ELECTRICITY INDUSTRY ACT 2004

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ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY MARKET) REGULATIONS 2004

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WHOLESALE ELECTRICITY MARKET RULES

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AMENDING RULES

ELECTRICITY INDUSTRY ACT 2004
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AMENDING RULES

I, Alan Carpenter, Minister for Energy for the State of Western Australia, under regulation 6(2) of the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* hereby make the amending rules contained in this document.

These amending rules are to commence in accordance with regulation 6.3 of the *Electricity Industry (Wholesale Electricity Market) Regulations 2004*.

Dated at Perth this day 16th of December 2005.

ALAN CARPENTER MLA, Minister for Energy.

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1.   Market Rule 1.9 amended

(1)   Insert new clauses 1.9.11 and 1.9.12, as follows—

1.9.11. The following provisions relate to Outage Scheduling and are to cease to have effect following Energy Market Commencement—

(a) This clause 1.9.11 is applicable to a Rule Participant's transmission networks and generation systems to which that Rule Participant anticipates clause 3.18.2(c) will apply upon registration of the facility or, in the case of a generation system, upon the registration of an Intermittent Load to be supplied by that facility.

(b) A Rule Participant owning or operating a facility to which (a) relates may submit Outage Plans for such facility with System Management in accordance with the Power System Operation Procedure as if clause 3.18.2(c) relates to the facility.

(c) Where a Rule Participant submits an Outage Plan for a facility to System Management in accordance with (b) and System Management is of a view that after Energy Market Commencement the list described in clause 3.18.2(c) would be applicable to the facility then System Management must process the Outage Plan in accordance with the Power System Operation Procedure as if clause 3.18.2(c) relates to the facility.

(d) Where System Management has approved an Outage Plan for a facility in accordance with (c) then that Outage Plan is to continue to apply to that facility after it becomes a Registered Facility or, in the case of a generation system, upon registration of an Intermittent Load to be supplied by that facility.

(e) Any Outage Plan approved in accordance with this clause 1.9.11 for a facility is deemed to have been scheduled and approved in accordance with Chapter 3 once that facility becomes a Registered Facility or a generation system serving an Intermittent Load.

1.9.12. Until three months after Energy Market Commencement the IMO or System Management (as applicable) need take no action under clause 2.13 in respect of suspected non-compliance by a Rule Participant where, in the view of the IMO or System Management (as applicable), it would not be reasonable to expect the Rule Participant to comply fully with the Market Rules because of restrictions in the timing of events and the availability of data or system limitations where these restrictions or limitations stem from the commissioning of the energy market, provided that the Rule Participant employs reasonable endeavours to comply with the intent of the Market Rules.

2.   Market Rule 2.17 amended

(1)   Delete the existing clause 2.17.1(j) and comment box and replace them with the following—

(j) clauses 4.9.9 and 4.28B.4;

The IMO sets the Certified Capacity, Reserve Capacity Obligations and, in the case of clause 4.9.9, any Security Deposit for a facility.

3.   Market Rule 2.23 amended

(1)   Delete the existing clause 2.23.12(d) and replace it with the following—

(d) the determination of the Allowable Revenue of Ancillary Service provision must take into account the payment structure set out in clause 3.13, and the Economic Regulation Authority must determine values for:

i. the reserve availability payment margin applying for Peak Trading Intervals, Margin_Peak, which must take account of—

1. the margin Western Power could reasonably have been expected to earn on energy sales forgone due to the supply of Spinning Reserve during Peak Trading Intervals;

2. the loss in efficiency of the Registered Facilities that Western Power has scheduled to provide Spinning Reserve during Peak Trading Intervals that could reasonably be expected due to the scheduling of those reserves;

ii. the reserve availability payment margin applying for Off-Peak Trading Intervals, Margin_Off-Peak, which must take account of—

1. the margin Western Power could reasonably have been expected to earn on energy sales forgone due to the supply of Spinning Reserve during Off-Peak Trading Intervals;

2. the loss in efficiency of the Registered Facilities that Western Power has scheduled to provide Spinning Reserve during Off-Peak Trading Intervals that could reasonably be expected due to the scheduling of those reserves;

4.   Market Rule 2.27 amended

(1)   Insert a new clause 2.27.2A as follows—

2.27.2A For the purpose of these Market Rules, where a Loss Factor must be applied to a Notional Wholesale Meter value then the loss factor described in clause 2.27.2(f) is to apply.

