AEMO* in accordance with clause 3.6.2(i) will apply from the date when the modification to the *connection point* takes effect; and

(2) *AEMO* must use reasonable endeavours to *publish* an *intra-regional loss factor* at least 45 *business days* prior to the date when the modification to the *connection point* takes effect, where the relevant *Registered Participants* comply with any applicable requirements and deadlines for the provision of information to *AEMO* specified by the methodology *published* by *AEMO* under clause 3.6.2A.

(n) For the avoidance of doubt, where *AEMO* determines an *intra-regional loss factor* for a *transmission network connection point* under clause 3.6.2(i), which is to apply in the *financial year* in which the *transmission network connection point* is established or modified, the *intra-regional loss factors* for all other *transmission network connection points* for that *financial year*, determined in accordance with clauses 3.6.2(a) to (g), must remain unchanged.

3.6.2A Load and generation data used to determine inter-regional loss factor equations and intra-regional loss factors

(a) *AEMO* must prepare *load* and *generation* data for each *financial year* to be used in both the determination of *inter-regional loss factor* equations under clause 3.6.1 and *intra-regional loss factors* under clause 3.6.2 in accordance with the methodology determined, *published* and maintained by *AEMO* for this purpose, under clause 3.6.2A(b).

(b) *AEMO* must determine, *publish* and maintain, in accordance with the *Rules consultation procedures*, a methodology for:

(1) forecasting the *load* and *generation* data to be used in both the determination of *inter-regional loss factor* equations and *intra-regional loss factors*, including new or revised *intra-regional loss factors* for *connection points* that are established or modified, respectively, during the *financial year* in which the *intra-regional loss factors* are to apply;

(2) modelling additional *load* and *generation* data, where required, to be used in determining *inter-regional loss factor* equations; and

(3)   the collection of relevant data from *Registered Participants*, including without limitation deadlines for the provision of that data by *Registered Participants*.

(c)   The methodology developed and *published* by *AEMO* under clause 3.6.2A(b) must specify information reasonably required by *AEMO* to fulfil its obligations under clause 3.6.2A, including without limitation historic *load* and *generation* data, forecast *energy* and *maximum demand* data for a *connection point* and forecast data for any new *loads*. In particular, the methodology must specify information to be provided by *Registered Participants* that is in addition to the information provided by those *Registered Participants* under other provisions of the *Rules*.

(d)   In preparing the methodology for forecasting and modelling *load* and *generation* data under clause 3.6.2A(b), *AEMO* must implement the following principles:

(1)   The forecast *load* and *generation* data must be representative of expected *load* and *generation* in the *financial year* in which the *inter-regional loss factor* equations or *intra-regional loss factors* are to apply having regard to:

(i)   actual *load* and *generation* data available for a 12 month period defined by the methodology with the objective to use the most recent *load* and *generation* data practicable;

(ii)   projected *load* growth between each calendar month to which the actual *load* and *generation* data referred to in clause 3.6.2A(d)(1)(i) relates and the same calendar month in the *financial year* for which the forecast *load* and *generation* data is determined; and

(iii)   the projected *network* configuration and projected *network* performance for the *financial year* in which the *inter-regional loss factor* equation or *intra-regional loss factor*, as the case may be, is to apply.

(2)   Additional modelled *load* and *generation* data sets must only be used:

(i)   in the determination of *inter-regional loss factor* equations under clause 3.6.1; and

(ii)   where the range of forecast *load* and *generation* data is not sufficient to derive *inter-regional loss factor* equations to apply over the full range of transfer capability of the *regulated interconnector*.

(e)   *Registered Participants* must comply with the obligations to provide information set out in the methodology developed and *published* by *AEMO* under this clause 3.6.2A, including the deadlines for the provision of that information and any other obligations with respect to the provision of that information set out in the methodology.

3.6.3 Distribution losses

(a) *Distribution losses* are *electrical energy losses* incurred in the conveyance of electricity over a *distribution network*.

(b) *Distribution loss factors*:

(1) notionally describe the *average electrical energy losses* for electricity transmitted on a *distribution network* between a *distribution network connection point* and a *transmission network connection point* or *virtual transmission node* for the financial year in which they apply;

(2) will be either:

(i) a site specific *distribution loss factor* derived in accordance with the methodology determined by the *AER* or the *Distribution Network Service Provider* pursuant to clause 3.6.3(h), for each *distribution network connection point* of the following types:

(A) a *connection point* for an *embedded generating unit* with actual *generation* of more than 10MW, based on the most recent data available for a consecutive 12 month period at the time of determining the *distribution loss factor*. Where relevant data is not available for a consecutive 12 month period as a *distribution network connection point* is newly established or has been modified, a *Network Service Provider* may determine whether an *embedded generating unit* has *generation* of more than 10MW, based on its best projection of *generation* in the *financial year* in which the *distribution loss factor* is to apply, taking into account the terms of the relevant *connection agreement*;

(B) a *connection point* for an end-user with actual or forecast *load* of more than 40GWh or an electrical demand of more than 10MW, based on the most recent data available for a consecutive 12 month period at the time of determining the *distribution loss factor*. Where relevant data is not available for a consecutive 12 month period as a *distribution network connection point* is newly established or has been modified, a *Network Service Provider* may determine whether an end-user has *load* of more than 40GWh or forecast *peak load* of more than 10MW, based on its best projection of *load* in the *financial year* in which the *distribution loss factor* is to apply, taking into account the terms of the relevant *connection agreement*;

(C) a *connection point* for a *Market Network Service Provider*; and

(D) a *connection point* between two or more *distribution networks*; or

(ii)   derived, in accordance with the methodology determined by the *AER* or the *Distribution Network Service Provider* pursuant to clause 3.6.3(h), using the volume weighted average of the *average electrical energy loss* between the *transmission network connection point* or *virtual transmission node* to which it is assigned and each *distribution network connection point* in the relevant *voltage* class (determined in accordance with clause 3.6.3(d)(2)) assigned to that *transmission network connection point* or *virtual transmission node*, for all *connection points* on a *distribution network* not of a type described in clause 3.6.3(b)(2)(i);

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(3)   are to be used in the settlement process as a notional adjustment to the electrical *energy*, expressed in MWh, flowing at a *distribution network connection point* in a *trading interval* to determine the *adjusted gross energy* amount for that *connection point* in that *trading interval*, in accordance with clause 3.15.4.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b1)   Where a *Generator*, or a *Small Generation Aggregator*, meets the reasonable cost of the *Distribution Network Service Provider* in performing the necessary calculation in respect of a *generating unit* of up to 10MW or 40GWh per annum capacity, the *Distribution Network Service Provider* must calculate a site specific *distribution loss factor* that, notwithstanding any other provision of the *Rules* to the contrary, for the purposes of the *Rules* is to apply in respect of that *generating unit* on the same basis as applies for a *generating unit* of more than 10MW or 40GWh per annum capacity as though the *generating unit* were a unit of more than 10MW or 40GWh per annum capacity.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c)   Each *Distribution Network Service Provider* must assign each *connection point* on its *distribution network*, of a type described in clause 3.6.3(b)(2)(i), to a single *transmission network connection point* taking into account normal *network* configurations and predominant *load* flows.

(d)   Each *Distribution Network Service Provider* must assign each *connection point* on its *distribution network*, not of a type described in clause 3.6.3(b)(2)(i):

   (1)   where practicable, to a single *transmission network connection point* or otherwise, to a *virtual transmission node*, taking into account normal network configurations and predominant *load* flows; and

   (2)   to a class of *distribution network connection points* based on the location of, *voltage* of and pattern of electrical *energy* flows at the *distribution network connection point*.

(e)   So far as practicable, the assignment of *connection points* on the *distribution network* to:

   (1)   *transmission network connection points* under clause 3.6.3(c); or

   (2)   *transmission network connection points* or *virtual transmission nodes* and a class of *distribution network connection points* under clause 3.6.3(d),

   must be consistent with the geographic boundaries of the *pricing zones* for use in *distribution service* pricing, and the *voltage* levels incorporated within those *pricing zones*.

(f)   The assignment of *connection points* on a *distribution network*:

   (1)   to a single *transmission network connection point* under clause 3.6.3(c); or

   Note

   This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

   (2)   to a *transmission network connection point* or *virtual transmission node* and a class of *distribution network connection points* under clause 3.6.3(d),

   is subject to the approval of the *AER* and the *Distribution Network Service Provider* must inform *AEMO* of such approved assignments.

(g)   *Distribution loss factors* must be determined by a *Distribution Network Service Provider* for all *connection points* on its *distribution network* either individually, for all connection points assigned to a single *transmission network connection point* under clause 3.6.3(c), or collectively, for all *connection points* assigned to a *transmission network connection point* or a *virtual transmission node* and a particular *distribution network connection point* class under clause 3.6.3(d), in accordance with:

   (1)   the methodology developed, *published* and maintained by the *AER* for the determination of *distribution loss factors*; or

(2)   where the *AER* has not *published* a methodology under clause 3.6.3(g)(1), the methodology developed, *published* and maintained by the *Distribution Network Service Provider* for the determination of *distribution loss factors*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(h)   The methodology for the determination of *distribution loss factors* referred to in clause 3.6.3(g) must be developed having regard to the following principles:

(1)   The aggregate of the *adjusted gross energy* amounts for a *distribution network*, determined in accordance with clause 3.15.4 using the *distribution loss factors* for the *financial year* in which the *distribution loss factors* are to apply should equal, as closely as is reasonably practicable, the sum of:

A.   the amount of electrical *energy*, expressed in MWh, flowing at all *connection points* in the *distribution network* in the *financial year* in which the *distribution loss factors* are to apply; and

B.   the total *electrical energy losses* incurred on the *distribution network* in the *financial year* in which the *distribution loss factors* are to apply.

(2)   The methodology used to determine *distribution loss factors* for a *financial year* should incorporate provisions requiring a *Distribution Network Service Provider* to undertake a reconciliation between the aggregate of the *adjusted gross energy* amounts for its *distribution network* for the previous *financial year* determined in accordance with clause 3.15.4 using the *distribution loss factors* that applied for *connection points* in that *distribution network* in the previous *financial year* and the sum of:

(i)   the amount of electrical *energy*, expressed in MWh flowing, at all *connection points* in its *distribution network* in the previous *financial year*; and

(ii)   the total *electrical energy losses* incurred on its *distribution network* in the previous *financial year*.

(3)   The *distribution loss factor* for a *distribution network connection point*, other than those described in clause 3.6.3(b)(2)(i), is determined using a volume weighted average of the *average electrical energy loss* between the *transmission network connection point* or *virtual transmission node* to which it is assigned and each *distribution network connection point* in the relevant class of *distribution network connection points* assigned to that *transmission network connection*

point or *virtual transmission node* for the *financial year* in which the *distribution loss factor* is to apply.

(4) The *distribution loss factor* for a *distribution network connection point* described in clause 3.6.3(b)(2)(i) is determined using the *average electrical energy loss* between the *distribution network connection point* and the *transmission network connection point* to which it is assigned in the *financial year* in which the *distribution loss factor* is to apply.

(5) In determining the *average electrical energy losses* referred to in clauses 3.6.3(h)(3) and (4), the *Distribution Network Service Provider* must use the most recent actual *load* and *generation* data available for a consecutive 12 month period but may adjust this *load* and *generation* data to take into account projected *load* and / or *generation* growth in the *financial year* in which the *distribution loss factors* are to apply.

(6) In determining *distribution loss factors*, flows in *network elements* that solely or principally provide *market network services* will be treated as invariant, as the methodology is not seeking to calculate the *marginal losses* within such *network elements*.

(i) Each year the *Distribution Network Service Provider* must determine the *distribution loss factors* to apply in the next *financial year* in accordance with clause 3.6.3(g) and provide these to *AEMO* for *publication* by 1 April. Before providing the *distribution loss factors* to *AEMO* for *publication*, the *Distribution Network Service Provider* must obtain the approval of the *AER* for the *distribution loss factors* it has determined for the next *financial year*.

3.6.4 Network constraints

(a) Conveyance of electricity between *regions* through a *regulated interconnector* is *constrained* when for operational reasons it is not acceptable for the *regulated interconnector* to transfer the level of electricity between *regions* that would be transferred if the limitation was removed and the condition impacts on the *dispatch* of other *regulated interconnectors*, *generation*, *scheduled network services* or *loads*.

(a1) Conveyance of electricity between *regions* by means of a *scheduled network service* is *constrained* when the *dispatch* of the relevant *scheduled network service* is limited by the notified available capacity or *ramp rate* and the limitation impacts on the *dispatch* of *generation*, *regulated interconnectors*, other *scheduled network services* or *loads*.

(b) Conveyance of electricity within a *region* is *constrained* when for operational reasons it is not acceptable for a *network* to transfer the level of electricity between different parts of the *region* that would be transferred if the limitation was removed and the condition impacts on the *dispatch* of *generation*, *scheduled network services* or *loads*.

(c)   For every *trading interval AEMO* must record any *constraints* including a description and the duration of the *constraint*.

(d)   Any *constraints* which occur within a *region* or between *regions* must be taken into account in the *dispatch* process under clause 3.8.10.

3.6.5   Settlements residue due to network losses and constraints

(a)   *Settlements residue* will be allocated, and distributed or recovered by *AEMO* in accordance with the following principles:

(1)   full effect is to be given to the *jurisdictional derogations* contained in Chapter 9 relating to *settlements residue*;

(2)   the portion of the *settlements residue* attributable to *regulated interconnectors* (as adjusted to take into account the effect of any applicable *jurisdictional derogations* referred to in subparagraph (1) will be distributed or recovered in accordance with rule 3.18;

(3)   the remaining *settlements residue*, including the portion of *settlements residue* due to *intra-regional loss factors*, will be distributed to or recovered from the appropriate *Transmission Network Service Providers* (which will not include *Market Network Service Providers*);

(3A)   **[Deleted]**

(4)   if the *settlements residue* arising in respect of a *trading interval*, after taking into account any relevant adjustment in accordance with clauses 5.7.7(aa)(3) or (ab), is a negative amount then, in respect of the *billing period* in which the negative *settlements residue* arises then:

(i)   *AEMO* must recover the amount from the appropriate *Transmission Network Service Provider* at a payment time, interval, and by a method, determined by *AEMO* following consultation with *Transmission Network Service Providers*. *AEMO* may determine that the appropriate *Transmission Network Service Provider* is to pay the negative *settlements residue* amount by a date prior to the date for payment of *final statements* under clause 3.15.16;

(ii)   the appropriate *Transmission Network Service Provider* must pay the negative *settlements residue* amount in accordance with *AEMO's* determination under subparagraph (4)(i);

(4A)   if interest costs are incurred by *AEMO* in relation to any unrecovered negative *settlements residue* amount referred to in subparagraph (4), then, in respect of the *billing period* in which the negative *settlements residue* arises then:

(i)   *AEMO* must recover the interest costs from the appropriate *Transmission Network Service Provider* at a payment time,

interval, and by a method, determined by *AEMO* following consultation with *Transmission Network Service Providers*. *AEMO* may determine that the appropriate *Transmission Network Service Provider* is to pay the interest cost amount by a date prior to the date for payment of *final statements* under clause 3.15.16; and

(ii) the appropriate *Transmission Network Service Provider* must pay the interest cost amount in accordance with *AEMO's* determination under subparagraph (4A)(i);

(4B) for the purposes of subparagraphs (3), (4) and (4A), the appropriate *Transmission Network Service Provider* is:

(i) in the case of *inter-regional settlements residue*:

(A) if there is more than one *Transmission Network Service Provider* in the importing region, the *Co-ordinating Network Service Provider*; or

(B) if there is no *Co-ordinating Network Service Provider* in the importing region, the *Transmission Network Service Provider* to which a *transmission determination* currently applies in that *region*;

(ii) in the case of *intra-regional settlements residue*:

(A) if there is more than one *Transmission Network Service Provider* in the *region*, the *Co-ordinating Network Service Provider*; or

(B) if there is no *Co-ordinating Network Service Provider* in the *region*, the *Transmission Network Service Provider* to which a *transmission determination* currently applies in that *region*;

(4C) **[Deleted]**

(4D) for the purposes of paragraph (4B), **importing region** means the *region* to which electricity is transferred during the relevant *trading interval* from another *region* through regulated *interconnecters*;

(5) for the purposes of the distribution or recovery of *settlements residue* that is attributable to *regulated interconnectors*:

(i) all of the *settlements residue* relating to electricity that is transferred from one *region* (the **exporting region**) to another *region* (the **importing region**) must be allocated to *Network Service Providers* in respect of a *network* located in the importing region (or part of a *network* located in the importing region);

(ii) the importing region must, in respect of the period from *market commencement* until the expiry date referred to in subparagraph (iv), pay a charge to the exporting region reflecting the extent of the use of a *network* located in the exporting region (or part of a *network* located in the exporting region) to transfer the electricity from the exporting region to the importing region;

(iii) the amount of the charge described in subparagraph (ii) must not exceed the amount of the *settlements residue* referred to in subparagraph (i), and must be agreed between the *participating jurisdictions* in which the importing region and the exporting region are located; and

(iv) the expiry date referred to in subparagraph (ii), means 1 July 2012 or the date of commencement of rules which make alternative provision in the *Rules* for inter-regional *settlements*, whichever is the earlier date; and

(6) any portion of *settlements residue* distributed to a *Network Service Provider* or amount paid on that portion under clause 3.15.10A (if any), or rule 3.18 to a *Network Service Provider*, including any such payments as adjusted by a *routine revised statement* or *special revised statement* issued under rule 3.15, net of any portion of *settlements residue* recovered from the *Network Service Provider* in accordance with clause 3.6.5(a)(4), will be used to offset *network service* charges.

(b) A *Transmission Network Service Provider* or its jurisdictional delegate is a *Market Participant* for the purposes of clause 3.3.1 and rule 3.15 (excluding clause 3.15.1(b)) but not otherwise.

(c) [**Deleted**]

3.7 Projected Assessment of System Adequacy

3.7.1 Administration of PASA

(a) *AEMO* must administer medium term and short term *projected assessment of system adequacy processes* to be known as *PASA*.

(b) The *PASA* is a comprehensive program of information collection, analysis, and disclosure of medium term and short term *power system security* and reliability of *supply* prospects so that *Registered Participants* are properly informed to enable them to make decisions about *supply*, demand and *outages* of *transmission networks* in respect of periods up to 2 years in advance.

(c) On a weekly basis *AEMO* must:

(1) collect and analyse information from all *Scheduled Generators*, *Market Customers*, *Transmission Network Service Providers* and *Market Network Service Providers* about their intentions for:

(i) *generation*, *transmission* and *market network service* maintenance scheduling;

(ii) intended *plant* availabilities;

(iii) *energy constraints*;

(iv) other *plant* conditions which could materially impact upon *power system security* and reliability of *supply*; and

(v) significant changes to *load* forecasts previously notified to *AEMO*,

for the following 24 months;

(2) prepare the *unconstrained intermittent generation forecasts* for the following 24 months; and

(3) following analysis and assessment of the information referred to subparagraphs (1) and (2), *publish* information that will:

(i) assist *Registered Participants* to plan any scheduled work on *plant*; and

(ii) inform the *market* of possible *power system security* and reliability of *supply* problems.

(d) *AEMO* must use its reasonable endeavours to ensure that it provides to *Registered Participants* sufficient information to allow *Registered Participants* to undertake maintenance and *outage* planning without violating *power system security* and reliability of *supply* and to allow the *market* to operate effectively with a minimal amount of intervention by *AEMO*.

3.7.2 Medium term PASA

(a) The *medium term PASA* covers the 24 month period commencing from the Sunday after the *day* of publication with a daily resolution. Every week, *AEMO* must review and *publish* the outputs of the *medium term PASA* in accordance with the *timetable*.

(b) *AEMO* may *publish* additional updated versions of the *medium term PASA* in the event of *changes* which, in the judgment of *AEMO*, are materially significant and should be communicated to *Registered Participants*.

(c) The following *medium term PASA inputs* are to be prepared by *AEMO*:

(1) forecast *load* information for each *region* which is:

(i) the 10% probability of exceedence daily *peak load*, most probable daily *peak load* and time of the peak on the basis of

> past trends, day type and special events including all forecast *scheduled load* and other *load* except for pumped storage *loads*;

> (ii) subsequently to be adjusted by an amount anticipated in the forecast as *scheduled load* by *load* bidders; and

> (iii) an indicative half hourly *load* profile for each day type for each *region* for each month of the year;

(2) *reserve* requirements determined in accordance with the *medium term capacity reserve standards*;

(3) forecast *network constraints* known to *AEMO* at the time;

(4) an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* for each *day*.

(d) The following *medium term PASA inputs* must be submitted by each relevant *Scheduled Generator* or *Market Participant* in accordance with the *timetable*:

(1) *PASA availability* of each *scheduled generating unit*, *scheduled load* or *scheduled network service* for each *day* taking into account the ambient weather conditions forecast at the time of the 10% probability of exceedence *peak load* (in the manner described in the procedure prepared under paragraph (g)); and

(2) weekly *energy constraints* applying to each *scheduled generating unit* or *scheduled load*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e) *Network Service Providers* must provide to *AEMO* an outline of planned *network outages* in accordance with the *timetable* and provide to *AEMO* any other information on planned *network outages* that is reasonably requested by *AEMO* to assist *AEMO* to meet its obligations under paragraph (f)(6).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) *AEMO* must prepare and *publish* the following information in respect of each *day* (unless otherwise specified in subparagraphs (1) to (6)) covered by the *medium term PASA* in accordance with clause 3.13.4(a):

(1) forecasts of the 10% probability of exceedence *peak load*, and most probable *peak load*, excluding the relevant aggregated MW allowance

referred to in subparagraph (2), and adjusted to make allowance for *scheduled load*;

(1A)   *reserve* requirements determined in accordance with the *medium term capacity reserve standards*;

(2)   the aggregated MW allowance (if any) to be made by *AEMO* for *generation* from *non-scheduled generating systems* in each of the forecasts of the 10% probability of exceedence *peak load* and most probable *peak load* referred to in subparagraph (1);

(3)   in respect of each of the forecasts of the 10% probability of exceedence *peak load* and most probable *peak load* referred to in subparagraph (1), a value that is the sum of that forecast and the relevant aggregated MW allowance referred to in subparagraph (2);

(4)   forecasts of the most probable weekly *energy* for each *region*;

(5)   aggregate *generating unit PASA availability* for each *region*;

(5A)   aggregate capacity for each *region*, after allowing for the impact of *network constraints*, that can be *generated* continuously, calculated by adding the following categories:

       (i)   the capacity of *scheduled generating units* in the *region* that are able to operate at the *PASA availability*; and

       (ii)   the forecast *generation* of *semi-scheduled generating units* in the *region* as provided by the *unconstrained intermittent generation forecasts*;

(5B)   aggregate capacity for each *region*, after allowing for the impact of *network constraints*, that cannot be *generated* continuously at the *PASA availability* of the *scheduled generating units* in the *region* due to specified weekly *energy constraints*; and

(6)   identification and quantification of:

       (i)   any projected *violations* of *power system security*;

       (ii)   any *days* on which *low reserve* or *lack of reserve* conditions are forecast to apply;

       (iii) where a projected *supply* deficit in one *region* can be supplemented by a surplus in another *region* (dependent on forecast *interconnector* transfer capabilities);

       (iv)   forecast *interconnector* transfer capabilities and the discrepancy between forecast *interconnector* transfer capabilities and the forecast capacity of the relevant *interconnector* in the absence of *outages* on the relevant *interconnector* only; and

(v) when and where *network constraints* may become binding on the *dispatch* of *generation* or *load*.

(g) *AEMO* must document the procedure it uses for preparation of the *medium term PASA* and make it available to all *Registered Participants* on a cost recovery basis.

3.7.3 Short term PASA

(a) The *short term PASA* must be *published* at least daily by *AEMO* in accordance with the *timetable*.

(b) The *short term PASA* covers the period of six *trading days* starting from the end of the *trading day* covered by the most recently *published pre-dispatch schedule* with a *trading interval* resolution.

(c) *AEMO* may *publish* additional updated versions of the *short term PASA* in the event of *changes* which, in the judgement of *AEMO*, are materially significant and should be communicated to *Registered Participants*.

(d) The following *short term PASA inputs* are to be prepared by *AEMO*:

(1) forecast *load* information for each *region* which is to include:

(i) the 10% probability of exceedence half-hourly *load* and most probable half hourly *load* on the basis of past trends, day type, and special events; and

(ii) all *scheduled load* and other *load* except for pumped storage *loads*,

which must subsequently be adjusted in accordance with *dispatch bids* for *scheduled load*;

(2) *reserve* requirements for each *region* determined in accordance with the *short term capacity reserve* standards;

(3) forecast *network constraints* known to *AEMO* at the time; and

(4) an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* for each *trading interval*.

(e) The following *short term PASA inputs* must be submitted by each relevant *Scheduled Generator* and *Market Participant* in accordance with the *timetable* and must represent the *Scheduled Generator's* or *Market Participant's* current intentions and best estimates:

(1) *available capacity* of each *scheduled generating unit*, *scheduled load* or *scheduled network service* for each *trading interval* under expected *market* conditions;

(2)   *PASA availability* of each *scheduled generating unit*, *scheduled load* or *scheduled network service* for each *trading interval*; and

(3)   [**Deleted**]

(4)   projected daily *energy* availability for *energy constrained scheduled generating units* and *energy constrained scheduled loads*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f)   If *AEMO* considers it reasonably necessary for adequate *power system* operation and the maintenance of *power system security* and reliability of *supply*, *Registered Participants* who may otherwise be exempted from providing inputs for the *PASA* process must do so to the extent specified by *AEMO*.

(g)   *Network Service Providers* must provide to *AEMO* an outline of planned *network outages* in accordance with the *timetable* and provide to *AEMO* any other information on planned *network outages* that is reasonably requested by *AEMO* to assist *AEMO* to meet its obligations under clause 3.7.3(h)(5).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(h)   *AEMO* must prepare and *publish* the following information for each *trading interval* (unless otherwise specified in subparagraphs (1) to (5)) in the period covered by the *short term PASA* in accordance with clause 3.13.4(c):

(1)   forecasts of the most probable *load* (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) plus *reserve* requirement (as determined under clause 3.7.3(d)(2)), adjusted to make allowance for *scheduled load*, for each *region*;

(2)   forecasts of *load* (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region* with 10% and 90% probability of exceedence;

(3)   forecasts of the most probable *energy* (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region* and *trading day*;

(4)   aggregate *generating unit* availability (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*;

(4AA)   aggregate capacity (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*, after

allowing for the impact of *network constraints*, that can be *generated* continuously, calculated by adding the following categories:

(i) the *available capacity* of *scheduled generating units* that are able to operate at the availability as notified to AEMO under paragraph (e)(1); and

(ii) the forecast *generation* of *semi-scheduled generating units* as provided by the *unconstrained intermittent generation forecasts*;

(4AB) aggregate capacity (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*, after allowing for the impact of *network constraints*, that cannot be *generated* continuously at the *available capacity* referred to in subparagraph (4AA)(i) due to specified daily *energy constraints*; and

(4A) aggregate *generating unit PASA availability* (excluding the relevant aggregated MW allowance referred to in subparagraph (4B)) for each *region*;

(4B) the aggregated MW allowance (if any) to be made by *AEMO* for generation from *non-scheduled generating systems* in each forecast:

(i) of the most probable *load* referred to in clause 3.7.3(h)(1); and

(ii) referred to in clauses 3.7.3(h)(2), (3), (4), (4A), (4AA) and (4AB);

(4C) in respect of each forecast:

(i) of the most probable *load* referred to in clause 3.7.3(h)(1);

(ii) referred to in clauses 3.7.3(h)(2), (3), (4) , (4A), (4AA) and (4AB),

a value that is the sum of that forecast and the relevant aggregated MW allowance (if any) referred to in clause 3.7.3(4B); and

(5) identification and quantification of:

(i) any projected *violations* of *power system security*;

(ii) any *trading intervals* for which *low reserve* or *lack of reserve* conditions are forecast to apply;

(iii) where a projected *supply* deficit in one *region* can be supplemented by a surplus in another *region* (dependent on forecast *interconnector* transfer capabilities);

(iv) forecast *interconnector* transfer capabilities and the discrepancy between forecast *interconnector* transfer capabilities and the

> forecast capacity of the relevant *interconnector* in the absence of outages on the relevant *interconnector* only; and

> > (v) when and where *network constraints* may become binding on the *dispatch* of *generation* or *load*.

(i) In the event that in performing the *short term PASA AEMO* identifies any projected *low reserve* or *lack of reserve* conditions in respect of a *participating jurisdiction*, then *AEMO* must use its reasonable endeavours to advise the *Jurisdictional System Security Coordinator* for that *participating jurisdiction* of any potential requirements during such conditions to shed *sensitive loads*.

(j) *AEMO* must document the procedure it uses for preparation of the *short term PASA* and make it available to all *Registered Participants* on a cost recovery basis.

3.7A Congestion information resource

(a) The objective of the *congestion information resource* is to provide information in a cost effective manner to *Registered Participants* to enable them to understand patterns of *network* congestion and make projections of *market* outcomes in the presence of *network* congestion (the *congestion information resource objective*).

Development of congestion information resource

(b) To implement the *congestion information resource objective*, *AEMO* must develop and *publish*, in accordance with this rule 3.7A, an information resource comprising:

> (1) information on *planned network events* that are likely to materially affect *network constraints* in relation to a *transmission system*;

> (2) historical data on *mis-pricing* at *transmission network* nodes in the *national electricity market*; and

> (3) any other information that *AEMO*, in its reasonable opinion, considers relevant to implement the *congestion information resource objective*,

which is to be known as the *congestion information resource.*

(c) The *congestion information resource* must contain at least the same level of detail as is required to be included in the interim congestion information resource *published* under clause 11.30.2

Note

This rule is classified as a civil penalty provision under the National Electricity (South Australia) Regulations.

(d) *AEMO* must develop, and amend from time to time, the *congestion information resource*:

(1) consistently with the *congestion information resource objective*;

(2) in accordance with the *congestion information resource guidelines*; and

(3) to incorporate any new, or amend any existing, aspect of the *congestion information resource* where *AEMO* forms the view that such an amendment will improve the implementation of the *congestion information resource objective*

(e) Subject to paragraph (f), *AEMO* must update and *publish* the information contained in the *congestion information resource* (whether in whole or in part) at intervals to be determined by *AEMO* in accordance with the *congestion information resource guidelines.*

(f) The intervals determined by *AEMO* for updating and *publishing* the *congestion information resource* must be included in the *timetable*.

(g) If there has been a material change to the information contained in the *congestion information resource* and *AEMO* considers *Registered Participants* require the new information prior to the next periodic update of the *congestion information resource* in accordance with paragraph (e), *AEMO* may provide *Market Participants* with the new information in accordance with the *congestion information resource guidelines.*

(h) *AEMO* must *publish* the first *congestion information resource* by 1 September 2011 and there must be a *congestion information resource* available at all times after that date.

(i) For the purpose of *publishing* the first *congestion information resource* under paragraph (b), *AEMO* may, subject to paragraph (d), *publish* the interim *congestion information resource* referred to in clause 11.30.2, as the first *congestion information resource*, in whole or in part.

(j) *AEMO* must not *publish confidential information* as part of, or in connection with, the *congestion information resource*

Congestion information resource guidelines

(k) *AEMO* must develop and *publish* guidelines (the *congestion information resource guidelines*) in relation to:

(1) the categories of information to be contained in the *congestion information resource* including the source of that information;

(2) the scope and type of information to be provided by *Transmission Network Service Providers* in accordance with paragraphs (n) and (o);

(3) the processes to be implemented by *AEMO* to obtain the information from *Transmission Network Service Providers* in accordance with paragraphs (n) and (o);

(4) the determination of the intervals for updating and *publishing* the *congestion information resource* under paragraph (e); and

(5) the processes to be implemented by *AEMO* for providing *Registered Participants* with information under paragraph (g).

(l) *AEMO* must develop and *publish* the first *congestion information resource guidelines* in accordance with the *Rules consultation procedures* by 1 September 2010 and there must be a set of *congestion information resource guidelines* available and up to date at all times after that date.

(m) *AEMO* must amend the *congestion information resource guidelines* in accordance with the *Rules consultation procedures*.

Information of Transmission Network Service Providers

(n) In addition to the obligations imposed on *Transmission Network Service Providers* by rule 3.7, *Transmission Network Service Providers* must provide *AEMO* with the information specified in the *congestion information resource guidelines* as information that is to be provided by them:

(1) in a form which clearly identifies *confidential information*; and

(2) in accordance with the *congestion information resource guidelines.*

(o) If there has been a material change to the information provided by a *Transmission Network Service Provider* under paragraph (n), the *Transmission Network Service Provider* must provide *AEMO* with the revised information as soon as practicable.

(p) Information contained in the *congestion information resource* which has been provided by, or has been derived from information provided by, a *Transmission Network Service Provider* under this rule 3.7A:

(1) must represent the *Transmission Network Service Provider's* current intentions and best estimates regarding *planned network events* at the time the information is made available;

(2) does not bind the *Transmission Network Service Provider* to comply with an advised *outage* program; and

(3) may be subject to change due to unforeseen circumstances outside the control of the *Transmission Network Service Provider*.

3.7B   Unconstrained intermittent generation forecast

(a) *AEMO* must prepare a forecast of the *available capacity* of each *semi-scheduled generating unit* (to be known as an *unconstrained intermittent generation forecast*) in accordance with this rule 3.7B for the purposes of:

(1) the *projected assessment of system adequacy process*;

(2)   *dispatch*; and

(3)   *pre-dispatch*.

(b)   A *Semi-Scheduled Generator* must:

(1)   submit to *AEMO*, in accordance with the *timetable*, the *plant availability* for each *semi-scheduled generating unit* for the purpose of paragraph (a) as soon as the *Semi-Scheduled Generator* becomes aware that the *plant availability* of the unit is at least 6MW below or above the *nameplate rating* of the unit; and

(2)   where the *Semi-Scheduled Generator* has submitted *plant availability* in accordance with subparagraph (1), notify *AEMO* in accordance with the *timetable* as soon as the *Semi-Scheduled Generator* becomes aware of any changes to the *plant availability* of that *semi-scheduled generating unit* until such time as the *plant availability* of that *semi-scheduled generating unit* is no longer at least 6MW below or above the *nameplate rating* of the unit.

Note

This rule is classified as a civil penalty provision under the National Electricity (South Australia) Regulations.

(c)   When preparing an *unconstrained intermittent generation forecast* for the purposes referred to in paragraph (a), *AEMO* must take into account:

(1)   the maximum *generation* of the *semi-scheduled generating unit* provided by the *Semi-Scheduled Generator* as part of its *bid and offer validation data*;

(2)   the *plant availability* of the *semi-scheduled generating unit* submitted by the *Semi-Scheduled Generator* under paragraph (b);

(3)   the information obtained for the *semi-scheduled generating unit* from the *remote monitoring equipment* specified in clause S5.2.6.1;

(4)   the forecasts of the energy available for input into the electrical power conversion process for each *semi-scheduled generating unit*;

(5)   the *energy conversion model* for each *semi-scheduled generating unit*;

(6)   the assumption that there are no *network constraints* otherwise affecting the *generation* from that *semi-scheduled generating unit*; and

(7)   the timeframes of:

(i)   *pre-dispatch*;

(ii)   *dispatch*,

(iii) *medium term PASA*; and

     (iv)   *short term PASA*.

(d)   *NEMMCO* must prepare the first *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* by 31 March 2009 and there must be an *unconstrained intermittent generation forecast* for each *semi-scheduled generating unit* available at all times after that date.

3.7C   Energy Adequacy Assessment Projection

Purpose of EAAP

(a)   The purpose of the *energy adequacy assessment projection* (or *EAAP*) is to make available to *Market Participants* and other interested persons an analysis that quantifies the impact of *energy constraints* on *energy* availability over a 24 month period under a range of scenarios.

EAAP principles

(b)   The *EAAP* must:

    (1)   cover a 24 month period, commencing on the day the *EAAP* is *published* under this rule 3.7C;

    (2)   be *published* every three months;

    (3)   provide a probabilistic assessment of projected *energy* availability for each *region*;

    (4)   provide projected *unserved energy* levels for each *region* with a monthly resolution;

    (5)   provide aggregated information on the adequacy of *energy* availability for each scenario that *AEMO* defines for the purposes of the *EAAP*, based on information received from *Registered Participants* and on anticipated *power system* constraints;

    (6)   take into account:

       (A)   where relevant, the information and *medium term PASA* inputs referred to in clauses 3.7.1 and 3.7.2;

       (B)   where relevant, the matters *AEMO* considers in, and for the purposes of, preparing the *NTNDP*;

       (C)   *Generator Energy Limitation Frameworks* provided in accordance with paragraph (g), including *GELFs* that apply to more than one *scheduled generating unit* under clause 3.7C(k)(6) where those *GELFs* adequately represent the relevant *generating units*; and

(D) *GELF parameters* for each *GELF* which are provided in accordance with the *EAAP guidelines* and are updated in accordance with the *timetable*.

(c) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP*.

Administration of EAAP

(d) *AEMO* must *publish* the *EAAP* every three months in accordance with the *timetable* and the first *EAAP* must be published by 31 March 2010.

(e) For the purposes of preparing the *EAAP*, a *Scheduled Generator* must provide *AEMO* with the following information in accordance with the *timetable*:

(1) updated *GELF parameters* for each *GELF* provided by it in accordance with paragraph (g); and

(2) other information that supplements the data provided under subparagraph (1) that is reasonably required by *AEMO* to study the scenarios defined in the *EAAP guidelines*.

(f) In considering whether information referred to in subparagraph (e)(2) is reasonably required, *AEMO* must have regard to the likely costs that may be incurred by the *Scheduled Generator* in preparing and providing that information compared to the likely benefits from the use of that information for the purposes of the *EAAP*.

Generator Energy Limitation Framework

(g) A *Scheduled Generator* must prepare and submit to *AEMO*, in accordance with the *EAAP guidelines* and for the purposes of the *EAAP*, a description of the *energy constraints* that affect the ability of each of its *scheduled generating units* to generate electricity (*GELF* or *Generator Energy Limitation Framework*). The *GELF* must be in a form that adequately represents that *generating unit* sufficient for *AEMO* to include the *GELF* in the *EAAP*.

(h) A *GELF* submitted under paragraph (g) must be supplemented by *GELF parameters* for that *GELF* as defined in the *EAAP guidelines*, and those parameters must be updated every three months in accordance with the *timetable*.

(i) Where a *Scheduled Generator* has submitted a *GELF* under paragraph (g) and there has been a material *change* to any of its *scheduled generating units* which has an impact on the *energy constraints* associated with that *GELF*, the *Scheduled Generator* must revise and re-submit the *GELF* in accordance with that paragraph.

(j) Subject to paragraph (r), a *GELF* or information provided in relation to a *GELF* to *AEMO* must be treated by *AEMO* as *confidential information*.

EAAP guidelines

(k) *AEMO* must develop and *publish* guidelines (the *EAAP guidelines*) that:

    (1) define scenarios that *AEMO* must study in preparing the *EAAP*;

    (2) define modelling assumptions for the *EAAP*;

    (3) define the components of a *GELF* that a *Scheduled Generator* must include in a *GELF* submitted under paragraph (g);

    (4) provide detail on the forms of the *GELF* sufficient for a *Scheduled Generator* to meet the requirements of paragraph (g);

    (5) define variable parameters specific to a *GELF* (*GELF parameters*) that are likely to have a material impact on the *GELF* and therefore the *EAAP*, and which may include, but are not limited to, parameters in relation to:

        (i) hydro storage including pump storage;

        (ii) thermal generation fuel;

        (iii) cooling water availability; and

        (iv) gas supply limitations;

    (6) define circumstances where a *GELF* submitted under paragraph (g) can apply to a collection of *scheduled generating units* that face common *energy constraints* due to their geographic location, access to fuel source or another similar reason;

    (7) define the form of information to be submitted by each *Scheduled Generator* in accordance with paragraph (e); and

    (8) define arrangements for managing the confidentiality of information submitted to *AEMO* under this rule 3.7C.

(l) The scenarios that are defined for the purposes of subparagraph (k)(1) may include, but are not limited to:

    (1) water conditions such as normal rainfall and drought;

    (2) material restrictions on the supply of a significant fuel source;

    (3) other limits on a fuel source for a major form of generation; and

    (4) any other scenario that *AEMO* reasonably considers will have a material impact on the *EAAP*.

(m) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP guidelines*.

(n)   *AEMO* must comply with the *EAAP guidelines* in preparing the *EAAP*.

(o)   *AEMO* must develop and *publish* the *EAAP guidelines* in accordance with the *Rules consultation procedures*.

(p)   *NEMMCO* must develop and *publish* the first *EAAP guidelines* by 30 June 2009 and there must be a set of *EAAP guidelines* available at all times after that date.

(q)   *AEMO* may from time to time in accordance with the *Rules consultation procedures* amend or replace the *EAAP guidelines*.

Provision of information to Scheduled Generators

(r)   *AEMO* must provide to each *Scheduled Generator*, based on the relevant *GELF*, an estimate of the total *energy* production of the *scheduled generating units* of that *Scheduled Generator* for the period of the *EAAP*.

Review

(s)   The *Reliability Panel* must conduct a review of the operation of this rule 3.7C by no later than the end of the third year after the *publication* of the first *EAAP*.

3.8   Central Dispatch and Spot Market Operation

3.8.1   Central Dispatch

(a)   *AEMO* must operate a *central dispatch* process to *dispatch scheduled generating units*, *semi-scheduled generating units*, *scheduled loads*, *scheduled network services* and *market ancillary services* in order to balance *power system supply* and demand, using its reasonable endeavours to maintain *power system security* in accordance with Chapter 4 and to maximise the value of *spot market* trading on the basis of *dispatch offers* and *dispatch bids*.

(b)   The *central dispatch* process should aim to maximise the value of *spot market* trading i.e. to maximise the value of *dispatched load* based on *dispatch bids* less the combined cost of *dispatched generation* based on *generation dispatch offers*, *dispatched network services* based on *network dispatch offers*, and *dispatched market ancillary services* based on *market ancillary service offers* subject to:

(1)   *dispatch offers*, *dispatch bids* and *market ancillary service offers*;

(2)   *constraints*:

(i)   due to availability and *commitment*; or

(ii)   in the case of *semi-scheduling generating units*, identified by the *unconstrained intermittent generation forecast*;

(3) *non-scheduled load* requirements in each *region*;

(4) *power system security* requirements determined as described in Chapter 4 and the *power system security and reliability standards*;

(5) *network constraints*;

(6) *intra-regional losses* and *inter-regional losses*;

(7) *constraints* consistent with *dispatch bid* and *dispatch offer* data;

(8) current levels of *dispatched generation*, *load* and *market network services*;

(9) *constraints* imposed by *ancillary services* requirements;

(10) arrangements designed to ensure pro-rata loading of tied *dispatch bid* and *dispatch offer* data data;

(11) ensuring that as far as reasonably practical, in relation to a *AEMO intervention event*:

(A) the number of *Affected Participants*; and

(B) the effect on *interconnector* flows,

is minimised; and

(12) the management of negative *settlements residue*, in accordance with clause 3.8.10 and any guidelines issued by *AEMO* under clause 3.8.10(c).

(c) *AEMO* must establish procedures to allow relaxation of *power system constraints* listed in clause 3.8.1(b) in order to resolve infeasible *dispatch* solutions, subject to the following principles:

(1) the procedures are developed in consultation with *Registered Participants* to achieve a reasonable *dispatch* outcome while maintaining consistency with *AEMO's* obligations to maintain *power system security* and the pricing principles listed in clause 3.9.1; and

(2) *AEMO* must report to *Registered Participants* any events requiring the relaxation of these *constraints*.

(d) *AEMO* must develop and *publish* a *dispatch algorithm* to be used by *AEMO* for the purpose of *central dispatch* and pricing in accordance with rules 3.8 and 3.9.

(e) *AEMO* must use the *dispatch algorithm* to determine the *loading level* in MW for each *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* in each *dispatch interval* in accordance with the principles set out in clause 3.8.1(b).

(e1)   *AEMO* must use the *dispatch algorithm* to determine the quantity of each *market ancillary service* which will be *enabled* for each *ancillary service generating unit* or *ancillary service load*.

(e2)   When *AEMO* determines the quantity of each *market ancillary service* which will be *enabled*, *AEMO* must determine:

(1)   the required quantity of each *market ancillary service* that may be sourced from any *region* (referred to as the *global market ancillary service requirement*); and

(2)   any required quantity of such *market ancillary service* which must only be sourced from one or more nominated *regions* (referred to as a *local market ancillary service requirement*).

(f)   *AEMO* may investigate from time to time:

(1)   the scope for further development of the *dispatch algorithm* beyond the minimum requirements specified in clause 3.8.1(b); and

(2)   the sufficiency of the *dispatch algorithm* in meeting the minimum requirements specified in clause 3.8.1(b),

and following compliance with the *Rules consultation procedures*, *publish* a report setting out its recommendations.

3.8.2   Participation in central dispatch

(a)   A *Generator* must submit *generation dispatch offers* in respect of its *scheduled generating units* or *semi-scheduled generating units* (as the case may be) for each *trading day* in accordance with clause 3.8.6.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b)   *Generation dispatch offers* for a *scheduled generating unit* must include a specified *self-dispatch level* and may include prices and MW quantities for increased or decreased levels of *generation* above or below this *self-dispatch level*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b1)   A *Scheduled Network Service Provider* must submit *network dispatch offers* in respect of each of its *scheduled network services* for each *trading day* in accordance with clause 3.8.6A.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c)   Subject to clause 3.8.2(d), *dispatch bids* may be submitted by *Market Participants* in respect of *scheduled loads*, in accordance with clause 3.8.7, and may specify prices and MW quantities for any *trading interval* either for reductions or increases in *load*.

(c1)   *Market ancillary service offers* may be submitted by *Ancillary Service Providers* in respect of *market ancillary services* in accordance with clause 3.8.7A.

(d)   *Dispatch bids* and *market ancillary service offers* will only be included in the *central dispatch* process by *AEMO* if it is satisfied that adequate communication and/or telemetry is available to support the issuing of *dispatch instructions* and the audit of responses.

(e)   If *AEMO* considers it reasonably necessary for adequate system operation and the maintenance of *power system security*, *Registered Participants* who may otherwise be exempted from participating in the *central dispatch* process must do so to the extent and in the capacity specified by *AEMO*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.8.3   Bid and offer aggregation guidelines

(a)   *Scheduled Generators*, *Semi-Scheduled Generators* or *Market Participants* who wish to aggregate their relevant *generating units*, *scheduled network services* or *scheduled loads* for the purpose of *central dispatch* must apply to *AEMO* to do so.

(a1)   *Market Customers* who wish to aggregate their *market loads* as *ancillary service loads* for the purpose of *central dispatch* must apply to the *AEMO* to do so.

(b)   *AEMO* must approve applications for aggregation made under paragraph (a) if the following conditions are fulfilled:

    (1)   aggregated *generating units* or *loads* must be:

        (i)   *connected* at a single site with the same *intra-regional loss factor* or, if two *intra-regional loss factors* are determined for the site under clause 3.6.2(b)(2), the same two *intra-regional loss factors*; and

        (ii)   operated by a single *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant*;

(2)   aggregated *scheduled network services* must be *connected* at the same two sites, have the same *intra-regional loss factors*, have the same *distribution loss factors* where applicable and be operated by the same *Generator* or *Market Participant*;

(3)   *power system security* must not be materially affected by the proposed aggregation; and

(4)   *control systems* such as *automatic generation control systems* must satisfy the *Rules* after aggregating.

(b1)   *AEMO* must approve applications for aggregation made under paragraph (a1) if the following conditions are fulfilled:

(1)   aggregated *ancillary services loads* must be *connected* within a single *region* and be operated by a single *Market Customer*;

(2)   *power system security* must not be materially affected by the proposed aggregation; and

(3)   *control systems* must satisfy the requirements of clause 2.3.5(e) after aggregating.

(c)   Notwithstanding that one or more of the conditions set out in paragraph (b) may not have been fulfilled by the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant*, *AEMO* may approve an application for aggregation provided that such aggregation would not materially distort *central dispatch*.

(d)   Subject to paragraph (f), for the purposes of Chapter 3 (except rule 3.7B) and rule 4.9, a reference to a *generating unit*, *scheduled load* and *scheduled network service* is only taken as a reference to aggregated *generating units*, aggregated *scheduled network services* and aggregated *scheduled loads* aggregated in accordance with this clause 3.8.3.

(e)   *AEMO* must evaluate applications for aggregation and reply within 20 *business days* of receipt of the application setting out whether the application is to be approved and the conditions that apply to the proposed approval.

(f)   *Scheduled Generators* and *Market Participants* that have been granted aggregated status must, if required by *AEMO*, declare individual *scheduled generating unit*, *scheduled network service* or *scheduled load* availability and operating status to *AEMO* in the *PASA* process under rule 3.7 to allow *power system security* to be effectively monitored.

(g)   If a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant's* application for aggregation is denied by *AEMO*, *AEMO* must provide that applicant with reasons for that denial.

(h)   *AEMO* must maintain a database of aggregated *scheduled generating units*, *semi-scheduled generating units*, *scheduled network services*, *scheduled loads* and *ancillary services loads* and their components.

(i)   For the avoidance of doubt, *semi-scheduled generating units* which are registered as a single *semi-scheduled generating unit* under clause 2.2.7 are not aggregated *semi-scheduled generating units* for the purposes of Chapter 3 and rule 4.9.

3.8.3A   Ramp rates

(a)   This clause 3.8.3A applies to a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* with *generating units*, *scheduled network services* and/or *scheduled loads* providing *ramp rates* to *AEMO* in accordance with the following clauses:

    (1)   with respect to notification of scheduled capacity prior to *dispatch*:

        (i)   clause 3.8.4(c);

        (ii)   clause 3.8.4(e);

        (iii)   clause 3.8.4(d);

    (2)   with respect to offers for *dispatch*:

        (i)   clause 3.8.6(a)(2);

        (ii)   clause 3.8.6(g);

        (iii)   clause 3.8.6A(b);

        (iv)   clause 3.8.7(c); and

    (3)   with respect to *rebids*, clause 3.8.22(b)

(b)   Subject to clauses 3.8.3A(c) and 3.8.3A(i), a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* to which this clause 3.8.3A applies must provide an up *ramp rate* and a down *ramp rate* to *AEMO* for each *generating unit*, *scheduled network service* and/or *scheduled load* that is:

    (1)   at least:

        (i)   3MW/minute in the case of a *scheduled network service* or *scheduled load*; or

        (ii)   the lower of:

             (A)   3MW/minute or 3% of the maximum *generation* in the case of a *scheduled generating unit*; or

(B)   3MW/minute or 3% of the maximum *generation* in the case of a *semi-scheduled generating unit*,

provided in accordance with clause 3.13.3(b), expressed as MW/minute rounded down to the nearest whole number except where this would result in the nearest whole number being zero, in which case the up *ramp rate* and/or down *ramp rate* is deemed to be 1 MW/minute; and

(2)   at most the relevant *maximum ramp rate* provided in accordance with clause 3.13.3(b).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c)   A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* to which this clause 3.8.3A applies may provide a *ramp rate* to *AEMO* that is less than that specified in clause 3.8.3A(b)(1) if the *ramp rate* is affected by an event or other occurrence that:

(1)   physically prevents the relevant *generating unit*, *scheduled load* or *scheduled network service* from attaining a *ramp rate* of at least that specified in clause 3.8.3A(b)(1); or

(2)   makes it unsafe for the relevant *generating unit*, *scheduled load* or *scheduled network service* to operate at a *ramp rate* of at least that specified in clause 3.8.3A(b)(1),

for the period of time in which the *ramp rate* is so affected by that event or other occurrence.

(d)   If a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* to which this clause 3.8.3A applies provides a *ramp rate* that is less than that specified in clause 3.8.3A(b)(1), it must provide a *ramp rate* to *AEMO* that is the maximum the relevant *generating unit*, *scheduled load* or *scheduled network service* can safely attain at that time.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e)   If a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* to which this clause 3.8.3A applies provides a *ramp rate* that is less than that specified in clause 3.8.3A(b)(1), it must simultaneously provide *AEMO* with a brief, verifiable and specific reason why the *ramp rate* is below that specified in clause 3.8.3A(b)(1).

(f)   The *AER* may require, upon written request, the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* to provide such additional

information as it may require from time to time to substantiate and verify the reason provided in clause 3.8.3A(e).

(g)   The *AER* must exercise its powers under clause 3.8.3A(f) in accordance with any guidelines issued by the *AER* from time to time in accordance with the *Rules consultation procedures*.

(h)   If a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* to which this clause 3.8.3A applies provides a *maximum ramp rate* in accordance with clause 3.13.3(b) of less than that specified in clause 3.8.3A(b)(1), it must provide *AEMO* with a brief, verifiable and specific reason why the *ramp rate* is below that specified in clause 3.8.3A(b)(1).

(i)   Clauses 3.8.3A(b), 3.8.3A(c) and 3.8.3A(e) do not apply to a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* to which this clause 3.8.3A applies if:

(1)   it has provided a *maximum ramp rate* in accordance with clause 3.13.3(b) which is less than that specified in clause 3.8.3A(b)(1); and

(2)   it has notified *AEMO* of this in accordance with clause 3.8.3A(h).

(j)   In addition to the obligations in clause 3.8.3A(d), if clause 3.8.3A(i) applies, the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must only provide *ramp rates* that are, at most, the *maximum ramp rate* for the relevant *generating unit*, *scheduled load* or *scheduled network service* in accordance with clause 3.13.3(b).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.8.4   Notification of scheduled capacity

All *Scheduled Generators* and *Market Participants* with *scheduled generating units*, *scheduled network services* and/or *scheduled loads* must inform *AEMO* of their available capacity as follows in accordance with the *timetable*:

(a)   *Scheduled Generators* and *Market Participants* must notify *AEMO* of the available capacity of each *scheduled generating unit*, *scheduled network service* and/or *scheduled load* for each *trading interval* of the *trading day*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b)   subsequent *changes* may only be made to the information provided under clause 3.8.4(c), (d) and (e) in accordance with clause 3.8.22;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c)   for *Scheduled Generators*, two *days* ahead of each *trading day*:

(1)   a MW capacity profile that specifies the MW available for each of the 48 *trading intervals* in the *trading day*;

(2)   estimated *commitment* or *decommitment* times;

(3)   daily *energy* availability for *energy constrained generating units*; and

(4)   an up *ramp rate* and a down *ramp rate*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d)   for *scheduled loads*, two *days* ahead of each *trading day*:

(1)   a MW capacity profile that specifies the MW available for *dispatch* for each of the 48 *trading intervals* in the *trading day*;

(2)   daily *energy* availability for *energy constrained scheduled load*; and

(3)   an up *ramp rate* and a down *ramp rate*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(e)   for *scheduled network services*, two *days* ahead of each *trading day*:

(1)   a MW capacity profile that specifies the *power transfer capability* in each direction available for each of the 48 *trading intervals* in the *trading day*; and

(2)   an up *ramp rate* and a down *ramp rate*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.8.5 Submission timing

(a) To be valid for inclusion in the *central dispatch* process, a *dispatch bid* or *dispatch offer* or *market ancillary service offer* must be submitted according to the *timetable*.

(b) Subject to clause 3.8.22, changes to the:

    (1) MW quantities in the *dispatch bids*;

    (2) MW quantities and *off-loading prices* in the *generation dispatch offers*; and

    (3) MW quantities in the *network dispatch offers*,

may be made after the relevant deadline in the *timetable*.

(c) The submission of *dispatch bids*, *dispatch offers* and *market ancillary service offers* to *AEMO* must be made using the *electronic communication system* unless otherwise approved by *AEMO*.

3.8.6 Generating unit offers for dispatch

Scheduled Generator

(a) A *Scheduled Generator's dispatch offer* must:

    (1) contain its intended *self-dispatch level* for each *trading interval*, and may contain up to 10 *price bands* which may be for:

        (i) possible *dispatch* above the intended *self-dispatch level*; or

        (ii) possible *off-loading* below the intended *self-dispatch level*,

    by *dispatch instruction*;

    (2) specify for each of the 48 *trading intervals* in the *trading day*:

        (i) a MW capacity for the intended *self-dispatch level*;

        (ii) an incremental MW amount for each *price band* specified in the *dispatch offer*; and

        (iii) an up *ramp rate* and a down *ramp rate*;

    (3) where the offer specifies a *self-dispatch level* of more than zero, specify at least one *price band* for *off-loading* below the intended *self-dispatch level* and the total MW quantity in *price bands* specified for *off-loading* in each *trading interval* must equal the MW quantity of the *self-dispatch level* for that *trading interval* to enable possible *off-loading* to a zero *dispatch* level; and

(4)   specify a *loading price* or an *off-loading price* for each *price band* specified in the *dispatch offer*, in dollars and whole cents per MWh, and this price is to apply to the *price band* throughout the *trading day*.

(b)   A *Scheduled Generator's dispatch offer* may specify the daily *energy* available for *energy constrained scheduled generating units*.

(c)   A *Scheduled Generator's loading prices* offered must be equal to or greater than $0/MWh and may not exceed the product of the *market price cap* multiplied by the relevant *intra-regional loss factor* at the *Scheduled Generator's transmission network connection point* for the *scheduled generating unit*.

(d)   A *loading price* of a *Scheduled Generator* specified for a *price band* is to be interpreted as the minimum price at which up to the specified MW increment is to be loaded in the *central dispatch* process.

(e)   A *Scheduled Generator's off-loading prices* must be less than $0/MWh, that is, negative in sign and may not be less than the product of the *market floor price* multiplied by the relevant *intra-regional loss factor* at the *Scheduled Generator's transmission network connection point* for the *scheduled generating unit*.

(f)   An *off-loading price* of a *Scheduled Generator* specified for a *price band* is to be interpreted as the maximum price payable to *AEMO* by the *Scheduled Generator* in respect of the *generating unit's sent out generation* with the *generating unit's* output reduced below its specified *self-dispatch level* in the *central dispatch* process by an amount less than the specified MW increment.

Semi-Scheduled Generator

(g)   A *Semi-Scheduled Generator's dispatch offer* may contain up to 10 *price bands* and must specify for each of the 48 *trading intervals* in the *trading day*:

(1)   an incremental MW amount for each *price band* specified in the *dispatch offer*; and

(2)   an up *ramp rate* and a down *ramp rate*.

Semi-Scheduled and Scheduled Generators

(h)   A *dispatch offer* of a *Semi-Scheduled Generator* or *Scheduled Generator* must meet the following requirements:

(1)   the MW quantities specified are to apply at the terminals of the *semi-scheduled generating unit* or *scheduled generating unit* or, with *AEMO's* agreement, at any other point in the relevant *Generator's* electrical installation or on the *network*;

(2) prices specified for each *price band* specified in the *dispatch offer* must increase monotonically with an increase in available MWs;

(3) prices specified are to apply at the *connection point* of the *semi-scheduled generating unit* or the *scheduled generating unit* (as the case may be) and for the purposes of *central dispatch* shall be referred to the *regional reference node* to which that *connection point* is assigned as follows:

$$RP = DOP \div LF$$

where

RP is the price specified in the *dispatch offer* when referred to the appropriate *regional reference node* and must not be greater than the *market price cap* or less than the *market floor price*;

DOP is the price as specified in the *dispatch offer*; and

LF where the *connection point*:

(i) is a *transmission network connection point*, is the relevant *intra-regional loss factor* at that *connection point*; or

(ii) is a *distribution network connection point*, is the product of the *distribution loss factor* at that *connection point* multiplied by the relevant *intra-regional loss factor* at the *transmission network connection point* to which it is assigned; and

(4) the MW quantity specified in each *price band* in each *trading interval* must be specified in whole MW.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

3.8.6A   Scheduled network service offers for dispatch

The following requirements apply to a *network dispatch offer* to provide *scheduled network services*:

(a) the *network dispatch offer* may contain up to a maximum of ten *price bands* for each direction of power flow for the *scheduled network service*;

(b) the *network dispatch offer* must specify for each of the 48 *trading intervals* in the *trading day*:

(1) an incremental power delivery range for each *price band* specified in the *network dispatch offer*; and

(2) an up *ramp rate* and a down *ramp rate*;

(c)   the *network dispatch offer* must specify a price for each *price band* in dollars and whole cents per MWh and this price is to apply to the *price band* throughout the *trading day*;

(d)   within the set of *price bands* applying to a particular direction of power flow, prices specified for each *price band* specified in the *network dispatch offer* must increase monotonically with an increase in available MWs;

(e)   if negative prices are employed, the absolute value of the most negative price in one direction cannot exceed the price for the first *price band* in the opposite direction, after adjustment for losses;

(f)   the price specified in a *price band* for power transfer from the *scheduled network service's connection point* A to *connection point* B is to be interpreted in the *central dispatch* process as meaning that the *Scheduled Network Service Provider* is willing to deliver an increment of power to *connection point* B, within the power delivery range of the power band, provided that the net revenue which is expected to be derived from that increment per MWh delivered to *connection point* B is not less than the specified price;

(g)   for the purposes of this clause 3.8.6A, the net revenue that a *Scheduled Network Service Provider* expects to receive for energy delivered by the *scheduled network service* to *connection point* B is to be determined as follows:

net revenue $= PB \times FB - PA \times FA$

where

  PA and PB are the prices at the *scheduled network service's connection points* A and B, which are assumed not to change as a result of the incremental transfer;

  FA and FB are the energy transfers scheduled by *central dispatch* for receipt by the *scheduled network service* at *connection point* A and delivery at *connection point* B respectively; and

  FA and FB are deemed to be related by the loss vs flow relationship *published* by *AEMO*;

(h)   for the purposes of this clause 3.8.6A, the price at a *connection point* will be deemed to be related as follows to the price at the *regional reference node* to which that *connection point* is assigned:

$P = RP \times LF$

where

P is the price at the *connection point*;

RP is the price at the appropriate *regional reference node*; and

LF where the *scheduled network service's connection point* is a *transmission network connection point*, is the relevant *intra-regional loss factor* at that *connection point*, or where the *scheduled network service's connection point* is a *distribution network connection point*, is the product of the *distribution loss factor* at that *connection point* multiplied by the relevant *intra-regional loss factor* at the *transmission network connection point* to which it is assigned;

(i) prices specified in the *network dispatch offer* must not exceed the *market price cap* or be less than the *market floor price*; and

(j) the power delivery range specified in each *price band* in each *trading interval* must be specified in whole MW.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

3.8.7 Bids for scheduled load

The following requirements apply to a *dispatch bid* for *scheduled loads*:

(a) the *dispatch bid* must specify whether the *scheduled load* is to be considered as *normally on* or *normally off*;

(b) the *dispatch bid* may contain up to a maximum of ten *price bands*;

(c) the *dispatch bid* must specify for each of the 48 *trading intervals* in the *trading day*:

(1) an incremental MW amount for each *price band* specified in the *dispatch bid*; and

(2) an up *ramp rate* and a down *ramp rate*;

(d) the *dispatch bid* must specify a price for each *price band* in dollars and whole cents per MWh and this price is to apply to the *price band* throughout the *trading day*;

(e) prices specified for each *price band* specified in the *dispatch bid* must increase monotonically with an increase in available MWs;

(f) prices specified are to apply at the *scheduled load's connection point* and for the purposes of *central dispatch* shall be referred to the *regional reference node* to which that *connection point* is assigned as follows:

RP = DOP ÷ LF

where

RP is the price specified in the *dispatch bid* when referred to the appropriate *regional reference node*;

DOP is the price as specified in the *dispatch bid*; and

LF where the *scheduled load's connection point* is a *transmission network connection point*, is the relevant *intra-regional loss factor* at that *connection point*, or where the *scheduled load's connection point* is a *distribution network connection point*, is the product of the *distribution loss factor* at that *connection point* multiplied by the relevant *intra-regional loss factor* at the *transmission network connection point* to which it is assigned;

(g)   MW quantities specified for a *price band* are to apply at the *scheduled load's connection point* or at any other point in the *Market Participant's* electrical installation or on the *network* as agreed to by *AEMO*;

(h)   prices specified must be:

    (1)   more than the product of the *market floor price* multiplied by the relevant *intra-regional loss factor* at the *scheduled load's transmission network connection point*; and

    (2)   less than the product of the *market price cap* multiplied by the relevant *intra-regional loss factor* at the *scheduled load's transmission network connection point*;

(i)   for a *scheduled load* specified in the *dispatch bid* as being *normally on*, the price specified for a *price band* is to be interpreted in the *central dispatch* process as the price at or above which the *scheduled load* will reduce electricity consumed by up to the MW increment specified in that *price band*;

(j)   for a *scheduled load* specified in the *dispatch bid* as being *normally off*, the price specified for a *price band* is to be interpreted in the *central dispatch* process as the price at or below which the *scheduled load* will increase electricity consumed by up to the MW increment specified in that *price band*;

(k)   the MW capacity quantity specified in each *price band* in each *trading interval* must be specified in whole MW;

(l)   the sum of the MW quantities specified in each *price band* in any *trading interval* must not exceed the maximum capacity of the *scheduled load*; and

(m)   the *dispatch bid* may specify the daily *energy* available for *energy constrained scheduled loads*.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

3.8.7A   Market ancillary services offers

The following requirements apply to all *market ancillary service offers* for each type of *market ancillary service*:

(a)   the *market ancillary service offer* may contain up to 10 *price bands*;

(b)   the *market ancillary service offer* must specify for each of the 48 *trading intervals* in the *trading day* an incremental MW amount for each *price band* specified in the *market ancillary service offer*;

(c)   the MW quantities specified are to apply at the nominated *connection point* of the *Market Participant* or, with *AEMO's* agreement, at any other point in the *Market Participant's* electrical installation or on the *network*;

(d)   the *ancillary service offer* must specify a price for each *price band* specified in the *market ancillary service offer*, in dollars and whole cents per MW per hour (an *enabling price*), and this price is to apply to the *price band* throughout the *trading day*;

(e)   *enabling prices* for each *price band* specified in the *market ancillary service offer* must increase monotonically with an increase in available MWs;

(f)   *enabling prices* are to apply at the nominated *connection point* of the *Market Participant* or, with *AEMO's* agreement, at any other point in the *Market Participant's* electrical installation or on the *network*;

(g)   *enabling prices* offered must be equal to or greater than $0 per MW per hour and may not exceed the *market price cap*;

(h)   the *enabling price* for a *price band* is to be interpreted as the minimum price at which up to the specified MW response is to be enabled in the *central dispatch* process;

(i)   the MW quantity in each *price band* in each *trading interval* must be specified in whole MW;

(j)   the *market ancillary service offer* must include the following values:

    (1)   the *response breakpoint*;

    (2)   the upper and lower *enablement limits*; and

    (3)   the *response capability*;

(k)   an *Ancillary Service Provider* that submits a *market ancillary service offer* must ensure that the *ancillary service generating unit* or *ancillary service load*, as the case may be, is at all times capable of responding in the manner contemplated by the *market ancillary service specification*;

(l)   the values associated with a *market ancillary service offer* referred to in clause 3.8.7A(j) must represent technical characteristics of the *ancillary service generating unit* or *ancillary service load*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(m)   rebids made under clause 3.8.22 of the values associated with the *market ancillary service offer* referred to in clause 3.8.7A(j) must represent technical characteristics at the time of *dispatch* of the *ancillary service generating unit* or *ancillary service load*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.8.8   Validation of dispatch bids and offers

(a)   If a *dispatch offer*, *dispatch bid* or *market ancillary service offer* is made in accordance with clauses 3.8.6, 3.8.6A, 3.8.7 or 3.8.7A (whichever is applicable), *AEMO* must make available to the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* who submitted the *dispatch offer*, *dispatch bid* or *market ancillary service offer* the following information without delay:

(1)   acknowledgement of receipt of a valid *dispatch offer*, *dispatch bid* or *market ancillary service offer*; and

(2)   the data contained in the *dispatch offer*, *dispatch bid* or *market ancillary service offer* as it will be used by *AEMO* in the *central dispatch* process.

(b)   It is the responsibility of each *Scheduled Generator*, *Semi-Scheduled Generator* and *Market Participant* to check that the data contained in its *dispatch offer*, *dispatch bid* or *market ancillary service offer* as received and to be used by *AEMO* in the *central dispatch* process is correct.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c)   If a *dispatch offer*, *dispatch bid* or *market ancillary service offer* is not made in accordance with clauses 3.8.6, 3.8.6A, 3.8.7 or 3.8.7A (whichever is applicable), *AEMO* must not include that *dispatch offer*, *dispatch bid* or *market ancillary service offer* in the *central dispatch* process and must without delay notify the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* submitting the *dispatch offer*, *dispatch bid* or *market ancillary service offer* of its invalidity and provide to that *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* details of the invalid data .

(d)   If any details contained within a *dispatch offer*, *dispatch bid* or *market ancillary service offer* are inconsistent with the *bid and offer validation data* provided by the relevant *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* then *AEMO* has the right to treat that *dispatch offer*, *dispatch bid* or *market ancillary service offer* as invalid and if it does so must notify the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* without delay.

3.8.9   Default offers and bids

(a)   A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* may, at any time, submit a *dispatch offer*, a *dispatch bid* or a *market ancillary service offer* in respect of a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled load*, *scheduled network service*, *ancillary service generating unit* or *ancillary service load* to apply from a specified future *trading day*.

(b)   A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* may vary or withdraw a *default dispatch bid*, *default dispatch offer* or *market ancillary service offer* at any time prior to the deadline for submissions of *dispatch offers*, *dispatch bids* and *market ancillary service offers* for a *trading day* in accordance with the *timetable*.

(c)   Subject to any procedures *published* in accordance with clause 3.8.9(d), *default dispatch offer*, *default dispatch bid* or *market ancillary service offer* applicable to a *trading day* must be included by *AEMO* in the *central dispatch* process when the deadline for submission of *dispatch offers*, *dispatch bids* and *market ancillary service offers* for that *trading day* arrives in accordance with the *timetable* if , and only if, no later valid *dispatch offer*, *dispatch bid* or *market ancillary service offer* has been submitted pursuant to clauses 3.8.6, 3.8.6A, 3.8.7, 3.8.7A or 3.8.9(b).

(d)   *AEMO*, in consultation with *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* in accordance with the *Rules consultation procedures*, must develop and *publish* procedures to determine the circumstances when *AEMO* may use a prior *dispatch offer* or *dispatch bid* lodged by a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* as a substitute for a *default dispatch offer* or *default dispatch bid*.

(e)   *AEMO* may disregard a *default dispatch offer* or a *default dispatch bid* and substitute a prior *dispatch offer* or *dispatch bid* or *market ancillary service offer* lodged by a *Scheduled Generator*, *Semi-Scheduled Generator* or a *Market Participant* determined in accordance with a procedure developed under clause 3.8.9(d) as input to *PASA*, *pre-dispatch* and *central dispatch*.

3.8.10   Network constraints

(a)   In accordance with the *AEMO power system security responsibilities* and any other standards set out in Chapter 4, *AEMO* must determine any *constraints* on the *dispatch* of *scheduled generating units*, *semi-scheduled*

generating units, *scheduled network services*, *scheduled loads*, *ancillary service generating units* or *ancillary service loads* which may result from planned *network outages*.

(b) Subject to paragraph (e), *AEMO* must determine and represent *network constraints* in *dispatch* which may result from limitations on *intra-regional* or *inter-regional* power flows and, in doing so, must use a *fully co-optimised network constraint formulation*.

(c) *AEMO* must, in accordance with the *Rules consultation procedures*, develop and *publish* by 1 June 2010, and, where necessary, amend *network constraint* formulation guidelines, to address, amongst other things, the following matters:

(1) the circumstances in which *AEMO* will use *alternative network constraint formulations* in *dispatch*;

(2) the process by which *AEMO* will identify or be advised of a requirement to create or modify a *network constraint* equation, including in respect of:

(i) the methodology to be used by *AEMO* in determining *network constraint* equation terms and co-efficients; and

(ii) the means by which *AEMO* will obtain information from, and disseminate information to, *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants*;

(3) the methodology to be used by *AEMO* in selecting the form of a *network constraint*, equation including in respect of the location of terms on each side of the equation;

(4) the process to be used by *AEMO* for applying, invoking and revoking *network constraint* equations in relation to different types of *network constraints*, including in respect of:

(i) the circumstances in which *AEMO* will use *alternative network constraint formulations* and *fully co-optimised network constraint formulations*; and

(ii) the dissemination of information to *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* in respect of this process; and

(5) *AEMO's* policy in respect of the management of negative *settlements residue*, by intervening in the *central dispatch* process under clause 3.8.1 through the use of *fully co-optimised network constraint formulations*, including in respect of the process to be undertaken by *AEMO* to manage negative *settlements residue*.

(d) *AEMO* must at all times comply with the *network constraint* formulation guidelines issued in accordance with paragraph (c).

(e)   Where, in *AEMO's* reasonable opinion, a specific *network constraint* is such that use of a *fully co-optimised network constraint formulation* is not appropriate, *AEMO* may apply an *alternative network constraint formulation* for the expected duration of that *network constraint*, if *AEMO*:

(1)   has previously identified, in guidelines issued in accordance with paragraph (c), that it may use an *alternative network constraint formulation* in respect of that type of *network constraint*; and

(2)   reasonably considers that it can apply an *alternative network constraint formulation* without prejudicing its obligation to operate a *central dispatch* process to *dispatch scheduled generating units*, *semi-scheduled generating units*, *scheduled loads*, *scheduled network services* and *market ancillary services* in order to balance *power system supply* and *power system demand*, consistent with using its reasonable endeavours to maintain *power system security* in accordance with Chapter 4 of the *Rules* and to maximise the value of *spot market* trading on the basis of *dispatch offers* and *dispatch bids*, in accordance with clause 3.8.1(a) and (b).

(f)   *AEMO* must represent *network constraints* as inputs to the *dispatch* process in a form that can be reviewed after the *trading interval* in which they occurred.

(g)   Within 3 years from 1 September 2009, the *AEMC* must commence a review, under section 45 of the *National Electricity Law*, in respect of the efficiency with which *AEMO* is managing circumstances in which the *settlements residue* arising in respect of a *trading interval* is a negative amount.

3.8.11   Ancillary services constraints

(a)   *AEMO* must determine the quantity and nature of *ancillary services* which:

(1)   have been provided or procured in accordance with the *AEMO power system security responsibilities* set out in clause 4.3.1 or are otherwise available;

(2)   are required to be managed in conjunction with *dispatch*; and

(3)   may impose constraints on *central dispatch*.

(a1)   For each *dispatch interval AEMO* must impose constraints upon the *dispatch algorithm* to determine the quantity of each *global market ancillary service requirement* and any *local market ancillary service requirements*.

3.8.12   System scheduled reserve constraints

AEMO must use its reasonable endeavours to ensure that the *dispatch* process meets all requirements for *scheduled reserves* as described in Chapter 4.

3.8.13   Notification of constraints

AEMO must *publish* the parameters used in the *dispatch algorithm* for the modelling of *network constraints*, *regulating capability constraints*, *power system reserve constraints* and *ancillary services*.

3.8.14   Dispatch under conditions of supply scarcity

During times of *supply* scarcity, *AEMO* must use its reasonable endeavours to ensure that the actions set out below occur in the following sequence:

(a)   subject to:

    (1)   any adjustments which may be necessary to implement action under paragraph (c); and

    (2)   any *plant* operating restrictions associated with a *relevant AEMO intervention event*,

all valid *dispatch bids* and *dispatch offers* submitted by *Scheduled Generators*, *Semi-Scheduled Generators* or *Market Participants* are *dispatched*, including those priced at the *market price cap*;

(b)   subject to:

    (1)   any adjustments which may be necessary to implement action under paragraph (c); and

    (2)   any *plant* operating restrictions associated with a *relevant AEMO intervention event*,

after all valid *dispatch bids* and *dispatch offers* referred to in paragraph (a) have been exhausted, exercise the *reliability and emergency reserve trader* in accordance with rule 3.20 by:

    (3)   *dispatching scheduled generating units*, *scheduled network services* or *scheduled loads* in accordance with any *scheduled reserve contract*; or

    (4)   *activating loads* or *generating units* under any *unscheduled reserve contract*; and

(c)   any further corrective actions required are implemented in accordance with clauses 4.8.5B and 4.8.9.

3.8.15   [Deleted]

3.8.16   Equal priced dispatch bids and dispatch offers

If there are *scheduled generating units*, *semi-scheduled generating units* or *scheduled loads*, in the same *region*, for which the prices submitted in *dispatch bids* or *dispatch offers* for a particular *trading interval* result in identical prices at their *regional reference node*, then the MW quantities specified in the relevant

price bands of those *dispatch bids* or *dispatch offers* must be *dispatched* on a pro-rata basis, where this can be achieved without imposing undue costs on any party, or violating other constraints.

3.8.17 Self-commitment

(a) *Slow start generating units* are *generating units* which are unable to *synchronise* and increase *generation* within 30 minutes of receiving an instruction from *AEMO*.

(b) *Slow start generating units* must *self-commit* to be eligible for *dispatch*.

(c) A *Generator* may only *self-commit* a *scheduled generating unit* in accordance with this clause.

(d) A *Scheduled Generator* or a *Semi-Scheduled Generator* has a right to *synchronise* its *scheduled generating unit* or *semi-scheduled generating unit* (as the case may be) to the *power system* and have *AEMO dispatch* that *generating unit* subject to the *dispatch* procedures set out in this rule 3.8.

(e) A *Scheduled Generator* must advise *AEMO* of its intention to *self-commit* and *synchronise* a *scheduled generating unit* with a *nameplate rating* of 30MW or more.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) Unless otherwise agreed with *AEMO*, the *Scheduled Generator* must advise of its intention under paragraph (e) through *PASA* and *pre-dispatch* by submitting an amended *available capacity* profile of the *scheduled generating unit* into the *market information bulletin board*.

(g) The exact time of *synchronisation* for a *scheduled generating unit* will be subject to directions from *AEMO* in accordance with Chapter 4.

(h) A *Scheduled Generator* or *Market Participant* must notify *AEMO* of any changes to *self-commitment* decisions without delay.

(i) *AEMO* must notify all *Scheduled Generators* and *Market Participants* of any changes to *self-commitment* decisions without delay.

3.8.18 Self-decommitment

(a) A *Generator* may only *self-decommit* a *scheduled generating unit* in accordance with this clause.

(b) *Scheduled Generators* must notify *AEMO* of their planned *self-decommitment* decisions in relation to *slow start generating units* at least 2 *days* in advance of *dispatch*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c)   A *Scheduled Generator* must advise *AEMO* of its intention to *self-decommit* and *de-synchronise* a *generating unit* with a *nameplate rating* of 30 MW or more.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d)   Unless otherwise agreed with *AEMO*, the *Scheduled Generator* must advise of its intention under paragraph (c) through *PASA* and *pre-dispatch* by submitting an amended *available capacity* profile of the *scheduled generating unit* into the *market information bulletin board*.

(e)   A *Scheduled Generator* or *Market Participant* must notify *AEMO* as soon as practicable of any changes in their *self-decommitment* decisions.

(f)   *AEMO* must notify all *Scheduled Generators* and *Market Participants* of any changes to *self-decommitment* decisions as soon as practicable.

3.8.19   Dispatch inflexibilities

(a)   Subject to clause 3.8.19(a2), if a *Scheduled Generator* or *Market Participant* reasonably expects one or more of its *scheduled generating units*, *scheduled network services* or *scheduled loads* to be unable to operate in accordance with *dispatch instructions* in any *trading interval*, due to abnormal *plant* conditions or other abnormal operating requirements in respect of that *scheduled generating unit*, *scheduled network service* or *scheduled load*, it must advise *AEMO* through the *PASA* process or in its *dispatch offer* or *dispatch bid* in respect of that *scheduled generating unit*, *scheduled network service* or *scheduled load*, as appropriate under this Chapter, that the *scheduled generating unit*, *scheduled network service* or *scheduled load* is *inflexible* in that *trading interval* and must specify a fixed *loading level* at which the *scheduled generating unit*, *scheduled network service* or *scheduled load* is to be operated in that *trading interval*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(a1)   Subject to clause 3.8.19(a2), if a *Semi-Scheduled Generator* reasonably expects one or more of its *semi-scheduled generating units* to be unable to operate in accordance with *dispatch instructions* in any *trading interval* due to abnormal *plant* conditions or other abnormal operating requirements in respect of that *semi-scheduled generating unit*, it must advise *AEMO* in its

dispatch offer in respect of that *semi-scheduled generating unit*, as appropriate under this Chapter, that the *semi-scheduled generating unit* is *inflexible* in that *trading interval* and must specify a maximum *loading level* at or below which the *semi-scheduled generating unit* is to be operated in that *trading interval*. Where the specified maximum *loading level* in these circumstances exceeds the *unconstrained intermittent generation forecast* for the *semi-scheduled generating unit*, the *dispatch level* for the *semi-scheduled generating unit* will nonetheless not exceed the *unconstrained intermittent generation forecast*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(a2) If clause 3.8.19(a) or clause 3.8.19(a1) applies, the *Scheduled Generator*, *Market Participant* or *Semi-Scheduled Generator*:

(1) must not advise *AEMO* that a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* is *inflexible* under clause 3.8.19(a) or clause 3.8.19(a1) unless it reasonably expects the *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* to be unable to operate in accordance with *dispatch instructions* in any *trading interval*, due to abnormal *plant* conditions or other abnormal operating requirements in respect of that *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load*; and

(2) must, as soon as practicable, advise *AEMO* that a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* is not *inflexible* once it no longer reasonably expects the *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* to be unable to operate in accordance with *dispatch instructions* in any *trading interval*, due to abnormal *plant* conditions or other abnormal operating requirements in respect of that *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load*.

(b) Where a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* advises *AEMO* that a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* is *inflexible* in accordance with clause 3.8.19(a) or 3.8.19(a1) the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must:

(1) provide *AEMO* with a brief, verifiable and specific reason why the *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* is *inflexible* at the same time as it advises *AEMO* of the *inflexibility*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(2)   provide to the *AER*, upon written request, in accordance with the guidelines issued by the *AER* from time to time in accordance with the *Rules consultation procedures* such additional information to substantiate and verify the reason for such *inflexibility* as the *AER* may require from time to time. The *AER* must provide information provided to it in accordance with this clause 3.8.19(b)(2) to any *Market Participant* that requests such information, except to the extent that the information can be reasonably claimed to be *confidential information*.

(c)   Other than in *trading intervals* for which it has been specified by a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* in the relevant *dispatch offer* or *dispatch bid* for a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* that the *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* is *inflexible*, *AEMO* will *dispatch* the *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* in accordance with the prices and *price bands* specified in the relevant *dispatch offer* or *dispatch bid*.

(d)   In respect of *scheduled loads*, *scheduled generating units* or *semi-scheduled generating units* which are not *slow start generating units*, *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* may provide *AEMO*, as part of a *dispatch offer* or *dispatch bid* in respect of those *scheduled loads* or *generating units* or *semi-scheduled generating units*, with a *dispatch inflexibility profile*.

(e)   A *dispatch inflexibility* profile for a *generating unit* must contain the following parameters to indicate its MW capacity and time related *inflexibilities*:

(1)   The time, T1, in minutes, following the issue of a *dispatch instruction* by *AEMO* to increase its loading from 0 MW, which is required for the *plant* to begin to vary its *dispatch* level from 0 MW in accordance with the instruction;

(2)   The time, T2, in minutes, that the *plant* requires after T1 (as specified in subparagraph (1)) to reach a specified minimum MW *loading level*;

(3)   The time, T3, in minutes, that the *plant* requires to be operated at or above its minimum *loading level* before it can be reduced below that level;

(4)   The time, T4, in minutes, following the issue of a *dispatch instruction* by *AEMO* to reduce loading from the minimum *loading level*

(specified under subparagraph (2)) to zero, that the *plant* requires to completely comply with that instruction;

(5)   T1, T2, T3 and T4 must all be equal to or greater than zero;

(6)   The sum (T1 + T2) must be less than or equal to 30 minutes; and

(7)   The sum (T1 + T2 + T3 + T4) must be less than 60 minutes.

(f)   A *dispatch inflexibility profile* for a *scheduled load* must contain parameters to indicate its MW capacity and time related *inflexibilities*.

(g)   *AEMO* must use reasonable endeavours not to issue a *dispatch instruction* which is inconsistent with a *Scheduled Generator's*, *Semi-Scheduled Generator's* or *Market Participant's dispatch inflexibility profile*.

3.8.20   Pre-dispatch schedule

(a)   Each *day*, in accordance with the *timetable*, *AEMO* must prepare and *publish* a *pre-dispatch schedule* covering each *trading interval* of the period commencing from the next *trading interval* after the current *trading interval* up to and including the final *trading interval* of the last *trading day* for which all valid *dispatch bids* and *dispatch offers* have been received in accordance with the *timetable* and applied by the *pre-dispatch* process.

(b)   The *pre-dispatch* process is to have a resolution of one *trading interval* 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)   *AEMO* must determine the *pre-dispatch schedule* for each *trading interval* on the basis of:

(1)   *dispatch bids*, *dispatch offers* and *market ancillary service offers* submitted for that *trading interval*;

(2)   *AEMO's* forecast *power system load* for each *region* for that *trading interval*; 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.

(d)   In determining the *pre-dispatch schedule AEMO* shall not take account of any *dispatch inflexibility profile* submitted in accordance with clause 3.8.19.

(e)   Any inputs made to the *pre-dispatch* process by *AEMO* for the purpose of achieving a physically realisable schedule or to satisfy *power system security* requirements must be made prior to release of the *pre-dispatch schedule* and recorded by *AEMO* in a manner suitable for audit.

(f) The *pre-dispatch schedule* must include the details set out in clause 3.13.4(f).

(g) Each *Scheduled Generator*, *Scheduled Network Service Provider* and *Market Customer* which has classified a *scheduled load* and *Market Participant* (which has classified an *ancillary service generating unit* or *ancillary service load*) must ensure that it is able to *dispatch* its plant as required under the *pre-dispatch schedule* and is responsible for changing inputs to the *central dispatch* process, if necessary to achieve this, via the rebidding provisions under clause 3.8.22.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(h) The *pre-dispatch schedule* must be re-calculated and the results re-*published* by *AEMO* regularly in accordance with the *timetable*, or more often if a change in circumstances is deemed by *AEMO* to be likely to have a significant effect on the operation of the *market*.

(i) *AEMO* must fully document the operation of the *pre-dispatch* process, including the principles adopted in making calculations required to be included and all such documentation must be made available to *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* at a fee to be set by *AEMO* to cover its costs of supplying such documentation.

(j) The following *pre-dispatch* outputs relating specifically to a *generating unit*, *scheduled network service*, *scheduled load* or *ancillary service load* operated by a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* (as the case may be) must be made available electronically to the relevant *Generator* or *Market Participant* on a confidential basis:

(1) the scheduled times of *commitment* and de-commitment of individual *slow start generating units*;

(2) scheduled half hourly *loading* for each scheduled entity;

(3) scheduled provision of *ancillary services*;

(4) scheduled *constraints* for the provision of *ancillary services*;

(5) scheduled *constraints* due to *network* limitations;

(6) *unconstrained intermittent generation forecasts* for each *trading interval*; and

(7) for each *semi-scheduled generating unit* and *trading interval*, whether or not a condition for setting a *semi-dispatch interval* applies.

(k) Where the *pre-dispatch schedule* may have failed to *dispatch* a *scheduled generating unit* or a *semi-scheduled generating unit* to maximise the joint

value of *energy* and *ancillary services pre-dispatch* outputs of a *scheduled generating unit* or *semi-scheduled generating unit*, due to the *generating unit* operating outside its *enablement limit*, *AEMO* must notify the *Scheduled Generator* or *Semi-Scheduled Generator* operating the relevant *generating unit* electronically on a confidential basis.

3.8.21 On-line dispatch process

(a) *Dispatch bids* and *dispatch offers* must be *centrally dispatched* by *AEMO* using the *dispatch algorithm*.

(a1) A *dispatch interval* is to be five minutes in duration.

(b) The *dispatch algorithm* is to be run by *AEMO* for each *dispatch interval*. If the *dispatch algorithm* is not successfully run for any *dispatch interval* then the values of the last successful run of the *dispatch algorithm* must be used for that *dispatch interval*.

(c) *Central dispatch* results in the setting of *dispatch prices* and *ancillary services prices* for each *dispatch interval* and *spot prices* for each *trading interval* in accordance with rule 3.9.

(d) Where possible, *dispatch instructions* will be issued electronically via the *automatic generation control system* or via an electronic display in the *plant* control room (which may be onsite or offsite) of the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* (as the case may be).

(e) *AEMO* may issue *dispatch instructions* in some other form if in its reasonable opinion the methods described in paragraph (d) are not possible.

(f) A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must ensure it has facilities to receive *dispatch instructions* in the manner described in this clause 3.8.21.

(g) *Dispatch instructions* that are issued via the *automatic generation control system* are to be issued progressively at intervals of no more than 5 minutes following re-evaluation of *central dispatch* to achieve a prompt and smooth implementation of the outcomes of each *central dispatch* update.