(2)   Delete the existing clause 2.27.3 and replace it with the following and also insert two new clauses 2.27.3A and 2.27.3B as follows—

2.27.3. The IMO must publish the Loss Factors as soon as practicable after receiving them from all Network Operators.

2.27.3A. Once all Loss Factors are published in accordance with clause 2.27.3 or where one or more Loss Factors are changed in accordance with clauses 2.27.4(e) or 2.27.5 the IMO must publish the time from which the Loss Factor or Loss Factors will apply, where this must be from the commencement of a Trading Day.

2.27.3B. In setting the time from which a Loss Factor or Loss Factors will apply in accordance with clause 2.27.3A the IMO must allow sufficient time for Market Participants to identify and update Standing Data that is dependent on Loss Factors.

(3)   Delete the existing clause 2.27.4(e) and replace it with the following—

(e) Where the IMO directs the Network Operator to recalculate a Loss Factor, then the Network Operator must do so, and must provide the recalculated Loss Factor to IMO. The recalculated Loss Factor is substituted for the value previously applied with effect from the time published by the IMO in accordance with clause 2.27.3A.

(4)   Delete the existing clause 2.27.5 and replace it with the following—

2.27.5. Where a Network Operator fails to provide the IMO with a Loss Factor in accordance with clause 2.27.1 or 2.27.4(d), the IMO must continue to use the equivalent Loss Factor from the previous year until such time as the Network Operator has provided the IMO with the new Loss Factor and that Loss Factor has taken effect.   The recalculated Loss Factor is substituted for the value previously applied with effect from the time published by the IMO in accordance with clause 2.27.3A.

5.   Market Rule 2.28 amended

(1)   Insert a new clause 2.28.1(cA), after clause 2.281(c), as follows—

(cA) Ancillary Service Providers;

(2)   Delete the existing clause 2.28.9 and replace it with the following—

2.28.9. Subject to clause 2.28.16, a person registered as a Market Generator may be registered as a Rule Participant in another class or other classes.

(3)   Insert new clauses 2.28.11A and 2.28.11B, as follows—

2.28.11A. A person who intends to enter into an Ancillary Service Contract with System Management and who is not registered in any other Rule Participant Class must register as an Ancillary Service Provider;

2.28.11B. A person who is registered in a Rule Participant Class other than the Ancillary Service Provider class, or who does not intend to enter into an Ancillary Service Contract with System Management may not register as an Ancillary Service Provider.

(4)   Delete the existing clause 2.28.12 and replace it with the following—

2.28.12. Subject to clause 2.28.16, a person registered as a Market Customer may be registered as a Rule Participant in another class or classes.

(5)   Delete the existing clause 2.28.16 and replace it with the following—

2.28.16. The IMO may determine that a person is exempted from the requirement to register in accordance with clauses 2.28.2, 2.28.6, 2.28.10, 2.28.11A or 2.28.13. An exemption may be given subject to any conditions the IMO considers appropriate.

6.   Market Rule 2.30B amended

(1)   Delete the existing clause 2.30B.2(a)(i) and replace it with the following—

i. which can typically supply the maximum amount of that Load to be treated as Intermittent Load either in accordance with clause 2.30B.11 or without requiring energy to be withdrawn from a Network. Where clause 2.30B.11 applies then, for the purpose of this clause (i), the amount that the generation system can supply must be

Loss Factor adjusted from the connection point of the generation system to the connection point of the Intermittent Load;

(2)   Delete the existing clause 2.30B.2(a)(ii) and replace it with the following—

ii. the output of which is netted off consumption of the Load either in accordance with clause 2.30B.12 or by the meter registered to that Load; and

(3)   Add a second paragraph to the end of the comment box, in between clauses 2.30B.2(a)(iii) and (b), as follows—

> Note that for cases where the generating system is remote from the Intermittent Load the effective capacity of the generator must be determined by a process which does not consider losses, but the maximum energy it can supply the Intermittent Load must be loss adjusted. So, under clause (iii) to serve a 100 MW Intermittent Load, the generator must have at least 100 MW of capacity, but under clause (i) the amount of energy it must be able to provide (over an hour) might be more or less than 100 MWh depending on the Loss Factors.