(h) With the exception of instructions issued by telephone, all *dispatch instructions* and the times at which they are issued are to be logged automatically and *dispatch instructions* that are issued by telephone must be recorded by *AEMO*.

(i) *AEMO* may modify or override the *dispatch algorithm* outcome in accordance with the requirements of clause 4.8.9 or due to *plant* not conforming to *dispatch instructions* and in such circumstances *AEMO* must record the details of the event and the reasons for its action for audit purposes.

(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 *dispatch 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 *dispatch intervals*.

(k) A *scheduled load* or *generating unit* whose *dispatch* is *constrained* in any *dispatch interval* due to a *dispatch inflexibility profile* submitted under clause 3.8.19 cannot be used as the basis for setting the *dispatch price* in that *dispatch interval* at any location.

(l) *AEMO* must fully document the operation of the process described in this clause 3.8.21, including the software, algorithms, and the principles adopted in making judgments where they are required in the process and all such documentation must be made available to *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* at a price reflective of costs incurred by *AEMO* in providing such documentation.

(m) Where the *central dispatch* process may have failed to *dispatch* a *scheduled generating unit* or *semi-scheduled generating unit* to maximise the joint value of *energy* and *ancillary services* due to the relevant *generating unit* operating outside its *enablement limit*, *AEMO* must notify the *Scheduled Generator* or *Semi-Scheduled Generator* operating the relevant *generating unit* electronically on a confidential basis.

3.8.22 Rebidding

(a) Prices for each *price band* that are specified in *dispatch bids*, *dispatch offers* and *market ancillary service offers* are firm and no changes to the price for any *price band* are to be accepted under any circumstances.

(b) Subject to paragraph (c) and clauses 3.8.3A, 3.8.7A, 3.8.19(a) and 3.8.22A, a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* may vary:

(1) its *available capacity*, daily *energy constraints*, *dispatch inflexibilities* and *ramp rates* of *generating units*, *scheduled network services* and *scheduled loads*; and

(2) the *response breakpoints*, *enablement limits* and response limits of *market ancillary services*.

(c) A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must provide:

(1) all *rebids* to *AEMO* electronically unless otherwise approved by *AEMO*;

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(2)   to *AEMO*, at the same time as the *rebid* is made:

(i)   a brief, verifiable and specific reason for the *rebid*; and

(ii)   the time at which the event(s) or other occurrence(s) adduced by the relevant *Generator* or *Market Participant* as the reason for the *rebid*, occurred; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(3)   to the *AER*, upon written request, in accordance with guidelines published by the *AER* from time to time under this clause 3.8.22 and in accordance with the *Rules consultation procedures*, such additional information to substantiate and verify the reason for a *rebid* as the *AER* may require from time to time.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d)   The *AER* must provide information provided to it in accordance with paragraph (c)(3) to any *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* that requests such information, except to the extent that the information can be reasonably claimed to be *confidential information*.

(e)   The guidelines developed by the *AER* under paragraph (c)(3) must include:

(1)   the amount of detail to be included in the information provided to *AEMO* under paragraph (c)(2); and

(2)   procedures for handling claims by *Scheduled Generators*, *Semi-Scheduled Generators* or *Market Participants* in accordance with paragraph (d) or clause 3.8.19(b)(2) that the information provided to the *AER* by such *Generators* or *Market Participants* under those clauses is *confidential information*.

(f)   The *AER* must *publish* the guidelines developed under this clause 3.8.22 and may amend such guidelines from time to time.

(g)   *AEMO* must:

(1)   subject to the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* complying with paragraphs (c)(1) and (c)(2)(i) and (ii), accept the *rebid*; and

(2)   *publish*, in accordance with clause 3.13.4(p), the time the *rebid* was made and the reason provided by the *Scheduled Generator*,

Semi-Scheduled Generator or *Market Participant* under paragraph (c)(2)(i).

3.8.22A Variation of offer, bid or rebid

(a) A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must make a *dispatch offer*, *dispatch bid* or *rebid* in relation to *available capacity* and daily *energy constraints* in good faith.

(b) In paragraph (a) a *dispatch offer*, *dispatch bid* or *rebid* is taken to be made in good faith if, at the time of making such an offer, bid or *rebid*, a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* has a genuine intention to honour that offer, bid or *rebid* if the material conditions and circumstances upon which the offer, bid or *rebid* were based remain unchanged until the relevant *dispatch interval*.

(c) A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* may be taken to have contravened paragraph (a) notwithstanding that, after all the evidence has been considered, the intention of the relevant *Generator* or *Market Participant* is ascertainable only by inference from:

  (1) the conduct of the relevant *Generator* or *Market Participant*;

  (2) the conduct of any other person; or

  (3) the relevant circumstances.

Note

This clause is a rebidding civil penalty provision for the purposes of the National Electricity Law. (See clause 6(2) of the National Electricity (South Australia) Regulations.)

3.8.23 Failure to conform to dispatch instructions

(a) If a *scheduled generating unit*, *scheduled network service* or *scheduled load* fails to respond to a *dispatch instruction* within a tolerable time and accuracy (as determined in *AEMO's* reasonable opinion), then the *scheduled generating unit*, *scheduled network service* or *scheduled load* (as the case may be):

  (1) is to be declared and identified as non-conforming; and

  (2) cannot be used as the basis for setting *spot prices*.

(b) If a *semi-scheduled generating unit* fails to respond to a *dispatch instruction* within a tolerable time and accuracy (as determined in *AEMO's* reasonable opinion) in a *semi-dispatch interval* where the unit's actual *generation* is more than the *dispatch level*, the unit is to be declared and identified as non-conforming and cannot be used as the basis for setting *spot prices*.

(c)   If a *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* or *scheduled load* is identified as non-conforming under paragraphs (a) or (b):

   (1)   *AEMO* must advise the *Scheduled Generator*, *Semi-Scheduled Generator*, *Scheduled Network Service Provider* or *Market Customer* that the relevant *generating unit*, *scheduled network service* or *scheduled load* is identified as non-conforming, and request and log a reason for the non-compliance with the *dispatch instruction*;

   (2)   if in *AEMO's* opinion modification of *plant* parameters is necessary or desirable, *AEMO* must request the *Scheduled Generator*, *Semi-Scheduled Generator*, *Scheduled Network Service Provider* or *Market Customer* to submit modified *plant* parameters to satisfy *AEMO* that a realistic real time *dispatch* schedule can be carried out;

   (3)   should a *Scheduled Generator* or *Semi-Scheduled Generator* fail to meet the requests set out subparagraphs (1) and (2) or if *AEMO* is not satisfied that the *generating unit* will respond to future *dispatch instructions* as required, *AEMO* must direct the *generating unit's* output to follow, as far as is practicable, a specified output profile to be determined at its discretion by *AEMO*;

   (4)   should a *Scheduled Network Service Provider* fail to meet the requests set out in subparagraphs (1) and (2) or if *AEMO* is not satisfied that the *scheduled network service* will respond to future *dispatch instructions* as required, *AEMO* must direct the *scheduled network service* to follow, as far as is practicable, a specified transfer profile to be determined at its discretion by *AEMO*; and

   (5)   should a *Market Customer* not meet the requests set out in subparagraphs (1) and (2) within a reasonable time of the request, or if *AEMO* is not satisfied that the *scheduled load* will respond to future *dispatch instructions* as required, *AEMO* acting reasonably may invoke a *default dispatch bid* lodged by the relevant *Market Customer* or apply *constraints* as it deems appropriate.

(d)   Until a *Scheduled Generator*, *Semi-Scheduled Generator*, *Scheduled Network Service Provider* or *Market Customer* satisfactorily responds to the requests under paragraphs (c)(1) and (2) and *AEMO* is satisfied that the *generating unit*, *scheduled network service* or *scheduled load* (as the case may be) will respond to future *dispatch instructions* as required, the *generating unit*, *scheduled network service* or *scheduled load* (as the case may be) continues to be non-conforming.

(e)   If a *generating unit*, *scheduled network service* or *scheduled load* (as the case may be) continues to be non-conforming under this clause 3.8.23 after a reasonable period of time, *AEMO* must prepare a report setting out the details of the non-conformance and forward a copy of the report to the *Scheduled Generator*, *Semi-Scheduled Generator*, *Scheduled Network Service Provider* or *Market Customer* (as the case may be) and the *AER*.

(f)   The direction referred to in paragraphs (c)(3) and (4) must remain in place until the *Scheduled Generator*, *Semi-Scheduled Generator* or *Scheduled Network Service Provider* (whichever is relevant) satisfies *AEMO* of rectification of the cause of the non-conformance.

(g)   If an *ancillary service generating unit* or *ancillary service load* is *enabled* to provide a *market ancillary service* and fails to respond in the manner contemplated by the *market ancillary service specification* (as determined in *AEMO's* reasonable opinion), then:

(1)   the *ancillary service generating unit* or *ancillary service load* is to be declared and identified as non-conforming;

(2)   *AEMO* must advise the relevant *Market Participant* that the *ancillary service generating unit* or *ancillary service load* is identified as non-conforming, and request a reason for the non-conformance. The relevant *Market Participant* must promptly provide a reason if requested to do so, and the reason is to be logged; and

(3)   *AEMO* may set a fixed level for the relevant *ancillary service* (in this clause 3.8.23 called the 'fixed constraint') for the *ancillary service generating unit* or *ancillary service load* and the relevant *Market Participant* must ensure that the *ancillary service generating unit* or *ancillary service load* complies with the fixed constraint set by *AEMO*.

(h)   *AEMO* must lift the fixed constraint in respect of an *ancillary service generating unit* or *ancillary service load* when *AEMO* is reasonably satisfied (as a result of a test or otherwise) that the *ancillary service generating unit* or *ancillary service load* is capable of responding in the manner contemplated by the *market ancillary service specification*.

(i)   In assessing a report of non-conformance with a *dispatch instruction* by a *scheduled load*, the *AER* shall have regard to whether a *default dispatch bid* had been lodged with *AEMO* and was, or could have reasonably been, applied in the circumstances applicable to that *scheduled load*.

3.8.24   Scheduling errors

(a)   A *scheduling error* is any one of the following circumstances:

(1)   the *dispute resolution panel* determines under rule 8.2 that *AEMO* has failed to follow the *central dispatch* process set out in this rule 3.8; or

(2)   *AEMO* declares that it failed to follow the *central dispatch* process set out in this rule 3.8; or

(3)   *AEMO* determines under clause 3.9.2B(d) that a *dispatch interval* contained a manifestly incorrect input.

(b)   *Spot prices* and *ancillary service prices* will not be adjusted due to the occurrence of a *scheduling error* except where the *scheduling error* arises through the application of clause 3.9.2B.

3.9   Price Determination

3.9.1   Principles applicable to spot price determination

(a)   The principles applying to the determination of prices in the *spot market* are as follows:

(1)   a *dispatch price* at a *regional reference node* is determined by the *central dispatch* process for each *dispatch interval*;

(2)   a *spot price* at a *regional reference node* is the time-weighted average of the *dispatch prices* at that *regional reference node* in a *trading interval*;

(2A)   the *central dispatch* process must determine an *ancillary service price* for each *market ancillary service* at each *regional reference node* for every *dispatch interval*;

(3)   *dispatch 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 *dispatch price* in the relevant *dispatch 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* in the relevant *dispatch 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* in the relevant *dispatch 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 *dispatch prices*, *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 *dispatch price* for *energy* in the relevant *dispatch 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* and *dispatch 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.

(b) A single *regional reference price* which is the *spot price* at the *regional reference node* provides a reference from which the *spot prices* are determined within each *region*.

(c) The *local spot price* at each *transmission network connection point* is the *spot price* at the *regional reference node* for the *region* to which the *connection point* is assigned multiplied by the relevant *intra-regional loss factor* applicable to that *connection point*.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

3.9.2 Determination of spot prices

(a) **[Deleted]**

(b) **[Deleted]**

(c) Each time the *dispatch algorithm* is run by *AEMO*, it must determine a *dispatch price* for each *regional reference node* for a *dispatch interval* in accordance with clause 3.8.21(b), provided that if *AEMO* fails to run the *dispatch algorithm* to determine *dispatch prices* for any *dispatch interval* then the *dispatch price* for that *dispatch interval* is the last *dispatch price* determined by the *dispatch algorithm* prior to the relevant *dispatch interval*.

(d) The *dispatch 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 clauses 3.9.2(c) or (d), for any *dispatch interval* if:

    (1) the *dispatch price* for that *dispatch 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 *dispatch interval* to *Network Service Providers* or *Market Participants* to shed *load*, then *AEMO* must set the *dispatch price* at that *region's regional reference node* to equal the *market price cap*;

    (2) *AEMO* has declared a *dispatch interval* to be an *intervention price dispatch interval* under clause 3.9.3(a), then subject to clauses 3.9.3(c) and 3.9.3(d) *AEMO* must set the *dispatch price* in accordance with clause 3.9.3; and

    (3) **[Deleted]**

    (4) an *administered price period* in accordance with rule 3.14 applies, then *AEMO* must limit the *dispatch price* in accordance with clause 3.14.2(d1).

(f) **[Deleted]**

(g) **[Deleted]**

(h) The *spot price* at a *regional reference node* for a *trading interval* equals the time weighted average of the *dispatch prices* at the *regional reference node* for each of the *dispatch intervals* in the *trading interval*, provided that if *AEMO* has made a declaration that the *market* is suspended under clause 3.14.3, then the *spot price* in any *trading interval* during the period during which the *spot market* is suspended must be determined in accordance with clause 3.14.5.

(i)   **[Deleted]**

(j)   **[Deleted]**

(k)   If a test is being conducted on a *generating unit* or *scheduled load* in accordance with clause 3.11.7 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 *dispatch price* for *energy* in the relevant *dispatch interval*.

3.9.2A   Determination of ancillary services prices

(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 *dispatch interval* then the *ancillary service price* for that *dispatch interval* is the last *ancillary service price* determined by the *dispatch algorithm* prior to the relevant *dispatch interval*.

(b)   For each *market ancillary service*, including the *regulating raise service* and the *regulating lower service*, each time the *dispatch algorithm* is run by AEMO where a local *ancillary services* constraint has been applied, AEMO must:

(1)   calculate the marginal price of meeting any *global market ancillary service requirement* for that service;

(2)   calculate the marginal price of meeting each *local market ancillary service requirement* for that service and;

(3)   identify for each *local market ancillary service requirement* the *regions* requiring the service.

(b1)   An *ancillary service price* for a *region* is the sum of:

(1)   the marginal price of meeting any *global market ancillary service requirement* for that service; and

(2)   the marginal price of meeting each *local market ancillary service requirement* for that service in that *region*.

(c)   If an *ancillary service price* determined using the *dispatch algorithm* under clause 3.9.2A(a):

(1)   is less than zero, then the *ancillary service price* is reset to zero; and

(2)   is greater than the *market price cap*, then the *ancillary service price* is reset to the *market price cap*.

(c1) If a marginal price calculated pursuant to clause 3.9.2A(b) is greater than the *market price cap*, then that marginal price is reset to the *market price cap*.

(d) If a test is being conducted on a *generating unit* or *scheduled load* in accordance with clause 3.11.7 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 *ancillary service prices*.

3.9.2B   Pricing where AEMO determines a manifestly incorrect input

(a) For the purposes of this clause:

Input means any value that is used by the *dispatch algorithm* including measurements of *power system* status, five minute demand forecast values, *constraint* equations entered by *AEMO*, or software setup but not including *dispatch bids* and *dispatch offers* submitted by *Registered Participants*.

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

(b) *AEMO* may apply the automated procedures developed in accordance with clause 3.9.2B(h), to identify a *dispatch interval* as subject to review ("a *dispatch interval* **subject to review**").

(c) *AEMO* may also determine that a *dispatch interval* is subject to review if *AEMO* considers that it is likely to be subject to a manifestly incorrect input, but only where the *dispatch interval* immediately preceding it was a *dispatch interval* subject to review.

(d) *AEMO* must determine whether a *dispatch interval* subject to review contained a manifestly incorrect input to the *dispatch algorithm* ("an **affected *dispatch interval***").

(e) Where *AEMO* determines an affected *dispatch interval*, *AEMO* must:

(1) replace all *dispatch prices* and *ancillary service prices* with the corresponding prices for the last correct *dispatch interval*; and

(2) recalculate, in accordance with clause 3.9.2(h), and adjust all *spot prices* relevant to each affected *dispatch interval*.

(f) *AEMO* may only carry out the action described in clause 3.9.2B(e) if no more than 30 minutes have elapsed since the publication of the *dispatch prices* for the *dispatch interval* subject to review.

(g) As soon as reasonably practicable after the action as described in clause 3.9.2B(e), *AEMO* must *publish* a report outlining:

(1) The reasons for the determination under clause 3.9.2B(d);

(2)   Whether that determination was correct;

(3)   What action will be taken to minimise the risk of a similar event in future.

(h)   *AEMO* must, in consultation with *Registered Participants*, develop procedures for the automatic identification of *dispatch intervals* subject to review under clause 3.9.2B (b) ("the **automated procedures**").

(i)   The purpose of the automated procedures is to detect instances where manifestly incorrect inputs may have resulted in material differences in pricing outcomes.

(j)   **[Deleted]**

(k)   At least once each calendar year, *AEMO* must review the effectiveness of the automated procedures referred to in clause 3.9.2B(h).

(l)   *AEMO* must report on the findings of the review under clause 3.9.2B(k) and must include in that report details of all *dispatch intervals* subject to review that were not affected *dispatch intervals* and an analysis of why such intervals were identified as subject to review.

(m)   **[Deleted]**

3.9.3   Pricing in the event of intervention by AEMO

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

(b)   Subject to paragraphs (c) and (d), *AEMO* must in accordance with the methodology or assumptions *published* pursuant to paragraph (e) set the *dispatch price* and *ancillary service prices* for an *intervention price dispatch interval* at the value which *AEMO*, in its reasonable opinion, considers would have applied as the *dispatch price* and *ancillary service price* for that *dispatch interval* in the relevant *region* had the *AEMO intervention event* not occurred.

(c)   *AEMO* may continue to set *dispatch prices* pursuant to clause 3.9.2 and *ancillary service prices* pursuant to clause 3.9.2A until the later of:

(1)   the second *dispatch interval* after the first *dispatch interval* in which the *AEMO intervention event* occurred; or

(2)   if applicable, the second *dispatch 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 *dispatch 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 *dispatch 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 *dispatch prices* and *ancillary service prices* for the purposes of paragraph (b).

(f) The methodology developed by *AEMO* under paragraph (e) must wherever reasonably practicable:

(1) be consistent with the principles for *spot price* determination set out in clause 3.9.1;

(2) enable *AEMO* to determine and *publish* such prices in accordance with clause 3.13.4; and

(3) be consistent with the principles for *ancillary service price* determination set out in clauses 3.9.2 and 3.9.2A.

(g) *AEMO* may make minor and administrative amendments to the methodology developed under paragraph (e) without complying with the *Rules consultation procedures*.

3.9.3A   Reliability standard and reliability settings review

(a) By 30 April of each fourth year (with the first four year period ending in 2014), the *Reliability Panel* must conduct and finalise a review, in accordance with the *Rules consultation procedures* and this clause, on the *reliability standard* and *reliability* settings set out in paragraph (b), and *publish* a report in accordance with clause 3.9.3B on the *reliability standard* and *reliability* settings that it recommends should apply on and from 1 July in the year commencing 2 years after the year in which the report is *published*.

(b) In conducting a review in accordance with this clause 3.9.3A, the *Reliability Panel* must review the following:

(1) the *reliability standard*;

(2) the *market price cap*, including the manner of indexing the *market price cap*;

(3) the *cumulative price threshold*, including the manner of indexing the *cumulative price threshold*; and

(4) the *market floor price*.

(c) In any review under this clause the *Reliability Panel*:

(1) must have regard to the potential impact of any proposed change in the *market price cap* or *cumulative price threshold* on:

(i) *spot prices*;

(ii) investment in the *National Electricity Market*;

(iii) the *reliability* of the *power system*; and

(iv) *Market Participants*;

(2) must have regard to any value of customer reliability determined by *AEMO* which the *Reliability Panel* considers to be relevant; and

(3) may take into account any other matters the *Reliability Panel* considers relevant.

(d) The *Reliability Panel* may only recommend a *market price cap* or *cumulative price threshold* which the *Reliability Panel* considers will:

(1) allow the *reliability standard* to be satisfied without use of *AEMO's* powers to intervene under clauses 3.20.7(a) and 4.8.9(a); and

(2) in conjunction with other provisions of the *Rules*, not create risks which threaten the overall integrity of the *market*.

(e) If the *Reliability Panel* is of the view that a decrease in either the *market price cap* or the *cumulative price threshold* may mean the *reliability standard* is not maintained, the *Reliability Panel* may only recommend such a decrease where it has considered any alternative arrangements necessary to maintain the *reliability standard*.

(f) The *Reliability Panel* may only recommend a *market floor price* which the *Reliability Panel* considers will:

(1) allow the *market* to clear in most circumstances; and

(2) not create substantial risks which threaten the overall stability and integrity of the *market*.

(g) The *Reliability Panel* must submit to the *AEMC* any *Rule* change proposal that results from a review under this clause as soon as practicable after the review is completed.

3.9.3B   Reliability standard and reliability settings review report

A report of the findings of the *Reliability Panel* in a review under clause 3.9.3A must set out the *Reliability Panel's* conclusions and its recommendations in relation to the *reliability standard* and the level of the *reliability* settings along with supporting information including:

(a)   details of all relevant *market* conditions and circumstances on which its recommendation is based; and

(b)   an assessment of whether the level of the *market price cap* together with the operation of the *cumulative price threshold* have achieved the objectives set out in clause 3.9.3A(d).

3.9.4   Market Price Cap

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

(b)   The value of the *market price cap* is $12,500/MWh prior to 1 July 2012. Effective on and from 1 July 2012, the value of the *market price cap* for each *financial year* is the dollar amount per MWh calculated by the *AEMC* under paragraph (c).

(c)   By 28 February of each year (commencing 2012), the *AEMC* must calculate the *market price cap* to apply on and from 1 July of that year in accordance with paragraphs (d) and (e) and *publish* its calculation on its website as part of a schedule of *reliability* settings.

(d)   Subject to paragraph (e), the *AEMC* must calculate the *market price cap* using the following formula:

$$MPC^X = BV^{MPC} \times \frac{(Q_1^c + Q_2^c + Q_3^c + Q_4^c)}{(Q_1^b + Q_2^b + Q_3^b + Q_4^b)}$$

Where:

MPC is the *market price cap* in dollars per MWh;

x is the *financial year* for which the *market price cap* is being calculated;

BV^{MPC} is $12,500/MWh;

Q1 to Q4 are the values of the Reliability Settings Index for each of the four quarters of years c and b (as the case may be) as at five months before the start of year x;

Reliability Settings Index is the All groups, Australia CPI found at Index Numbers, All groups, Australia, in Tables 1 and 2 of the Consumer Price Index, Australia published by the Australian Bureau of Statistics for the relevant quarter, except where that index ceases to be published or is substantially changed, in which case the Reliability Settings Index will be such other index as is determined by the *AEMC* as suitable;

c is the calendar year commencing 18 months before the start of year x; and

b is calendar year 2010.

(e)   If the value calculated by the *AEMC* under paragraph (d) is:

(1)   not in whole hundreds of dollars, then the *market price cap* for year x will be the value calculated under paragraph (d) rounded to the nearest $100/MWh;

(2)   less than the *market price cap* applied under this clause 3.9.4 for the preceding *financial year* (year x-1), then the *market price cap* for year x will be the value of the *market price cap* for year x-1.

3.9.5   Application of the Market Price Cap

(a)   *Dispatch prices* at *regional reference nodes* must not exceed the *market price cap*.

(b)   If *central dispatch* and determination of *dispatch prices* in accordance with rule 3.8, and clauses 3.9.2 and 3.9.3 would otherwise result in a *dispatch price* greater than the *market price cap* at any *regional reference node*, then subject to clause 3.9.5(c), the *dispatch price* at that *regional reference node* must be set to the *market price cap*.

(c)   If the *dispatch price* at any *regional reference node* is set to the *market price cap* under clause 3.9.2 or clause 3.9.5 then *dispatch prices* at all other *regional reference nodes connected* by a *regulated interconnector* or *regulated interconnectors* that have an *energy* flow towards that *regional reference node* must not exceed the *market price cap* divided by the average *loss factor* that applies for *energy* flow in that direction for that *dispatch interval* and determined in accordance with clause 3.9.5(d).

(d)   *AEMO* must determine the average *loss factors* applicable to clause 3.9.5(c) by reference to the *inter-regional loss factor* equations relating to the relevant *regulated interconnector*.

3.9.6   Market Floor Price

(a)   The *market floor price* is a price floor which is to be applied to *dispatch prices*.

(b)   The value of the *market floor price* is $-1,000/MWh.

(c)   **[Deleted]**

(d)   **[Deleted]**

(e)   **[Deleted]**

3.9.6A   Application of the Market Floor Price

(a)   *Dispatch prices* at *regional reference nodes* must not be less than the *market floor price*.

(b)   If *central dispatch* and determination of *dispatch prices* in accordance with rule 3.8, and clauses 3.9.2 and 3.9.3 would otherwise result in a *dispatch price* less than the *market floor price* at any *regional reference node*, then

subject to clause 3.9.6A(c), the *dispatch price* at that *regional reference node* must be set to the *market floor price*.

(c)   If the *dispatch price* at any *regional reference node* is set to the *market floor price* under clause 3.9.6A then *dispatch prices* at all other *regional reference nodes connected* by a *regulated interconnector* or *regulated interconnectors* that have an *energy* flow away from that *regional reference node* must be equal to or greater than the *market floor price* multiplied by the average *loss factor* that applies for *energy* flow in that direction for that *dispatch interval* and determined in accordance with clause 3.9.6A(d).

(d)   *AEMO* must determine the average *loss factors* applicable to clause 3.9.6A(c) by reference to the *inter-regional loss factor* equations relating to the relevant *regulated interconnector*.

3.9.7   Pricing for constrained-on scheduled generating units

(a)   In the event that a *network constraint* causes a *scheduled generating unit* to be *constrained-on* in any *dispatch interval*, that *scheduled generating unit* must comply with *dispatch instructions* from *AEMO* in accordance with its availability as specified in its *dispatch offer* but may not be taken into account in the determination of the *dispatch price* in that *dispatch interval*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b)   A *Scheduled Generator* that is *constrained-on* in accordance with clause 3.9.7(a) is not entitled to receive from *AEMO* any compensation due to its *dispatch price* being less than its *dispatch offer price*.

3.10   [Deleted]

3.11   Ancillary Services

3.11.1   Introduction

(a)   *Ancillary services* are services that are essential to the management of *power system security*, facilitate orderly trading in electricity and ensure that electricity supplies are of acceptable quality.

(b)   *Market ancillary services* are *ancillary services* acquired by *AEMO* as part of the *spot market* in accordance with this Chapter 3. The prices for *market ancillary services* are determined using the *dispatch algorithm*.

(c)   *Non-market ancillary services* are *ancillary services* not acquired by *AEMO* as part of the *spot market*, but acquired:

(1)   in the case of *SRAS*, by *AEMO* under *ancillary services agreements* entered into following a call for offers made in accordance with clause

3.11.5, with the prices for *SRAS* being determined in accordance with the relevant *ancillary services agreements*; and

(2)   in the case of *NSCAS*:

(i)   by *Transmission Network Service Providers* under *connection agreements* or *network support agreements* to meet an *NSCAS need*; and

(ii)   in the circumstances contemplated in clause 3.11.3(c), by *AEMO* under *ancillary services agreements* entered into following a call for offers made in accordance with rule 3.11 to meet a *NSCAS gap* only for *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security and reliability standards*,

with the prices for *NSCAS* being determined in accordance with the relevant agreements;

(3)   in the case of *NMAS* other than *SRAS* and *NSCAS*, by *Transmission Network Service Providers* under *connection agreements* or *network support agreements* to meet the service standards in accordance with the technical requirements of schedule 5.1 or in *applicable regulatory instruments*, with the prices for those services being determined in accordance with the relevant agreements.

(d)   *AEMO* may instruct a person to provide a *non-market ancillary service* under an *ancillary services agreement* or otherwise in accordance with the relevant *performance standards*, and any person so instructed must use reasonable endeavours to comply with that instruction.

(e)   *AEMO* is not responsible for payment to a person for *non-market ancillary services* provided by that person under a *connection agreement* or a *network support agreement*.

3.11.2   Market ancillary services

(a)   The *market ancillary services* are:

(1)   the *fast raise service*;

(2)   the *fast lower service*;

(3)   the *slow raise service*;

(4)   the *slow lower service*;

(5)   the *regulating raise service*;

(6)   the *regulating lower service*;

(7)   the *delayed raise service*; and

(8)   the *delayed lower service*.

(b)   *AEMO* must make and *publish* a *market ancillary service specification* containing:

   (1)   a detailed description of each kind of *market ancillary service*; and

   (2)   the performance parameters and requirements which must be satisfied in order for a service to qualify as the relevant *market ancillary service* and also when a *Market Participant* provides the relevant kind of *market ancillary service*.

(c)   *AEMO* may amend the *market ancillary service specification*, from time to time.

(d)   *AEMO* must comply with the *Rules consultation procedures* when making or amending the *market ancillary service specification*.

(e)   An amendment to the *market ancillary service specification* must not take effect until at least 30 days after the amendment has been *published*.

3.11.3   Acquisition of Network Support and Control Ancillary Services

(a)   Where an *NTNDP* identifies an *NSCAS gap*, *AEMO* may request the relevant *Transmission Network Service Provider* to advise when the *Transmission Network Service Provider* will have arrangements in place to meet that *NSCAS gap*, or provide reasons why the *NSCAS gap* will not be met.

(b)   Within 30 days of *AEMO's* request under paragraph (a), the *Transmission Network Service Provider* must provide a response to *AEMO*. If the *Transmission Network Service Provider* proposes to put in place arrangements to meet the relevant *NSCAS gap*, it must include in its response full details of those arrangements.

(c)   If, after considering any response made under paragraph (b), *AEMO*:

   (1)   considers that the relevant *NSCAS gap* will remain; and

   (2)   considers it is necessary to acquire *NSCAS* to meet the relevant *NSCAS gap* to prevent an adverse impact on *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security and reliability standards*,

   AEMO:

   (3)   must *publish* details of why it considers that the relevant *NSCAS gap* will remain; and

   (4)   must use reasonable endeavours to acquire *NSCAS* to meet the relevant *NSCAS gap* in accordance with clause 3.11.5.

(d)   **[Deleted]**

(e)   **[Deleted]**

(f)   **[Deleted]**

(g)   **[Deleted]**

(h)   **[Deleted]**

(i)   **[Deleted]**.

(j)   **[Deleted]**

(k)   **[Deleted]**

3.11.4   Guidelines and objectives for acquisition of network support and control ancillary services

(a)   In this clause:

NSCAS description means a detailed description of each type of *network support and control ancillary service*.

NSCAS quantity procedure means a procedure that determines the location and quantity of each type of *network support and control ancillary service* required.

(a1)   *AEMO* must develop and *publish* the NSCAS description in accordance with the *Rules consultation procedures*.

(b)   *AEMO* must develop and *publish* the NSCAS quantity procedure in accordance with the *Rules consultation procedures*.

(c)   *AEMO* may amend the NSCAS description and the NSCAS quantity procedure.

(d)   *AEMO* must comply with the *Rules consultation procedures* when making or amending the NSCAS description or the NSCAS quantity procedure.

(e)   *AEMO* may make minor and administrative amendments to the NSCAS description or the NSCAS quantity procedure without complying with the *Rules consultation procedures*.

3.11.4A   Guidelines and objectives for acquisition of system restart ancillary services

(a)   The objective for *system restart ancillary services* is to minimise the expected economic costs to the *market* in the long term and in the short term, of a *major supply disruption*, taking into account the cost of supplying *system restart ancillary services*, consistent with the *national electricity objective* (the **SRAS objective**).

(b)   *AEMO* must use reasonable endeavours to acquire *system restart ancillary services* in accordance with the relevant provisions of clause 3.11.4A.

(c)   Each of the guidelines and *SRAS* description which *AEMO* is required to develop and *publish* in accordance with clause 3.11.4A must be:

   (1)   consistent with the *SRAS* objective;

   (2)   designed to ensure the *system restart standard* is met; and

   (3)   designed to ensure that the need for *system restart ancillary services* in each *electrical sub-network* is met, to the extent that it is practicable and reasonable to do so, by *AEMO* entering into *ancillary services agreements* for the provision of *primary restart services*.

   (referred to collectively as the **SRAS procurement objectives**).

(d)   *AEMO* must develop and *publish* a detailed description of each type of *system restart ancillary service* in accordance with the guidelines determined by the *Reliability Panel* under clause 8.8.3(aa)(4), which description must identify:

   (1)   whether the *system restart ancillary service* is a *primary restart service* or a *secondary restart service*;

   (2)   the technical and availability requirements of each type of *system restart ancillary service*; and

   (3)   any other matter considered relevant by *AEMO*,

   (the **SRAS description**).

(e)   In order to demonstrate that there is a reasonable degree of certainty that a *facility* is capable of delivering the relevant *system restart ancillary service* if required to do so, *AEMO* must develop and *publish* guidelines for undertaking:

   (1)   modelling and assessment of the technical capabilities of *system restart ancillary services* proposed to be submitted as part of a *SRAS* expression of interest or in response to a NMAS invitation to tender;

   (2)   physical testing of *system restart ancillary services* as required by the *NMAS* tender guidelines under clause 3.11.5(b)(2); and

   (3)   any other analysis which *AEMO* considers appropriate,

   (the **SRAS assessment guidelines**).

(f)   *AEMO* must develop and *publish* the procedure for determining the number, type and location of *system restart ancillary services* required to be procured for each *electrical sub-network* consistent with the *system restart*

standard determined by the *Reliability Panel* (the **SRAS quantity guidelines**).

(g) *AEMO* may amend the *SRAS* assessment guidelines, the *SRAS* quantity guidelines and the *SRAS* description.

(h) *AEMO* must comply with the *Rules consultation procedures* when making or amending the *SRAS* assessment guidelines, the *SRAS* quantity guidelines and the *SRAS* description.

3.11.4B Determination of electrical sub-network boundaries

(a) For the purpose of acquiring *system restart ancillary services* and determining and implementing the *system restart plan*, the *power system* is to be divided into *electrical sub-networks*.

(b) *AEMO* must determine the boundaries of the *electrical sub-networks* in accordance with the guidelines determined by the *Reliability Panel* under clause 8.8.3(aa)(5).

(c) *AEMO* must comply with the *Rules consultation procedures* in determining the boundaries of the *electrical sub-networks*.

3.11.5 Tender process for non-market ancillary services

(a) In this clause:

NMAS tender guidelines means the guidelines developed and *published* by *AEMO* in accordance with clause 3.11.5(b) as in force from time to time, and includes amendments made in accordance with clauses 3.11.5(c) and 3.11.5(c1).

(a1) If *AEMO* proposes to acquire a *non-market ancillary service*, *AEMO* must call for offers from persons who are in a position to provide the *non-market ancillary service* in accordance with the NMAS tender guidelines.

(b) *AEMO* must determine and *publish* the NMAS tender guidelines. Separate NMAS tender guidelines may be prepared in respect of *network support and control ancillary services* and *system restart ancillary services*. The NMAS tender guidelines must contain the following:

    (1) a requirement for *AEMO* to call for *NMAS* expressions of interest before issuing an *NMAS* invitation to tender in relation to any required *non-market ancillary services*;

    (2) a requirement that a person who is required to provide *SRAS* under an *ancillary services agreement* has the *facility* tested in accordance with:

        (i) the *SRAS* assessment guidelines referred to in clause 3.11.4A(e); and

(ii) the timeframes for physical testing referred to in subparagraph (5);

(3) a requirement that a person who is to provide *network support and control ancillary services* under an *ancillary services agreement* has the *facility* tested in accordance with the NMAS tender guidelines;

(4) a requirement for a *Network Service Provider* or other *Registered Participant* to assist a prospective tenderer in identifying and, if possible, resolving issues that would prevent the delivery of effective *non-market ancillary services* proposed by a prospective tenderer;

(5) the timeframes over which *AEMO's* assessment of *NMAS* expressions of interest, *NMAS* tenders and physical testing of selected *non-market ancillary services* will occur;

(6) **[Deleted]**

(7) a requirement for a tenderer to provide data, models and parameters of relevant *plant*, sufficient to facilitate a thorough assessment of the *network* impacts and *power station* impacts of the use of the relevant *non-market ancillary service*;

(8) the terms and conditions of the *ancillary services agreement* that a successful tenderer would be expected to enter into with *AEMO*;

(9) the principles *AEMO* will apply in assessing *NMAS* expressions of interest and *NMAS* tenders; and

(10) any other matter considered appropriate by *AEMO*.

(c) *AEMO* may amend the NMAS tender guidelines, and must comply with the *Rules consultation procedures* when making or amending the NMAS tender guidelines.

(c1) *AEMO* may make minor and administrative amendments to the NMAS tender guidelines without complying with the *Rules consultation procedures*.

(d) **[Deleted]**

(e) *AEMO* is not under any obligation to accept the lowest priced *NMAS* tender or any *NMAS* tender in response to an *NMAS* invitation to tender.

(f) A *Network Service Provider* must:

(1) negotiate in good faith with a prospective tenderer in respect of issues the NMAS tender guidelines require a prospective tenderer to discuss and, if possible, resolve with a *Network Service Provider*; and

(2) participate in, or facilitate, testing of a *system restart ancillary service* or a *network support and control ancillary service* required by the

NMAS tender guidelines where it is reasonable and practicable to do so, and when participating in or facilitating such activities, the *Network Service Provider* will be entitled to recover from the relevant prospective tenderer all reasonable costs incurred by the *Network Service Provider* and for such purposes the activities of the *Network Service Provider* will be treated as *negotiable services*.

(g)   Where a person submits an *NMAS* tender in response to an *NMAS* invitation to tender and *AEMO* wishes to negotiate an aspect of that *NMAS* tender, *AEMO* and that person must negotiate in good faith concerning that aspect.

(h)   Where the call for offers is for the acquisition of *NSCAS*, in assessing any tenders submitted to meet a particular *NSCAS gap*, *AEMO* must first determine whether those tenders are competitive. The tenders submitted to meet a particular *NSCAS gap* will be deemed to be competitive if the quantity of *NSCAS* that *AEMO* is seeking can be supplied from the conforming tenders received by *AEMO* with any one conforming tender discarded or all conforming tenders from any one party discarded. If the tenders submitted to meet a particular *NSCAS gap* are not deemed to be competitive, *AEMO* and *NSCAS preferred tenderers*, must negotiate in good faith to agree reasonable terms and conditions for the supply of the relevant type of *NSCAS*, taking into account the need to:

(1)   subject to subparagraph (h)(2), so far as practicable minimise the overall cost of supply of that service; and

(2)   appropriately remunerate the providers of the relevant *NSCAS* for that service.

(i)   If *AEMO* and a *NSCAS preferred tenderer* cannot agree on the terms and conditions for the supply of a *NSCAS* after 21 *business days* from delivery to the preferred tenderer of a written notice from *AEMO* to negotiate, either *AEMO* or the preferred tenderer may refer the matter to the *Adviser* for the determination of a dispute as to those terms and conditions in accordance with rule 8.2.

(j)   Subject to paragraph (k), *AEMO* must only acquire *system restart ancillary services* from a person who is a *Registered Participant*.

(k)   *AEMO* may enter into an agreement to acquire *system restart ancillary services* with a person who is not a *Registered Participant* if that agreement includes a condition for the benefit of *AEMO* that no *system restart ancillary services* will be provided under the agreement until that person becomes a *Registered Participant*.

(l)   If *AEMO* calls for offers under paragraph (a), *AEMO* must give a notice to *Registered Participants* and *NMAS providers* when the tender process is complete.

(m)   Within 5 *business days* of *AEMO* giving a notice under paragraph (l), *AEMO* must *publish* the total estimated annual costs and quantities of each

type of *NSCAS* acquired by *AEMO* under *ancillary services agreements* in respect of each *region* and in total and provide a breakdown of those costs and quantities relating to each *facility* contracted under those agreements.

(n)   Within 5 *business days* of *AEMO* giving a notice under paragraph (l), *AEMO* must *publish*:

(1)   the total estimated annual cost for the provision of *system restart ancillary services*, broken down to charges for availability and use, or other factors that *AEMO* considers appropriate, for each *electrical sub-network*; and

(2)   the number of *system restart ancillary services* acquired for each *electrical sub-network*.

(o)   An *NMAS provider* must comply with an *ancillary services agreement* under which they provide one or more *non-market ancillary services*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(p)   A dispute concerning any aspect, (other than the aspect of price), of a *system restart ancillary services* agreement or a call for offers conducted by *AEMO* for the acquisition of *system restart ancillary services*, must be dealt with in accordance with rule 8.2.

3.11.6   Dispatch of non-market ancillary services by AEMO

(a)   For the avoidance of doubt, *AEMO* may *dispatch NSCAS* to:

(1)   maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security and reliability standards*; and

(2)   maintain or increase the *power transfer capability* of that *transmission network* so as to maximise the present value of net economic benefit to all those who produce, consume or transport electricity in the *market*,

but *AEMO* may only call for offers to acquire *NSCAS* to maintain *power system security* and reliability of *supply* of the *transmission network* in accordance with the *power system security and reliability standards*.

(a1)   *AEMO* must develop procedures for:

(1)   *dispatching* each kind of *non-market ancillary service*; and

(2)   reporting to *Registered Participants* and *NMAS providers*, on a periodic basis, on the effectiveness of the *dispatch* of *non-market ancillary services* using criteria related to the performance of the

power system specified in the procedures developed under subparagraph (a1)(1).

(b)　　*AEMO* must *publish* the procedures developed under this clause 3.11.6.

(c)　　*AEMO* may amend a procedure developed under this clause 3.11.6, from time to time.

(d)　　*AEMO* must develop and *publish* guidelines for the *dispatch* of *network support and control ancillary services* to support the relevant procedure developed under subparagraph (a1)(1).

(e)　　*AEMO* must comply with the *Rules consultation procedures* when making or amending the guidelines in paragraph (d).

(f)　　*AEMO* may make minor and administrative amendments to the guidelines in paragraph (d) without complying with the *Rules consultation procedures*.

3.11.7　　Performance and testing

(a)　　In addition to the requirements under rule 4.15, a *Market Participant* which has classified a *generating unit* as an *ancillary service generating unit* or a *market load* as an *ancillary service load* must install and maintain in accordance with the standards referred to in clause 3.11.7(b) monitoring equipment to monitor and record the response of the *ancillary service generating unit* or *ancillary service load* to changes in the *frequency* of the *power system*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b)　　*AEMO* must develop, and may amend from time to time, standards which must be met by *Market Participants* in installing and maintaining the equipment referred to in clause 3.11.7(a).

(c)　　*AEMO* may request a *Market Participant* with an *ancillary service generating unit* or an *ancillary service load* to provide to *AEMO* a report detailing how the relevant facility responded to a particular change or particular changes in the *frequency* of the *power system*. A *Market Participant* must provide a report requested under this clause 3.11.7(c) promptly but, in any event, in no more than 20 *business days* after notice to do so.

(d)　　*AEMO* may from time to time require a *Registered Participant* which provides a *market ancillary service* under the *Rules* or a *non-market ancillary service* under an *ancillary services agreement* to demonstrate the relevant *plant's* capability to provide the *ancillary service* to the satisfaction of *AEMO* according to standard test procedures. A *Registered Participant* must promptly comply with a request by *AEMO* under this clause.

3.12   Market Intervention by AEMO

3.12.1   Intervention settlement timetable

(a)   *AEMO* must use reasonable endeavours to complete and fulfil its obligations set out in clauses 3.12.2, 3.12.3, 3.15.7, 3.15.7A, 3.15.7B, 3.15.8 and 3.15.10C as soon as practicable and no later than:

(1)   100 *business days* after the end of the *AEMO intervention event* or the end of a series of related *AEMO intervention events* if *AEMO* is not required to appoint an independent expert under clause 3.15.7A or refer a matter to an independent expert under clause 3.12.2(l), 3.12.2(m), 3.15.7B(c) or 3.15.7B(d);

(2)   150 *business days* after the end of the *AEMO intervention event* or the end of a series of related *AEMO intervention events* if *AEMO* is:

(i)   required to appoint an independent expert under clause 3.15.7A but is not required to refer a claim or matter to an independent expert under clause 3.12.2(l), 3.12.2(m), 3.15.7B(c) or 3.15.7B(d); or

(ii)   required to refer a claim or matter to an independent expert under clause 3.12.2(l), 3.12.2(m), 3.15.7B(c) or 3.15.7B(d) but is not required to appoint an independent expert under clause 3.15.7A; and

(3)   200 *business days* after the end of the *AEMO intervention event* or the end of a series of related *AEMO intervention events* if *AEMO* is required to appoint an independent expert under clause 3.15.7A and refer a claim or matter to an independent expert under clause 3.12.2(l), 3.12.2(m), 3.15.7B(c) or 3.15.7B(d).