(4)   Amend clause 2.30B.3(a) by deleting the word "and" after the semicolon.

(5)   Insert a new clause 2.30B.3(aA), after clause 2.30B.3(a), as follows—

(aA) where clause 2.30B.11 applies, the connection point of the generation system;

(6)   Amend clause 2.30B.3(c) by deleting the word "Facility" and replacing it with the words "generation system from".

(7)   Delete the existing clause 2.30B.6 and replace it with the following—

2.30B.6 Subject to clause 2.30B.6A, the IMO must accept an application for a Load to be an Intermittent Load if the requirements of clause 2.30B.2 are satisfied.

(8)   Insert a new clause 2.30B.6A, as follows—

2.30B.6A Where a Load referred to in clause 2.30B.6 is to be supplied by a generating system to which clause 2.30B.11 pertains, then the Load is to only be treated as an Intermittent Load from the first Trading Day in which both the Load and generating system are operating and until the commencement of the next Capacity Year.

(9)   Amend clause 2.30B.10(a)(i) by inserting the words "Subject to clause 2.30B.12," at the beginning of the sentence, before "NMQ".

(10)   Delete the existing clause 2.30B.10(a)(ii) and replace it with the following—

ii. NS to be the net supply (supply less consumption) measured by the Intermittent Load meter which corresponds to supply and consumption, excluding consumption by Intermittent Loads, by Market Customers and Market Generator Facilities (excluding generation systems to which clause 2.30B.11 pertains) which are separately metered for the purpose of settlement under these Market Rules. This may have a positive or negative value;

(11)   Delete the existing clause 2.30B.10(a)(v) and replace it with the following—

v. MSG to be the maximum energy output from a registered generating system (excluding generation systems to which clause 2.30B.11 pertains) measured only by the Intermittent Load meter where MSG equals the greater of zero and the maximum energy output of the facility based on Standing Data less the sum of MIL and NL. This has a positive value;

(12)   Delete the existing clause 2.30B.10(b) and replace it with the following—

(b) if there is no registered generating system (excluding a generation system to which clause 2.30B.11 pertains) the output of which is measured only by the meter which also measures the Intermittent Load then—

(13)   Delete the existing clause 2.30B.10(c) and replace it with the following—

(c) if there is a registered generating system (excluding a generation system to which clause 2.30B.11 pertains) measured only by the meter that also measures the Intermittent Load then:

(14)   Insert new clauses 2.30B.11 to 2.30B.13, as follows—

2.30B.11. The generation system described in clause 2.30B.2(a) is deemed to satisfy the requirements of clause 2.30B.2(a)(i) if it is located at a different connection point to that of the Load to which clause 2.30B.2 pertains and all of the following conditions are satisfied prior to the Load commencing to be an Intermittent Load—

(a) the generation system must be a registered Facility;

(b) the Load to which clause 2.30B.2 pertains must have a nominated maximum consumption quantity specified in its Standing Data of not less than 40 MWh;

(c) the output of the generation system must be measured an interval meter registered with a Metering Data Agent;

(d) the generation system must have no Capacity Credits associated with it for the Capacity Year during which it is expect to commence operation;

(f) the generation system must be constructed with the intention of serving the Intermittent Load;

(g) the generation system must not be part of an Aggregate Facility with other generation systems; and

(h) the IMO was notified of the use of such a generation system to serve the Intermittent Load in accordance with clause 4.5.3A(b)(iii) prior to the registration of that Intermittent Load;

2.30B.12. Where a generation system described in clause 2.30B.2(a) satisfies the requirements of clause 2.30B.11 and is associated with an Intermittent Load_then the interval meter associated with that generation system is not to be included in settlement processes with the exception that—

(a) for the purpose of clause 2.30B.10(a)(i), the net metered energy for a Trading Interval measured by the Intermittent Load meter and used in defining NMQ is to be reduced by the metered output for the corresponding Trading Interval of the generation system Loss Factor adjusted from the connection point of the generation system to the connection point of the Intermittent Load; and

(b) the meter data for the generation system is to be used in determining the "applicable capacity" associated with that generation system for the purpose of Appendix 2.