(b)   Subject to clause 3.12.1(a), *AEMO* must *publish* a timetable that sets a date for each of *AEMO's* and the independent expert's obligations pursuant to clauses 3.12.2, 3.12.3, 3.15.7, 3.15.7A, 3.15.7B, 3.15.8 and 3.15.10C, where required (the *intervention settlement timetable*).

(c)   *AEMO* must at least once a month revise and *publish* the *intervention settlement timetable* to reflect any changes to the *intervention settlement timetable*.

3.12.2   Affected Participants and Market Customers entitlements to compensation in relation to AEMO intervention

(a)   In respect of each *intervention price trading interval*:

(1)   an *Affected Participant* is entitled to receive from *AEMO*, or must pay to *AEMO*, an amount as determined in accordance with this clause 3.12.2 that will put the *Affected Participant* in the position that the *Affected Participant* would have been in regarding the *scheduled generating unit* or *scheduled network service*, as the case may be, had

the *AEMO intervention event* not occurred, taking into account solely the items listed in paragraph (j);

(2) a *Market Customer*, other than a *Market Customer* which was the subject of any *direction* that constituted the *AEMO intervention event*, is entitled, in respect of one or more of its *scheduled loads*, to receive an amount calculated by applying the following formula:

$$DC = ((RRP \times LF) - BidP) \times QD$$

where:

DC (in dollars) is the amount the *Market Customer* is entitled to receive in respect of that *scheduled load* for the relevant *intervention price trading interval*;

RRP (in dollars per MWh) is the *regional reference price* in the relevant *intervention price trading interval* determined in accordance with clause 3.9.3;

LF where the *scheduled load's connection point* is a *transmission connection point*, is the relevant *intra-regional loss factor* at that *connection point* or where the *scheduled load's connection point* is a *distribution network connection point*, is the product of the *distribution loss factor* at that *connection point* multiplied by the relevant *intra-regional loss factor* at the *transmission connection point* to which it is assigned;

BidP (in dollars per MWh) is the price of the highest priced *price band* specified in a *dispatch bid* for the *scheduled load* in the relevant *intervention price trading interval*;

QD (in MWh) is the difference between the amount of electricity consumed by the *scheduled load* during the relevant *intervention price trading interval* determined from the *metering data* and the amount of electricity which *AEMO* reasonably determines would have been consumed by the *scheduled load* if the *AEMO intervention event* had not occurred,

provided that if DC is negative for the relevant *intervention price trading interval*, then the adjustment that the *Market Customer* is entitled to claim in respect of that *scheduled load* for that *intervention price trading interval* is zero.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

(b) In respect of a single *intervention price trading interval*, an *Affected Participant* or *Market Customer* is not entitled to receive from, or obliged to

pay to, *AEMO* an amount pursuant to this clause 3.12.2 if such an amount is less than $5,000.

(c) In respect of each *intervention price trading interval*, *AEMO* must, in accordance with the *intervention settlement timetable*, notify, in writing:

(1) each *Affected Participant* (except *eligible persons*) of:

(i) the estimated level of *dispatch* in MW that its *scheduled network service* or *scheduled generating unit* would have been *dispatched* at had the *AEMO intervention event* not occurred; and

(ii) an amount equal to:

(A) the estimated *trading amount* that it would have received had the *AEMO intervention event* not occurred based on the level of *dispatch* in subparagraph (i), less:

(B) the *trading amount* for that *Affected Participant* (excluding from that *trading amount* the amount referred to in clause 3.15.10C(a)) as set out in its *final statement* provided pursuant to clause 3.15.14 for the *billing period* in which the *intervention price trading interval* occurs;

(2) each *eligible person* of:

(i) the estimated level of flow in MW of all relevant *directional interconnectors* that would have occurred had the *AEMO intervention event* not occurred; and

(ii) an amount equal to:

(A) the estimated amount that person would have been entitled to receive pursuant to clause 3.18.1(b) had the *AEMO intervention event* not occurred based upon the flows referred to in subparagraph (i); less

(B) the actual entitlement of that person under clause 3.18.1(b); and

(3) each *Market Customer*, the amount calculated by *AEMO* in accordance with paragraph (a)(2) for that *Market Customer*.

(d) *AEMO* must include in an *Affected Participant's* or *Market Customer's final statement* provided pursuant to clause 3.15.15 for a *billing period* in which one or more *intervention price trading intervals* occurred:

(1) the amount notified by *AEMO* pursuant to paragraph (c) if the absolute value of such amount is greater than $5,000; and

(2)   in all other cases no amount in relation to compensation pursuant to this clause 3.12.2.

(e)   If the figure calculated in accordance with paragraph (c) is:

(1)   negative, the absolute value of that amount is the amount payable to *AEMO* by the relevant person; and

(2)   positive, the absolute value of that amount is the amount receivable from *AEMO* by the relevant person.

(f)   Subject to paragraphs (h) and (i), within 7 *business days* of receipt of the notice referred to in paragraph (c) an *Affected Participant* or *Market Customer* may make a written submission to *AEMO* in accordance with paragraph (g) claiming that the amount set out in the notice is greater than, less than, or equal to its entitlement pursuant to paragraph (a)(1) as an *Affected Participant* or paragraph (a)(2) as a *Market Customer*, as the case may be.

(g)   A written submission made by an *Affected Participant* or *Market Customer* pursuant to paragraph (f) must:

(1)   itemise each component of the claim;

(2)   contain sufficient data and information to substantiate each component of the claim;

(3)   if the *Affected Participant* claims that the amount calculated by *AEMO* pursuant to paragraphs (c)(1) or (c)(2) is less than the amount the *Affected Participant* is entitled to receive pursuant to paragraph (a)(1), specify the difference between such amounts (such difference being the *affected participant's adjustment claim*);

(4)   if the *Market Customer* claims that the amount calculated by *AEMO* pursuant to paragraph (c)(3) is less than the amount the *Market Customer* is entitled to receive pursuant to paragraph (a)(2), specify the difference between such amounts (such difference being the *market customer's additional claim*); and

(5)   be signed by an authorised officer of the *Affected Participant* or *Market Customer* certifying that the written submission is true and correct.

(h)   If an *Affected Participant* or *Market Customer* does not deliver to *AEMO* a written submission in accordance with paragraph (f) it shall cease to have an entitlement to compensation under this clause 3.12.2.

(i)   In respect of a single *intervention price trading interval* an *Affected Participant* or *Market Customer* may only make a claim pursuant to paragraph (f) in respect of that *intervention price trading interval* if it claims that its entitlement or liability pursuant to this clause 3.12.2 is greater than $5,000.

(j)   In determining the amount for the purposes of paragraph (a)(1), the following must, as appropriate, be taken into account:

(1)   the direct costs incurred or avoided by the *Affected Participant* in respect of that *scheduled generating unit* or *scheduled network service*, as the case may be, as a result of the *AEMO intervention event* including:

(i)   fuel costs in connection with the *scheduled generating unit* or *scheduled network service*;

(ii)   incremental maintenance costs in connection with the *scheduled generating unit* or *scheduled network service*; and

(iii)   incremental manning costs in connection with the *scheduled generating unit* or *scheduled network service*;

(2)   any amounts which the *Affected Participant* is entitled to receive under clauses 3.15.6 and 3.15.6A; and

(3)   the *regional reference price published* pursuant to clause 3.13.4(m).

(k)   *AEMO* must in accordance with the *intervention settlement timetable* calculate the *additional intervention claim* being the total of:

(1)   the sum of the *affected participant's adjustment claims* and *market customer's additional claims* in respect of a *AEMO intervention event*, or in respect of, in *AEMO's* reasonable opinion, a series of related *AEMO intervention events*; plus

(2)   the total claims by *Directed Participants* pursuant to clauses 3.15.7B(a), 3.15.7B(a1) and 3.15.7B(a2) in respect of that *AEMO intervention event*, or in respect of that series of related *AEMO intervention events*.

(l)   *AEMO* must in accordance with the *intervention settlement timetable*:

(1)   refer an *affected participant's adjustment claim* or *market customer's additional claim* to an independent expert to determine such claim in accordance with clause 3.12.3 if the claim is equal to or greater than $20,000 and the *additional intervention claim* that includes that claim is equal to or greater than $100,000; and

(2)   determine in its sole discretion whether all other *affected participants' adjustment claims* and *market customers' additional claims* are reasonable and if so pay the amounts claimed in accordance with clause 3.15.10C.

(m)   If *AEMO* determines pursuant to paragraph (l) that an *affected participant's adjustment claim* or *market customer's additional claim* in respect of a *AEMO intervention event* is unreasonable, it must in accordance with the *intervention settlement timetable*:

(1)   advise the *Affected Participant* or *Market Customer*, as the case may be, in writing of its determination including its reasons for the determination; and

(2)   refer the matter to an independent expert to determine the claim for compensation in accordance with clause 3.12.3.

(n)   For the purposes of clauses 3.15.8 and 3.15.10C(b) any payment pursuant to paragraph (a) must include interest on the sum of that amount less the payment made in accordance with 3.15.10C(a)(1), computed at the average *bank bill rate* for the period from the date on which payment was required to be made under clauses 3.15.16 and 3.15.17 in respect of the *final statement* for the *billing period* in which the *AEMO intervention event* occurred to the date on which payment is required to be made pursuant to clause 3.15.10C.

3.12.3   Role of the Independent Expert in calculating payments in relation to intervention by AEMO

(a)   Subject to clause 3.12.3(a1), if a matter is to be referred to an independent expert pursuant to clauses 3.12.2(l), 3.12.2(m) or 3.15.7B, *AEMO* must in accordance with the *intervention settlement timetable publish* a notice of its proposed nominee as independent expert and appoint such nominee.

(a1)   If within 3 *business days* of *publication* of *AEMO's* nominee pursuant to clause 3.12.3(a) more than 25% of the *Referred Affected Participants*, *Referred Market Customers* and *Referred Directed Participants* in relation to that *direction* object in writing to *AEMO's* nominee *AEMO* must, as soon as reasonably practicable thereafter, request the *AEMC* to nominate an independent expert.

(a2)   If a valid objection pursuant to clause 3.12.3(a1) is made, the *AEMC* must, within 3 *business days* of a written request from *AEMO*, nominate an independent expert to be appointed by *AEMO* for the purposes of this clause 3.12.3.

(b)   *AEMO* must provide to the independent expert a copy of all written submissions made by *Referred Affected Participants*, *Referred Market Customers* or *Referred Directed Participants* under clause 3.12.2(f) or 3.15.7B (a).

(b1)   To the extent reasonably practicable, all claims arising out of a single *AEMO intervention event* or arising out of, in *AEMO's* reasonable opinion, a series of related *AEMO intervention events*, should be determined by the same independent expert as part of the same process.

(c)   *AEMO* must include as part of the independent expert's terms of appointment the following requirements:

(1)   In accordance with the *intervention settlement timetable* the independent expert must:

    (i)   determine and *publish* a draft report setting out:

        (A)   as appropriate, the total compensation payable by, or receivable by, *Referred Affected Participants* and *Referred Market Customers* under clause 3.12.2(a) pursuant to claims referred to the independent expert pursuant to clauses 3.12.2(l) and 3.12.2(m) in respect of the *intervention price trading interval*;

        (B)   the total amount of compensation payable to *Referred Directed Participants* pursuant to clause 3.15.7B; and

        (C)   the methodology and assumptions, if any, used by the independent expert in making the determination in clauses 3.12.3(c)(1)(ii) and 3.12.3(c)(1)(iii);

    (ii)   notify individual assessments by delivery to each *Referred Affected Participant* and *Referred Market Customer* and to *AEMO* of a draft assessment detailing the amount payable or receivable by that party, as the case may be, pursuant to clause 3.12.2(a); and

    (iii)   deliver to each *Referred Directed Participant* and to *AEMO* a draft assessment detailing the calculation of the amount of compensation receivable by that party pursuant to 3.15.7B.

(2)   The independent expert must call for submissions from all relevant *Referred Affected Participants*, *Referred Market Customers* and *Referred Directed Participants* after *publishing* the draft report and delivering the draft assessment under clause 3.12.3(c)(1).

(3)   Before the *publication* of the final report and delivery of the final assessment pursuant to clause 3.12.3(c)(4), the independent expert must:

    (i)   if requested to do so by a *Referred Affected Participant*, *Referred Market Customer* or *Referred Directed Participant*, within 15 *business days* of the *publication* of the draft report and draft assessment, meet with *representatives* of the *Referred Affected Participant*, *Referred Market Customer*, or *Directed Participant* to discuss any queries it has in relation to the draft report or draft assessment as appropriate; and

    (ii)   take into consideration, any further written submissions made by a *Referred Affected Participant*, *Referred Market Customer* or *Referred Directed Participant* in relation to the draft report or draft assessment, as the case may be, if the independent expert receives those submissions within 15 *business days* of the *publication* of the draft report and draft assessment.

(4)   The independent expert must in accordance with the *intervention settlement timetable*:

(i)   prepare and *publish* a final report;

(ii)   prepare and deliver his or her final assessment of the amounts payable or receivable by the relevant party pursuant to clause 3.12.2(a) or 3.15.7B, as the case may be; and

(iii)   deliver to *AEMO* a final tax invoice for the services rendered by the independent expert and a copy of all final assessments issued pursuant to clause 3.12.3(c)(ii).

(5)   A report prepared under clauses 3.12.3(c)(1)(i) and 3.12.3(c)(4)(i) must not disclose *confidential information*.

(6)   If the independent expert requires further information than that contained in a written submission made by the *Referred Affected Participant*, *Referred Market Customer* or *Referred Directed Participant* under clause 3.12.2(f) or 3.15.7B(a), the independent expert may advise the relevant party in writing of the information required.

(7)   If the relevant party has not provided that information to the independent expert within 10 *business days* of the date of the request for further information, then the independent expert, acting reasonably, is entitled to make such assumptions concerning that information as he or she thinks appropriate.

(8)   The independent expert must enter into, and deliver, a confidentiality deed for the benefit of each *Referred Affected Participant*, *Referred Market Customer* and *Referred Directed Participant* in a form developed by *AEMO* pursuant to clause 3.12.3(e).

(d)   A final report and a final assessment of an independent expert prepared in accordance with clause 3.12.3(c)(4) is final and binding.

(e)   *AEMO* must in accordance with the *Rules consultation procedures* prepare and *publish* a confidentiality deed for the purposes of this clause 3.12.3.

3.12A   Mandatory restrictions

3.12A.1   Restriction offers

(a)   *AEMO* must develop, and may vary from time to time, in accordance with the *Rules consultation procedures* a *mandatory restrictions* trading system. The trading system must include:

(1)   procedures for the acquisition by *AEMO* of capacity the subject of *restriction offers*;

(2)   the standard terms and conditions upon which *AEMO* shall accept a *restriction offer*;

(3) the criteria to be applied by *AEMO* in the appointment of an appropriately qualified independent expert for the purposes of clause 3.12A.7(g)(ii); and

(4) procedures for the rebidding and *dispatch* of capacity the subject of an *accepted restriction offer*.

(b) The *restriction offer procedures* must take into account the following principles:

(1) *AEMO* may accept a *restriction offer* for all or part of the capacity of a *scheduled generating unit* or *scheduled network service*, as recorded in the *bid and offer validation data* for that *scheduled generating unit* or *scheduled network service*.

(2) *AEMO* must use its reasonable endeavours to acquire capacity from valid *restriction offers* or to terminate in whole or part an *accepted restriction offer* in a manner that minimises the estimated *restriction shortfall amount*.

(3) *AEMO* may at any time terminate an *accepted restriction offer* in whole or in part by providing 4 hours notice to the relevant *Scheduled Generator* or *Scheduled Network Service Provider* that an *accepted restriction offer* is so terminated.

(4) The submission of *restriction offers* must be made in the form and by the means set out in procedures developed and *published* by *AEMO* for the purpose of the submission of *restriction offers*.

(5) If a *restriction offer* is made in accordance with the *restriction offer procedures*, *AEMO* must make available to the parties who submitted the *restriction offer* the following information without delay:

(i) acknowledgment of receipt of a valid *restriction offer*; and

(ii) notification detailing why a *restriction offer* is invalid, if appropriate.

(6) If any details contained within a *restriction offer* are inconsistent with the *bid and offer validation data* provided by the relevant party then *AEMO* has the right to reject that *restriction offer* as invalid.

(7) A valid *restriction offer* must set out for each *trading interval* of a *trading day*:

(i) the price offered in $/MWh or as otherwise permitted by the *restriction offer procedures*; and

(ii) MW amount for that *trading interval* being offered.

(8) *AEMO* must only accept *restriction offers* from *Scheduled Generators* and *Scheduled Network Service Providers* with a *connection point*

located in the *region* in which *mandatory restrictions* apply or are proposed to apply.

(c) The standard terms and conditions developed by *AEMO* pursuant to clause 3.12A.1(a)(2) must take into account the following principles:

    (1) All capacity the subject of the *restriction offer* must be available for immediate *dispatch* in the *central dispatch* process at all times.

    (2) An *accepted restriction offer* is binding and may only be revoked or varied if the *Scheduled Generator* or *Scheduled Network Service Provider* notifies *AEMO* in accordance with the *restriction offer procedures* of a revocation or variation. Immediately upon receipt of such notification *AEMO* must amend the *accepted restriction offer* to reduce the capacity of the *accepted restriction offer* by the notified capacity. Such capacity must not be *dispatched* by *AEMO* pursuant to a *dispatch offer* for such capacity during the remainder of the *trading day* in which the *accepted restriction offer* was revoked or varied in accordance with this clause 3.12.A.1(c) provided that such capacity may be re-offered as a *restriction offer*.

    (3) A *restriction offer* may be amended or revoked in accordance with the *restriction offer procedures* at any time prior to it becoming an *accepted restriction offer*.

3.12A.2 Mandatory restrictions schedule

(a) *AEMO* must, within 4 hours of receipt of a formal written notice from a *Jurisdictional System Security Coordinator* advising that the relevant *participating jurisdiction* proposes to invoke *mandatory restrictions*:

    (1) in consultation with such *participating jurisdiction*, and in accordance with any procedures developed with that *participating jurisdiction*, estimate the effect in MW of the *mandatory restrictions* on the *region's* demand for each *trading interval* of the next *trading day* of the proposed *mandatory restriction period*; and

    (2) prepare and deliver to the *Jurisdictional System Security Coordinator* a schedule of capacity for each *trading interval* of the next *trading day* of the proposed *mandatory restriction period* which is approximately equal to the estimated reduction in *regional* demand due to the *mandatory restrictions* net of all *scheduled loads* in that *region*.

(b) *AEMO* must regularly in conjunction with the relevant *Jurisdictional System Security Coordinator* review the current *mandatory restriction schedule* and when appropriate prepare and deliver to the *Jurisdictional System Security Coordinator* a revised schedule of capacity for each *trading interval* of that *trading day* which is approximately equal to the revised estimated reduction in *regional* demand due to the *mandatory restrictions* net of all *scheduled loads* in that *region*.

(c)   *AEMO* may only *publish* a *mandatory restriction schedule* and an amended *mandatory restriction schedule* upon receipt of a formal written notice approving the *mandatory restriction schedule* from the relevant *Jurisdictional System Security Coordinator*.

3.12A.3   Acquisition of capacity

(a)   *AEMO* must immediately upon *publication* of a *mandatory restriction schedule* or an amended *mandatory restriction schedule* use its reasonable endeavours to acquire, in accordance with the *restriction offer procedures*, capacity to meet the *mandatory restriction schedule* or amended *mandatory restriction schedule* as the case may be.

(b)   *AEMO* must terminate in accordance with the *restriction offer procedures* such number of *accepted restriction offers*, in whole or in part, so that the total capacity of existing *accepted restriction offers* as far as practicable equals the amended *mandatory restriction schedule*.

3.12A.4   Rebid of capacity under restriction offers

In each *dispatch interval* when *mandatory restrictions* apply, each *scheduled generating unit* or *scheduled network service* the subject of an *accepted restriction offer* with respect to that *dispatch interval* must rebid the total capacity the subject of such *restriction offer* by varying the respective *dispatch offers* or *network dispatch offers* in accordance with the procedures developed pursuant to clause 3.12A.1(a)(4).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.12A.5   Dispatch of restriction offers

(a)   In a *dispatch interval AEMO* may only *dispatch* the capacity of a *scheduled generating unit* or *scheduled network service* in accordance with the procedures for the *rebidding* and *dispatch* of capacity the subject of an *accepted restriction offer* developed by *AEMO* in consultation with *Registered Participants*. Such procedures must as far as reasonably practical incorporate the following principles:

(i)   *dispatch* of *accepted restriction offers* only after all the capacity of *scheduled loads*, *scheduled generating units* and *scheduled network services* contained in valid *dispatch offers* and *dispatch bids* have been *dispatched*;

(ii)   recognise any requirement for advance notice or action for generators to operate at minimum generation, provide advance notice to *loads* or obtain capacity of *market network services* that are or may become the subject of a *AEMO intervention event*;

(iii) be consistent with the price of *accepted restriction offers* in accordance with clause 3.12A.6; and

(iv) minimise the *restriction shortfall amount*.

(b) Notwithstanding the provisions of this clause 3.12A.5, at no time is *AEMO* required to *dispatch* the capacity of a *Scheduled Generator* or *Scheduled Network Service Provider* the subject of an *accepted restriction offer* if such *dispatch* would prevent *AEMO* from meeting its obligations for system security.

3.12A.6 Pricing during a restriction price trading interval

During a *mandatory restriction period*, *dispatch prices* must be determined by the *central dispatch* process based on *dispatch offers*, *dispatch bids* and *network dispatch offers* in accordance with clause 3.9.2, provided that *AEMO* must calculate the *dispatch price* as if the *dispatch offer price* for all capacity the subject of an *accepted restriction offer* was the maximum price permitted by clause 3.8.6(c) and 3.8.6A(i) notwithstanding any other provision of the *Rules*.

3.12A.7 Determination of funding restriction shortfalls

(a) *AEMO* is entitled to the *trading amount* received by *Scheduled Generators* and *Scheduled Network Service Providers* from the *dispatch* of capacity the subject of an *accepted restriction offer* in accordance with 3.15.10B.

(b) *AEMO* must, as soon as reasonably practicable following the end of a *mandatory restriction period*, calculate:

(i) the aggregate amount payable to *AEMO* pursuant to clause 3.12A.7(a) from all *accepted restriction offers* in that *mandatory restriction period*;

(ii) the aggregate amount payable by *AEMO* pursuant to all *accepted restriction offers* in that *mandatory restriction period*; and

(iii) the sum of the amount determined under clause 3.12A.7(b)(i) less the amount determined under clause 3.12A.7(b)(ii) (the *restriction shortfall amount*).

(b1) The maximum amount payable to a *Scheduled Generator* or *Market Participant* for any *accepted restriction offer* of that *Scheduled Generator* or *Market Participant* during a *mandatory restriction period* is the aggregate of the maximum possible *spot price* for each *trading interval* within the *mandatory restriction period*, being the *market price cap* or an *administered price cap* as the case may be, multiplied by the capacity of the *accepted restriction offer* in MWh for each corresponding *trading interval*.

(c) Notwithstanding any other provisions of the *Rules*, the absolute value of the *restriction shortfall amount* must not exceed the sum of the maximum possible *spot price* for a *trading interval*, being the *market price cap* or an

administered price cap as the case may be, multiplied by the aggregate of the capacity of all *accepted restriction offers* in MWh for that *trading interval* for all *trading intervals* in the *mandatory restriction period*.

(d)   Notwithstanding any other provision of the *Rules*, if the *restriction shortfall amount* is capped pursuant to clause 3.12A.7(c) and the *restriction shortfall amount* calculated pursuant to clause 3.12A.7 is a negative number, then the amount payable by *AEMO* pursuant to each *accepted restriction offer* is to be reduced pro-rata until clause 3.12A.7(c) is satisfied.

(e)   If the *restriction shortfall amount* is a negative number, *Market Customers* in the relevant *region* must pay to *AEMO* an amount determined in accordance with clause 3.12A.7(f) or 3.12A.7(g).

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f)   If the *restriction shortfall amount* is between minus $100,000 and $0, then each *Market Customer* in the relevant *region* must pay to *AEMO* an amount determined in accordance with the following formula:

$$MCP = RSA \times \frac{(AGE)}{(AAGE)}$$

Where:

MCP is the amount payable by a *Market Customer* in accordance with this clause 3.12A.7(f).

RSA is the *restriction shortfall amount*.

AGE is the *adjusted gross energy* of a *Market Customer* in that *region* for the *mandatory restriction period* expressed in MWh.

AAGE is the aggregate of the *adjusted gross energy* of all *Market Customers* in that *region* for the *mandatory restriction period* expressed in MWh.

(g)   If the *restriction shortfall amount* is less than minus $100,000:

(i)   each *Market Customer* in the relevant *region* must pay to *AEMO* an amount determined in accordance with the following formula:

RCP = (RSA + IE) ×(RD/TRD)

Where

RCP is the amount payable to *AEMO* by a *Market Customer* in that *region* following the cessation of the *mandatory restriction period*.

RSA is the *restriction shortfall amount* incurred by *AEMO* upon the cessation of the *mandatory electricity restriction period*.

RD is the *Market Customer's restriction demand reduction*.

TRD is the sum of RD for all *Market Customers* in the relevant *region*.

IE is the amount of the independent expert's final tax invoice delivered to *AEMO* in accordance with clause 3.12A.7(i)(11) plus any amounts payable by *AEMO* on behalf of the independent expert as determined by the *dispute resolution panel* established in accordance with clause 3.12A.7(m); and

(ii) *AEMO* must within 10 days of the end of a *mandatory restriction period* appoint an appropriately qualified independent expert as *AEMO's* agent to determine the *restriction demand reduction* claimed by each *Market Customer* in a *region* for the purposes of clause 3.12A.7(g).

(h) If the *restriction shortfall amount* is a positive number then *AEMO* must pay to *Market Customers* in the relevant *region* an amount equal to:

$$RCRP = RSA \times \frac{(AGE)}{(AAGE)}$$

Where:

RCRP is the payment to be made by *AEMO* to *Market Customers* pursuant to this clause 3.12A.7.

RSA is the *restriction shortfall amount*.

AGE is the *adjusted gross energy* of a *Market Customer* in that *region* for the *mandatory restriction period* expressed in MWh.

AAGE is the aggregate of the *adjusted gross energy* of all *Market Customers* in that *region* for the *mandatory restriction period* expressed in MWh.

(i) When appointing the independent expert under clause 3.12A.7(g), *AEMO* must include as part of the independent expert's terms of appointment the following requirements:

(1) The independent expert must prepare a statement of the principles which the independent expert believes should be followed in determining the *restriction demand reduction* of *Market Customers*.

(2) Within 5 *business days* of his or her appointment, the independent expert must provide *AEMO* with details of his or her estimated fees and costs.

(3) Within 5 *business days* of his or her appointment, the independent expert must provide the statement prepared under clause 3.12A.7(i)(1) to all *Market Customers* in the relevant *region* and request that each *Market Customer* in the relevant *region* provide him or her with details of the *restriction demand reduction* claimed by that *Market Customer* and such additional information specified by the independent expert to fulfil its obligations.

(4) The independent expert must offer to meet with and consult each *Market Customer* who may be liable to make a payment to *AEMO* pursuant to clause 13.12A.7(g).

(5) The independent expert must within 30 *business days* of his or her appointment or such later date as approved by *AEMO* in its sole discretion:

    (i) *publish* a draft report; and

    (ii) provide each *Market Customer* in the relevant *region* with a draft statement.

(6) The draft report must contain:

    (i) the *restriction shortfall amount* based upon the independent expert's estimated fees and costs; and

    (ii) the methodology used by the independent expert in determining the *restriction demand reduction* of each *Market Customer* in a *region*.

The draft report must not contain details pertaining to individual *Market Customers*.

(7) A draft statement provided to a *Market Customer* must contain:

    (i) the *Market Customer's restriction demand reduction* as determined by the independent expert;

    (ii) the estimated amount payable by that *Market Customer* under clause 3.12A.7(g), based upon the independent experts estimated fees and costs; and

    (iii) information showing how the estimated amount referred to in clause 3.12A.7(i)(7)(ii) was calculated.

(8) The independent expert must within 50 *business days* of his or her appointment or such later date as approved by *AEMO* in its sole discretion make any necessary amendments to his or her draft report and draft statements following consultation with *Market Customers*, and:

    (i) *publish* his or her final report; and

      (ii)   provide each *Market Customer* in the relevant *region* with a final statement.

(9)   The independent expert's final report must contain the information set out in clause 3.12A.7(i)(6).

(10)   A final statement provided to a *Market Customer* by the independent expert must contain the information set out in clause 3.12A.7(i)(7).

(11)   The independent expert must provide *AEMO* with his or her final tax invoice for services rendered at the time of publication of the final report.

(i1)   Each *Market Customer* must within 10 *business days* of the independent expert requesting information in accordance with clause 3.12A.7(i)(3) deliver to the independent expert all such information.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i2)   The independent expert may request a *Market Customer* to provide further information that he or she requires to prepare either the draft or final report or a draft or final statement within 5 *business days* of the request being made.

(j)   A *Market Customer* must not unreasonably withhold information sought by the independent expert and must use its reasonable endeavours to provide the independent expert with the information required within the relevant timeframe specified in this clause 3.12A.7.

(k)   If a *Market Customer* has not provided the independent expert with information required under this clause 3.12A.7 within the specified time period, then the independent expert is entitled to make such assumptions concerning that information as he or she thinks appropriate.

(l)   Subject to the review process specified in clause 3.12A.7(m), a determination made by an independent expert appointed under clause 3.12A.7(g) binds all *Market Customers*.

(m)   Following the publication of the independent expert's final report, a *Market Customer* may request the *Adviser* to establish a *dispute resolution panel* to redetermine that *Market Customer's restriction demand reduction* only if the *Market Customer* reasonably believes that the independent expert's determination:

    (1)   has incorrectly assessed the *restriction demand reduction* of that Market Customer by more than 10%; or

    (2)   was made negligently or in bad faith.

(n)   The determination of a *dispute resolution panel* established under clause 3.12A.7(m):

(1)   binds all *Market Customers* and each *Market Customer* must comply with a determination of the *dispute resolution panel*; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(2)   may only order reimbursement of the reasonable fees and expenses incurred by a *Market Customer* in disputing the independent expert's determination and no other amounts.

(o)   Any amounts determined by the *dispute resolution panel* as payable by *AEMO* on behalf of the independent expert for the reasonable fees and expenses incurred by a *Market Customer* in disputing the independent expert's determination must be included on the next statement provided under clauses 3.15.14 and 3.15.15.

3.12A.8   Cancellation of a mandatory restriction period

(a)   At the cessation time designated in the *mandatory restriction schedule*, *AEMO* must:

(1)   immediately terminate all current *restriction offers*; and

(2)   *publish* a notice detailing the termination of all current *restriction offers* following the cancellation of the relevant *mandatory restriction period*.

3.12A.9   Review by AEMC

(a)   The *AEMC* must, in accordance with clause 3.12A.9(b), conduct a review of the operation of the provisions applicable to *mandatory restrictions* including:

(1)   the integration of *restriction offers* and *mandatory restrictions* into the *market*; and

(2)   any other matters which the *AEMC* reasonably believes are relevant to the operation of clauses 3.12A.1 to 3.12A.8 and clause 3.15.10B.

(b)   The review conducted by the *AEMC* in accordance with clause 3.12A.9(a) must:

(1)   include an analysis of:

(i)   the accuracy of the forecast demand reduction due to restrictions and the impact any error had on the resulting *spot price*;

(ii) whether the impact on the *spot price* resulting from an error in the forecast demand reduction due to restrictions adversely affects one group of *Scheduled Generators* or *Market Participants* over another group;

(iii) the *restriction offer* prices for contracts accepted by *AEMO* in meeting the *mandatory restriction schedule* including a comparison with the expected revenue the capacity subject to the *restriction offer* would have earned in the *spot market* taking into account the circumstances in which *restriction offers* were made;

(2) be conducted in accordance with the *Rules consultation procedures*; and

(3) commence following the first application of the *mandatory restrictions* where the estimated effect in MW of *mandatory restrictions* on a *region's* demand met or exceeded 10% of that *region's* estimated demand for the same period.

3.13 Market Information

3.13.1 Provision of information

(a) In addition to any specific obligation or power of *AEMO* under the *Rules* to provide information, *AEMO* must make available to *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* on request any information concerning the operation of the *market* not defined by the *AEMC* or the *Rules* as confidential or commercially sensitive and may charge a fee reflecting the cost of providing any information under this clause 3.13.1(a).

(b) *AEMO* must make information available to the public on request in respect of the *regional reference price* at any *regional reference node* and, where requested and available, reasons for any significant movements in prices.

3.13.2 Systems and procedures

(a) Information must be provided to *AEMO* and by *AEMO* on the *electronic communication system* unless:

(1) the *electronic communication system* is partially or wholly unavailable, then information will, to the extent of that unavailability, be provided to *AEMO* and by *AEMO* by means of the backup procedures specified by *AEMO* from time to time; or

(2) otherwise approved by *AEMO*.

(b) Information must be provided by using the templates supplied in the *electronic communication system* unless otherwise approved by *AEMO*.

(c)   Where approved by *AEMO*, information may be transmitted to and from *AEMO* and the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* concerned in any agreed format.

(d)   If possible, information provided to *AEMO* must be *time stamped* by *AEMO* on receipt by *AEMO* of the information by the *electronic communication system* and, if stamped, is deemed to be provided at the time indicated by the *time stamp*.

(e)   Information that is *published* by *AEMO* is deemed to be *published* when the information is placed on the *market information bulletin board*.

(f)   The *market information bulletin board* must be accessible by *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* via the *electronic communication system* subject to applicable security requirements.

(g)   Information *published* or notified to a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must be capable of being reviewed by that *Generator* or *Market Participant* and be capable of being downloaded from the *market information bulletin board* to the relevant *Generator* or *Market Participant* via the *electronic communication system*.

(h)   A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must notify *AEMO* of, and *AEMO* must *publish*, any *changes* to submitted information within the times prescribed in the *timetable*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i)   *AEMO* must make a copy of all *changes* to the data available to *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* for verification and resubmission by the relevant *Generator* or *Market Participant* as necessary.

(j)   All revisions must be provided on the *electronic communication system* and in the same format as the original information.

(k)   A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* may withhold information from *AEMO* which must otherwise be provided under the *Rules* if:

(1)   the information is of a confidential or commercially-sensitive nature and is not information of a kind that, in the reasonable opinion of the *AEMC*, is fundamental to the efficient operation of the *market*; or

(2)   disclosure of the information would have the likely effect of causing detriment to the person required to provide it unless, in the reasonable opinion of the *AEMC*, the public benefit resulting from the provision of the information outweighs that detriment.

(l)   Nothing in paragraph (k) allows a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* to avoid providing information to *AEMO* under the *Rules* where that information is generally available.

3.13.3   Standing data

(a)   *AEMO* must establish, maintain, update and *publish*:

(1)   a list of all of the *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* and a list of all applications to become a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant*, including *bid and offer validation data*;

(2)   a list of all of the *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* who will cease to be *Scheduled Generators*, *Semi-Scheduled Generators* or *Market Participants* and the time that each listed *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* will cease to be a *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant*;

(3)   a list of all of the *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* who are or are going to be suspended and the time at which each listed *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* was suspended or will be suspended.

(b)   All *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* must provide *AEMO* with the *bid and offer validation data* relevant to their *scheduled loads*, *scheduled network services* and *generating units* in accordance with schedule 3.1.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(c)   All *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* will be required to provide *AEMO* with information as set out below:

(1)   forecasts for *connection points* as prescribed in clause 5.11.1; and

(2)   *metering* information for *settlements* purposes as prescribed in Chapter 7.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d)   *Network Service Providers* are to maintain a register of data provided by *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* for planning and design purposes in accordance with schedule 5.7 of

Chapter 5 and are to provide a copy of this register of data to *AEMO* on request and in a form specified by *AEMO*.

(e)   *Network Service Providers* must, without delay, notify and provide *AEMO* with details of any additions or *changes* to the register of data described in clause 3.13.3(d).

(f)   Each year, by a date to be specified by *AEMO*, *Network Service Providers* must provide *AEMO* with the following information:

    (1)   expected *network capability* under normal, *outage* and emergency conditions;

    (2)   electrical data sufficient to allow *power system* modelling under steady state and dynamic conditions, this data to be made available in hard copy and an acceptable industry standard electronic format approved by *AEMO*; and

    (3)   operating procedures and practices for *network* operation and maintenance.

(g)   *Network Service Providers* must notify *AEMO* of any *changes* to the information provided under clause 3.13.3(f) as soon as practicable.

(h)   *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* must notify *AEMO* of any *changes* to *bid and offer validation data* 6 weeks prior to the implementation of planned *changes* and without unreasonable delay in the event of unplanned *changes*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i)   *Network Service Providers* must notify *AEMO* of any *changes* or additions to technical data one month prior to the implementation of planned *changes* and without unreasonable delay in the event of unplanned *changes*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(j)   *AEMO* must conduct an annual review of *Scheduled Generator*, *Semi-Scheduled Generator* and *Market Participant bid and offer validation data* in consultation with *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* and *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* must advise *AEMO* of any required *changes* to the data.

(k)   A *Registered Participant* may request from *AEMO*:

(1) *bid and offer validation data*;

(2) information that is reasonably required by the *Registered Participant* to carry out *power system* studies (including load flow and dynamic simulations) for planning and operational purposes; and

(3) operation and maintenance procedures and practices for *transmission network* or *distribution network* operation, developed for the purposes of schedule 5.1 sufficient to enable the *Registered Participant* to carry out *power system* modelling under normal, *outage* and emergency conditions.

(l) If *AEMO* holds information requested under clause 3.13.3(k), *AEMO* must provide the requested information to the *Registered Participant* as soon as practicable, subject to the following requirements:

(1) If *AEMO* holds and is required under this paragraph (l) to provide a *releasable user guide* that *AEMO* received under clause S5.2.4(b)(8), *AEMO* must provide the *releasable user guide* to the *Registered Participant* in an unaltered form.

(2) If *AEMO* holds and is required under this paragraph (l) to provide a form of the model source code that *AEMO* received under clauses S5.2.4(b)(6) and S5.2.4(d) or from any other source, *AEMO* must provide that information:

(i) only in the form of, at *AEMO's* discretion:

(A) compiled information (such as, for example, compiled Fortran code in object code or dynamic link library (DLL) form);

(B) encrypted information; or

(C) a secured format agreed by the provider of the model source code,

unless *AEMO* has the written consent of the person who provided the information to *AEMO* to provide it in another form; and

(ii) in a form that can be interpreted by a software simulation product nominated by *AEMO*.

(3) Any information provided by *AEMO* under clause 3.13.3(l) to a *Registered Participant* must be treated as *confidential information*.

(l1) *AEMO* may charge a fee, except where the information is requested by a *Network Service Provider* under clause 3.13.3(l5), to recover all reasonable costs incurred in providing information to a *Registered Participant* under this clause 3.13.3.

(l2) For the purposes of clause 3.13.3(l), the provider of the model source code is:

(1) the *Generator* if the model source code was received from that *Generator* under clause S5.2.4(b)(6) or S5.2.4(d); or

(2) the person required under the *Rules* to register as a *Generator* in respect of a *generating system* comprised of *generating units* with a combined *nameplate rating* of 30 MW or more, if the model source code was received from that person under clause S5.2.4(b)(6) or S5.2.4(d); or

(3) the *Generator*, if the model source code was provided to *AEMO* by a *Network Service Provider* and that same *Network Service Provider* advises *AEMO* that the provider of the model source code is the *Generator*; or

(4) the relevant *Network Service Provider*, if that same *Network Service Provider* advises *AEMO* that the provider of the model source code is itself; or

(5) otherwise, the relevant Transmission Network Service Provider.

(l3) If *AEMO* is required under clause 3.13.3(l) to provide information requested under clause 3.13.3(k)(2), *AEMO* may provide:

(1) historical information relating to the operating conditions of the *power system*;

(2) information and data provided to *AEMO* under clauses 3.13.3(f)(1) and 3.13.3(f)(3) and information of the same type provided under clause 3.13.3(g);

(3) *network* dynamic model parameter values obtained under clauses 3.13.3(f)(2) and 3.13.3(g);

(4) model parameter values and load flow data derived from a *releasable user guide*;

(5) a *network* model of the *national grid*, suitable for load flow and fault studies; and

(6) other technical data as listed in Schedules 5.5.3 and 5.5.4.

(l4) Despite clause 3.13.3(l), *AEMO* must not provide information relating to *plant* that is the subject of an *application to connect* or a *connection agreement*, until the earlier of:

(1) the date when a *connection agreement* relating to that *plant* is executed; or

(2) three months before the proposed start of commissioning of that *plant*.

(l5)   Subject to clause 3.13.3(l6), if a *Transmission Network Service Provider* is responsible for provision of *network* limit advice relating to *power system* stability limits to *AEMO* under clause S5.1.2.3, *AEMO* must, on request from that *Transmission Network Service Provider*, provide all *power system* and *generating system* model information that is reasonably required for planning and operational purposes, if *AEMO* holds that information, including:

(1)   functional block diagram information, including information provided to *AEMO* under clause S5.2.4(b)(5);

(2)   *generating unit*, *generating system* and *power system* static and dynamic model information, including model parameters and parameter values; and

(3)   information provided to *AEMO* in accordance with clause S5.2.4(a).

(l6)   If AEMO is required to provide information to a *Transmission Network Service Provider* under paragraph (l5), this must not include:

(1)   model source code provided to *AEMO* under clauses S5.2.4(b)(6) and S5.2.4(d), except as allowed under clause 3.13.3(l); and

(2)   information relating to *plant* that is the subject of an *application to connect* until after the execution of the relevant *connection agreement*.

(l7)   Any information provided by *AEMO* under clause 3.13.3(l5) to a *Transmission Network Service Provider* must be treated as *confidential information*.

(m)   Where special approvals or exemptions have been granted by *AEMO*, including approval to aggregate *generating units*, *market network services*, *loads* for *central dispatch*, or exemptions from *central dispatch*, details of such special arrangements must be *published* by *AEMO*.

(n)   *AEMO* must determine and *publish intra-regional loss factors* in accordance with clause 3.6.2 by 1 April each year and whenever changes occur.

(o)   *Network Service Providers* must advise *AEMO* of their *distribution loss factors*, duly authorised by the *AER*, and *AEMO* must *publish* such *distribution loss factors* in accordance with clause 3.6.3(i).

(p)   *AEMO* must *publish* on a quarterly basis details of:

(1)   *interconnector* transfer capability; and

(2)   the discrepancy between *interconnector* transfer capability and the capacity of the relevant *interconnector* in the absence of *outages* on the relevant *interconnector* only,

for each day of the preceding quarter for all *interconnectors*.

(p1)   *AEMO* must establish, maintain and *publish* a register which identifies:

(1)   the *Registered Participant* to whom any information is provided under clause 3.13.3(l); and

(2)   the date on which such information was provided.

Statement of opportunities

(q)   By 31 August in each year, *AEMO* must prepare and *publish* at a reasonable charge to cover the cost of production, a *statement of opportunities*, including at least the following information for the subsequent 10 year period:

(1)   projections of aggregate MW demand and *energy* requirements for each *region*;

(2)   generating capabilities of existing *generating units* and *generating units* for which formal commitments have been made for construction or installation;

(3)   planned *plant* retirements;

(4)   a summary of *network capabilities* and *constraints* based upon *Transmission Annual Planning Reports*; and

(5)   operational and economic information about the *market* to assist planning by:

(i)   *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants*; and

(ii)   potential *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants*.

(r)   If after the publication of the most recent *statement of opportunities*, significant new information becomes available to *AEMO* relating to:

(1)   projections of aggregate MW demand and *energy* requirements for each *region*; or

(2)   generating capabilities of existing *generating units* and *generating units* for which formal commitments have been made for construction or installation; or

(3)   planned *plant* retirements,

AEMO must, as soon as practicable, *publish* that information in a descriptive form that is consistent with the *statement of opportunities*.

(s)   *AEMO* may by written notice request a *jurisdictional planning body* to provide *AEMO* with information that *AEMO* requires for the preparation of

a *statement of opportunities* and the *jurisdictional planning body* must comply with that notice.

(t)   As soon as practicable after a *Scheduled Generator*, *Semi-Scheduled Generator Market Participant* or *Network Service Provider* becomes aware of any information required for *publication* by *AEMO* under paragraph (q), that information must be provided to *AEMO* by that *Scheduled Generator*, *Market Participant* or *Network Service Provider*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(u)   By 1 November each year, *AEMO* must prepare and provide a report to the *Reliability Panel* on:

(1)   the accuracy of the demand forecasts to date in the most recent *statement of opportunities*; and

(2)   any improvements made by *AEMO* or other relevant parties to the forecasting process that will apply to the next *statement of opportunities*.

(v)   The *Reliability Panel* must *publish* each report provided to it under paragraph (u) within ten *business days* after being provided with that report.

(w)   In relation to the *declared transmission system* of an *adoptive jurisdiction*:

(1)   *AEMO* must maintain the register referred to in paragraph (d); and

(2)   a *declared transmission system operator* must provide *AEMO* with information reasonably required by *AEMO* for maintaining the register and keeping it up to date.

(x)   A *jurisdictional planning body* must provide assistance *AEMO* reasonably requests in connection with the preparation of a report under paragraph (u).

3.13.4   Spot market

(a)   Each week, in accordance with the *timetable*, *AEMO* must *publish* details of the outputs of the *medium term PASA*.

(b)   The details to be *published* by *AEMO* under clause 3.13.4(a) must include the information specified in clause 3.7.2(f).

(c)   Each *day*, in accordance with the *timetable*, *AEMO* must *publish* details of the outputs of the *short term PASA* for each *trading interval* covered.

(d)   The details of the *short term PASA published* each *day* by *AEMO* under clause 3.13.4(c) must include the information specified in clause 3.7.3(h).

(e)   Each *day*, in accordance with the *timetable*, *AEMO* must *publish* a half hourly *pre-dispatch schedule* for the period described in clause 3.8.20(a).

(f)   Details of the *pre-dispatch schedule* to be *published* must include the following for each *trading interval* in the period covered:

(1)   forecasts of the most probable peak *power system load* plus required *scheduled reserve* for each *region* and for the total *power system*;

(2)   forecasts of the most probable *energy* consumption for each *region* and for the total *power system*;

(3)   forecast *inter-regional loss factors*;

(4)   aggregate *generating plant* availability for each *region* and aggregate availability of each type of *market ancillary service* for each *region*;

(5)   projected *supply* surpluses and deficits for each *region*, including shortages of *scheduled reserve* and projected *market ancillary service* surpluses and deficits for each *region*;

(5A)   the aggregated MW allowance (if any) made by *AEMO* for generation from *non-scheduled generating systems* in each forecast:

(i)   of the most probable peak *power system load* referred to in clause 3.13.4(f)(1);

(ii)   referred to in clause 3.13.4(f)(2);

(iii)   of aggregate *generating plant* availability referred to in clause 3.13.4(f)(4); and

(iv)   of projected *supply* surpluses and deficits referred to in clause 3.13.4(f)(5) but not including shortages of *scheduled reserve* or projected *market ancillary service* surpluses and deficits for each *region*.

(5B)   in respect of each forecast:

(i)   of the most probable peak *power system load* referred to in clause 3.13.4(f)(1);

(ii)   referred to in clause 3.13.4(f)(2);

(iii)   of aggregate *generating plant* availability referred to in clause 3.13.4(f)(4); and

(iv)   of projected *supply* surpluses and deficits referred to in clause 3.13.4(f)(5) but not including shortages of *scheduled reserve* or projected *market ancillary service* surpluses and deficits for each *region*,

a value that is the sum of that forecast and the relevant aggregated MW allowance (if any) referred to in clause 3.13.4(f)(5A); and

(6) identification and quantification of:

(i) when and where the projected conditions are found to be inadequate;

(ii) any *trading intervals* for which *low reserve* or *lack of reserve* conditions are forecast to apply;

(iii) where a projected *supply* deficit in one *region* can be supplemented by a surplus in a neighbouring *region* (dependent on forecast *interconnector* capacities) and the expected *interconnector flow*;

(iv) forecast *interconnector* transfer capabilities and the projected impact of any *inter-network tests* on those transfer capabilities; and

(v) when and where *network constraints* may become binding on the *dispatch* of *generation* or *load*.

(g) Each *day*, in accordance with the *timetable*, *AEMO* must *publish* forecasts of *spot prices* and *ancillary service prices* at each *regional reference node* for each *trading interval* or *dispatch interval* (as applicable) of the period described in clause 3.8.20(a), with such forecasts being based on the *pre-dispatch schedule* information.

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

(i) In accordance with the *timetable* or more often if there is a *change* in circumstances which in the opinion of *AEMO* results in a significant *change* in forecast *spot price*, or in any event no more than 3 hours after the previous such publication, *AEMO* must prepare and *publish* updated *pre-dispatch schedules* and *spot price forecasts*, including the details specified in clause 3.13.4(f).

(j) If *AEMO* considers there to be a significant change in a forecast *spot price*, *AEMO* must identify and *publish* the cause of such a change in terms of the aggregate *supply* and demand situation and any *network constraints* in or between the affected *region(s)*.

(k) *AEMO* must specify and *publish* its criteria for a significant change in forecast *spot price* for the purposes of activating an update in the *published* forecasts.

(l) Within 5 minutes of each time *AEMO* runs the *dispatch algorithm*, *AEMO* must *publish* the *dispatch price* for each *regional reference node* calculated in accordance with clause 3.9.2 and the *ancillary service price* for each

market ancillary service for each *regional reference node* calculated in accordance with clause 3.9.2A.

(m)   Within 5 minutes of the conclusion of each *trading interval*, *AEMO* must *publish* the *regional reference prices* for each *region* for that *trading interval*.

(n)   Each *day*, in accordance with the *timetable*, *AEMO* must *publish* the actual *regional reference prices*, *ancillary service prices*, *regional* and total *interconnected* system *loads* and *energies*, *inter-regional loss factors* and details of any *network constraints* for each *trading interval* in the previous *trading day*.

(n1)   In accordance with the *timetable*, *AEMO* must *publish* the *inter-regional* flows.

(o)   **[Deleted]**

(p)   Each *day*, in accordance with the *timetable*, *AEMO* must *publish* details of final *dispatch offers*, *dispatch bids* and *market ancillary service offers* received and actual availabilities of *generating units*, *scheduled network services*, *scheduled loads* and *market ancillary services* for the previous *trading day*, including:

(1)   the number and times at which *rebids* were made, and the reason provided by the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* for each *rebid* under clause 3.8.22(c)(2);

(2)   identification of the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* submitting the *dispatch bid*, *dispatch offer* or *market ancillary offer*;

(3)   the *dispatch bid* or *dispatch offer prices*;

(4)   quantities for each *trading interval*;

(5)   the *ramp rate* of each *generating unit*, *scheduled load* and *scheduled network service* as measured by *AEMO's* telemetry system;

(6)   identification of *trading intervals* for which the *plant* was specified as being *inflexible* in accordance with clause 3.8.19 and the reasons provided by the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* in accordance with clause 3.8.19(b)(1);

(7)   in respect of a *semi-scheduled generating unit*, the availability of that *generating unit* specified in the relevant *unconstrained intermittent generation forecast* for each *dispatch interval*; and

(8)   in respect of *semi-scheduled generating units*, the aggregate of the availability of the *semi-scheduled generating units* referred to in subparagraph (7) in respect of each *region* for each *dispatch interval*.

(q)   Each *day*, in accordance with the *timetable*, *AEMO* must *publish* details of:

(1)   *dispatched generation*, *dispatched network service* or *dispatched load* for each *scheduled generating unit*, *semi-scheduled generating unit*, *scheduled network service* and *scheduled load* respectively in each *trading interval* and *dispatch interval*; and

(2)   for each *semi-scheduled generating unit* in each *trading interval* and *dispatch interval*, whether or not a condition for setting a *semi-dispatch interval* applied,

for the previous *trading day*.

(r)   In accordance with the *timetable*, *AEMO* must *publish* details of:

(1)   actual *generation* for each *scheduled generating unit*, *semi-scheduled generating unit* and *non-scheduled generating unit* or *non-scheduled generating system*;

(2)   actual *network service* for each *scheduled network service*; and

(3)   actual *load* for each *scheduled load*.

(s)   Where *AEMO publishes* details as referred to in clause 3.13.4(r), the requirement to *publish* applies only to data available to *AEMO*.

(t)   *AEMO* may, in *publishing* the details referred to in clause 3.13.4(s), *publish* aggregated information of actual *generation* for *non-scheduled generating units* or *non-scheduled generating systems* that have a *nameplate rating* that is less than 30 MW.

(u)   Each time *AEMO* runs the *dispatch algorithm* it must, within 5 minutes, *publish* for the relevant *dispatch interval*:

(1)   details of any MW allowance made by *AEMO* for *generation* from *non-scheduled generating systems* in its forecast regional demand;

(2)   for each *regional reference node* the sum of the actual *generation* for each *non-scheduled generating unit* or *non-scheduled generating system*; and

(3)   for each *regional reference node*, a value that is the sum of the *regional* demand value used by *AEMO* in its *dispatch algorithm* to calculate the *dispatch price* referred to in clause 3.13.4(l) and the sum of the actual *generation* referred to in clause 3.13.4(u)(2).

(v)   Where *AEMO publishes* the information referred to in clause 3.13.4(u), the requirement for *AEMO* to *publish* applies only to data available to *AEMO*.

(w)   Each *day*, in accordance with the *timetable*, *AEMO* must *publish* details of any operational irregularities arising on the previous *trading day* including,

for example, any circumstances in which there was prima facie evidence of a failure to follow *dispatch instructions*.

(x)   Each *trading interval*, *AEMO* must, for each *regional reference node*, *publish* the demand for that *trading interval*, both inclusive and exclusive of the aggregate actual *generation* from *non-scheduled generating systems*.

(y)   In accordance with the *timetable* and no more than 3 hours after the last such notification, *AEMO* must notify electronically on a confidential basis each *Semi-Scheduled Generator* of the *unconstrained intermittent generation forecast* for its *semi-scheduled generating units* that was taken into account for each *trading interval* of the last *pre-dispatch schedule published* by *AEMO* under paragraph (e).

(z)   At intervals to be determined by *AEMO* under rule 3.7A(e), *AEMO* must, in accordance with the *timetable*, *publish* updates to the *congestion information resource*.

3.13.4A   Market ancillary services

(a)   *AEMO* must each *day*, in accordance with the *timetable*, *publish* a forecast of the requirements for each type of *market ancillary service* for each *region* for each *trading interval* during the period described in clause 3.8.20(a).

(b)   *AEMO* must *publish* information describing the key factors which determine the requirement for each type of *market ancillary service* and how they impact on forecast requirements.

(b1)   *AEMO* must *publish* annually the actual quantities and types of *market ancillary services*.

(c)   *AEMO* must *publish* information detailing any significant changes to the forecast requirement for any *market ancillary service* previously *published* under clause 3.13.4A(a), as soon as reasonably practicable after becoming aware of that information.

3.13.5   Ancillary services contracting by AEMO

(a)   *AEMO* must *publish* annually the costs of all of its operations associated with its acquisition of *market ancillary services* and *non-market ancillary services*.

(b)   *AEMO* must *publish* annually the quantities and types of *non-market ancillary services* covered under existing *ancillary services agreements.*

(c)   Information *published* under paragraph (b) must include:

(1)   the actual costs and quantities associated with each type of *ancillary service* acquired over the preceding 12 months in respect of each *region*; and

(2)   in the case of *NSCAS*, a breakdown of the actual costs and quantities relating to each *facility* contracted under *ancillary services agreements*.

3.13.5A   Settlements residue auctions

(a)   If *AEMO* conducts an *auction* under rule 3.18, *AEMO* must, as soon as practicable thereafter, make available to all *Registered Participants* a report outlining:

(1)   the *auction* clearing prices;

(2)   all bids (but not the name of any bidder); and

(3)   the proceeds of each such *auction*.

(b)   *AEMO* must, as soon as practicable after the *final statements* for a *billing period* have been given to *Market Participants* under clause 3.15.15, make available to all *Registered Participants* a report setting out:

(1)   the total *settlements residue*;

(2)   the amount of *settlements residue* attributable to each *directional interconnector* (including the amount paid pursuant to the *jurisdictional derogations* in Chapter 9); and

(3)   the amount of *settlements residue* attributable to *intra-regional loss factors* for each *region*, for that *billing period*.

(c)   *AEMO* may provide copies of its reports under clauses 3.13.5A(a) and (b) to persons other than *Registered Participants*, and may charge a fee for doing so to cover an appropriate share of the costs of preparing the report.

3.13.6   [Deleted]

3.13.6A   Report by AEMO

(a)   *AEMO* must, as soon as reasonably practicable after issuing a *direction*, *publish* a report outlining:

(1)   the circumstances giving rise to the need for the *direction*;

(2)   the basis on which it determined the latest time for that *direction* and on what basis that it determined that a *market* response would not have avoided the need for the *direction*;

(3)   details of the changes in *dispatch* outcomes due to the *direction*;

(4)   the processes implemented by *AEMO* to issue the *direction*;

(5) if applicable, the basis upon which *AEMO* did not follow any or all of the processes set out in rule 4.8 either in whole or in part prior to the issuance of the *direction*;

(6) if applicable, the basis upon which *AEMO* considered it impractical to set *spot prices* and *ancillary service prices* in accordance with clause 3.9.3(b);

(7) details of the adequacy and effectiveness of responses to inquiries made by *AEMO* under clause 4.8.5A(d); and

(8) information regarding any notification by a *Registered Participant* that it will not be able to comply with a *direction* under clause 4.8.9(d).

(b) As soon as reasonably practicable after *AEMO* has, in accordance with clause 3.15.10C, included the amounts arising from a *direction* in a settlement statement provided under clause 3.15.15, *AEMO* must *publish* details of:

(1) the *compensation recovery amount* arising from the *direction* as calculated under clause 3.15.8(a) for the period of the *direction*;

(2) details of the calculation of the regional benefit determined under clause 3.15.8(b1); and

(3) a breakdown of the *compensation recovery amount* by each category of *Registered Participant*, as determined by *AEMO*, in each *region*.

3.13.7 Monitoring of significant variation between forecast and actual prices by AER

(a) The *AER* must, after consulting with the *AEMC*, specify and make available to *Registered Participants* and the public, criteria which the *AER* will use to determine whether there is a significant variation between the *spot price forecast published* by *AEMO* in accordance with clause 3.13.4 and the actual *spot price* in any *trading interval*. The *AER* must, in accordance with these criteria, monitor in each *trading interval* whether any such significant variation has occurred.

(b) The *AER* must prepare and *publish* a report in respect of each three month period commencing on 1 January, 1 April, 1 July and 1 October in each year. The report must:

(1) be *published* no later than 4 weeks after the end of each three month period;

(2) identify and review each occasion when, in accordance with the criteria specified under clause 3.13.7(a), the *AER* considers that a significant price variation has occurred;

(3)   state why the *AER* considers that the significant price variation occurred;

(4)   be available to members of the public on request; and

(5)   be provided to the *AEMC*.

(c)   The *ACCC* or the *AEMC* may request the *AER* to report to it on a particular *market* outcome. If the *ACCC* or the *AEMC* makes a request of this type, the *AER* may provide a report on that *market* outcome. The report must review the *market* outcome raised by the *ACCC* or the *AEMC* (as the case may be) and state why the *AER* considers that the *market* outcome occurred.

(d)   The *AER* must, within 40 *business days* of the end of a week in which the *spot price* exceeded $5,000/MWh in a *trading interval* or *trading intervals*, prepare and *publish* a report which must for each *trading interval* in which the *spot price* exceeded $5,000/MWh in that week:

(1)   describe the significant factors that contributed to the *spot 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 *spot price* exceeding $5,000/MWh; and

(3)   identify the marginal *scheduled generating units* and *semi-scheduled generating units* for the *dispatch intervals* in the relevant *trading interval* and all *scheduled generating units* and *semi-scheduled generating units* for which any *dispatch offer* for the *trading interval* was equal to or greater than $5,000/MWh and compare these *dispatch offers* to relevant *dispatch offers* in previous *trading intervals*.

(e)   Where

(1)   prices at a *regional reference node* for a *market ancillary service* over a period significantly exceed the relevant *spot price* for *energy*; and

(2)   prices for that *market ancillary service* exceed $5,000 for a number of *trading intervals* within that period,

the *AER* must prepare and *publish* a report which:

(3)   describes the significant factors that contributed to the *ancillary service prices* exceeding $5,000/MWh;

(4)   identifies any linkages between *spot prices* in the *energy market* and *ancillary service prices* contributing to the occurrence; and

(5)   assesses whether *rebidding* pursuant to clause 3.8.22 contributed to prices exceeding $5,000/Mwh.

3.13.8 Public information

(a) *AEMO* must *publish* on a daily basis the following information for the previous *trading day*:

    (1) *regional reference price* by *trading interval*;

    (2) *power system load* for each *region* referred to the *regional reference node* by *trading interval*;

    (3) *regional* electricity consumption in MWh by *trading interval*;

    (4) *inter-regional* power flows by *trading interval*; and

    (5) *network constraints* by *trading interval*.

(b) All *market information* that *AEMO* is required to *publish* in accordance with the *Rules* shall also be made available by *AEMO* to persons other than *Registered Participants* using the *electronic communications system* on the fee basis described in clause 8.7.6. *AEMO* may make the *market information* available to persons other than *Registered Participants* using a mechanism other than the *market information bulletin board* on the fee basis described in clause 8.7.6, so long as that information is also available on the *market information bulletin board*.

(c) *AEMO* must make available for purchase by any party the *statement of opportunities* from the date of *publication* of such statement.

(d) *AEMO* must retain all information provided to it under the *Rules* for at least 6 years in whatever form it deems appropriate for reasonably easy access.

3.13.9 [Deleted]

3.13.10 Market auditor

(a) *AEMO* must appoint one or more *market auditors* to carry out *reviews* of such matters as *AEMO* considers appropriate which must include (but need not be limited to) a *review* of:

    (1) the calculations and allocations performed by the *metering system* and *settlements* system;

    (2) the billing and information systems;

    (3) the scheduling and *dispatch* processes;

    (4) the processes for software management;

    (5) the *AEMO* procedures and their compliance with the *Rules*.

(b) *AEMO* must ensure that the *market auditor* carries out the *reviews* to be carried out under clause 3.13.10(a) no less than annually.

(c)   A *market auditor* shall be an *independent person*.

(d)   A *market auditor* must report in writing to *AEMO*. *AEMO* must, after receiving the report, either:

      (1)   approve the report, and any recommendations made in it, by noting such approval on the report or in a paper attached to the report; or

      (2)   prepare a separate report setting out the matters dealt with in the report which *AEMO* approves and those matters which *AEMO* does not approve and setting out *AEMO's* reasons for that view.

(e)   *AEMO* must *publish* any report received from the *market auditor* together with the material mentioned in clause 3.13.10(d).

3.13.11   [Deleted]

3.13.12   NMI Standing Data

Note:

Clause 3.13.12 only applies in a participating jurisdiction that has not applied the *NERL* as a law of that jurisdiction. In a participating jurisdiction that has applied the *NERL*, the scheme developed by *AEMO* under clause 3.13.12A supersedes clause 3.13.12 and clause 3.13.12 is revoked (see clause 3.13.12A(d)).

(a)   The authority responsible for administering the *jurisdictional electricity legislation* in for each *participating jurisdiction* may provide *AEMO* with a *Jurisdictional NMI Standing Data schedule* setting out the categories of *NMI Standing Data* which:

      (1)   *Registered Participants* are required by the *participating jurisdiction's* legislation or licensing requirements to provide to *AEMO* in relation to *connection points* in that *participating jurisdiction*; and

      (2)   *AEMO* must make available to *Market Customers*, or a class of *Market Customers*, on request pursuant to its disclosure obligations under clauses 3.13.12(d) and (e).

Any such schedule must contain the matters set out in clause 3.13.12(c).

(b)   A responsible authority may from time to time amend the *Jurisdictional NMI Standing Data schedule* in respect of the relevant *participating jurisdiction*, which amendments must be consistent with the matters set out in clause 3.13.12(c), and must promptly provide the amended schedule to *AEMO*.

(c)   A valid *Jurisdictional NMI Standing Data schedule* must contain the following items:

      (1)   a specification of the categories of *NMI Standing Data* which *AEMO* must provide to *Market Customers*, or a specified class of *Market Customers*, on request, pursuant to its disclosure obligations under

clauses 3.13.12(d) and (e), in respect of *connection points* in the relevant *participating jurisdiction*;

(2) details of the *Jurisdictional NMI Standing Data suppliers*, including which *Registered Participants* are required to provide that data in respect of particular *connection points* within that *participating jurisdiction*;

(3) the timetable which the relevant *participating jurisdiction* will implement to ensure *Jurisdictional NMI Standing Data suppliers* supply *NMI Standing Data* in respect of *connection points* in that *participating jurisdiction* to *AEMO*;

(4) the criteria which *AEMO* must use to identify whether *AEMO* must disclose *NMI Standing Data* for *connection points* in that *participating jurisdiction* to particular *Market Customers*, pursuant to its disclosure obligations under clauses 3.13.12(d) and (e);

(5) the purposes connected with the facilitation of the wholesale electricity *market* for which the *Market Customer* may use *NMI Standing Data*;

(6) any additional information or criteria as may be determined by the authority responsible for administering the *jurisdictional electricity legislation* as necessary or appropriate in relation to the obligations of *Jurisdictional NMI Standing Data suppliers* and the release by *AEMO* of *NMI Standing Data* for *connection points* in that *participating jurisdiction*.

(d) *AEMO* must:

(1) *publish* the *Jurisdictional NMI Standing Data schedules* and any amendments to those schedules provided to it by the responsible authorities under clauses 3.13.12(a) and (b); and

(2) subject to clause 3.13.12(e), make available to *Market Customers* on request *NMI Standing Data* within the relevant categories in respect of *connection points* in a *participating jurisdiction* described in the *Jurisdictional NMI Standing Data schedule* for that *participating jurisdiction*.

(e) *AEMO* must only provide *NMI Standing Data* under this clause 3.13.12 to a *Market Customer*:

(1) that is a *Market Customer* or a member of a class of *Market Customers* fitting the criteria stated in the relevant *Jurisdictional NMI Standing Data schedule* as being entitled to receive that data;

(2) in accordance with the relevant valid *Jurisdictional NMI Standing Data schedule*; and

(3) for the purposes described in clause 3.13.12(g).

(f)   Each *Registered Participant* which is a *Jurisdictional NMI Standing Data supplier* must provide the *NMI Standing Data* to *AEMO* which it is required to provide in accordance with the relevant *Jurisdictional NMI Standing Data schedule*, if any such *Jurisdictional NMI Standing Data schedule* has been provided to *AEMO* under clause 3.13.12(a):

(1)   at no charge and in the format reasonably required by *AEMO*; and

(2)   after having first done whatever may be required or otherwise necessary under any applicable privacy legislation (including if appropriate making relevant disclosures or obtaining relevant consents from end-use customers) taking into account that *AEMO* will use and disclose the *NMI Standing Data* in accordance with the *Rules*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g)   *Market Customers* must only use *NMI Standing Data* provided to it by *AEMO* under this clause 3.13.12 for the purposes permitted by the relevant *Jurisdictional NMI Standing Data schedule*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(h)   Where a responsible authority has provided *AEMO* with a *Jurisdictional NMI Standing Data schedule* for the relevant *participating jurisdiction* and a *Registered Participant* which is a *Jurisdictional NMI Standing Data supplier* fails to provide *AEMO* with *NMI Standing Data* in accordance with clause 3.13.12(f) and *AEMO* becomes aware of that failure, then:

(1)   *AEMO* must advise the *Registered Participant* that, in its opinion, the *Registered Participant* is failing to comply with clause 3.13.12(f);

(2)   if the *Registered Participant* fails to provide *AEMO* with the *NMI Standing Data* within 5 *business days* of the notice provided under clause 3.13.12(h)(1), *AEMO* must notify the *AER* and the relevant responsible authority of the failure and the failure by the *Registered Participant* to provide the *NMI Standing Data* is to be dealt with by the responsible authority under the relevant *participating jurisdiction's* legislation or licensing requirements unless the responsible authority notifies *AEMO* otherwise in accordance with clause 3.13.12(h)(3); and

(3)   if, after receiving a notice from *AEMO* under clause 3.13.12(h)(2), the responsible authority notifies *AEMO* that the relevant *participating jurisdiction's* legislation or licensing requirements do not contain a regime which empowers the responsible authority to compel the

Registered Participant to provide the *NMI Standing Data* to *AEMO*, *AEMO* must notify the *AER* of the failure by the *Registered Participant* to provide the *NMI Standing Data* under clause 3.13.12(f).

(i) Where a responsible authority has provided *AEMO* with a *Jurisdictional NMI Standing Data schedule* for the relevant *participating jurisdiction* and a *Market Customer*, that has been provided with *NMI Standing Data* by *AEMO* under clause 3.13.12(d) in accordance with that schedule, fails to use that *NMI Standing Data* in accordance with clause 3.13.12(g), and *AEMO* becomes aware of that failure, then:

   (1) *AEMO* must advise the *Market Customer* that, in its opinion, the *Market Customer* is failing to comply with clause 3.13.12(g);

   (2) if the *Market Customer* does not remedy the failure within 5 *business days* of the notice provided under clause 3.13.12(i)(1), *AEMO* must notify the relevant responsible authority of the failure and the failure by the *Market Customer* to use the *NMI Standing Data* in accordance with this clause 3.13.12 is to be dealt with by the responsible authority under the relevant *participating jurisdiction's* legislation or licensing requirements unless the responsible authority notifies *AEMO* otherwise in accordance with clause 3.13.12(i)(3); and

   (3) if, after receiving a notice from *AEMO* under clause 3.13.12(i)(2), the responsible authority notifies *AEMO* that the relevant *participating jurisdiction's* legislation or licensing requirements do not contain a regime which empowers the responsible authority to regulate the use of the *NMI Standing Data* by a *Market Customer*, *AEMO* must notify the *AER* of the failure by the *Market Customer* to use the *NMI Standing Data* in accordance with clause 3.13.12(g).

(j) *AEMO* must if requested by a responsible authority:

   (1) develop a regime for monitoring and reporting to the responsible authority on requests received by *AEMO* to provide *NMI Standing Data* to *Market Customers* for *connections points* in the relevant *participating jurisdiction*, in consultation with the responsible authority; and

   (2) provide information to the responsible authority in accordance with the monitoring and reporting regime developed under this clause 3.13.12(j).

(k) Nothing in this clause 3.13.12:

   (1) requires *AEMO* to make available *NMI Standing Data* if that *NMI Standing Data* has not been provided to *AEMO*;

   (2) requires *AEMO* to make available *NMI Standing Data* where the collection, use or disclosure of that information by *AEMO* would breach applicable privacy laws;

(3)   precludes *AEMO* from providing *NMI Standing Data* to a *Registered Participant* where the provision of that information is required to give effect to other provisions of the *Rules*;

(4)   precludes *AEMO* from disclosing *confidential information* in the circumstances in which the disclosure of *confidential information* is permitted under the *National Electricity Law* or these *Rules*; and

(5)   requires *AEMO* to provide information which its software systems cannot provide without modification.

3.13.12A NMI Standing Data Schedule

Note:

Clause 3.13.12A was inserted in the Rules by the National Electricity Amendment (National Energy Retail Law) Rule 2012. Clause 3.13.12A only applies in a participating jurisdiction that has applied the *NERL* as a law of that jurisdiction. In a participating jurisdiction that has not applied the *NERL* clause 3.13.12 continues to apply.

(a)   *AEMO* must, in consultation with the responsible *authorities* for *participating jurisdictions*, *Registered Participants*, and other interested persons, develop a scheme for an *NMI standing data* schedule (the **NMI Standing Data Schedule**).

(b)   In developing the scheme, *AEMO* must have regard to the *Jurisdictional NMI Standing Data schedules*.

(c)   The proposed scheme must include provisions dealing with:

(1)   the obligations of *Registered Participants* and others to provide information for inclusion in the Schedule; and

(2)   the rights of *Registered Participants* and others to have access to the Schedule; and

(3)   amendment of the Schedule.

(d)   The scheme supersedes clause 3.13.12 and, on the date it takes effect, that clause is revoked.

(e)   *AEMO* must publish a notice of its adoption of the scheme in the South Australian Government Gazette:

(1)   setting out the provisions of the scheme; and

(2)   fixing a date for its commencement.

(f)   The scheme takes effect on the date fixed under paragraph (e)(2).

3.13.13 Inter-network tests

(a) *AEMO* must *publish* the *test program* for an *inter-network test* as soon as practicable after determining it under clause 5.7.7(r).

(b) If *AEMO* amends the *test program* for an *inter-network test* it must *publish* details of the amendment.

(c) If *AEMO* proposes to conduct an *inter-network test* it must *publish* the approximate time of the test, giving as much notice as is reasonably practicable.

(d) If the time of an *inter-network test* is changed, *AEMO* must *publish* details of the change.

3.13.14 Carbon Dioxide Equivalent Intensity Index

Carbon dioxide equivalent intensity index procedures

(a) *AEMO* must develop, review and amend *carbon dioxide equivalent intensity index procedures* in consultation with *Registered Participants* and such other persons as *AEMO* thinks appropriate, in accordance with the *Rules consultation procedures* and paragraphs (b), (c) and (e)

(a1) For the purposes of this clause, reference to a *market generating unit* is not taken to include a *small generating unit*.

(b) The *carbon dioxide equivalent intensity index procedures* must include:

    (1) the methodology for calculating the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*;

    (2) where relevant, any assumptions used to calculate the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*;

    (3) the form of the *emission factors* for the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*;

    (4) the methodology for estimating an *emission factor* where the data on the *emission factor* for a *scheduled generating unit* or *market generating unit* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* is not publicly available;

    (5) the form of the energy measurements (in MWh) for the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*;

(6)   the time interval for updating and publishing the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators*; and

(7)   the time interval for conducting a review of the *emission factors* under paragraph (j).

(c)   In developing the *carbon dioxide equivalent intensity index procedures*, *AEMO* must:

(1)   ensure that the methodology used to calculate the *carbon dioxide equivalent intensity index* under paragraph (b)(1) represents the volume weighted average of the carbon dioxide equivalent greenhouse gas emissions from all the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* for the time interval described in paragraph (b)(6);

(2)   ensure that the methodology used to calculate any *supplementary carbon dioxide equivalent intensity indicators* under paragraph (b)(1) represents the volume weighted average of the carbon dioxide equivalent greenhouse gas emissions from all the *scheduled generating units* and *market generating units* included in the calculation of the *supplementary carbon dioxide equivalent intensity indicators* for the time interval described in paragraph (b)(6);

(3)   use reasonable endeavours to obtain the data used to calculate the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* from reliable sources; and

(4)   have regard to the methodology for determining *emission factors* under the Australian Government's National Greenhouse and Energy Reporting System when determining the methodology for estimating the *emission factors* under paragraph (b)(4).

(d)   *AEMO* must publish the first *carbon dioxide equivalent intensity index procedures* by no later than 22 July 2011 and such procedures must be available at all times after this date.

(e)   *AEMO* must conduct a review of the *carbon dioxide equivalent intensity index procedures* at least once every 3 years after the first *carbon dioxide equivalent intensity index procedures* are published.

Carbon dioxide equivalent intensity index and supplementary carbon dioxide equivalent intensity indicators

(f)   *AEMO* must calculate, update and publish a *carbon dioxide equivalent intensity index* for the *National Electricity Market* in accordance with the *carbon dioxide equivalent intensity index procedures* and this clause 3.13.14.

(g) The first *carbon dioxide equivalent intensity index* must be published as soon as practicable after the first *carbon dioxide equivalent intensity index procedures* are published under paragraph (d).

(h) If *AEMO* elects to publish any *supplementary carbon dioxide equivalent intensity indicators*, *AEMO* must calculate, update and publish the *supplementary carbon dioxide equivalent intensity indicators* in accordance with the *carbon dioxide equivalent intensity index procedures*.

(i) At the same time as it publishes the first *carbon dioxide equivalent intensity index* under paragraph (g), *AEMO* must publish a table which lists:

(1) all the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index*; and

(2) for each *scheduled generating unit* or *market generating unit* referred to in subparagraph (1), the *emission factor* and the source of that information.

(j) *AEMO* must conduct a review of the *emission factors* for the *scheduled generating units* and *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* in accordance with the *carbon dioxide equivalent intensity index procedures* to determine whether the *emission factors* have *changed* since the last update of the *emission factors*.

(k) As soon as practicable after a review under paragraph (j), *AEMO* must update the *carbon dioxide equivalent intensity index* and where appropriate, any *supplementary carbon dioxide equivalent intensity indicators* with any new *emission factors*, if the *emission factor* for any *scheduled generating units* or *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* has *changed* since the last update of the *emission factors*.

(l) In addition to the obligation under paragraph (k), *AEMO* must update the *carbon dioxide equivalent intensity index* and where appropriate, any *supplementary carbon dioxide equivalent intensity indicators* with any new *emission factors* as soon as practicable if:

(1) *AEMO* is advised that the *emission factor* for any *scheduled generating units* or *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* has *changed* since the last update of the *emission factors*; and

(2) the data on the *emission factor* is publicly available and, in *AEMO's* opinion, is from a reliable source.

(m) If:

(1)   a *generating unit* is classified as a *scheduled generating unit* or *market generating unit* under Chapter 2 after the first *carbon dioxide equivalent intensity index* is published under paragraph (g); and

(2)   data for that *generating unit* is not included in the calculation of the *carbon dioxide equivalent intensity index*,

then *AEMO* must as soon as practicable update the *carbon dioxide equivalent intensity index* to include data for that *generating unit*.

(n)   For the avoidance of doubt, in updating the *carbon dioxide equivalent intensity index* under paragraph (m), *AEMO* may use the methodology for estimating an *emission factor* under the *carbon dioxide equivalent intensity index procedures* to calculate the *carbon dioxide equivalent intensity index* if the *emission factor* for any *generating units* described in paragraph (m) is not publicly available.

(o)   *AEMO* must, as soon as practicable after it updates the *carbon dioxide equivalent intensity index* and any *supplementary carbon dioxide equivalent intensity indicators* under paragraphs (k) to (m):

(1)   update the table described in paragraph (i) with the new *emission factor(s)*, the source of that information and where appropriate, any new *scheduled generating units* or *market generating units* included in the calculation of the *carbon dioxide equivalent intensity index*; and

(2)   publish the table.

(p)   *AEMO* must amend the *timetable* to include the time interval in which it must publish the *carbon dioxide equivalent intensity index* under the *carbon dioxide equivalent intensity index procedures* (as amended under this clause 3.13.14).

(q)   Despite clause 3.4.3(b), *AEMO* may amend the *timetable* under paragraph (p) without following the *Rules consultation procedures*.

3.14   Administered Price Cap and Market Suspension

3.14.1   Cumulative Price Threshold and Administered Price Cap

(a)   In conjunction with each *participating jurisdiction*, and after consulting *Market Participants* in accordance with the *Rules consultation procedures*, the *AEMC* must develop, authorise and *publish* and may vary from time to time a schedule to specify an *administered price cap* for each *region* to apply to *spot prices*, *dispatch prices* and *ancillary service prices* and to be used as described in this rule 3.14.

(b)   The *administered floor price* for each *region* to apply to *spot prices* and to be used as described in clause 3.14.2 will be the negative of the value of the *administered price cap*.

(c)   The *cumulative price threshold* is \$187,500 prior to 1 July 2012. Effective on and from 1 July 2012, the *cumulative price threshold* for each *financial year* is the dollar amount calculated by the *AEMC* under paragraph (d).

(d)   By 28 February of each year (commencing 2012), the *AEMC* must calculate the *cumulative price threshold* to apply on and from 1 July of that year in accordance with paragraphs (e) and (f) and *publish* its calculation on its website as part of a schedule of *reliability* settings.

(e)   Subject to paragraph (f), the *AEMC* must calculate the *cumulative price threshold* using the following formula:

$$CPT^X = BV^{CPT} \times \frac{(Q_1^c + Q_2^c + Q_3^c + Q_4^c)}{(Q_1^b + Q_2^b + Q_3^b + Q_4^b)}$$

Where:

CPT is the *cumulative price threshold* in dollars;

x is the *financial year* for which the *cumulative price threshold* is being calculated;

BV^{CPT} is \$187,500;

Q1 to Q4 are the values of the Reliability Settings Index for each of the four quarters of years c and b (as the case may be) as at five months before the start of year x;

Reliability Settings Index is the All groups, Australia CPI found at Index Numbers, All groups, Australia, in Tables 1 and 2 of the Consumer Price Index, Australia published by the Australian Bureau of Statistics for the relevant quarter, except where that index ceases to be published or is substantially changed, in which case the Reliability Settings Index will be such other index as is determined by the *AEMC* as suitable;

c is the calendar year commencing 18 months before the start of year x; and

b is calendar year 2010.

(f)   If the value calculated by the *AEMC* under paragraph (e) is:

(1)   not in whole hundreds of dollars, then the *cumulative price threshold* for year x will be the value calculated under paragraph (e) rounded to the nearest \$100;

(2)   less than the *cumulative price threshold* applied under this clause 3.14.1 for the preceding *financial year* (year x-1), then the *cumulative price threshold* for year x will be the value of the *cumulative price threshold* for year x-1.

3.14.2　Application of Administered Price Cap

(a)　**[Deleted]**

(b)　*AEMO* must immediately notify all *Market Participants* of the commencement and closing of an *administered price period* under rule 3.14.

(c)　Each of the following periods is an *administered price period* in a *region*:

(1)　a *trading interval*, where the sum of the *spot prices* in the previous 336 *trading intervals*, calculated as if this clause did not apply, exceeds the *cumulative price threshold*;

(1A)　a *dispatch interval*, where the sum of the *ancillary service prices* for a *market ancillary service* in the previous 2016 *dispatch intervals*, calculated as if this clause did not apply, exceeds 6 times the *cumulative price threshold*;

(2)　a *trading interval* in a *trading day* in which a prior *trading interval* is an *administered price period*;

(2A)　a *dispatch interval* in a *trading day* in which a prior *dispatch interval* is an *administered price period*; or

(2B)　a *dispatch interval* within a *trading interval* that is an *administered price period*.

(3)　**[Deleted]**

(d)　During an *administered price period* the procedures for *PASA*, *dispatch*, *spot price* and *ancillary service price* determination are to continue in accordance with the provisions of the *Rules*.

(d1)　If, within an *administered price period* triggered because of clause 3.14.2(c)(1) or (2) in relation to *energy*, the *dispatch price* for the *region* identified in clause 3.14.2(c) calculated as if this clause 3.14.2(d1) did not apply:

(1)　exceeds the *administered price cap*, then *AEMO* must set the *dispatch price* to the *administered price cap*; or

(2)　is less than the *administered floor price*, *AEMO* must set the *dispatch price* to the *administered floor price*.

(d2)　If within an *administered price period* an *ancillary service price* for any *market ancillary service* for the *region* identified in clause 3.14.2(c) calculated as if this clause 3.14.2(d2) did not apply exceeds the *administered price cap*, then *AEMO* must set that *ancillary service price* to the *administered price cap*.

(e)　If during an *administered price period* the *dispatch price*:

(1)　**[Deleted]**

(2) at any *regional reference node* is set to the *administered price cap* under clause 3.14.2(d1)(1), then *dispatch prices* at all other *regional reference nodes connected* by a *regulated interconnector* or *regulated interconnectors* that have an *energy* flow towards that *regional reference node* must not exceed the *administered price cap* divided by the average *loss factor* that applies for *energy* flow in that direction for that *dispatch interval* and determined in accordance with clause 3.14.2(e)(5).

(3) **[Deleted]**

(4) at any *regional reference node* is set to the *administered floor price* under clause 3.14.2(d1)(2), then *dispatch prices* at all other *regional reference nodes connected* by a *regulated interconnector* or *regulated interconnectors* that have an *energy* flow away from that *regional reference node* must be equal to or greater than the *administered floor price* multiplied by the average *loss factor* that applies for *energy* flow in that direction for that *dispatch interval* and determined in accordance with clause 3.14.2(e)(5).

(5) *AEMO* must determine the average *loss factors* applicable to clause 3.14.2(e)(2) and 3.14.2(e)(4) by reference to the *inter-regional loss factor* equations relating to the relevant *regulated interconnector*.

3.14.3 Conditions for suspension of the spot market

(a) Subject to clause 3.14.3(b), *AEMO* may declare the *spot market* to be suspended in a *region* when in respect of that *region*:

(1) the *power system* has collapsed to a *black system*;

(2) *AEMO* has been directed by a *participating jurisdiction* to suspend the *market* or operate all or part of the *power system* in a manner contrary to the provisions of the *Rules* following the formal declaration by that *participating jurisdiction* of a state of emergency under its emergency services or equivalent legislation; or

(3) *AEMO* determines that it is necessary to suspend the *spot market* in a *region* because it has become impossible to operate the *spot market* in accordance with the provisions of the *Rules*.

(a1) If *AEMO* declares the *spot market* to be suspended in a *region*, then all *spot prices* and *ancillary service prices* are set in accordance with clause 3.14.5 for that *region*.

(b) *AEMO* must not suspend the *spot market* solely because:

(1) *spot prices* have reached the *market price cap*;

(1A) *spot prices* have reached the *market floor price*;

(2) *AEMO* has issued a *direction*; or

(3)   *AEMO* has otherwise intervened in the market under rule 3.12.

(c)   *AEMO* must conduct reviews of each occasion when it suspended the *spot market* in order to assess the adequacy of the provision and response of *facilities* or services, and the appropriateness of actions taken to restore or maintain *power system security*.

(d)   The report of the review carried out in accordance with clause 3.14.3(c) must be made available to *Registered Participants* and the public.

(e)   A *Registered Participant* must co-operate in any such review conducted by *AEMO* (including making available relevant records and information).

       Note

       This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f)   A *Registered Participant* must provide to *AEMO* such information relating to the performance of its equipment during and after a suspension of the *spot market* as *AEMO* reasonably requires for the purposes of analysing or reporting on that suspension.

       Note

       This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g)   *AEMO* must provide to a *Registered Participant* such information or reports relating to the performance of that *Registered Participant's* equipment during a suspension of the *spot market* as that *Registered Participant* reasonably requests and in relation to which *AEMO* is required to conduct a review under this clause 3.14.3.

3.14.4   Declaration of market suspension

(a)   The *spot market* can only be suspended by a declaration by *AEMO* under clause 3.14.3(a) and if the *spot market* is suspended, *AEMO* must notify all *Registered Participants* without delay.

(b)   *AEMO* must not declare the *spot market* to be suspended retrospectively.

(c)   The *spot market* is to be deemed to be suspended at the start of the *trading interval* in which *AEMO* makes a declaration that the *spot market* is suspended.

(d)   Following a declaration by *AEMO* under clause 3.14.3(a), the *spot market* is to remain suspended until *AEMO* declares and informs all *Registered Participants*:

       (1)   that *spot market* operation is to resume in accordance with this Chapter 3; and

(2)   of the *time* at which the *spot market* is to resume.

(e)   If *AEMO* declares that the *spot market* is suspended:

(1)   *AEMO* may then issue *directions* to *Registered Participants* in accordance with clause 4.8.9; and

(2)   *spot prices* and *ancillary service prices* are to be set by *AEMO* in accordance with clause 3.14.5.

(f)   *AEMO* must within 10 *business days* following the day on which, in accordance with the notice given by *AEMO* under clause 3.14.4(d), the *spot market* resumed, commence an investigation of that *spot market* suspension.

(g)   The investigation must examine and report on the reason for the suspension and the effect that the suspension had on the operation of the *spot market*. *AEMO* must make a copy of the report available to *Registered Participants* and the public as soon as it is practicable to do so.

3.14.5   Pricing during market suspension

(a)   If *AEMO* declares that the *spot market* is suspended then, as far as *AEMO* considers it practically and reasonably possible, it must follow the procedures in the *Rules* for *PASA*, *dispatch* and *spot price* and *ancillary service price*, subject to the application of clause 3.14.5.

(b)   The *spot price* and the *ancillary service price* during a *trading interval* for which *AEMO* has declared the *spot market* to be suspended is to be determined by *AEMO* in accordance with clause 3.14.5.

(c)   Subject to clauses 3.14.5(d), (g) and (j), if the *spot market* is suspended in a *region* then *dispatch* and the determination of *spot prices* and *ancillary service prices* in the *region* where the *spot market* is suspended are to continue in accordance with rules 3.8 and 3.9.