2.30B.13. Where a generation system described in clause 2.30B.2(a) satisfies the requirements of clause 2.30B.11 and is associated with an Intermittent Load_then that generation system is to be deemed to be at the location of the Intermittent Load with respect to its inclusion in Bilateral Submissions, STEM Submissions and Resource Plans.

7.   Market Rule 3.4 amended

(1)   Delete the existing clause 3.4.1 and replace it with the following—

3.4.1. The SWIS is in a High-risk Operating State when System Management considers that any of the following circumstances exist, or are likely to exist within the next fifteen minutes, or are likely to exist at a time beyond the next fifteen minutes but actions other than those allowed under the Normal Operating State must be implemented immediately by System Management so as to moderate or avoid the circumstance—

8.   Market Rule 3.5 amended

(1)   Delete the existing clause 3.5.1 and replace it with the following—

3.5.1. The SWIS is in an Emergency Operating State when System Management considers that any of the following circumstances exist, or are likely to exist within the next fifteen minutes, or are likely to exist after fifteen minutes but actions other than those allowed under the Normal Operating State or High-risk Operating State must be implemented immediately by System Management so as to moderate or avoid the circumstance—

(2)   Insert a new clause 3.5.1(eA), after clause 3.5.1(e), as follows—

(eA) operation under a Normal Operating State or a High-Risk Operating State would pose a significant risk to the physical safety of the public or field personal;

9.   Market Rule 3.9 amended

(1)   Delete the existing clause 3.9.2(b) and replace it with the following—

(b) to supply electricity if the alternative is to trigger involuntary load curtailment; and

(2)   Delete the existing clause 3.9.4 and insert "[Blank]" instead.

(3)   Delete the existing clause 3.9.5 and insert "[Blank]" instead.

10.   Market Rule 3.10 amended

(1)   Amend clause 3.10.2(a)(ii) by deleting the second semicolon at the end of the clause.

(2)   Amend clause 3.10.2(b) by deleting the word "and" at the end of the clause.

(3)   Amend clause 3.10.2(c) by deleting the full stop at the end of the clause and inserting "; and" instead.

(4)   Amend clause 3.10.2(c) by deleting the comment box following the clause.

(5)   Insert a new clause 3.10.2(d), as follows—

(d) the level may be relaxed following activation of Spinning Reserve and may be relaxed by up to 100% if all reserves are exhausted and to maintain reserves would require involuntary load shedding. In such situations the levels must be fully restored as soon as practicable.

(6)   Amend clause 3.10.3 by deleting the comment box following the clause.

(7)   Delete the existing clause 3.10.4(a) and replace it with the following instead—

(a) the level sufficient to keep over-frequency below 51 Hz for all credible load rejection events;

(8)   Delete the existing clause 3.10.5 and replace it with the following instead—

3.10.5. The level of Load Following Service, Spinning Reserve Service and Load Rejection Reserve Service may be reduced—

11.   Market Rule 3.11 amended

(1)   Delete the existing clause 3.11.4(c) and insert "[Blank]" instead.

(2)   Delete the existing clauses 3.11.7 and 3.11.8 and associated comment boxes and replace them with the following—

3.11.7. System Management must make an annual Ancillary Services plan describing how it will ensure that the Ancillary Service Requirements are met. The Ancillary Services plan must only include—

(a) Western Power's Registered Facilities; and

(b) facilities under the control of Rule Participants, where System Management has an Ancillary Services Contract with each of those Rule Participants.