(d)   If at any time on or during suspension of the *spot market* in a *region*:

(1)   in *AEMO's* reasonable opinion it is not possible to continue *dispatch* and the determination of *spot prices* in the *suspended region* in accordance with rules 3.8 and 3.9;

(2)   the *suspended region* is *connected* by an *unconstrained interconnector* to another *region*;

(3)   the *dispatch* and determination of *spot prices* and *ancillary service prices* in the other *region* is continuing in accordance with rules 3.8 and 3.9; and

(4)   *local market ancillary service requirements* do not apply in the *suspended region*,

AEMO must:

(5)   determine the *spot price* in the *suspended region* in accordance with clause 3.14.5(e); and

(6)   continue to determine *ancillary service prices* in the *suspended region* in accordance with rules 3.8 and 3.9.

(e)   In the circumstances described in clause 3.14.5(d) the *spot price* is to be determined by application of an appropriate *inter-regional loss factor* to the *spot price* in the adjacent *region* referred to in clause 3.14.5(d)(2), such *inter-regional loss factor* being determined by *AEMO* in accordance with the methodology in clause 3.6.2A and the actual flows on the relevant *unconstrained interconnectors*.

(f)   If the *spot price* in the *suspended region* is being determined in accordance with clause 3.15.4(e), the *spot price* must continue to be determined in accordance with that clause until the earlier of:

(1)   the time that the *spot market* is no longer suspended in the *region*; and

(2)   the time that the spot price in the region is required to be determined in accordance with either clause 3.14.5(g) or clause 3.14.5(j).

(g)   If at any time during suspension of the *spot market* in a *region*:

(1)   either:

(A)   *dispatch* and the determination of *spot prices* and *ancillary service prices* is being effected in accordance with rules 3.8 and 3.9; or

(B)   the *spot prices* and *ancillary service prices* in the *suspended region* are being determined in accordance with clause 3.14.5(e); and

(2)   in *AEMO's* reasonable opinion it is no longer practical to continue *dispatch* and the determination of *spot prices* and *ancillary service prices* in the *suspended region* in accordance with the clauses under which *dispatch*, *spot prices* and *ancillary service prices* are currently being determined; and

(3)   in *AEMO's* reasonable opinion a current *pre-dispatch schedule* exists in respect of the *suspended region*,

then *AEMO* must determine the *spot prices* and *ancillary service prices* in the *suspended region* in accordance with clause 3.14.5(h).

(h)   In the circumstances described in clause 3.14.5(g), the *spot prices* and *ancillary service prices* in the *suspended region* are set at *AEMO's* forecast *regional reference price* and *ancillary service prices* determined in accordance with the most recently *published pre-dispatch schedule* if it is still current.

(i)   If the *spot prices* and *ancillary service prices* in the *suspended region* are being determined in accordance with clause 3.15.4(h), they must continue to be determined in accordance with that clause until the earlier of:

    (1)   the time that the *spot market* is no longer suspended in the relevant *region*; and

    (2)   the time that the *spot prices* or the *ancillary service prices* (as the case may be) in the *suspended region* are determined in accordance with clause 3.14.5(j).

(j)   If at any time on or during suspension of the *spot market* in a *region*:

    (1)   either:

        (A)   *dispatch* and the determination of *spot prices* and *ancillary service prices* is being effected in accordance with rules 3.8 and 3.9; or

        (B)   the *spot prices* and *ancillary service prices* in the *suspended region* are being determined in accordance with either clause 3.14.5(e) or clause 3.14.5(h); and

    (2)   in *AEMO's* reasonable opinion it is no longer practical to set the *spot prices* and *ancillary service prices* in the *suspended region* in accordance with either clauses rules 3.8, 3.9, clause 3.14.5(e) or clause 3.14.5(h) (as the case may be),

then *AEMO* must set the *spot prices* and *ancillary service prices* in the *suspended region* at the prices set out in the relevant market suspension pricing schedule developed and published in accordance with clause 3.14.5(l).

(k)   If the *spot prices* and *ancillary service prices* in the *suspended region* are being determined in accordance with clause 3.15.4(j), they must continue to be determined in accordance with that clause until the *spot market* is no longer suspended in that *region*.

(l)   *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 and that set out *AEMO's* reasonable estimate of typical *market* prices during periods 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.

(m)   If a *spot price* is set in accordance with clause 3.14.5(g) or clause 3.14.5(j) at a *regional reference node* (**suspension node**), then *spot prices* at all other *regional reference nodes connected* by an *interconnector* that has an actual 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*.

(n)   *AEMO* must use reasonable endeavours to ensure that any adjustments required to *regional reference prices* so that they do not exceed the limits set by clause 3.14.5(m) are finalised as soon as practicable but in any event by no later than one *business day* following the day on which the *spot market* in the *region* ceased to be suspended.

(o)   *AEMO* must calculate the average *loss factor* applicable to clause 3.14.5(m) by reference to the *inter-regional loss factor* equations relating to the relevant *regulated interconnector*.

3.14.6   Compensation due to the application of an administered price, market price cap or market floor price

(a)   *Scheduled Generators* may claim compensation from *AEMO* in respect of *generating units* if, due to the application of an *administered price cap* during either an *administered price period* or *market suspension*, the resultant *spot price* payable in respect of the *dispatched generating units* in any *trading interval* is less than the price specified in their *dispatch offer* for that *trading interval*.

(a1)   A *Scheduled Network Service Provider* may claim compensation from *AEMO* in respect of a *scheduled network service* if, due to the application of an *administered price cap*, the *market price cap*, the *market floor price* or an *administered floor price*, the resultant revenue receivable in respect of *dispatched network services* in any *trading interval* is less than the minimum requirement specified by its *network dispatch offer* for that *trading interval*.

(a2)   A *Market Participant* which submitted a *dispatch bid* may claim compensation from *AEMO* in respect of a *scheduled load* if, due to the application of an *administered floor price* during either an *administered price period* or *market suspension*, the resultant *spot price* in any *trading interval* is greater than the price specified in the *dispatch bid* for that *trading interval*.

(a3)   In respect of an *ancillary service generating unit* or an *ancillary service load*, a *Market Participant* may claim compensation from *AEMO* if, due to the application of an *administered price cap*, the resultant *ancillary service price* for that *ancillary service generating unit* or *ancillary service load* in

any *dispatch interval* is less than the price specified in the relevant *market ancillary service offer*.

(b)   Notification of an intention to make a claim under paragraphs (a), (a1), (a2) or (a3) must be submitted to both *AEMO* and the *AEMC* within 5 *business days* of the *trading interval* in which *dispatch prices* were adjusted in accordance with clause 3.9.5 or notification by *AEMO* that an *administered price period* or period of *market suspension* has ended.

(c)   The *AEMC* must, in accordance with the *transmission consultation procedures*, develop and *publish* guidelines ('**compensation guidelines**') that:

(1)   identify the objectives of the payment of compensation under this clause as being to maintain the incentive for:

(i)   *Scheduled Generators*, *Scheduled Network Service Providers* and other *Market Participants* to invest in *plant* that provides services during peak periods; and

(ii)   *Market Participants* to supply *energy* and other services during an *administered price period*;

(2)   require the amount of compensation payable in respect of a claim under this clause to be based on:

(i)   the costs directly incurred by the claimant due to the application of the *administered price cap*, the *market price cap*, the *market floor price* or the *administered floor price* (as the case may be); and

(ii)   the value of any opportunities foregone by the claimant due to the application of the *administered price cap*, the *market price cap*, the *market floor price* or the *administered floor price* (as the case may be);

(3)   outline the methodology to be used to calculate the amount of any compensation payable in respect of a claim under this clause, including the methodology for calculating the costs referred to in clause 3.14.6(c)(2)(i) and the value of opportunities foregone referred to in clause 3.14.6(c)(2)(ii); and

(4)   set out the information *AEMO* and a claimant must provide to enable a panel established under paragraph (g) to make a recommendation as to compensation under this clause and to enable the *AEMC* to make a determination as to compensation under this clause.

(d)   The *AEMC* must request the *Adviser* to establish a three member panel from the group of persons referred to in clause 8.2.2(e) and such other persons as the *Adviser* may choose to appoint under clause 8.2.6A(i) to assist the *AEMC* to develop the compensation guidelines.

(e)   The *AEMC* must *publish* the first compensation guidelines by 30 June 2009 and there must be such guidelines in place at all times after that date.

(f)   The *AEMC* may from time to time, in accordance with the *transmission consultation procedures*, amend or replace the compensation guidelines.

(g)   Following its receipt of a notification under paragraph (b), the *AEMC* must request the *Adviser* to establish a three member panel from the group of persons referred to in clause 8.2.2(e) and such other persons as the *Adviser* may choose to appoint under clause 8.2.6A(i) to make recommendations to the *AEMC* as to whether:

    (1)   compensation should be payable by *AEMO* in relation to the claim; and

    (2)   if so, the amount of compensation that should be paid.

(h)   The panel must, as soon as practicable but not later than:

    (1)   30 *business days* after receiving the information required to be provided to it under the compensation guidelines, give to the *AEMC* a report that sets out its draft recommendations as to the matters referred to in paragraph (g); and

    (2)   20 *business days* after the closing date for submissions on that report, give to the *AEMC* a report that sets out its final recommendations as to the matters referred to in paragraph (g).

(i)   Not later than 20 *business days* after receiving a report referred to in subparagraph (h)(1), the *AEMC* must *publish*:

    (1)   that report;

    (2)   its draft decision as to the matters referred to in paragraph (g); and

    (3)   an invitation for written submissions to be made to the *AEMC* on that report and the *AEMC's* draft decision.

(j)   Any person may make a written submission to the *AEMC* on the report referred to in subparagraph (h)(1) and the *AEMC's* draft decision within the time specified in the invitation referred to in subparagraph (i)(3), which must not be earlier than 20 *business days* after the invitation is *published*.

(k)   In preparing a report that sets out its final recommendations, the panel must take into account the submissions made in response to the invitation referred to in subparagraph (i)(3).

(l)   In preparing a report under paragraph (h), the panel must apply the compensation guidelines.

(m)   In making its draft decision as to the matters referred to in paragraph (g), the *AEMC* must take into account the draft recommendations of the panel.

(n)   Not later than 15 *business days* after receiving a report referred to in subparagraph (h)(2), the *AEMC* must *publish*:

    (1)   that report; and

    (2)   its final decision as to the matters referred to in paragraph (g).

(o)   In making its final decision as to the matters referred to in paragraph (g), the *AEMC* must take into account:

    (1)   the final recommendations of the panel; and

    (2)   the submissions made in response to the invitation referred to in subparagraph (i)(3).

(p)   In making a draft or final decision under this clause, the *AEMC* must apply the compensation guidelines unless it is satisfied that there are compelling reasons not to do so.

(q)   The *AEMC* may recover from a claimant for compensation under this clause any costs that are incurred by the *AEMC* and the panel in carrying out their functions under this clause in respect of that claim. For this purpose the *AEMC* may require the claimant to pay all or a proportion of those costs to the *AEMC* prior to the claim being considered or determined.

3.15   Settlements

3.15.1   Settlements management by AEMO

(a)   *AEMO* must facilitate the billing and *settlement* of payments due in respect of *transactions* under this Chapter 3, including:

    (1)   *spot market transactions*;

    (2)   *reallocation transactions*;

    (3)   negative *settlements residue* under clause 3.6.5; and

    (4)   under clause 3.15.6A.

(b)   *AEMO* must determine the *Participant fees* and the *Market Participants* must pay them to *AEMO* in accordance with the provisions of rule 2.11.

3.15.2   Electronic funds transfer

(a)   *AEMO* must ensure that an electronic funds transfer (**EFT**) facility is provided and made available for all *Market Participants* for the purposes of *settlements* and the collection and payment of all *market* fees.

(b)   Unless otherwise authorised by *AEMO*, all *Market Participants* must use the EFT facility provided by *AEMO* under clause 3.15.2(a) for the payment and

receipt of amounts due in respect of *transactions* and the payment of *market fees*.

(c)   In establishing the EFT facility in accordance with clause 3.15.2(a) *AEMO* must use its reasonable endeavours to ensure that the use of that facility does not impose unnecessary restrictions on the normal banking arrangements of *Market Participants*.

3.15.3   Connection point and virtual transmission node responsibility

(a)   For each *market connection point* there is one person that is *financially responsible* for that *connection point*. The person that is *financially responsible* for such a *connection point* is:

(1)   the *Market Participant* which has classified the *connection point* as a *market load*;

(2)   the *Market Participant* which has classified the *generating unit connected* at that *connection point* as a *market generating unit*; or

(3)   the *Market Participant* which has classified the *network service connected* at that *connection point* as a *market network service*.

(b)   For each *virtual transmission node* there is one person that is *financially responsible* for that *virtual transmission node*. The person that is *financially responsible* for such a *virtual transmission node* is the *Market Participant* which is the *Local Retailer* for all of the *market connection points* assigned to that *virtual transmission node*.

3.15.4   Adjusted energy amounts connection points

Where a *connection point* is not a *transmission network connection point*, the *adjusted gross energy* amount for that *connection point* for a *trading interval* is calculated by the following formula:

$$AGE = ME \times DLF$$

where:

AGE is the *adjusted gross energy* amount to be determined;

ME is the amount of electrical *energy*, expressed in MWh, flowing at the *connection point* in the *trading interval*, as recorded in the *metering data* in respect of that *connection point* and that *trading interval* (expressed as a positive value where the flow is towards the *transmission network connection point* to which the *connection point* is assigned and negative value where the flow is in the other direction); and

DLF is the *distribution loss factor* applicable at that *connection point*.

3.15.5 Adjusted energy - transmission network connection points

Where a *connection point* is a *transmission network connection point*, the *adjusted gross energy* amount for that *connection point* for a *trading interval* is calculated by the following formula:

AGE = ME - AAGE

where:

AGE is the *adjusted gross energy* amount to be determined;

ME is the amount of electrical *energy*, expressed in MWh, flowing at the *connection point* in the *trading interval*, as recorded in the *metering data* in respect of that *connection point* and that *trading interval* (expressed as a positive value where the flow is towards the *transmission network*, and negative value where the flow is in the other direction); and

AAGE is the aggregate of the *adjusted gross energy* amounts for that *trading interval* for each *connection point* assigned to that *transmission network connection point*, for which a *Market Participant* (other than a suspended *Market Participant*) is *financially responsible* (and in that aggregation positive and negative *adjusted gross energy* amounts are netted out to give a positive or negative aggregate amount).

3.15.5A Adjusted energy – virtual transmission nodes

For each *virtual transmission node*, the *adjusted gross energy* amount for that *virtual transmission node* for a *trading interval* is calculated by the following formula:

AGE = - AAGE

where:

AGE is the *adjusted gross energy* amount to be determined; and

AAGE is the aggregate of the *adjusted gross energy* amounts for that *trading interval* for each *connection point* assigned to that *virtual transmission node* for which a *Market Participant* (other than a suspended *Market Participant*) is *financially responsible* (and in that aggregation positive and negative *adjusted gross energy* amounts are netted out to give a positive or negative aggregate amount).

3.15.6 Spot market transactions

(a) In each *trading interval*, in relation to each *connection point* and to each *virtual transmission node* for which a *Market Participant* is *financially responsible*, a *spot market transaction* occurs, which results in a *trading amount* for that *Market Participant* determined in accordance with the formula:

TA= AGE $\times$ TLF $\times$ RRP

where

TA is the *trading amount* to be determined (which will be a positive or negative dollar amount for each *trading interval*);

AGE is the *adjusted gross energy* for that *connection point* or *virtual transmission node* for that *trading interval*, expressed in MWh;

TLF for a *transmission network connection point* or *virtual transmission node*, is the relevant *intra-regional loss factor* at that *connection point* or *virtual transmission node* respectively, and for any other *connection point*, is the relevant *intra-regional loss factor* at the *transmission network connection point* or *virtual transmission node* to which it is assigned in accordance with clause 3.6.3(a); and

RRP is the *regional reference price* for the *regional reference node* to which the *connection point* or *virtual transmission node* is assigned, expressed in dollars per MWh.

Note

Where two *intra-regional loss factors* are determined for a *transmission network connection point* under clause 3.6.2(b)(2), *AEMO* will determine the relevant *intra-regional loss factor* for use under this clause in accordance with the procedure determined under clause 3.6.2(d1).

(b)   *AEMO* is entitled to the *trading amount* resulting from a *AEMO intervention event* and, for the purposes of determining *settlement amounts*, any such *trading amount* is not a *trading amount* for the relevant *Market Participant*.

(c)   A *Directed Participant* is entitled to the *trading amount* resulting from any service, other than the service the subject of the *AEMO intervention event*, rendered as a consequence of that event.

3.15.6A   Ancillary service transactions

(a)   In each *trading interval*, in relation to each *enabled ancillary service generating unit* or *enabled ancillary service load*, an ancillary services transaction occurs, which results in a *trading amount* for the relevant *Market Participant* determined in accordance with the following formula:

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

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

(b)   In relation to each *NMAS provider* who provides *non-market ancillary services* under an *ancillary services agreement*, an *ancillary services* transaction occurs, which results in an amount payable by *AEMO* to the *NMAS provider* determined in accordance with that agreement.

(b1)   Where an amount payable by *AEMO* under paragraph (b) is not determined on a *trading interval* basis, that amount is recovered in accordance with the relevant paragraphs (c7), (c8), (d) and (e), except that a reference to *trading interval* in the calculation of RBF, AGE, AAGE, TGE, ATGE, TCE, ATCE is to be read as "the relevant period", and any other reference to *trading interval* in those paragraphs is to be read as the "relevant *billing period*".

(c)   **[Deleted]**

(c1)   In this clause:

Regional benefit ancillary services procedures means the procedures to determine the relative benefit that each *region* is estimated to receive from the provision of *NSCAS*.

Regional benefit factors means the factors to allocate, between *regions*, the costs associated with the provision of *NSCAS* under each *ancillary services agreement* in accordance with the regional benefit ancillary services procedures.

(c2)   *AEMO* must recover its liabilities under *ancillary services agreements* for the provision of *NSCAS* from *Market Customers* in each *region* in accordance with paragraphs (c8) and (c9), subject to paragraph (b1).

(c3)   In the statements to be provided under clauses 3.15.14 and 3.15.15 to a *Market Customer*, *AEMO* must separately identify the portion of the total amount payable by *AEMO* in respect of the relevant *billing period* under *ancillary services agreements* for the provision of *NSCAS* that:

(1)   benefits specific *regions* in which there is a *connection point* for which the *Market Customer* is *financially responsible* (being the *regional* amounts given by the first summated term in the paragraph (c7) formula); and

(2) does not benefit specific *regions* (being the amount TNSCAS$_p$ in the paragraph (c9) formula).

(c4) *AEMO* must develop and *publish* the regional benefit ancillary services procedures in accordance with the *Rules consultation procedures*. Without limiting the matters to be included in the regional benefit ancillary services procedures, they must require *AEMO* to take into account the estimated increase for each *region* of the gross economic benefit from increased *power transfer capability* and any other relevant factors.

(c5) Subject to paragraph (c6), *AEMO* may amend the regional benefit ancillary services procedures from time to time.

(c6) *AEMO* may make minor and administrative amendments to the regional benefit ancillary services procedures without complying with the *Rules consultation procedures*.

(c7) From time to time, *AEMO* must determine the regional benefit factors.

(c8) In each *trading interval*, in relation to each *Market Customer* for each *region*, an *ancillary services* transaction occurs, which results in a *trading amount* for the *Market Customer* determined in accordance with the following formula:

'

$$TA_{R,S} = \left(\sum_{\text{for all 'S'}} (TNSCAS_{S,P} \times RBF_{S,R,R}) \right) \times \frac{AGE_{R,R}}{AAGE_{P,R}} \times - 1$$

Where:

Subscript 'P' is the relevant period;

Subscript 'R' is the relevant *region*;

Subscript 'S' is the relevant *NSCAS*;

TA$_{p,r}$ (in \$) = the *trading amount* payable by the *Market Customer* in respect of the relevant *region* and *trading interval*;

TNSCAS$_{s,p}$ the total amount payable by *AEMO* for the provision of the relevant *NSCAS* under an *ancillary services agreement* in respect of the relevant *trading interval*;

RBF$_{s,p,r}$ (number) = the latest regional benefit factor assigned to the provision of the relevant *NSCAS* under an *ancillary services agreement* in

respect of the relevant *region* and *trading interval*, as determined by *AEMO* under paragraph (c7);

$AGE_{p,r}$ (in MWh) = the sum of the *adjusted gross energy* figures in respect of the *Market Customer's* relevant *connection points* located in the *region* for the relevant *trading interval*; and

$AAGE_{p,r}$ (in MWh) = the aggregate $AGE_{p,r}$ figures for all *Market Customers* in respect of the relevant *region* and *trading interval*.

(c9) In each *trading interval*, in relation to each *Market Customer*, an *ancillary services* transaction occurs, which results in a *trading amount* for the *Market Customer* determined in accordance with the following formula:

$$TA_P = TNSCAS_P \times \frac{AGE_P}{AAGE_P} \times -1$$

Where:

Subscript 'P' is the relevant period;

TA_p (in \$) = the *trading amount* payable by the *Market Customer* in respect of the relevant *trading interval*;

$TNSCAS_p$ (in \$) = the sum of all amounts payable by *AEMO* for the provision of *NSCAS* under *ancillary services agreements* in respect of the relevant *trading interval* minus the sum of the *trading amounts* calculated for all *Market Customers* in respect of all of the relevant *trading interval* under paragraph (c8);

AGE_p (in MWh) = the sum of the *adjusted gross energy* figures in respect of all the *Market Customer's* relevant *connection points* for the relevant *trading interval*; and

$AAGE_p$ (in MWh) = the aggregate AGE_p figures for all *Market Customers* in respect of the relevant *trading interval*.

(c10) *AEMO* must *publish* the regional benefit factors determined under paragraph (c7).

(d) In each *trading interval*, in relation to each *Market Generator* and each *Market Small Generation Aggregator*, an ancillary services transaction occurs, which results in a *trading amount* for the *Market Generator* or the *Market Small Generation Aggregator* determined in accordance with the following formula:

$$TA = \frac{TSRP}{2} \times \frac{TGE + TSGE}{ATGE + ATSGE} \times -1$$

where:

TA (in $)	=	the *trading amount* to be determined (which is a negative number);
TSRP (in $)	=	the total of all amounts payable by *AEMO* in respect of the *trading interval* under *ancillary services agreements* in respect of the provision of *system restart ancillary services*;
TGE (in MWh)	=	the *generator energy* for the *Market Generator* for the *trading interval*;
TSGE (in MWh)	=	the *small generator energy* for the *Market Small Generator Aggregator* for the *trading interval*;
ATGE (in MWh)	=	the aggregate of the *generator energy* figures for all *Market Generators* for the *trading interval*; and
ATSGE (in MWh)	=	the aggregate of the *small generator energy* figures for all *Market Small Generator Aggregators* for the *trading interval*.

(e)   In each *trading interval*, in relation to each *Market Customer*, an ancillary services transaction occurs, which results in a *trading amount* determined in accordance with the following formula:

$$TA = \frac{TSRP}{2} \times \frac{TCE}{ATCE} \times -1$$

where:

TA (in $)	=	the *trading amount* to be determined (which is a negative number);
TSRP (in $)	=	has the meaning given in clause 3.15.6A(d);
TCE (in MWh)	=	the *customer energy* for the *Market Customer* for the *trading interval*; and
ATCE (in MWh)	=	the aggregate of the *customer energy*

figures for all *Market Customers* for the *trading interval*.

(f)   The total amount calculated by *AEMO* under clause 3.15.6A(a) for each of the *fast raise service*, *slow raise service* or *delayed raise service* in respect of each *dispatch interval* which falls within the *trading interval* must be allocated to each *region* in accordance with the following procedure and the information provided under clause 3.9.2A(b). *AEMO* must:

(1)   allocate for each *region* and for each *dispatch interval* within the relevant *trading interval* the proportion of the total amount calculated by *AEMO* under clause 3.15.6A(a) for each of the *fast raise service*, *slow raise service* or *delayed raise service* between *global market ancillary services requirements* and *local market ancillary service requirement* pro-rata to the respective marginal prices for each such service;

(2)   calculate for each relevant *dispatch interval* the sum of the costs of acquiring the *global market ancillary service requirements* for all *regions* and the sum of the costs of acquiring each *local market ancillary service requirement* for all *regions*, as determined pursuant to clause 3.15.6A(f)(1); and

(3)   allocate for each relevant *dispatch interval* the sum of the costs of the *global market ancillary service requirement* and each *local market ancillary service requirement* calculated in clause 3.15.6A(f)(2) to each *region* as relevant to that requirement pro-rata to the aggregate of the *generator energy* for the *Market Generators* and *small generator energy* for the *Market Small Generation Aggregators* in each *region* during the *trading interval*.

For the purpose of this clause 3.15.6A(f) **RTCRSP** is the sum of:

(i)   the *global market ancillary service requirement* cost for that *region*, for all *dispatch intervals* in the relevant *trading interval*, as determined pursuant to clause 3.15.6A(f)(3); and

(ii)   all *local market ancillary service requirement* costs for that *region*, for all *dispatch intervals* in the relevant *trading interval*, as determined pursuant to clause 3.15.6A(f)(3).

In each *trading interval*, in relation to each *Market Generator* and each *Market Small Generation Aggregator* in a given *region*, an ancillary services transaction occurs, which results in a *trading amount* for that *Market Generator* and that *Market Small Generation Aggregator* determined in accordance with the following formula:

$$TA = RTCRSP \times \frac{TGE + TSGE}{RATGE + RATSGE} \times -1$$

where:

TA (in $)	=	the *trading amount* to be determined (which is a negative number);
RTCRSP (in $)	=	the total of all amounts calculated by *AEMO* as appropriate to recover from the given *region* as calculated in this clause 3.15.6A(f) for the *fast raise service*, *slow raise service* or *delayed raise service* in respect of *dispatch intervals* which fall in the *trading interval*;
TGE (in MWh)	=	the *generator energy* for the *Market Generator* in that *region* for the *trading interval*;
TSGE (in MWh)	=	the *small generator energy* for the *Market Small Generator Aggregator* in that *region* for the *trading interval*;
RATGE (in MWh)	=	the aggregate of the *generator energy* figures for all *Market Generators* in that *region* for the *trading interval*; and
RATSGE (in MWh)	=	the aggregate of the *small generator energy* figures for all *Market Small Generator Aggregators* in that *region* for the *trading interval*.

(g) The total amount calculated by *AEMO* under clause 3.15.6A(a) for each of the *fast lower service*, *slow lower service* or *delayed lower service* in respect of each *dispatch interval* which falls within the *trading interval* must be allocated to each *region* in accordance with the following procedure and the information provided under clause 3.9.2A(b). *AEMO* must:

(1) allocate for each *region* and for each *dispatch interval* within the relevant *trading interval* the proportion of the total amount calculated by *AEMO* under clause 3.15.6A(a) for each of the *fast lower service*, *slow lower service* or *delayed lower service* between *global market ancillary service requirements* and *local market ancillary service requirement* pro rata to the respective marginal prices of each such service;

(2) calculate for each relevant *dispatch interval* the sum of the costs of acquiring the *global market ancillary service requirements* for all *regions* and the sum of the costs of acquiring each *local market ancillary service requirement* for all *regions*, as determined pursuant to clause 3.15.6A(g)(1); and

(3)   allocate for each relevant *dispatch interval* the sum of the costs of the *global market ancillary service requirement* and each *local market ancillary service requirement* calculated in clause 3.15.6A(g)(2) to each *region* as relevant to that requirement pro-rata to the aggregate of the *customer energy* figures for all *Market Customers* in each *region* during the *trading interval*.

For the purpose of this clause 3.15.6A(g) **RTCLSP** is the sum of:

(i)   the *global market ancillary service requirement* cost for that *region*, for all *dispatch intervals* in the relevant *trading interval*, as determined pursuant to clause 3.15.6A(g)(3); and

(ii)   all *local market ancillary service requirement* costs for that *region*, for all *dispatch intervals* in the relevant *trading interval*, as determined pursuant to clause 3.15.6A(g)(3).

In each *trading interval*, in relation to each *Market Customer* in a given *region*, an ancillary services transaction occurs, which results in a *trading amount* for that *Market Customer* determined in accordance with the following formula:

$$TA = RTCLSP \times \frac{TCE}{RATCE} \times -1$$

where:

TA (in $)	=	the *trading amount* to be determined (which is a negative number);
RTCLSP (in $)	=	the total of all amounts calculated by *AEMO* as appropriate to recover from the given *region* as calculated in this clause 3.15.6A(g) for the *fast lower service*, *slow lower service* or *delayed lower service* in respect of *dispatch intervals* which fall in the *trading interval*;
TCE (in MWh)	=	the *customer energy* for the *Market Customer* in that *region* for the *trading interval*; and
RATCE (in MWh)	=	the aggregate of the *customer energy* figures for all *Market Customers* in that *region* for the *trading interval*.

(h)   The total amount calculated by *AEMO* under paragraph (a) for the *regulating raise service* or the *regulating lower service* in respect of each *dispatch interval* which falls within the *trading interval* must be allocated by *AEMO* to each *region* in accordance with the following procedure and the information provided under clause 3.9.2A(b):

(1)   allocate on a pro-rata basis for each *region* and for each *dispatch interval* within the relevant *trading interval* the proportion of the total amount calculated by *AEMO* under paragraph (a) for the *regulating raise service* and *regulating lower service* between *global market ancillary service requirements* and *local market ancillary service requirements* to the respective marginal prices for each such service; and

(2)   calculate for each relevant *dispatch interval* the sum of the costs of acquiring the *global market ancillary service requirements* for all *regions* and the sum of the costs of acquiring *local market ancillary service requirements* for all *regions*, as determined under subparagraph (1).

(i)   In each *trading interval* in relation to:

(1)   each *Market Generator*, *Market Small Generation Aggregator* or *Market Customer* which has *metering* to allow their individual contribution to the aggregate deviation in *frequency* of the *power system* to be assessed, an ancillary services transaction occurs, which results in a *trading amount* for that *Market Generator*, *Market Small Generation Aggregator* or *Market Customer* determined in accordance with the following formula:

$$TA = PTA \times \text{-}1$$

and

$$PTA = \text{the aggregate of} \left(TSFCAS \times \frac{MPF}{AMPF} \right)$$

for each *dispatch interval* in the *trading interval* for *global market ancillary service requirements* and *local market ancillary service requirements* where:

TA (in $)	=	the *trading amount* to be determined (which is a negative number);
TSFCAS (in $)	=	the total of all amounts calculated by *AEMO* under paragraph (h)(2) for the *regulating raise service* or the *regulating lower service* in respect of a *dispatch interval*;
MPF (a number)	=	the contribution factor last set by *AEMO* for the *Market Generator*, *Market Small Generation Aggregator* or *Market Customer*, as the case may be, under paragraph (j) for the *region* or *regions* relevant to the *regulating raise service*

or *regulating lower service*; and

AMPF (a number)	=	the aggregate of the MPF figures for all *Market Participants* for the *dispatch interval* for the *region* or *regions* relevant to the *regulating raise service* or *regulating lower service*.

or

(2)   in relation to each *Market Customer* for whom the *trading amount* is not calculated in accordance with the formula in subparagraph (1), an ancillary services transaction occurs, which results in a trading amount for that *Market Customer* determined in accordance with the following formula:

$$TA = PTA \times -1$$

and

$$PTA = \text{the aggregate of} \left(TSFCAS \times \frac{MPF}{AMPF} \times \frac{TCE}{ATCE} \right)$$

for each *dispatch interval* in the *trading interval* for *global market ancillary service requirements* and *local market ancillary service requirements* where:

TA (in $)	=	the *trading amount* to be determined (which is a negative number);
TSFCAS (in $)	=	has the meaning given in subparagraph (1);
MPF (a number)	=	the aggregate of the contribution factor set by *AEMO* under paragraph (j) for *Market Customers*, for whom the *trading amount* is not calculated in accordance with the formula in subparagraph (1) for the *region* or *regions* relevant to the *regulating raise service* or the *regulating lower service*;
AMPF (a number)	=	the aggregate of the MPF figures for all *Market Participants* for the *dispatch interval* for the *region* or *regions* relevant to the *regulating raise service* or *regulating lower service*;
TCE (in MWh)	=	the *customer energy* for the *Market Customer* for the *trading interval* in the

region or regions relevant to the regulating raise service or regulating lower service; and

ATCE (in MWh)   =   the aggregate of the *customer energy* figures for all *Market Customers*, for whom the *trading amount* is not calculated in accordance with the formula in subparagraph (1), for the *trading interval* for the *region* or *regions* relevant to that *regulating raise service* or *regulating lower service*.

(j)   *AEMO* must determine for the purpose of paragraph (i):

(1)   a contribution factor for each *Market Participant*; and

(2)   notwithstanding the estimate provided in paragraph (nb), if a *region* has or *regions* have operated asynchronously during the relevant *trading interval*, the contribution factors relevant to the allocation of *regulating raise service* or *regulating lower service* to that *region* or *regions*,

in accordance with the procedure prepared under paragraph (k).

(k)   *AEMO* must prepare a procedure for determining contribution factors for use in paragraph (j) and, where *AEMO* considers it appropriate, for use in paragraph (nb), taking into account the following principles:

(1)   the contribution factor for a *Market Participant* should reflect the extent to which the *Market Participant* contributed to the need for *regulation services*;

(2)   the contribution factor for all *Market Customers* that do not have *metering* to allow their individual contribution to the aggregate need for *regulation services* to be assessed must be equal;

(3)   for the purpose of paragraph (j)(2), the contribution factor determined for a group of *regions* for all *Market Customers* that do not have *metering* to allow the individual contribution of that *Market Customer* to the aggregate need for *regulation services* to be assessed, must be divided between *regions* in proportion to the total *customer energy* for the *regions*;

(4)   the individual *Market Participant's* contribution to the aggregate need for *regulation services* will be determined over a period of time to be determined by *AEMO*;

(5)   a *Registered Participant* which has classified a *scheduled generating unit*, *scheduled load*, *ancillary service generating unit* or *ancillary service load* (called a **Scheduled Participant**) will not be assessed as

contributing to the deviation in the *frequency* of the *power system* if within a *dispatch interval*:

(i) the Scheduled Participant achieves its *dispatch* target at a uniform rate;

(ii) the Scheduled Participant is *enabled* to provide a *market ancillary service* and responds to a control signal from *AEMO* to *AEMO's* satisfaction; or

(iii) the Scheduled Participant is not *enabled* to provide a *market ancillary service*, but responds to a need for *regulation services* in a way which tends to reduce the aggregate deviation;

(6) where contributions are aggregated for *regions* that are operating asynchronously during the calculation period under paragraph (i), the contribution factors should be normalised so that the total contributions from any non-synchronised *region* or *regions* is in the same proportion as the total *customer energy* for that *region* or *regions*; and

(7) a *Semi-Scheduled Generator* will not be assessed as contributing to the deviation in the *frequency* of the *power system* if within a *dispatch interval*, the *semi-scheduled generating unit*:

(i) achieves its *dispatch level* at a uniform rate;

(ii) is *enabled* to provide a *market ancillary service* and responds to a control signal from *AEMO* to *AEMO's* satisfaction; or

(iii) is not *enabled* to provide a *market ancillary service*, but responds to a need for *regulation services*.

(l) *AEMO* may amend the procedure referred to in clause 3.15.6A(j) from time to time.

(m) *AEMO* must comply with the *Rules consultation procedures* when making or amending the procedure referred to in clause 3.15.6A(k).

(n) *AEMO* must *publish*, in accordance with the *timetable*, the historical data used in determining a factor for each *Market Participant* for the purposes of clauses 3.15.6A(h) and (i) in accordance with the procedure contemplated by clause 3.15.6A(k).

(na) Notwithstanding any other provisions of the *Rules*, *AEMO* must *publish* the factors determined in accordance with clause 3.15.6A(j)(1) at least 10 *business days* prior to the application of those factors in accordance with clauses 3.15.6A(h) and 3.15.6A(i).

(nb) When a *region* is or *regions* are operating asynchronously, *AEMO* must *publish* (where appropriate in accordance with the procedure developed under paragraph (k)), an estimate of the contribution factors referred to in

paragraph (j)(2) to be applied for information purposes only by *Market Participants* for the duration of the separation.

(o)   In this clause 3.15.6A:

(1)   '*generator energy*' in respect of a *Market Generator* for a *trading interval* means the sum of the *adjusted gross energy* figures calculated for that *trading interval* in respect of that *Market Generator's* applicable *connection points*, provided that, if the sum of those figures is negative, then the *Market Generator's generator energy* for that *trading interval* is zero;

(2)   a *connection point* is an applicable *connection point* of a *Market Generator* if:

(A)   the *Market Generator* is *financially responsible* for the *connection point*; and

(B)   the *connection point connects* a *market generating unit* to the *national grid*;

(3)   '*customer energy*' in respect of a *Market Customer* for a *trading interval* means the sum of the *adjusted gross energy* figures calculated for that *trading interval* in respect of that *Market Customer's* relevant *connection points*;

(4)   a *connection point* is a relevant *connection point* of a *Market Customer* if:

(A)   the *Market Customer* is *financially responsible* for the *connection point*; and

(B)   the *load* at that *connection point* has been classified (or is deemed to be classified) as a *market load*;

(5)   '*small generator energy*' in respect of a *Market Small Generation Aggregator* for a *trading interval* means the sum of the *adjusted gross energy* figures calculated for that *trading interval* in respect of that *Market Small Generation Aggregator's* applicable *connection points*, provided that, if the sum of those figures is negative, then the *Market Small Generation Aggregator's small generator energy* for that *trading interval* is zero; and

(6)   a *connection point* is an applicable *connection point* of a *Market Small Generator Aggregator* if:

(A)   the *Market Small Generator Aggregator* is *financially responsible* for the *connection point*; and

(B)   the *connection point* connects a *small generating unit* classified as a *market generating unit* to the *national grid*.

(p) When *AEMO* dispatches a quantity of *regulating raise service* or *regulating lower service* in addition to the quantity it determines in accordance with the *dispatch algorithm*, *AEMO* must:

(1) for the purposes of paragraphs (f) and (g), include the additional quantity in the cost of *delayed services*; and

(2) for the purposes of paragraphs (h) and (i), exclude the additional quantity in the cost of *regulation services*,

taking into account the requirements in clauses 3.8.1(a) and (b) to maximise the value of *spot market* trading.

3.15.7 Payment to Directed Participants

(a) Subject to clause 3.15.7(b), *AEMO* must pay compensation to *Directed Participants* calculated in accordance with clauses 3.15.7, 3.15.7A and 3.15.7B, as the case may be, for any service which the *Directed Participant* was required to provide in order to comply with the *direction*.

(b) For the purpose of clause 3.15.8 and 3.15.10C the amount of compensation due to a *Directed Participant* pursuant to clause 3.15.7(a) must include interest on the sum of that amount less any payment made in accordance with clause 3.15.10C(a), computed at the average *bank bill rate* for the period beginning on the day on which payment was required to be made under clauses 3.15.16 and 3.15.17 in respect of the *final statement* for the *billing period* in which the *direction* was issued and ending on the day on which payment is required to be made pursuant to clause 3.15.10C.

(c) Subject to clause 3.15.7(d) and clause 3.15.7B, the compensation payable to each *Directed Participant* for the provision of *energy* or *market ancillary services* pursuant to a *direction* is to be determined in accordance with the formula set out below

$$DCP = AMP \times DQ$$

where:

DCP	=	the amount of compensation the *Directed Participant* is entitled to receive;
AMP	=	the price below which are 90% of the *spot prices* or *ancillary service prices* (as the case may be) for the relevant service provided by *Scheduled Generators*, *Semi-Scheduled Generators*, *Scheduled Network Service Providers* or *Market Customers* in the *region* to which the *direction* relates, for the 12 months immediately preceding the *trading day* in which the *direction* was issued; and
DQ	=	is either:

(A) the difference between the total *adjusted gross energy* delivered or consumed by the *Directed Participant* and the total *adjusted gross energy* that would have been delivered or consumed by the *Directed Participant* had the *direction* not been issued; or

(B) the amount of the relevant *market ancillary service* which the *Directed Participant* has been *enabled* to provide in response to the *direction*.

(d) If at the time *AEMO* issues a *direction*:

(1) the *Directed Participant* had submitted a *dispatch bid*, *dispatch offer* or *rebid* acknowledged by *AEMO* in accordance with clause 3.8.8 for *dispatch* of the service that is to be *dispatched* in accordance with the *direction*; and

(2) the *direction* was issued because *AEMO* was prevented from *dispatching* the *Directed Participant's plant* in accordance with that *dispatch bid*, *dispatch offer* or *rebid* due to a failure of the *central dispatch* process,

the *Directed Participant* is entitled to receive compensation for the provision of that service at a price equal to the price in that *dispatch bid*, *dispatch offer* or *rebid* acknowledged by *AEMO* in accordance with clause 3.8.8, as the case may be.

(e) *AEMO* must, in accordance with the *intervention settlement timetable*, advise each *Directed Participant* in writing of the amount the *Directed Participant* is entitled to receive pursuant to clause 3.15.7(c) or clause 3.15.7(d).

3.15.7A Payment to Directed Participants for services other than energy and market ancillary services

(a) Subject to clause 3.15.7(d) and clause 3.15.7B, *AEMO* must compensate each *Directed Participant* for the provision of services pursuant to a *direction* other than *energy* and *market ancillary services*, at the fair payment price of the services determined in accordance with this clause 3.15.7A.

(a1) In this clause 3.15.7A, a *direction* is a *direction* for services other than *energy* and *market ancillary services* to the extent that the need for the *direction* could not have been avoided by the *central dispatch* process had there been a *dispatch bid*, *dispatch offer* or *rebid* made consistent with the requirements of clauses 3.8.6, 3.8.6A, 3.8.7, 3.8.7A or 3.8.8(d) (whichever is applicable) for *dispatch* of *plant* relevant to that *direction* for one or more of the following services:

(1) *energy*; and

(2) any one service of the *market ancillary services*.

(a2) For the avoidance of doubt, any component of a *direction* that satisfies this clause 3.15.7(a1) is to be considered for compensation under this clause 3.15.7A, and clause 3.15.7B, as the case may be. Any other component of the *direction* that does not satisfy clause 3.15.7(a1) is to be considered for compensation under clause 3.15.7, and clause 3.15.7B, as the case may be.

(b) Subject to clause 3.15.7A(e) and clause 3.15.7A(e1), *AEMO* must, in accordance with the *intervention settlement timetable* and any guidelines developed by *AEMO* in accordance with the *Rules consultation procedures*, determine if in *AEMO's* reasonable opinion, an independent expert could reasonably be expected to determine a fair payment price for the services provided pursuant to the *direction* within a reasonable time period.

(b1) If *AEMO* determines pursuant to clause 3.15.7A(b) that an independent expert could reasonably be expected to determine a fair payment price for the services provided pursuant to the *direction* within a reasonable time period it must as soon as reasonably practicable after making such determination *publish* its determination and, subject to clause 3.15.7A(e1), appoint an independent expert, in accordance with the *intervention settlement timetable*, to determine the fair payment price for the services provided pursuant to the *direction*.

(c) *AEMO* must include as part of the terms of appointment of an independent expert the following requirements:

(1) that the independent expert must, in determining the fair payment price of the relevant service for the purposes of clause 3.15.7A, take into account:

(i) other relevant pricing methodologies in Australia and overseas, including but not limited to:

(A) other electricity markets;

(B) other markets in which the relevant service may be utilised; and

(C) relevant contractual arrangements which specify a price for the relevant service;

(ii) the following principles:

(A) the disinclination of *Scheduled Generators*, *Semi-Scheduled Generators*, *Market Generators*, *Scheduled Network Service Providers* or *Market Customers* to provide the service the subject of the *direction* must be disregarded;

(B)   the urgency of the need for the service the subject of the *direction* must be disregarded;

(C)   the *Directed Participant* is to be treated as willing to supply at the market price that would otherwise prevail for the directed services the subject of the *direction* in similar demand and supply conditions; and

(D)   the fair payment price is the market price for the directed services the subject of the *direction* that would otherwise prevail in similar demand and supply conditions;

(2)   that the independent expert must determine and *publish* a draft report, in accordance with the *intervention settlement timetable*, setting out:

    (i)   a description of the services provided in response to the *direction*;

    (ii)   the independent expert's draft determination of each fair payment price for the services provided;

    (iii)   the methodology and assumptions used by the independent expert in making the draft determination of the fair payment price; and

    (iv)   a request for submissions from interested parties on the matters set out in the draft report;

(3)   that the independent expert must, in accordance with the *intervention settlement timetable*, determine the fair payment price for the services provided, taking into account the submissions received, and must prepare and *publish* a final report setting out:

    (i)   the description of the services provided in response to the *direction*;

    (ii)   the independent expert's determination of the fair payment price for the services provided;

    (iii)   the methodology and assumptions used by the independent expert in making the determination of each fair payment price; and

    (iv)   summaries of the submissions made by interested parties;

(4)   that the independent expert must deliver to *AEMO* a final tax invoice for the services rendered at the time he or she *publishes* the final report; and

(5)   that a report *published* by the independent expert pursuant to clause 3.15.7A(c) must not disclose *confidential information* or the identity of a *Directed Participant*.

(d) In accordance with the *intervention settlement timetable*, *AEMO* must calculate the compensation payable to the *Directed Participant* using the fair payment price *published* by the independent expert under clause 3.15.7A(c)(3).

(e) The fair payment price determined in accordance with clause 3.15.7A(c)(3) is to be the fair payment price for that service to be applied in all future occurrences where there is a *direction* for that service at any time within a period of 12 calendar months from the date on which the determination of that price was published.

(e1) *AEMO* must not appoint an independent expert under clause 3.15.7A(b1) in respect of a *direction* for a service in respect of which:

(1) there is a determination of an independent expert in place in accordance with clause 3.15.7A(e) in relation to that service; or

(2) *AEMO* has appointed an independent expert to determine the fair payment price for that service under clause 3.15.7A and the independent expert has not yet made a determination of the fair payment price.

In these circumstances, *AEMO* must apply to the subsequent *direction* the fair payment price for that service determined, or to be determined, by the independent expert.

(f) Within 1 *business day* of calculating the compensation payable pursuant to clause 3.15.7A(a) by application of clause 3.15.7A(e) or pursuant to clause 3.15.7A(d), *AEMO* must advise the relevant *Directed Participant* in writing of the amount of compensation.

(g) The determination of a fair payment price pursuant to clause 3.15.7A(c)(1) and the calculation of compensation payable to *Directed Participants* pursuant to clause 3.15.7A(d) is final and binding.

3.15.7B　Claim for additional compensation by Directed Participants

(a) Subject to clauses 3.15.7B(a1) and 3.15.7B(a4), a *Directed Participant* entitled to compensation pursuant to clause 3.15.7 or clause 3.15.7A may, in accordance with the *intervention settlement timetable*, make a written submission to *AEMO* claiming an amount equal to the sum of:

(1) the aggregate of the loss of revenue and additional net direct costs incurred by the *Directed Participant* in respect of a *scheduled generating unit*, *semi-scheduled generating unit* or *scheduled network services*, as the case may be, as a result of the provision of the service under *direction*; less

(2) the amount notified to that *Directed Participant* pursuant to clause 3.15.7(c) or clause 3.15.7A(f); less

(3)   the aggregate amount the *Directed Participant* is entitled to receive in accordance with clause 3.15.6(c) for the provision of a service rendered as a result of the *direction*.

(a1)   Subject to clause 3.15.7B(a4), if *AEMO* determines pursuant to clause 3.15.7A(b) that an independent expert could not reasonably be expected to determine within a reasonable period of time the relevant fair payment price, a *Directed Participant* may, in accordance with the *intervention settlement timetable*, make a written submission to *AEMO* claiming compensation from *AEMO* for the provision of services under the *direction* equal to:

(1)   loss of revenue and additional net direct costs which the *Directed Participant* incurred as a result of the provision of services under the *direction*; and

(2)   a reasonable rate of return on the capital employed in the provision of the service determined by reference as far as reasonably practicable to rates of return for the provision of similar services by similar providers of such services.

(a2)   Subject to clause 3.15.7B(a4), if a *Directed Participant* entitled to compensation pursuant to clause 3.15.7(d) considers that the amount notified pursuant to clauses 3.15.7(e) is less than the amount it is entitled to receive pursuant to that clause, the *Directed Participant* may, in accordance with the *intervention settlement timetable*, make a written submission to *AEMO* requesting compensation from *AEMO* for that difference.

(a3)   For the purposes of the calculation of additional net direct costs pursuant to paragraphs (a)(1) and (a1)(1), the additional net direct costs incurred by the *Directed Participant* in respect of that *scheduled generating unit*, *semi-scheduled generating unit* or *scheduled network services* (as the case may be) includes without limitation:

(1)   fuel costs in connection with the relevant *generating unit* or *scheduled network services*;

(2)   incremental maintenance costs in connection with the relevant *generating unit* or *scheduled network services*;

(3)   incremental manning costs in connection with the relevant *generating unit* or *scheduled network services*;

(4)   acceleration costs of maintenance work in connection with the relevant *generating unit* or *scheduled network services*, where such acceleration costs are incurred to enable the *generating unit* or *scheduled network services* to comply with the *direction*;

(5)   delay costs for maintenance work in connection with the relevant *generating unit* or *scheduled network services*, where such delay costs are incurred to enable the *generating unit* or *scheduled network services* to comply with the *direction*;

(6)   other costs incurred in connection with the relevant *generating unit* or *scheduled network services*, where such costs are incurred to enable the *generating unit* or *scheduled network services* to comply with the *direction*; and

(7)   any compensation which the *Directed Participant* receives or could have obtained by taking reasonable steps in connection with the relevant *generating unit* or *scheduled network services* being available.

(a4)   In respect of a single *intervention price trading interval*, a *Directed Participant* may only make a claim pursuant to clauses 3.15.7B(a), 3.15.7B(a1) or 3.15.7B(a2) if the amount of the claim in respect of that *intervention price trading interval* is greater than $5,000.

(b)   The submissions pursuant to clauses 3.15.7B(a), 3.15.7B(a1) and 3.15.7B(a2) must:

(1)   itemise each component of a claim;

(2)   contain sufficient data and information to substantiate each component of a claim for loss of revenue and additional direct costs incurred and the reasonable rate of return, as the case may be; and

(3)   be signed by an authorised officer of the applicant certifying that the written submission is true and correct.

(c)   *AEMO* must, in accordance with the *intervention settlement timetable*:

(1)   refer a claim by a *Directed Participant* under clause 3.15.7B(a), 3.15.7B(a1) or 3.15.7B(a2) to an independent expert to determine such claim in accordance with clause 3.12.3 if the claim is equal to or greater than $20,000 and the *additional intervention claim* that includes that claim is equal to or greater than $100,000; and

(2)   determine in its sole discretion if all other claims by a *Directed Participant* in respect of that *direction* pursuant to clauses 3.15.7B(a), 3.15.7B(a1) and 3.15.7B(a2) are reasonable and if so pay the amount claimed in accordance with clause 3.15.10C.

(d)   If *AEMO* considers that a claim by a *Directed Participant* under clause 3.15.7B(a) or 3.15.7B(a1) or 3.15.7B(a2) is unreasonable, it must, in accordance with the *intervention settlement timetable*:

(1)   advise the *Directed Participant* of its determination in writing, setting out its reasons; and

(2)   refer the matter to an independent expert to determine the claim for compensation in accordance with clause 3.12.3.

3.15.8 Funding of Compensation for directions

(a) *AEMO* must, in accordance with the *intervention settlement timetable*, calculate the *compensation recovery amount* being:

(1) the sum of:

(i) the total of the compensation payable to *AEMO* by *Affected Participants* and *Market Customers* under clause 3.12.2 in respect of a *direction* for the provision of *energy*; plus

(ii) the total of the amounts retained by *AEMO* pursuant to clause 3.15.6(b) in respect of a *direction* for the provision of *energy*;

(2) less the sum of:

(i) the total of the compensation payable by *AEMO* to *Affected Participants* and *Market Customers* pursuant to clause 3.12.2 in respect of a *direction* for the provision of *energy*; plus

(ii) the total of the compensation payable by *AEMO* to *Directed Participants* pursuant to clause 3.15.7(a) in respect of a *direction* for the provision of *energy*; plus

(iii) the total amount payable by *AEMO* to the independent expert pursuant to clause 3.12.3(c).

(b) *AEMO* must, in accordance with the *intervention settlement timetable*, calculate a figure for each *Market Customer* in each *region* applying the following formula:

$$MCP = \frac{E}{\sum E} \times \frac{RB}{\sum RB} \times CRA$$

where

MCP is the amount payable or receivable by a *Market Customer* pursuant to this clause 3.15.8(b);

E is the sum of the *Market Customer's adjusted gross energy* amounts at each *connection point* for which the *Market Customer* is *financially responsible* in a *region*, determined in accordance with clauses 3.15.4 and 3.15.5 in respect of the relevant *intervention price trading intervals* excluding any *loads* in respect of which the *Market Customer* submitted a *dispatch bid* for the relevant *intervention price trading interval* in that *region*; and

RB is the regional benefit determined by *AEMO* pursuant to clause 3.15.8(b1) at the time of issuing the *direction*.

CRA is the *compensation recovery amount*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b1) *AEMO* must, as soon as practicable following the issuance of a *direction*, determine the relative benefit each *region* received from the issuance of a *direction* in accordance with the *regional benefit directions procedures*.

(b2) *AEMO* must develop in accordance with the *Rules consultation procedures* a procedure to determine the relative benefit each *region* receives from the issuance of a *direction* (the *regional benefit directions procedures*). Such procedures must take into account, where applicable to the reason the *direction* was given, the *load* at risk of not being supplied if the *direction* were not issued or the extent of improvement in available *energy* reserve in the *region*, capability to control *voltage* in the *region*, and capability to control *power system frequency* within the *region* and any other relevant matters.

(c) If the figure calculated for a *Market Customer* under clause 3.15.8(b) is negative, the absolute value of that amount is the amount payable by the *Market Customer* to *AEMO* pursuant to clause 3.15.8(b).

(d) Subject to clause 3.15.22, if the figure calculated for a *Market Customer* under clause 3.15.8(b) is positive, such amount is the amount receivable by the *Market Customer* from *AEMO* pursuant to clause 3.15.8(b), subject to the provisions of clause 3.15.22.

(e) *AEMO* must, in accordance with the *intervention settlement timetable*, calculate for each *ancillary service* the subject of a *direction*, the "**ancillary service compensation recovery amount**" being:

(1) the sum of:

    (i) the total of the compensation payable to *AEMO* by *Affected Participants* and *Market Customers* under clause 3.12.2 in respect of a *direction* for the provision of that *ancillary service*; plus

    (ii) the total of the amounts retained by *AEMO* pursuant to clause 3.15.6(b) in respect of a *direction* for the provision of that *ancillary service*;

(2) less the sum of:

    (i) the total of the compensation payable by *AEMO* to *Affected Participants* and *Market Customers* pursuant to clause 3.12.2 in respect of a *direction* for the provision of that *ancillary service*; plus

(ii)   the total of the compensation payable by *AEMO* to *Directed Participants* pursuant to clause 3.15.7(a) in respect of a *direction* for the provision of that *ancillary service*; plus

(iii)   the total amount payable by *AEMO* to the independent expert pursuant to clause 3.12.3(c), if the *direction* the subject of the independent expert's determination was with respect to that *ancillary service*.

(f)   The *trading amount* must be calculated as follows:

(1)   subject to clause 3.15.8(f)(2) and (3) *AEMO* must use the appropriate formula set out in clause 3.15.6A(c8), (c9), (d), (e), (f), (g), (h) or (i) depending on which *ancillary service* was the subject of the *direction*;

(2)   TNSCASP, TSRP, RTCRSP, RTCLSP or TSFCAS (as applicable) in the relevant formula is equal to the *ancillary service compensation recovery amount* for the relevant *ancillary service* in respect of the *direction*; and

(3)   if TCE, TGE, TSGE, AGE, ATCE, ATGE, ATSGE or AAGE is used in the relevant formula, then the words 'the *trading interval'* in the definitions of those terms in the formula are to be read as 'all of the *trading intervals* during which the *direction* applied'.

(g)   Any compensation payable by *AEMO* under clause 3.12.2 and 3.15.7 not recovered under clauses 3.15.8(b) and 3.15.8(e) must be recovered from *Market Customers*, *Market Generators* and *Market Small Generation Aggregators*. *AEMO* must, in accordance with the *intervention settlement timetable*, calculate a figure for each *Market Customer*, *Market Generator* and *Market Small Generation Aggregator* in each *region* applying the following formula:

$$MCP = \frac{TGE + TSGE - TCE}{RATGE + RATSGE - RATCE} \times \frac{RB}{\Sigma\,RB} \times CRA \times -1$$

where:

MCP   =   the amount payable or receivable by a *Market Customer*, *Market Generator* or *Market Small Generation Aggregator* under this clause 3.15.8(g);

TGE   =   the generator energy for the *Market Generator* in that *region* of the relevant *trading interval* for the period of the *direction*;

TSGE   =   the small generator energy for the *Market*

Small Generation Aggregator in that *region* of the relevant *trading interval* for the period of the *direction*;

TCE	=	the customer energy for the *Market Customer* in that *region* of the relevant *trading interval* for the period of the *direction*;
RATGE	=	the aggregate of the generator energy for all *Market Generators* in that *region* of the relevant *trading interval* for the period of the *direction*;
RATSGE	=	the aggregate of the small generator energy for all *Market Small Generation Aggregation* in that *region* of the relevant *trading interval* for the period of the *direction*;
RATCE	=	the aggregate of the customer energy for all *Market Customers* in that *region* of the relevant *trading interval* for the period of the *direction*;
RB	=	the regional benefit determined by *AEMO* under clause 3.15.8(b1) at the time of issuing the *direction*; and
CRA	=	the *compensation recovery amount*.

(h) In clause 3.15.8(g):

  (1) **customer energy** in respect of a *Market Customer* for a *trading interval* means the sum of the *adjusted gross energy* figures calculated for that *trading interval* in respect of that *Market Customer's* relevant connection points;

  (2) a *connection point* is a "relevant connection point" of a *Market Customer* if:

    (i) the *Market Customer* is *financially responsible* for the *connection point*; and

    (ii) the *load* at that *connection point* has been classified (or is deemed to be classified) as a *market load*;

  (3) **generator energy** in respect of a *Market Generator* for a *trading interval* means the sum of the *adjusted gross energy* figures calculated for that *trading interval* in respect of that *Market Generator's* applicable connection points, provided that, if the sum of those figures

is negative, then the *Market Generator's* generator energy for that *trading interval* is zero;

(4) a *connection point* is an "applicable connection point" of a *Market Generator* if:

(i) the *Market Generator* is financially responsible for the *connection point*; and

(ii) the *connection point* connects a *market generating unit* to the *national grid*;

(5) **small generator energy** in respect of a *Market Small Generation Aggregator* for a *trading interval* means the sum of the *adjusted gross energy* figures calculated for that *trading interval* in respect of that *Market Small Generation Aggregator's* applicable connection points, provided that, if the sum of those figures is negative, then the *Market Small Generation Aggregator's* small generator energy for that *trading interval* is zero; and

(6) a *connection point* is an "applicable connection point" of a *Market Small Generation Aggregator* if:

(i) the *Market Small Generation Aggregator* is *financially responsible* for the *connection point*; and

(ii) the *connection point* connects a *small generating unit* classified as a *market generating unit* to the *national grid*.

3.15.9 Reserve settlements

(a) *AEMO's* costs incurred in contracting for the provision of *reserves* are to be met by fees imposed on *Market Customers* in accordance with this clause 3.15.9.

(b) Included in the statements to be provided under clauses 3.15.14 and 3.15.15, *AEMO* must give each *Market Participant* a statement setting out:

(1) the aggregate of the amounts payable by *AEMO* under *reserve contracts* in respect of the relevant *billing period*;

(2) any amounts determined as payable by *AEMO*:

(i) by the independent expert under clause 3.12.3; or

(ii) as a result of a *scheduled generating unit*, *scheduled network service* or *scheduled load* under a *scheduled reserve contract* being *dispatched* or *generating units* or *loads* under an *unscheduled reserve contract* being *activated*,

in respect of the relevant *billing period*; and

(3)   the aggregate of the amounts receivable by *AEMO* under the *Rules* in respect of *reserve contracts* during the relevant *billing period*.

(c)   Separate statements must be provided under paragraph (b):

(1)   for *reserve contracts* entered into by *AEMO* specifically in respect of the *Market Participant's region* in accordance with paragraph (d); and

(2)   for *reserve contracts* other than those entered into for and allocated to a specific *region* or *regions*.

(d)   Where either:

(1)   without the intervention in the *market* of *AEMO* a *region* would otherwise, in *AEMO's* reasonable opinion, fail to meet the minimum *power system security and reliability standards*; or

(2)   a *region* requires a level of *power system reliability* or *reserves* which, in *AEMO's* reasonable opinion, exceeds the level required to meet the minimum *power system security and reliability standards*,

then *AEMO* must recover its net liabilities, or distribute its net profits, under the terms of *reserve contracts* entered into to meet these requirements, from or to the *Market Customers* in that *region* in accordance with paragraph (e).

(e)   In respect of *reserve contracts* entered into by *AEMO*, *AEMO* must calculate in relation to each *Market Customer* for each *region* in respect of each *billing period* a sum determined by applying the following formula:

$$MCP = \frac{E \times RRC}{\sum E}$$

where:

MCP is the amount payable by a *Market Customer* for a *region* in respect of a *billing period*;

E is the sum of all that *Market Customer's adjusted gross energy amounts* in a *region* (the " **relevant *region***") in each *trading interval* which occurs between 0800 hours and 2000 hours (*EST*) on a *business day* in the *billing period* excluding any *loads* in that *region* in respect of which the *Market Customer* submitted a *dispatch bid* for any such *trading interval*;

RRC is the total amount payable by *AEMO* under *reserve contracts* which relate to the relevant *region* in the *billing period* as agreed under clause 3.20.3(f); and

$\sum$E is the sum of all amounts determined as "E" in accordance with this paragraph (e) in respect of that *region*.

(f)   A *Market Customer* is liable to pay *AEMO* an amount equal to the sum calculated under paragraph (e) in respect of that *Market Customer*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(g)   Operational and administrative costs incurred by *AEMO* in arranging for the provision of *reserves*, other than its liabilities under the terms of the *reserve contracts* into which it has entered, are to be recovered by *AEMO* from all *Market Participants* as part of the fees imposed in accordance with rule 2.11.

(h)   For the purposes of clause 3.15.19, a re-determination by a panel established under clause 3.12.2 is to be taken to be an agreement between *AEMO* and each of the *Market Participants* and *Scheduled Generators*.

3.15.10   Administered price, market price cap or market floor price compensation payments

(a)   In the event that the *AEMC* awards compensation to a *Scheduled Generator*, *Market Participant* which submitted a *dispatch bid* or *Scheduled Network Service Provider* in accordance with clause 3.14.6, then *AEMO* must determine an amount which shall be payable by all *Market Customers* who purchased electricity from the *spot market* in a region in which the *regional reference price* was affected by the imposition of an *administered price* or the *market price cap*, or the *market floor price* in the *trading interval* or *trading intervals* in respect of which such compensation has been awarded.

(b)   *AEMO* shall determine the amounts payable for each relevant *trading interval* by each of the affected *Market Customers* under clause 3.15.10(a) as follows:

$$\frac{APC \times E_i}{\sum E_i}$$

where

APC is the total amount of any compensation payments awarded by the *AEMC* to *Scheduled Generators*, *Market Participants* which submitted *dispatch bids* or *Scheduled Network Service Providers* in respect of that *trading interval* in accordance with clause 3.14.6.

E_i is the sum of all of the *Market Customer's adjusted gross energy* amounts, determined in accordance with clauses 3.15.4 and 3.15.5, in respect of each *trading interval* in the *billing period* and each *connection point* for which the *Market Customer* is *financially responsible* in any *region* or *regions* affected by the imposition of an *administered price* or the *market price cap* or the *market floor price*.

$\sum E_i$ is the sum of all amounts determined as "E_i" in accordance with this clause 3.15.10 for all *Market Customers* in all *regions* affected by the

imposition of an *administered price* or the *market price cap* or the *market floor price* in that *trading interval*.

(c) Within 25 *business days* of being notified by the *AEMC* that compensation is to be paid to a *Scheduled Generator*, *Market Participant* which submitted a *dispatch bid* or *Scheduled Network Service Providers* in accordance with clause 3.14.6, *AEMO* shall include in statements provided under clauses 3.15.14 and 3.15.15 separate details of any amounts payable by or to *Market Participants* as determined in accordance with this clause 3.15.10.

3.15.10A Goods and services tax

(a) In this clause 3.15.10A:

"GST" has the meaning given in the GST Act; and

"GST Act" means the *A New Tax System (Goods and Services Tax) Act 1999* (C'th);

"supply" and **" taxable supply"** each have the meaning given in the GST Act,

and the definition of "*supply*" in Chapter 10 does not apply.

(b) Despite anything else in the *Rules*, *Participant fees*, *spot prices*, adjustments for *directions*, *reserve settlements*, *administered price cap* compensation payments, system security *direction settlements*, *re-allocation transactions*, compensation, interest, *settlements residues*, *ancillary services settlements*, *settlements residue* distributions (including *auction* proceeds), *auction expense fees* and other prices, fees, charges and amounts payable to or by *AEMO*, the *AER* or the *AEMC* in respect of supplies under the *Rules* exclude GST. Accordingly:

(1) where a *Registered Participant* makes a taxable supply to *AEMO*, the *AER* or the *AEMC* under or in connection with the *Rules* on or after 1 July 2000, *AEMO*, the *AER* or the *AEMC* (as applicable) must also pay the *Registered Participant* making the supply an additional amount equal to the consideration payable for the supply multiplied by the applicable GST rate;

(2) where *AEMO*, the *AER* or the *AEMC* makes a taxable supply to a *Registered Participant* under the *Rules* on or after 1 July 2000, the *Registered Participant* must also pay *AEMO*, the *AER* or the *AEMC* (as applicable) an additional amount equal to the consideration payable for the supply multiplied by the applicable GST rate; and

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(3)   *AEMO* must include in *preliminary statements*, *final statements*, *routine revised statements*, *special revised statements*, statements and invoices issued under the *Rules* the additional amounts contemplated by clauses 3.15.10A(b)(1) and (2).

(c)   However, if the additional amount paid or payable to a *Registered participant*, *AEMO*, the *AER* or the *AEMC* under clause 3.15.10A(b) in respect of a taxable supply differs from the actual amount of GST payable by or to the *Registered Participant*, *AEMO*, the *AER* or the *AEMC* (as applicable) under the GST Act in respect of the relevant supply, then adjustments must be made in accordance with clause 3.15.19 so as to ensure the additional amount paid under this clause in respect of the supply is equal to the actual amount of GST payable under the GST Act in respect of the supply.

3.15.10B Restriction contract amounts

(a)   If clause 3.12A.7(g) applies then *AEMO* must include in the next statement provided under clauses 3.15.14 and 3.15.15 immediately after the end of the relevant *mandatory restriction period* separate details of amounts payable:

(1)   by *Market Customers* in the relevant *region* in which the *mandatory restrictions* apply an amount equal to:

$$EMCP = RSA \times \frac{(AGE)}{(AAGE)}$$

Where:

EMCP is the payment to be made by *Market Customers* to *AEMO*.

RSA is the *restriction shortfall amount*.

AGE is the *adjusted gross energy* of a *Market Customer* in that *region* for the *mandatory restriction period* expressed in MWh.

AAGE is the aggregate of the *adjusted gross energy* of all *Market Customers* in that *region* for the *mandatory restriction period* expressed in MWh;

(2)   by *Scheduled Generators* and *Scheduled Network Service Providers* to *AEMO* in accordance with clause 3.12A.7(a); and

(3)   the amounts payable by *AEMO* to the *Scheduled Generators* or *Scheduled Network Service Providers* pursuant to *accepted restriction offers*.

(b)   Immediately upon the later of the publication of the independent expert's final report in accordance with clause 3.12A.7(i)(8) and the determination of a *dispute resolution panel* pursuant to clause 3.12A.7(m), if any, *AEMO*

must include in the next statements provided under clauses 3.15.14 and 3.15.15 separate details of any amounts payable:

(i)   by a *Market Customer* equal to the amount as determined in accordance with clause 3.12A.7(g)(i) less the amount determined in accordance with clause 3.15.10B(a)(1), if such number is positive together with interest on such amount calculated by applying the *bank bill rate* on the date of this statement for the period from the date of the statement referred to in clause 3.15.10B(a) to the date of this statement under clause 3.15.10B(b); and

(ii)   to a *Market Customer* equal to the amount determined in accordance with clause 3.15.10B(a)(1) less the amount determined in accordance with clause 3.12A.7(g)(i), if such number is positive together with interest on such amount calculated by applying the *bank bill rate* on the date of this statement for the period from the date of the statement referred to in clause 3.15.10B(a) to the date of this statement under clause 3.15.10B(b).

(c)   If clauses 3.12A.7(f) or 3.12A.7(h) apply then *AEMO* must include in the next statement provided under clauses 3.15.14 and 3.15.15 immediately after the end of the relevant *mandatory restriction period* separate details of any amounts payable:

(i)   by or to *Market Customers* as determined in accordance with clauses 3.12A.7(e) or 3.12A.7(h) respectively;

(ii)   by *Scheduled Generators* and *Scheduled Network Service Providers* to *AEMO* in accordance with clause 3.12A.7(a); and

(iii)   the amounts payable by *AEMO* to the *Scheduled Generators* or *Scheduled Network Service Providers* pursuant to all *accepted restriction offers*.

3.15.10C Intervention Settlements

(a)   *AEMO* must include in the final statement provided under clause 3.15.14 and 3.15.15 for a *billing period* in which a *direction* was issued:

(1)   for each *Affected Participant* and *Market Customer* in relation to that *direction* the amount calculated pursuant to clause 3.12.2(c);

(2)   for each *Directed Participant* in relation to that *direction* the amount calculated pursuant to clause 3.15.7(c) or clause 3.15.7A(a) by application of clause 3.15.7A(e), as the case may be;

(3)   for each *Market Customer* in relation to that *direction* the amount calculated pursuant to clause 3.15.8(b) by application of clause 3.15.8 mutatis mutandis provided that the amount for the purposes of:

(i)   clause 3.15.8(a)(1)(i) shall be the total amount payable to *AEMO* by *Affected Participants* and *Market Customers* calculated pursuant to clause 3.12.2(c);

(ii)   clause 3.15.8(a)(1)(ii) shall be the amount calculated in accordance with that clause;

(iii)   clause 3.15.8(a)(2)(i) shall be the total amount payable by *AEMO* to *Affected Participants* and *Market Customers* calculated pursuant to clause 3.12.2(c);

(iv)   clause 3.15.8(a)(2)(ii) shall be the sum of the total amount payable by *AEMO* to *Directed Participants* calculated pursuant to clause 3.15.7(c) and 3.15.7A(a) by application of 3.15.7A(e); and

(v)   clause 3.15.8(a)(2)(iii) shall be zero; and

(4)   for each *Market Customer*, *Market Generator* and *Market Small Generation Aggregator* in relation to that *direction* an amount calculated pursuant to clause 3.15.8(e) by application of clause 3.15.8 mutatis mutandis provided that for the purposes of clause 3.15.8(f)(2) TNSCASP, TSRP, RTCRSP, RTCLSP and TSFCAS shall be the total compensation payable by *AEMO* for the relevant *ancillary service* calculated in accordance with clause 3.15.7(c) or clause 3.15.7A(a) by application of clause 3.15.7A(e), as the case may be.

(b)   *AEMO* must include in the first statement it provides under clauses 3.15.14 and 3.15.15 following a final determination of all total amounts payable or receivable by it pursuant to clause 3.12.2, clause 3.15.7(a) and clause 3.15.8, separate details of the amount:

(1)   receivable by each *Directed Participant* pursuant to clause 3.15.7(a) less the amount, if any, paid to that *Directed Participant* pursuant to clause 3.15.10C(a)(2);

(2)   receivable by each *Affected Participant* or *Market Customer* pursuant to clause 3.12.2:

(i)   less the amount paid to that *Affected Participant* or *Market Customer*, in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(1), if any; or

(ii)   plus the amount paid by that *Affected Participant* or *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(1), if any;

(3)   payable by each *Affected Participant* or *Market Customer* pursuant to 3.12.2:

(i)   less the amount paid by that *Affected Participant* or *Market Customer*, in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(1), if any; or

(ii)   plus the amount paid to that *Affected Participant* or *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(1), if any;

(4)   receivable by each *Market Customer* pursuant to clause 3.15.8(b):

(i)   less the amount paid to that *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(3), if any; or

(ii)   plus the amount paid by that *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(3), if any;

(5)   payable by each *Market Customer* pursuant to clause 3.15.8(b):

(i)   less the amount paid by that *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(3), if any; or

(ii)   plus the amount paid to that *Market Customer* in accordance with the statement issued to it pursuant to clause 3.15.10C(a)(3), if any;

(6)   if an *Affected Participant* or *Market Customer* is not entitled to any compensation pursuant to clause 3.12.2, the amount:

(i)   receivable by that person equal to the amount paid by that person pursuant to clause 3.15.10C(a); or

(ii)   payable by that person equal to the amount paid to that person pursuant to clause 3.15.10C(a);

(7)   payable by each *Market Customer, Market Generator* and *Market Small Generation Aggregator* equal to:

(i)   the amount payable by the *Market Customer*, *Market Generator* or *Market Small Generation Aggregator*, as the case may be, pursuant to clause 3.15.8(e) by application of clause 3.15.8 mutatis mutandis provided that for the purposes of clause 3.15.8(f)(2) TNSCASP, TSRP, RTCRSP, RTCLSP and TSFCAS shall be the total compensation payable by *AEMO* for the relevant *ancillary service* calculated in accordance with clause 3.15.7A(a); less

(ii)   the amount paid by the *Market Customer*, *Market Generator* or *Market Small Generation Aggregator*, as the case may be, in

accordance with the statement issued to it pursuant to clause 3.15.10C(a)(4); and

(8) payable by *Registered Participants* pursuant to clause 3.15.8(g).

(c) If on application by the *AER* a court determines, in relation to a *direction*, that a *Directed Participant* has breached clause 4.8.9(c2) then:

(1) the *Directed Participant* shall not be entitled to, and must repay, any compensation plus interest pursuant to clauses 3.15.7, 3.15.7A and 3.15.7B, in relation to that *direction*; and

(2) the *AER* must forward to *AEMO* a written notice of the court's determination.

(3) *AEMO* must include in the first relevant statement it provides under clauses 3.15.14 and 3.15.15 following receipt of the notice from the *AER* issued pursuant to clause 3.15.10C(c)(2) separate details of:

(i) an amount payable to *AEMO* by the *Directed Participant* equal to the total compensation received by that *Directed Participant* in accordance with clauses 3.15.7, 3.15.7A and 3.15.7B plus interest on that total compensation computed at the average *bank bill rate* for the period from the date of payment of such amount to the *Directed Participant* until the date of that first statement;

(ii) an amount payable by *AEMO* to each relevant *Market Customer* calculated by applying clause 3.15.8(b) mutatis mutandis except that:

(A) MCP shall equal the amount receivable by the *Market Customer*; and

(B) CRA shall equal that part of the amount, including interest, calculated pursuant to clause 3.15.10C(c)(3)(i) attributable to the provision of *energy* by the *Directed Participant*; and

(iii) an amount payable by *AEMO* to each relevant *Market Customer*, *Market Generator* and *Market Small Generation Aggregator* calculated by applying clause 3.15.8(f)(2) mutatis mutandis except that:

(A) all *trading amounts* determined by this clause 3.15.10C(c)(3)(iii) shall be positive; and

(B) TNSCASP, TSRP, RTCRSP, RTCLSP, and TSFCAS shall all be an amount equal to that part of the amount, including interest, calculated pursuant to clause 3.15.10C(c)(3)(i) attributable to the provision of the relevant *ancillary service*.

3.15.11   Reallocation transactions

(a)   A *reallocation transaction* is a *transaction* undertaken with the consent of two *Market Participants* and *AEMO*, under which *AEMO* credits one *Market Participant* with a positive *trading amount* in respect of a *trading interval*, in consideration of a matching negative *trading amount* debited to the other *Market Participant* in respect of the same *trading interval*.

(b)   *Reallocation transactions* may be of any type permitted in the *reallocation procedures*.

(c)   A *reallocation transaction* is initiated by a *reallocation request* lodged with *AEMO* by or on behalf of two *Market Participants*.

(d)   A *reallocation request* must:

    (1)   contain the information required by the *reallocation procedures*; and

    (2)   be lodged with *AEMO* in accordance with the *reallocation procedures* and the timetable for *reallocation requests* as *published* by *AEMO* from time to time (the **reallocation timetable**).

(e)   Upon receipt of a *reallocation request AEMO* must register the *reallocation request* within the time specified in the *reallocation procedures* and the reallocation timetable and may impose conditions on that registration as contemplated by the *reallocation procedures*.

(f)   After a *reallocation request* has been registered in respect of two *Market Participants*, *AEMO* may deregister the *reallocation request* if:

    (1)   the *prudential requirements* are not satisfied by either of those *Market Participants*;

    (2)   either of the *Market Participants* fails to comply with any conditions imposed by *AEMO* in respect of the *reallocation request* at the time it was registered;

    (3)   both *Market Participants* notify *AEMO* in accordance with the *reallocation procedures* that they require the *reallocation request* to be terminated; or

    (4)   a *default event* occurs in respect of either of the *Market Participants* and *AEMO* exercises its powers under paragraph (l).

(g)   Deregistration of a *reallocation request* prevents *reallocation transactions* occurring in respect of all the *trading intervals* that occur after the time of deregistration.

(h)   *AEMO* must not deregister a *reallocation request* under paragraph (f) otherwise than in accordance with the *reallocation procedures*.

(i) The *Market Participants* may agree to reverse the effect of a registered *reallocation request* by lodging a new *reallocation request* in accordance with the *reallocation procedures* and the reallocation timetable.

(j) *AEMO* must include details of *reallocation transactions* in the *settlement statements* issued to all parties to those *reallocation transactions*.

(k) Where there is a registration of a *reallocation request* in respect of a *trading interval* and that *trading interval* has occurred, a *reallocation transaction* occurs in accordance with that *reallocation request*.

(l) If a *default event* occurs in relation to a party to a *reallocation request* when one or more of the *trading intervals* specified in the *reallocation request* has not occurred, *AEMO* may deregister the *reallocation request* by notice given at any time whilst the *default event* is subsisting.

(m) The deregistration under paragraph (l) is effective immediately upon *AEMO* notifying both parties to a *reallocation request* of the deregistration and the deregistration:

(1) is effective for all *trading intervals* commencing after the time specified in the notice, and notwithstanding that the *default event* may be subsequently cured; and

(2) prevents the completion of the requested *reallocation transactions* in the *trading intervals* that commence at or after the time specified in the deregistration notice.

(n) In addition to any other right *AEMO* may exercise following a *default event*, upon deregistration of a *reallocation request AEMO* may redetermine the maximum credit limit and *trading limit* for either or both of the parties to the *reallocation request*, having regard to the deregistration that has occurred.

3.15.11A Reallocation procedures

(a) *AEMO* must develop and *publish* procedures in accordance with the *Rules consultation procedures*, to enable *Market Participants* to create and record *reallocation requests* and *reallocation transactions* in accordance with clause 3.15.11 in respect of electricity trading transactions other than those conducted through the *market* and/or establish mutual indemnification arrangements with other operators of markets for electricity-based trading (the *reallocation procedures*).

(b) *AEMO* may, from time to time and in accordance with the *Rules consultation procedures*, amend or replace the *reallocation procedures*.

(c) Paragraph (b) does not apply to amendments to the *reallocation procedures* that are of a minor or administrative nature and *AEMO* may make such amendments at any time.

(d) *NEMMCO* must develop and *publish* the first *reallocation procedures* by 1 January 2008 and there must be such procedures available at all times after that date.

(e) *AEMO* is not required to meet its obligations under paragraph (a) in any way which increases *AEMO's* risks in the collection of moneys owed to it in accordance with any provisions of the *Rules*.

3.15.12 Settlement amount

(a) Subject to clause 3.15.12(b), for each *billing period AEMO* must calculate a net *settlement amount* for each *Market Participant* by aggregating the *trading amounts* resulting for each *Market Participant* from each *transaction* in respect of each *trading interval* occurring in that *billing period* together with *Participant fees* determined in accordance with rule 2.11 and any other amounts payable or receivable by the *Market Participants* in that *billing period* under this Chapter 3. The *settlement amount* will be a positive or negative dollar amount for each *Market Participant*.

(b) *AEMO* may calculate an estimate of the net *settlement amount* for each *Market Participant* (the "estimated *settlement amount*") if, within the time provided for the giving of *preliminary statements* in accordance with clause 3.15.14, *AEMO* is prevented from calculating the net *settlement amount* in accordance with clause 3.15.12(a) by factors which are beyond the control of *AEMO* and which deprive *AEMO* of the relevant data required to calculate the net *settlement amount* (the "**relevant data**"), including:

   (1) a failure of:

      (i) metering data processing;

      (ii) communications; or

      (iii) the settlements processing system; and

   (2) any other events or circumstances which prevent the calculation of the actual net *settlement amount* by *AEMO*.

(c) *AEMO* must develop the principles and the process to be applied in calculating the *estimated settlement amount*, and make any necessary modifications to those principles and that process, in accordance with the *Rules consultation process*.

3.15.13 Payment of settlement amount

Where the *settlement amount* for a *Market Participant* is negative the absolute value of the *settlement amount* is an amount payable by the *Market Participant* to *AEMO* pursuant to clause 3.15.15. Where the *settlement amount* for a *Market Participant* is positive the *settlement amount* is an amount receivable by the

Market Participant from *AEMO* pursuant to clause 3.15.15, subject to the provisions of clause 3.15.22.

3.15.14   Preliminary statements

(a)   Subject to clause 3.15.14(b), within 5 *business days* after the end of each *billing period*, *AEMO* must give each *Market Participant* a draft of the statement to be given to the *Market Participant* under clause 3.15.15 together with supporting data relating to the *transactions* in that *billing period* and the prices at which electricity was bought and sold by the *Market Participant*.

(b)   If *AEMO* calculates an *estimated settlement amount* in accordance with clause 3.15.12(b), *AEMO* must:

   (1)   when giving a *preliminary statement* in accordance with this clause 3.15.14, provide a detailed report to affected *Market Participants* setting out the basis and calculations used for its estimation; and

   (2)   if requested to do so by affected *Market Participants*, consult with those *Market Participants* to ascertain whether or not any adjustments are required to the *estimated settlement amount* prior to the giving of a *final statement*.

3.15.15   Final statements

(a)   No later than 18 *business days* after the end of each *billing period*, *AEMO* must give to each *Market Participant* a *final statement* stating the amounts payable by the *Market Participant* to *AEMO* or receivable by the *Market Participant* from *AEMO* (subject to clause 3.15.22) in respect of the relevant *billing period*.

(b)   Unless *AEMO* has used an *estimated settlement amount* in accordance with clause 3.15.12, the statements issued under this clause 3.15.15 must include supporting data for all amounts payable or receivable.

3.15.15A   Use of estimated settlement amounts by AEMO

(a)   Subject to clause 3.15.15A(b), if *AEMO* calculates an *estimated settlement amount* in accordance with clause 3.15.12(b), then clauses 3.15.13, 3.15.14 and 3.15.15 will have effect mutatis mutandis by applying the *estimated settlement amount* in place of a *settlement amount* for a *Market Participant* for the purposes of those clauses.

(b)   If *AEMO* receives *relevant data*:

   (1)   after it has given the *preliminary statement* in accordance with clause 3.15.14 but before giving a *final statement*, then it must adjust the *estimated settlement amount* accordingly for the purposes of preparing the *final statement*; or

(2)   within 60 days after it has given a *final statement* to which the *relevant data* relates, then *AEMO* must adjust the relevant *estimated settlement amount* accordingly and issue a *revised statement* in accordance with clause 3.15.19(a).

3.15.16   Payment by market participants

On the 20th *business day* after the end of a *billing period*, or 2 *business days* after receiving a statement under clause 3.15.15, whichever is the later, and in accordance with the *timetable* each *Market Participant* must pay to *AEMO* in cleared funds the net amount stated to be payable by that *Market Participant* in that statement whether or not the *Market Participant* continues to dispute the net amount payable.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

3.15.17   Payment to market participants

Subject to clause 3.15.22 on the *day* on which *AEMO* is to be paid under clause 3.15.16, *AEMO* must pay to each *Market Participant* in cleared funds the net amount stated to be payable to that *Market Participant* in the relevant statement given to it under clause 3.15.15.

3.15.18   Disputes

(a)   In the event of a dispute between a *Market Participant* and *AEMO* concerning either the net amount (including any *estimated settlement amount*) stated in a *preliminary statement* provided under clause 3.15.14 to be payable by or to it or the supporting data, they must each use reasonable endeavours to resolve the dispute within 15 *business days* of the end of the relevant *billing period*.

(b)   Disputes in respect of *final statements* or the supporting data provided with them in accordance with clause 3.15.15 must be raised within 6 months of the relevant *billing period*.

(c)   Disputes raised under this clause 3.15.18:

(1)   can only be raised by a *Market Participant* or *AEMO* issuing a written notice of dispute in the form prescribed by *AEMO's DMS* and otherwise in accordance with rule 8.2;

(2)   must be resolved by agreement or pursuant to rule 8.2; and

(3)   are, for the purpose of this clause, deemed to have been raised on the day *AEMO* receives the written notice of dispute.

(d)   A *Market Participant* that may be materially affected by the outcome of a dispute under clause 3.15.18 may be joined to that dispute by the *Adviser* on request by that *Market Participant* or by *AEMO*.

3.15.19   Revised Statements and Adjustments

(a)   Where a dispute about a *final statement* has been either resolved by agreement between *AEMO* and the relevant *Market Participant* ("the **Disputant**") or determined under rule 8.2 and an adjustment to the *settlement amount* stated in the disputed *final statement* is required, or an adjustment is required under clause 3.15.10A, *AEMO* must:

(1)   recalculate the *settlement amount* for that *Market Participant* and each other *Market Participant* who received a *final statement* for the relevant *billing period*:

(i)   in accordance with the applicable procedures set out in the *Rules* and,

(ii)   taking into account the adjustment;

(2)   if the adjustment is required as a result of a dispute and the recalculated *settlement amount* for the Disputant is between 95% and 105% of the relevant *settlement amount*:

(i)   calculate for each *Market Participant* the amount by which the relevant *settlement amount* must be adjusted to be equal to the recalculated *settlement amount* after taking into account any *routine* or *special revised statement*; and

(ii)   for each *Market Participant* include that amount in the next *routine revised statement* given to those *Market Participants* for the relevant *billing period* practicable and if there is no *routine revised statement*, in accordance with clauses 3.15.19(a)(3)(ii) and (iii).

(3)   if the adjustment is required under clause 3.15.10A, or the adjustment is required as a result of a dispute and the recalculated *settlement amount* for the Disputant is less than 95% or more than 105% of the relevant *settlement amount*:

(i)   calculate for each *Market Participant* the amount by which the relevant *settlement amount* must be adjusted to be equal to the recalculated *settlement amount* after taking into account any *routine* or *special revised statement*;

(ii)   give each *Market Participant* a *special revised statement* for the relevant *billing period* in addition to any *routine revised statement* given under clause 3.15.19(b); and

(iii)   give each *Market Participant* a notice advising of the reason why a *settlement statement* was given by *AEMO* under clause 3.15.19(a)(3).

(b)   For each *billing period AEMO* must give each *Market Participant* a *routine revised statement* approximately 20 weeks after the relevant *billing period* and approximately 30 weeks after the relevant *billing period*. Each *routine revised statement* must recalculate the *Market Participant's settlement amount* for that *billing period*:

(1)   taking into account all amended *metering data*, amended *trading amounts*, amended *Participant fees* and any other amounts payable or receivable by *Market Participants* under this Chapter 3; and

(2)   using the most recent version of *AEMO's* settlement calculation software applicable to that *billing period*.

(c)   Each *special* and *routine revised statement* issued under this clause must:

(1)   state the revised *settlement amount* for the relevant *billing period*;

(2)   be issued in accordance with the revised statement policy;

(3)   be issued with revised supporting data for the *transactions* for the relevant *billing period* (except in the case of a *special revised statement* dealing with an adjustment required under clause 3.15.10A) and must include supporting data for all amounts payable or receivable.

(d)   If *AEMO* has issued a *routine revised statement* or *special revised statement* (the *revised statement*) to a *Market Participant* in respect of a *billing period* (the "**original *billing period***"), *AEMO* must include in the next *final statement* to the *Market Participant* issued not less than 8 *business days* after the *revised statement* (the "**next statement**"):

(1)   the amount necessary to put the *Market Participant* in the position it would have been in at the time payment was made under clause 3.15.16 or 3.15.17 (as applicable) in respect of the *final statement* for the original *billing period*, if the original *revised statement* had been given as the *final statement* for the *billing period*, but taking into account any adjustments previously made under this clause 3.15.19 as a result of any other *routine revised statement* or *special revised statement* in relation to the original *billing period*; and

(2)   interest on the amount referred to in clause 3.15.19(d)(1) computed at the average *bank bill rate* for the period from the date on which payment was required to be made under clauses 3.15.16 and 3.15.17 in respect of the *final statement* for the original *billing period* to the date on which payment is required to be made under those clauses in respect of the next statement.

(e)   *AEMO* must develop and publish a policy for *routine* and *special revised statements*. *AEMO* may amend the policy at any time. *AEMO* must develop and amend the policy in accordance with the *Rules consultation procedures*. The policy must include:

(1)   a calendar setting out when *routine revised statements* will be issued by *AEMO*;

(2)   the process by which the calendar can be amended or varied by *AEMO* and the process by which *Market Participants* are notified of any amendment and variation; and

(3)   a transitional process by which *AEMO* will issue any outstanding *routine revised statement*.

3.15.20   Payment of adjustments

(a)   Adjustments made and interest calculated and included in a *final statement* under clause 3.15.19 must be paid as part of the *settlement amount* shown on that *final statement* in accordance with either clause 3.15.16 or 3.15.17.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b)   Clause 3.15.22 does not apply to a *final statement* to the extent that the *final statement* incorporates an adjustment amount and interest pursuant to clause 3.15.19.

(c)   Disputes in respect of adjustment amounts and interest incorporated into a *final statement* pursuant to clause 3.15.19 must be:

(1)   raised within 20 *business days* of the date of the *final statement* that they are incorporated into; and

(2)   resolved by agreement or pursuant to the dispute resolution procedures set out in rule 8.2.

3.15.21   Default procedure

(a)   Each of the following is a *default event* in relation to a *Market Participant*:

(1)   the *Market Participant* does not pay money due for payment to *AEMO* under the *Rules* by the appointed *time* on the due date;

(2)   *AEMO* does not receive payment in full of any amount claimed by *AEMO* under any *credit support* in respect of a *Market Participant*, within 90 minutes after the due time for payment of that claim;

(3)   the *Market Participant* fails to provide *credit support* required to be supplied under the *Rules* by the appointed time on the due date;

(4) it is unlawful for the *Market Participant* to comply with any of its obligations under the *Rules* or any other obligation owed to *AEMO* or it is claimed to be so by the *Market Participant*;

(5) it is unlawful for any *credit support provider* in relation to the *Market Participant* to comply with any of its obligations under the *Rules* or any other obligation owed to *AEMO* or it is claimed to be so by that *credit support provider*;

(6) an authorisation from a government body necessary to enable the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* to carry on their respective principal business or activities ceases to be in full force and effect;

(7) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* ceases or threatens to cease to carry on its business or a substantial part of its business;

(8) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* enters into or takes any action to enter into an arrangement (including a scheme of arrangement), composition or compromise with, or assignment for the benefit of, all or any class of their respective creditors or members or a moratorium involving any of them;

(9) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* states that it is unable to pay from its own money its debts when they fall due for payment;

(10) a receiver or receiver and manager is appointed in respect of any property of the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant*;

(11) an administrator, provisional liquidator, liquidator, trustee in bankruptcy or person having a similar or analogous function is appointed in respect of the *Market Participant* or a provider of *credit support* for the *Market Participant*;

(12) an order is made, or a resolution is passed, for the winding up of the *Market Participant* or a provider of *credit support* for the *Market Participant*;

(13) A notice under section 601AB(3) of the Corporations Act is given to the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* unless the registration of that *Market Participant* or *credit support provider* is reinstated under section 601AH of the Corporations Act;

(14) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* dies or is dissolved unless such notice of dissolution is discharged;

(15) the *Market Participant* or a *credit support provider* which has provided *credit support* for that *Market Participant* is taken to be insolvent or unable to pay its debts under any applicable legislation.

(b) Where a *default event* has occurred in relation to a *Market Participant*, *AEMO* may:

(1) issue a "*default notice*" specifying the alleged default and requiring the *Market Participant* to remedy the default by 1.00 pm (*Sydney time*) the next day following the date of issue of the *default notice*; and/or

(2) if it has not already done so, make claim upon any *credit support* held in respect of the obligations of the *Market Participant* for such amount as *AEMO* determines represents the amount of any money actually or contingently owing by the *Market Participant* to *AEMO* pursuant to the *Rules*.

(c) If the *default event* is not remedied by 1.00 pm (*Sydney time*) the next *day* following the date of issue of the *default notice* or any later deadline agreed to in writing by *AEMO*, or if *AEMO* receives notice from the *defaulting Market Participant* that it is not likely to remedy the default, then *AEMO* may issue a "**suspension notice**" under which *AEMO* notifies the *defaulting Market Participant* of the date and time from which it is suspended from trading, and the extent of that suspension.

(d) At the time of issue of a *suspension notice*, or as immediately thereafter as is practicable, *AEMO* must forward a copy of the *suspension notice* to the *AER* and to each *Market Participant* which is *financially responsible* for a *transmission network connection point* to which is allocated a *connection point* for which the defaulting *Market Participant* is *financially responsible*.

(e) *AEMO* must lift a *suspension notice* if the *default event* is remedied and there are no other circumstances in existence which would entitle *AEMO* to issue a *suspension notice*.

(f) *AEMO* must issue a public announcement that the *Market Participant* has been suspended from the *market* including details of the extent of the suspension, simultaneously with, or at any time after, a *suspension notice* is issued. *AEMO* must issue a public notice promptly after a *suspension notice* is lifted.

(g) From the time of suspension that *AEMO* stipulates in a *suspension notice* to a *Market Participant* the *Market Participant* is ineligible to trade or enter into any *transaction* in the *market* to the extent specified in the notice, until such time that *AEMO* notifies the *Market Participant* and all other *Market Participants* of the date and time that the suspension has been lifted.

(h) The *defaulting Market Participant* must comply with a *suspension notice*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(i) Following the issue of a *suspension notice*, *AEMO* may do all or any of the following to give effect to the *suspension notice*:

(1) reject any *dispatch bid* or *dispatch offer* submitted by the *defaulting Market Participant*;

(2) withhold the payment of any amounts otherwise due to the *defaulting Market Participant* under the *Rules*; or

(3) deregister or reject any *reallocation request* to which the *defaulting Market Participant* is a party.

The issue of a *suspension notice* which has not been lifted is a "**relevant disconnection event**" (ie. an event for which a *Registered Participant's market loads* may be *disconnected*) within the meaning of section 63(2) of the *National Electricity Law*.

3.15.22 Maximum total payment in respect of a billing period

(a) For the purposes of this clause 3.15.22, the *maximum total payment* in respect of a *billing period* is equal to:

(1) the aggregate of the *energy trading amounts* as determined in accordance with clause 3.15.6 and *reallocation* amounts as determined in accordance with clause 3.15.11 received by *AEMO* from *Market Participants* in accordance with clause 3.15.16 in respect of that *billing period* in accordance with the *timetable* on the latest date for payment by *Market Participants* as described in clause 3.15.16 (called the **payment date**),

plus

(2) if there is one or more *Market Participants* in default, the aggregate amount which *AEMO* is able to obtain from the *credit support* and apply from security deposits provided by the *Market Participants* in default under rule 3.3 on the *payment date* in accordance with the *timetable*,

minus

(3) if there is one or more *Market Participants* in default, the aggregate of amounts payable to *AEMO* by those *Market Participants* in respect of that *billing period* in accordance with clause 3.15.16 but not received in accordance with the *timetable* on the latest date for payment as described in clause 3.15.16 (called the **payment date**),

plus

(4)   if there is one or more *Market Participants* in default, the aggregate of *energy trading amounts* and *reallocation* amounts payable to *AEMO* under clauses 3.15.6 and 3.15.11 by those *Market Participants* in respect of that *billing period* in accordance with clause 3.15.16 but not received in accordance with the *timetable* on the latest date for payment as described in clause 3.15.16 (called the **payment date**),

minus

(5)   *inter-regional* and *intra-regional settlements* surpluses as determined or allocated by *AEMO* in accordance with the procedure established under clause 3.6.5.

(b)   The maximum amount which *AEMO* is required to pay to *Market Participants* in respect of *spot market transactions* or *reallocation transactions* in respect of a *billing period* is equal to the *maximum total payment* in respect of that *billing period*.

(c)   If the *maximum total payment* in respect of a *billing period* is not sufficient to meet the aggregate of the net amounts payable by *AEMO* to each of the *Market Participants* to whom payments are to be made in relation to *spot market transactions* or *reallocation transactions* in respect of the *billing period* (the *aggregate payment due*), then the aggregate amount payable by *AEMO* to each relevant *Market Participant* for any of these *transactions* in respect of that *billing period* shall be reduced by applying the following formula:

$$AAP = SAP \times \frac{A}{B}$$

where:

AAP is the reduced amount actually payable by *AEMO* to the relevant *Market Participant* in respect of the relevant *billing period*;

SAP is the net amount that would have been payable to the relevant *Market Participant* in respect of *spot market transactions* or *reallocation transactions* in respect of the relevant *billing period* but for the application of this clause 3.15.22;

A is the *maximum total payment* in respect of the *billing period*; and

B is the *aggregate payment due* in respect of the *billing period*.

(d)   This clause 3.15.22 applies notwithstanding any other provision of this Chapter.

3.15.23   Maximum total payment in respect of a financial year

(a)   If in a *financial year* a *Market Participant* suffers a reduction in payment under clause 3.15.22 the provisions of this clause shall apply to adjust the payments made to each *Market Participant* in the *financial year*.

(b)   The ratio of the overall shortfall to the sum of the *aggregate payments due* for a financial year shall be determined by the following formula:

$$SS = \frac{A_1 + C}{B_1}$$

where:

SS is the ratio of the overall shortfall to the sum of the *aggregate payments due* for the *financial year*;

A_1 is the aggregate of the As referred to in clause 3.15.22, being the *maximum total payment* in respect of each *billing period* forming the *financial year*;

B_1 is the aggregate of the Bs referred to in clause 3.15.22, being the *aggregate payment due* in respect of each *billing period* forming the *financial year*; and

C is the aggregated late payments and *credit support* receipts in respect of *defaulting Market Participants* in the *financial year* plus interest received on such amounts under clause 3.15.25.

(c)   The shortfall for a *financial year* shall be applied pro rata to each *Market Participant* in the *financial year* by applying the following formula:

$SS_1 = (SAP_1 \; SS) - AAP_1$

where:

SS_1 is the shortfall or surplus payable by or due to the *Market Participant* in respect of the *financial year*;

SAP_1 is the aggregate of the SAPs referred to in clause 3.15.22 being the net amounts due to the *Market Participant* in respect of each *billing period* forming the *financial year*;

SS is determined in accordance with clause 3.15.23(b); and

AAP_1 is the aggregate of the AAPs referred to in clause 3.15.22, being the reduced amounts payable to the *Market Participant* in respect of each *billing period* forming the *financial year*.

(d)   *AEMO* must issue a statement stating the SS1 amount payable to or receivable by the *Market Participant* in respect of this clause 3.15.23. If SS1 is positive, such that an amount is payable by *AEMO* it will credit the sum to the *Market Participant's* account in the next *billing period*. If SS1 is negative, such that an amount is payable by a *Market Participant*, *AEMO* will at its discretion either debit the sum to the *Market Participant* in the next *billing period* or issue an invoice for immediate payment of the amount.

3.15.24 Compensation for reductions under clause 3.15.23

(a) If:

(1) a *Market Participant* suffers a reduction in payment under clause 3.15.23; and

(2) an amount is recovered by *AEMO* after the end of a *financial year* from the person whose default gave rise (in whole or in part) to the reduction, in respect of the default,

then, subject to clause 3.15.24(c), the *Market Participant* is entitled to be paid by *AEMO* out of the amount recovered the amount of the reduction suffered and interest for receiving the amount of the reduction later than it would otherwise have done.

(b) The amount of the interest payable under clause 3.15.24(a) is to be determined in each case by *AEMO*.

(c) If the amount recovered from the person whose default gave rise to the reduction is not sufficient to pay all *Market Participants* the amounts to which they are entitled under clause 3.15.23 then the amount recovered is to be distributed amongst them pro rata according to the reductions suffered. Such distribution to be made at any time following the end of a *financial year*.

3.15.25 Interest on overdue amounts

(a) A *Market Participant* or *AEMO* must pay interest on any unpaid moneys due and payable by it under this Chapter.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(b) The rate of interest payable under this clause 3.15.25 is the *bank bill rate* calculated as simple interest on a daily basis from the date payment was due, up to and including the date of payment, with interest compounding monthly on the last *day* of each month whilst the unpaid moneys remain outstanding.

3.16 Participant compensation fund

3.16.1 Establishment of Participant compensation fund

(a) *AEMO* must continue to maintain, in the books of the corporation, a fund called the *Participant compensation fund* for the purpose of paying compensation to *Scheduled Generators*, *Semi-Scheduled Generators* and *Scheduled Network Service Providers* as determined by the *dispute resolution panel* for *scheduling errors* under this Chapter 3.

(b) *AEMO* must pay to the *Participant compensation fund* that component of *Participant fees* under rule 2.11 attributable to the *Participant compensation fund*.

(c) The funding requirement for the *Participant compensation fund* for each *financial year* is the lesser of:

(1) $1,000,000; and

(2) $5,000,000 minus the amount which *AEMO* reasonably estimates will be the balance of the *Participant compensation fund* at the end of the relevant *financial year*.

(d) The *Participant compensation fund* is to be maintained by *AEMO* and is the property of *AEMO*.

(e) Any interest paid on money held in the *Participant compensation fund* will accrue to and form part of the *Participant compensation fund*.

(f) *AEMO* must pay from the *Participant compensation fund* all income tax on interest earned by the *Participant compensation fund* and must pay from the *Participant compensation fund* all bank account debit tax, financial institutions duty and bank fees in relation to the *Participant compensation fund*.

(g) Upon ceasing to be a *Scheduled Generator* or a *Semi-Scheduled Generator*, the relevant *Generator* is not entitled to a refund of any contributions made to the *Participant compensation fund*.

(h) Upon ceasing to be a *Scheduled Network Service Provider*, a *Scheduled Network Service Provider* is not entitled to a refund of any contributions made to the *Participant compensation fund*.

3.16.2 Dispute resolution panel to determine compensation

(a) Where a *scheduling error* occurs, a *Market Participant* may apply to the *dispute resolution panel* for a determination as to compensation under this clause 3.16.2.

(b) Where a *scheduling error* occurs, the *dispute resolution panel* may determine that compensation is payable to *Market Participants* and the amount of any such compensation payable from the *Participant compensation fund*.

(c) A determination by the *dispute resolution panel* as to compensation must be consistent with this clause 3.16.2.

(d) A *Scheduled Generator* or *Semi-Scheduled Generator* who receives an instruction in respect of a *scheduled generating unit* or *semi-scheduled generating unit* (as the case may be) to operate at a lower level than the level at which it would have been instructed to operate had the *scheduling*

error not occurred, will be entitled to receive in compensation an amount determined by the *dispute resolution panel*.

(e)   A *Scheduled Network Service Provider* who receives an instruction in respect of its *scheduled network services* to transfer less *power* on the *scheduled network service* than it would have been instructed to transfer had the *scheduling error* not occurred, will be entitled to receive in compensation an amount determined by the *dispute resolution panel*.

(f)   A *Scheduled Generator* or *Semi-Scheduled Generator* who receives a *dispatch instruction* in respect of a *generating unit* to operate at a level consistent with a *dispatch offer price* (with reference to the relevant *regional reference node*) which is higher than the *dispatch price*, due to the operation of clause 3.9.2B, is entitled to receive in compensation an amount determined by the *dispute resolution panel*.

(g)   A *Scheduled Network Service Provider* who receives an instruction in respect of its *scheduled network services* to transfer *power* on the *scheduled network service* consistent with a *network dispatch offer price* but receives less net revenue than would be expected under clause 3.8.6A(f) due to adjustment of the *spot price* for a trading interval under clause 3.9.2B, is entitled to receive in compensation an amount determined by the *dispute resolution panel*.

(h)   In determining the level of compensation to which *Market Participants* are entitled in relation to a *scheduling error*, the *dispute resolution panel* must:

    (1)   Where the entitlement to compensation arises under clause 3.16.2(f), determine compensation on the basis of the actual loading level and not the *dispatch instruction* applicable to the relevant *scheduled generating unit* or *semi-scheduled generating unit* for that *dispatch interval*;

    (2)   Where the entitlement to compensation arises under clause 3.16.2(g), determine compensation on the basis of the actual loading level and not the *dispatch instruction* applicable to the relevant *scheduled network service* for that *dispatch interval*;

    (3)   Use the *spot price* as determined under rule 3.9, including any *spot prices* that have been adjusted in accordance with clause 3.9.2B;

    (4)   Take into account the current balance of the *Participant compensation fund* and the potential for further liabilities to arise during the year;

    (5)   Recognise that the aggregate liability in any year in respect of *scheduling errors* cannot exceed the balance of the *Participant compensation fund* that would have been available at the end of that year if no compensation payments for *scheduling errors* had been made during that year.

(i)   The manner and timing of payments from the *Participant compensation fund* are to be determined by the *dispute resolution panel*.

(j)   To the maximum extent permitted by law, *AEMO* is not liable in respect of a *scheduling error* except out of the *Participant compensation fund* as contemplated in this clause 3.16.2.

3.17   [Deleted]

3.18   Settlements Residue Auctions

3.18.1   Settlements residue concepts

(a)   An *auction participation agreement* is an agreement between *AEMO* and an *eligible person* concerning the participation by the *eligible person* in *auctions*.

(b)   A *settlements residue distribution agreement* or *SRD agreement* is an agreement between *AEMO* and an *eligible person* entered into following an *auction* under which:

(1)   *AEMO* agrees to distribute to the *eligible person* a portion of the *settlements residue* allocated to a *directional interconnector* for a period specified in the *SRD agreement*; and

(2)   the *eligible person* agrees to pay *AEMO* a certain amount for the right referred to in clause 3.18.1(b)(1).

(c)   For the purposes of this rule 3.18:

(1)   all the *regulated interconnectors* between any 2 adjacent *regions* are deemed to constitute a single *interconnector*; and

(2)   the deemed *interconnector* referred to in clause 3.18.1(c)(1) between any 2 adjacent *regions* consists of 2 *directional interconnectors*, one involving a transfer from *region* A to *region* B, and one involving a transfer from *region* B to *region* A.

(d)   Subject to clause 3.18.4, *AEMO* must use the portion of the *settlements residue* allocated to a *directional interconnector* remaining after applying the relevant *jurisdictional derogations* under Chapter 9 (as determined by applying the principles referred to in clause 3.6.5) to make payments under *SRD agreements* in relation to that *directional interconnector* and to recover the *auction expense fees*.

(e)   Where a person registered as a *Trader* is required to appoint an agent for the purposes of rule 2.5A(c)(2), *AEMO* and the *Trader* must ensure that the *auction participation agreement* and the *SRD agreement* entered into by the *Trader* and its agent provides that the *Trader* and the agent are jointly and severally liable in relation to the obligations of the *Trader* under those agreements.

3.18.2   Auctions and eligible persons

(a)   *AEMO* may conduct *auctions* to determine which *eligible persons* will enter into *SRD agreements* with *AEMO*.

(b)   *AEMO* may only enter into *SRD agreements* with persons (called *eligible persons*) which satisfy the following criteria:

  (1)   the person is a *Market Customer*, a *Generator* or a *Trader*, or a person seeking to be eligible for registration as a *Trader* under rule 2.5A; and

  (2)   the person satisfies any criteria specified in the *auction rules*, which criteria must comply with clause 3.18.2(g).

(c)   *Auctions* must be conducted in accordance with the *auction rules*.

(d)   *AEMO* may, with the approval of the *settlement residue committee*, suspend, or remove a suspension, on conducting *auctions* for one or more *directional interconnectors* for a specified period if *AEMO* believes it is not practicable to conduct those *auctions* or those *auctions* are unlikely to lead to the entry into of *SRD agreements* in relation to all of the *settlements residues* being auctioned.

(e)   *AEMO* may, after complying with the *Rules consultation procedures*, cease conducting *auctions*.

(f)   If *AEMO* takes any action under clause 3.18.2(d) or (e), then it must post a notice on its website specifying the action taken as soon as practicable after taking it.

(g)   Any criteria specified in the *auction rules* concerning persons with whom *AEMO* may enter into *SRD agreements* must not exclude any persons other than those specified in subparagraphs (1) – (6) below and must exclude the persons specified in subparagraphs (1), (2), (5) and (6) below:

  (1)   persons who have not entered into an *auction participation agreement*;

  (2)   *Transmission Network Service Providers*;

  (3)   **[Deleted]**

  (4)   persons:

    (i)   who have defaulted on payment obligations under an *auction participation agreement* or a *SRD agreement*; or

    (ii)   in relation to whom a *default event* has occurred;

  (5)   any person who *AEMO* considers is acting on behalf of or in concert with a person described in clauses 3.18.2(g)(1)-(2);

(5a) any person who *AEMO* considers is acting on behalf of or in concert with a person described in clause 3.18.2(g)(4); or

(6) any person who would be a **retail client** as defined in section 761G (7) of the Corporations Act 2001 (Cth), if they entered into an *SRD agreement* with *AEMO*.

(h) **[Deleted]**

3.18.3   Auction rules

(a) *AEMO* must develop rules (called *auction rules*) which set out:

(1) additional criteria which a person must satisfy to be an *eligible person* (which must include, without limitation, criteria requiring the person to enter into an *auction participation agreement* with *AEMO* in a form satisfactory to *AEMO*);

(2) the procedures for conducting *auctions* and the timing of *auctions*;

(3) the mechanism for calculating the *auction* clearing price in respect of each *directional interconnector* for each *auction*;

(4) the mechanism for calculating *auction expense fees*;

(5) the procedures and timetable for billing and settling *auction amounts*; and

(6) the standard form of any *auction participation agreement* referred to in clause 3.18.3(a)(1).

(b) In developing and amending the *auction rules*, *AEMO* must give effect to the following principles:

(1) **[Deleted]**

(2) to the extent reasonably practicable, an *auction* must be structured in a way that maximises the value of the relevant *settlements residue*;

(3) the price for each unit of the *settlements residue* in respect of a *directional interconnector* will be the same for all *SRD agreements* resulting from the same *auction* and will be equal to the *auction* clearing price in respect of the *directional interconnector* for the *auction*; and

(4) enhancing competition and efficiency by promoting interstate trade in electricity.

(c) *AEMO* must make the *auction rules* available to *Registered Participants* and to any other person who requests a copy.

(d)   *AEMO* may amend the *auction rules* at any time with the approval of the *settlement residue committee*.

(e)   Subject to clause 3.18.3(f), in developing and amending the *auction rules*, *AEMO* must comply with the *Rules consultation procedures*.

(f)   *AEMO* need not, provided it has consulted to the extent practicable in the circumstances, comply with the *Rules consultation procedures* in relation to a proposed amendment to the *auction rules* if:

    (1)   the amendment has the support of at least three-quarters of the members of the *settlement residue committee*; and

    (2)   *AEMO* considers the amendment is urgent.

3.18.4   Proceeds and fees

(a)   *AEMO* must distribute:

    (1)   subject to clauses 3.6.5(a)(4) and (4A), proceeds from each *auction* in respect of a *directional interconnector*; and

    (2)   subject to clauses 3.18.4(b) and (c), any portion of the *settlements residue* allocated to the *directional interconnector* which is not the subject of a *SRD agreement*,

to the appropriate *Network Service Providers* in accordance with the principles referred to in clause 3.6.5 in relation to the allocation and distribution of *settlements residue* attributable to *regulated interconnectors*.

(b)   The costs and expenses incurred by *AEMO* in establishing and administering the arrangements contemplated by this rule 3.18, in conducting *auctions* under this rule 3.18 and in entering into and administering *auction participation agreements* and *SRD agreements* under this rule 3.18 will be recovered from *settlements residue* by way of *auction expense fees*.

(c)   The *auction expense fees* are to be developed by *AEMO* in accordance with the *auction rules* and approved by the *settlement residue committee*, and recovered as follows:

    (1)   to the extent the *settlements residue* is distributed to *eligible persons* under clause 3.18.1(d), in accordance with the *auction rules*; and

    (2)   to the extent the *settlements residue* is distributed to *Network Service Providers* under clause 3.18.4(a)(2), as if the *settlements residue* was being distributed to *eligible persons* in accordance with the *auction rules*.

(d)   The *auction expense fees* for an *auction* are to be *published* before the *auction*.

(e) *Eligible persons* and *AEMO* must pay *auction amounts* in accordance with the *auction rules*, and, for the avoidance of doubt, amounts payable by *eligible persons* to *AEMO* under *SRD agreements* will not be regarded as amounts payable under the *Rules* for the purposes of rule 3.15.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(f) *AEMO* may nominate an electronic funds transfer facility for the purposes of paying *auction amounts* and, if it does so, *eligible persons*, *Network Service Providers* and *AEMO* must use that facility for paying and receiving *auction amounts*.

3.18.5 Settlement residue committee

(a) *AEMO* must establish a *settlements residue committee* .

(b) The functions of the *settlement residue committee* are to:

(1) approve any suspension, or removal of a suspension, imposed by *AEMO* on the conducting of *auctions*;

(2) approve proposed amendments to the *auction rules* developed by *AEMO*;

(3) monitor, review and report on the *auctions* conducted by *AEMO* under this rule 3.18; and

(4) approve the costs and expenses incurred by *AEMO* in conducting *auctions* under this rule 3.18 and in entering into and administrating *auction participation agreements* and *SRD agreements* under this rule 3.18.

(c) The *settlement residue committee* is to consist of:

(1) an employee of *AEMO* appointed by *AEMO*, who will act as chairman of the committee;

(2) a person representing *Generators*;

(3) a person representing *Market Customers*;

(4) a person representing *Transmission Network Service Providers*;

(5) a person representing *Traders*;

(6) a person appointed jointly by the relevant *Ministers* of the *participating jurisdictions*; and

(7) a person appointed by the *AEMC* to represent *retail customers*.

(d)   *AEMO* may remove the person referred to in clause 3.18.5(c)(1) at any time for any reason.

(e)   The persons referred to in clauses 3.18.5(c)(2), (3), (4) and (5) must be appointed and removed by *AEMO* after consultation with the class of *Registered Participants* the person is to represent, and *AEMO* must:

(1)   appoint a person agreed to by at least one third in number of the relevant class of *Registered Participants*; and

(2)   commence consultation on the removal of such a person if requested to do so by a member of the relevant class of *Registered participants*, and must remove that person if so agreed by at least one third in number of the relevant class of *Registered Participants*.

(f)   The *Ministers* of the *participating jurisdictions* acting jointly may remove the person referred to in clause 3.18.5(c)(6) at any time for any reason.

(g)   The *AEMC* may remove the person referred to in clause 3.18.5(c)(7) at any time for any reason.

(h)   A person holds office as a member of the *settlement residue committee* until that person:

(1)   resigns from office;

(2)   if the person is the person referred to in clause 3.18.5(c)(1), is removed from office by *AEMO* in accordance with clause 3.18.5(d);

(3)   if the person is a person referred to in clauses 3.18.5(c)(2), (3), (4) or (5), is removed from office by *AEMO* in accordance with clause 3.18.5(e)(2);

(4)   if the person is the person referred to in clause 3.18.5(c)(6), is removed from office by the *Ministers* of the *participating jurisdictions* in accordance with clause 3.18.5(f); or

(5)   if the person is the person referred to in clause 3.18.5(c)(7), is removed from office by the *AEMC* in accordance with clause 3.18.5(g),

and such a person is eligible for re-appointment.

(i)   A person may resign as a member of the *settlement residue committee* by giving notice in writing to that effect to *AEMO*.

3.19   Market Management Systems Access Procedures

(a)   *AEMO* may develop and *publish Market Management Systems Access Procedures* in consultation with *Registered Participants* in accordance with the *Rules consultation procedures*, which procedures will govern how

Registered Participants , *Metering Providers* and *Metering Data Providers* can use the *market management systems*.

(b)   *AEMO* may amend the *Market Management Systems Access Procedures* from time to time in consultation with *Registered Participants* in accordance with the *Rules consultation procedures*, and any such amendments must be *published* by *AEMO*.

(c)   *AEMO* and all *Registered Participants*, *Metering Providers* and *Metering Data Providers* must comply with the *Market Management Systems Access Procedures*.

Note

This clause is classified as a civil penalty provision under the National Electricity (South Australia) Regulations. (See clause 6(1) and Schedule 1 of the National Electricity (South Australia) Regulations.)

(d)   A *Registered Participant* which complies with the *Market Management Systems Access Procedures* and promptly pays all relevant *Participant fees* as and when they fall due has a right to be connected to the *market management systems*.

(e)   If a *Registered Participant* fails to comply with the *Market Management Systems Access Procedures*, *AEMO* must:

(1)   notify that *Registered Participant* describing the nature of the breach; and

(2)   at a time following notification of the breach by *AEMO* under clause 3.19(e)(1) determined by *AEMO* having regard to a balancing of the need to provide a *Registered Participant* with the opportunity to remedy the breach and the nature of the breach, notify the AER that the *Registered Participant* has breached the *Market Management Systems Access Procedures*.

3.20   Reliability and Emergency Reserve Trader

3.20.1   Expiry of reliability and emergency reserve trader

This rule 3.20 expires on 30 June 2016.

3.20.2   Reliability and emergency reserve trader

(a)   *AEMO* must take all reasonable actions to ensure reliability of *supply* and, where practicable, take all reasonable actions to maintain *power system security* by negotiating and entering into contracts to secure the availability of *reserves* under *reserve contracts* (*reliability and emergency reserve trader* or *RERT*) in accordance with:

(1)   this rule 3.20;

(2)   where relevant:

        (i)   clauses 1.11, 3.8.1, 3.8.14, 3.9.3, 3.12, 3.12A.5, 3.15.6, 3.15.9, 4.8.5A and 4.8.5B; and

        (ii)   any other provision of the *Rules* necessary to exercise the *RERT*;

(3)   the *RERT principles*; and

(4)   the *RERT guidelines*.

(b)   *AEMO* must have regard to the following principles (*RERT principles*) in exercising the RERT under paragraph (a):

(1)   actions taken should be those which *AEMO* reasonably expects, acting reasonably, to have the least distortionary effect on the operation of the *market*; and

(2)   actions taken should aim to maximise the effectiveness of *reserve contracts* at the least cost to end use consumers of electricity.

(c)   In having regard to the *RERT principles*, *AEMO* must have regard where relevant to the *RERT guidelines*.

3.20.3   Reserve contracts

(a)   *AEMO* may enter into one or more contracts with any person in relation to the capacity of:

(1)   *scheduled generating units*, *scheduled network services* or *scheduled loads* (being *scheduled reserve contracts*); and

(2)   *unscheduled reserves* (being *unscheduled reserve contracts*).

(b)   *AEMO* may determine to enter into *reserve contracts* to ensure that the reliability of *supply* in a *region* or *regions* meets the relevant *power system security and reliability standards* established by the *Reliability Panel* for the *region* and, where practicable, to maintain *power system security*.

(c)   *AEMO* must consult with persons nominated by the relevant *participating jurisdictions* in relation to any determination to enter into contracts under paragraph (b).

(d)   *AEMO* must not enter into, or renegotiate, a *reserve contract* more than nine months prior to the date that *AEMO* reasonably expects that the *reserve* under that contract may be required to ensure reliability of *supply* and, where practicable, to maintain *power system security*. For the avoidance of doubt, *AEMO* may negotiate with potential tenderers in relation to *reserve contracts* at any time.

(e)   Subject to paragraph (d), *AEMO* may:

(1)   enter into *reserve contracts*; or

(2)   renegotiate existing *reserve contracts*,

in addition to the contracts already entered into by *AEMO* under this rule 3.20.

(f)   In entering into *reserve contracts* under paragraph (b) *AEMO* must agree with the relevant nominated persons referred to in paragraph (c) cost-sharing arrangements between the *regions* for the purpose of clause 3.15.9.

(g)   If, at any time *AEMO* determines that it is necessary to commence contract negotiations for the provision of additional *reserves*, *AEMO* must *publish* a notice of its intention to do so.

(h)   When contracting for the provision of *scheduled reserves* under *scheduled reserve contracts*, *AEMO* must not enter contracts in relation to capacity of *generating units*, *scheduled network services* or *scheduled loads* for which *dispatch offers* or *dispatch bids* have been submitted or are considered by *AEMO* to be likely to be submitted or be otherwise available for *dispatch* in the *trading intervals* to which the contract relates.

Terms and conditions of a contract

(i)   If *AEMO* seeks to enter into a *reserve contract* with a *Registered Participant* then the *Registered Participant* must *negotiate* with *AEMO* in good faith as to the terms and conditions of the contract.

(j)   *AEMO* may only enter into a *reserve contract* if the contract contains a provision that the other party to the contract has not and will not otherwise offer the *reserve* the subject of the contract in the *market* for the *trading intervals* to which the contract with *AEMO* relates except in accordance with the contract.

3.20.4   Dispatch pricing methodology for unscheduled reserve contracts

(a)   Subject to paragraph (c), *AEMO* must develop in accordance with the *Rules consultation procedures* and *publish* details of the methodology it will use to request that *generating units* or *loads* under *unscheduled reserve contracts* be *activated*.

(b)   *AEMO* may develop and *publish* the methodology developed in accordance with this clause 3.20.4 as part of the methodology *AEMO* is required to develop under clause 3.9.3(e).

(c)   *AEMO* may make minor and administrative amendments to the methodology developed in accordance with this clause 3.20.4 without complying with the *Rules consultation procedures*.

3.20.5 AEMO's risk management and accounts relating to the reliability safety net

(a)   *AEMO* may enter into insurance arrangements with an insurance provider with a view to minimising potential financial losses in respect of *AEMO's RERT* activities described in this rule 3.20.

(b)   *AEMO* must ensure that it maintains in its books separate accounts relating to the *RERT* functions and powers granted to *AEMO* under this rule 3.20.

3.20.6 Reporting on RERT by AEMO

(a)   If a *scheduled generating unit*, *scheduled network service* or *scheduled load* under a *scheduled reserve contract* with *AEMO* is *dispatched* or *generating units* or *loads* are activated under an *unscheduled reserve contract*, then *AEMO* must, as soon as practicable thereafter, *publish* a report detailing:

  (1)   the circumstances giving rise to the need for the *dispatch* of *scheduled reserves* or *activation* of *unscheduled reserves*;

  (2)   the basis on which it determined the latest time for that *dispatch* of *scheduled reserves* or *activation* of *unscheduled reserves* and on what basis it determined that a market response would not have avoided the need for the *dispatch* of *scheduled reserves* or the *activation* of *unscheduled reserves*;

  (3)   the changes in *dispatch* outcomes due to the *dispatch* of *scheduled reserves* or *activation* of *unscheduled reserves*; and

  (4)   the processes implemented by *AEMO* to *dispatch* the *scheduled reserves* or *activate* the *unscheduled reserves*,

and if applicable:

  (5)   reasons why *AEMO* did not follow any or all of the processes set out in rule 4.8 either in whole or in part prior to the *dispatch* of *scheduled reserves* or the *activation* of *unscheduled reserves*; and

  (6)   the basis upon which *AEMO* considered it impractical to set *spot prices* and *ancillary service prices* in accordance with clause 3.9.3(b).

(b)   As soon as reasonably practicable after *AEMO* has, in accordance with clause 3.15.9, included the amounts arising under a *reserve contract* in a *final statement* provided under clause 3.15.15, *AEMO* must *publish* details of:

  (1)   the payments under the *reserve contract* for the relevant *billing periods*; and

  (2)   a breakdown of the recovery of those costs by each category of *Market Customer*, as determined by *AEMO*, in each *region*.

(c)   Within 30 *days* of the end of each *financial year* in which *AEMO* has exercised the *RERT*, *AEMO* must *publish* a report detailing:

   (1)   each occasion during the *financial year* on which it intervened to secure the availability of *reserves*;

   (2)   each occasion during the *financial year* when a *scheduled generating unit*, *scheduled network service* or *scheduled load* under a *scheduled reserve contract* was *dispatched* or *generating units* or *loads* under an *unscheduled reserve contract* were *activated*; and

   (3)   its costs and finances in connection with its *RERT* activities during the *financial year* according to appropriate accounting standards including profit and loss, balance sheet, sources and applications of funds.

3.20.7   AEMO's exercise of the RERT

(a)   Notwithstanding clauses 4.8.5A and 4.8.5B, if *AEMO* considers the latest time for exercising the *RERT* by:

   (1)   the *dispatch* of *scheduled reserves* it has available under *scheduled reserve contracts*; or

   (2)   the *activation* of *unscheduled reserves* it has available under *unscheduled reserve contracts*,

   has arrived, *AEMO* may *dispatch* such *scheduled reserves* or *activate* such *unscheduled reserves* to ensure that the reliability of supply in a *region* or *regions* meets the relevant *power system security and reliability standards* and, where practicable, to maintain *power system security*.

(b)   *AEMO* must follow the relevant procedures in this rule 3.20 prior to *dispatching* a *scheduled generating unit*, *scheduled network service* or *scheduled load* the subject of a *scheduled reserve contract* or *activating* *generating units* or *loads* the subject of an *unscheduled reserve contract* unless it is not reasonably practicable to do so.

(c)   Subject to paragraph (b), *AEMO* must only *dispatch* a *scheduled generating unit*, a *scheduled network service* or a *scheduled load* the subject of a *scheduled reserve contract* or activate *generating units* or *loads* the subject of an *unscheduled reserve contract* in accordance with the procedures developed pursuant to paragraph (e).

(d)   In order to effect the *dispatch* of a *scheduled generating unit*, *scheduled network service* or *scheduled load* the subject of a *scheduled reserve contract* or the *activation* of *generating units* or *loads* the subject of an *unscheduled reserve contract AEMO* may:

   (1)   submit, update or vary *dispatch bids* or *dispatch offers* in relation to all or part of such a *scheduled generating unit*, *scheduled network service* or *scheduled load* which is the subject of a *scheduled reserve contract*; or

(2) change other inputs to the *dispatch process* to give effect to the *dispatch* of *scheduled generating units*, *scheduled network services* or *scheduled loads* the subject of a *scheduled reserve contract* or the *activation* of *generating units* or *loads* the subject of an *unscheduled reserve contract*.

(e) *AEMO* must develop, *publish*, and may amend from time to time, in accordance with the *Rules consultation procedures*, procedures for the exercise of the *RERT* under this rule 3.20 that take into account the *RERT principles* and *RERT guidelines*. These procedures must include measures to be adopted in order to reduce the possibility that *generating units* or *loads* likely to be *activated* under *unscheduled reserve contracts* are otherwise engaged at the time the *unscheduled reserve contracts* are entered into by *AEMO*.

(f) When exercising the *RERT* under this rule 3.20, *AEMO* must take into account the *RERT guidelines*.

(g) *NEMMCO* must *publish* the first procedures referred to in paragraph (e) by 30 June 2009.

3.20.8 RERT Guidelines

(a) For the purposes of this rule 3.20, the *Reliability Panel* must develop and *publish* guidelines (the *RERT guidelines*) for or with respect to:

(1) what information *AEMO* must take into account when deciding whether to exercise the *RERT*;

(2) the relevance of the *RERT principles* to the exercise of the *RERT*;

(3) the actions that *AEMO* may take to be satisfied that the *reserve* that is to be the subject of a *reserve contract* is not available to the *market* through any other arrangement;

(4) the process *AEMO* should undertake in contracting for *reserves* including the process for tendering for contracts for such *reserves*;

(4A) the process *AEMO* should undertake in contracting for *reserves* in relation to long, medium and short notice situations as described in the *RERT guidelines* to ensure reliability of *supply* and, where practicable, to maintain *power system security*;

(5) any specific or additional assumptions about key parameters that *AEMO* must take into account in assessing the cost effectiveness of exercising the *RERT*;

(6) matters relevant to *AEMO* managing a portfolio of *reserve contracts*; and

(7) additional forecasts that *AEMO* should take into account prior to exercising the *RERT*.

(b) The *Reliability Panel* must develop, *publish* and amend from time to time, the *RERT guidelines* in accordance with clauses 8.8.3(d) – (l).

(c) The *Reliability Panel* must *publish* the first *RERT guidelines* by 30 November 2008 and there must be such guidelines in place at all times after that date.

3.20.9   [Deleted]

Schedule 3.1   Bid and Offer Validation Data

(a) The *bid and offer validation data* are the standard data requirements for verification and compilation of *dispatch bids* and *dispatch offers* on the *trading day* schedule.

(b) *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* must notify *AEMO* of their *bid and offer validation data* in accordance with this schedule 3.1 in respect of each of their *scheduled loads*, *semi-scheduled generating units* and *scheduled generating units* at least six weeks prior to commencing participation in the *market*.

(c) *Scheduled Generators*, *Semi-Scheduled Generators* and *Market Participants* must review their *bid and offer validation data* annually in accordance with the *timetable* advised by *AEMO* and provide details of any *changes* to *AEMO*.

(d) A *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* must notify *AEMO* of any proposed change to its *bid and offer validation data* in accordance with clause 3.13.3(h) at least six weeks prior to the date of the proposed change and any proposed change may be subject to audit at *AEMO*'s request and must be consistent with *AEMO*'s register of *performance standards* referred to in rule 4.14(n) in respect of the relevant *plant*.

(e) A copy of all *changes* to the data must be returned to each *Scheduled Generator*, *Semi-Scheduled Generator* and *Market Participant* for verification and resubmission by the *Scheduled Generator*, *Semi-Scheduled Generator* or *Market Participant* as necessary.

(f) **[Deleted]**

Scheduled Generating Unit Data:

Data	Units of Measurement
Power station information:	
power station name	
Scheduled generating unit information: **Note:** Repeat the following items for each *scheduled generating unit* where there are two or more *scheduled generating units* in the *power station*.	
scheduled generating unit name **Note:** This may be the same name as the *power station* name when the *power station* has only one single or aggregated *scheduled generating unit*.	
Dispatchable unit identifier	
maximum *generation* of the *scheduled generating unit*, to which the *scheduled generating unit* may be dispatched.	MW (*generated*)
maximum ramp rate of the *scheduled generating unit*	MW/minute

Semi-Scheduled Generating Unit Data:

Data	Units of Measurement
Power station information:	
power station name	
Semi-scheduled generating unit information:	
Note: Repeat the following items for each *semi-scheduled generating unit* where there are two or more *semi-scheduled generating units* in the *power station*.	
semi-scheduled generating unit name **Note:** This may be the same name as the *power station* name when the *power station* has only one *semi-scheduled generating unit*.	
Dispatchable unit identifier	
maximum *generation* of the *semi-scheduled generating unit*, to which the *semi-scheduled generating unit* may be dispatched	MW (*generated*)
maximum ramp rate of the *semi-scheduled generating unit*	MW/minute

Scheduled Load Data:

Data	Units of Measurement
Load installation information:	
load installation name	
Scheduled load information: **Note:** Repeat the following items for each scheduled load where there are two or more scheduled loads.	
scheduled load name **Note:** This may be the same name as the *load* installation name when the *load* installation has only one *scheduled load*.	
Dispatchable unit identifier	
maximum *load* of the *scheduled load*, to which the *scheduled load* may be *dispatched*	MW
maximum ramp rate of the *scheduled load*	MW/minute

Scheduled Network Service Data:

Data	Units of Measurement
installation/link name	
Dispatchable Unit Identifier	
connection point identifiers for terminal nodes A and B	
maximum *power transfer capability* to node A	MW
maximum *power transfer capability* to node B	MW
maximum ramp rate of *power transfer capability* of the installation	MW/minute

Ancillary Service Generating Unit and Ancillary Service Load Data:

Data	Units of Measurement
Power station/load **installation information:**	
power station/load installation name	
***Ancillary service generating unit* and *ancillary service load* information** **Note:** Repeat the following items for each *dispatchable unit identifier* where there are two or more of them in the *power station*/installation.	
Unit/*load* name	
Dispatchable unit identifier	
*market ancillary service**	
maximum *market ancillary service* capacity*	MW
*minimum enablement level**	MW
*maximum enablement level**	MW
*maximum lower angle**	Degrees
*maximum upper angle**	Degrees

Note:

For those items marked with an asterisk, repeat the block of data for each *market ancillary service* offered.

Dispatch Inflexibility Profile:

[Deleted]

Aggregation Data:

> **[Deleted]**

Schedule 3.2   [Deleted]

Schedule 3.3   [Deleted]