> We could limit the Ancillary Services Contracts to Market Participants, but this additional condition might exclude some parties who are Rule Participants and who would otherwise be happy to provide Ancillary Services to System Management without specifically registering any facilities.

3.11.8. System Management may enter into an Ancillary Service Contract with a Rule Participant other than Western Power where—

(a) it does not consider that it can meet the Ancillary Service Requirements with Western Power's Registered Facilities; or

(b) the Ancillary Service Contract provides a less expensive alternative to Ancillary Services provided by Western Power's Registered Facilities.

> There may be additional requirements to maintain some level of contracted ancillary services – for example interruptible load contracts.
>
> Note that the provider of Ancillary Services under an Ancillary Services Contract does not need to be a Market Participant.

12.   Market Rule 3.13 amended

(1)   Delete the existing clause 3.13.1 and replace it with the following—

3.13.1. The total payments by the IMO on behalf of System Management for Ancillary Services in accordance with Chapter 9 comprise—

(2)   Delete the existing clause 3.13.1(b) and replace it with the following—

(b) an amount Availability_Cost_R(m) for Spinning Reserve for each Trading Month, which is calculated in accordance with clause 9.9.2(c) for that Trading Month; and

(3)   Insert a new clause 3.13.1A, as follows—

3.13.1A. To allow the IMO to distribute the total payments described in clause 3.13.1 in accordance with Chapter 9, System Management must provide the IMO with settlement information for Ancillary Service Contracts in accordance with clauses 3.22.2 and 3.22.3.

13.   Market Rule 3.14 amended

(1)   Delete the existing clause 3.14.2 and replace it with the following—

3.14.2. Market Participant p's share of the Spinning Reserve service payment costs in each Trading Interval t is Reserve_Share(p,t) which equals the amount determined in Appendix 2.

14.   Market Rule 3.16 amended

(1)   Delete the existing clause 3.16.4(c)(i) and insert "[Blank]" instead.

(2)   Delete the existing clause 3.16.9(e) and replace it with the following—

(e) any weeks where there is expected to be a shortfall of capacity, including a shortfall of Ancillary Services or an inability to satisfy the Ready Reserve Standard;

15.   Market Rule 3.17 amended

(1)   Delete the existing clause 3.17.9(e) and replace it with the following—

(e) any six-hour periods where a shortfall of capacity is forecast, including a shortfall of Ancillary Services or an inability to satisfy the Ready Reserve Standard;

16.   Market Rule 3.18 amended

(1)   Delete the existing clauses 3.18.2(c)(ii) and (iiA) and replace them with the following—

ii. all Registered Facilities holding Capacity Credits, except those to which clause 3.18.2A applies;

iiA. all generation systems to which clause 2.30B.2(a) relates, except those to which clause 3.18.2A applies;

(2)   Insert a new clause 3.18.2A, as follows—

3.18.2A.

(a) Except where clause 3.18.2(c)(iv) applies, Registered Facilities with a Standing Data nameplate capacity of less than 10 MW and generation systems to which clause 2.30B.2(a) relates and which have a nameplate capacity of less than 10 MW are not required to schedule outages for that equipment in accordance with this clause 3.18 and clauses 3.19 and 3.20 other than as required by this clause 3.18.2A.

> Note that these facilities are not exempted from clause 3.21 which relates to Forced Outages.

(b) If (a) applies to a Market Participant's Facility or generation system then that Market Participant must notify System Management of proposed Planned Outages of that Facility or generation system not less than 2 Business Days prior to their commencement and must specify the duration of the Planned Outage;

(c) Where System Management is advised of a proposed Planned Outage in accordance with (b) then System Management must record that outage as an approved Planned Outage.

> For the purpose of Reserve Capacity Mechanism operation it is necessary that there be a demarcation between Forced and Planned Outages for all Facilities holding Capacity Credits or serving Intermittent Load.

(3) Delete the existing clause 3.18.3(a) and replace it with the following—

(a) If a Market Participant's or Network Operator's Facility (or an item of equipment forming part of a Facility or an item of equipment which is a generation system to which clause 2.30B.2(a) relates) is on the list described in clause 3.18.2(a), then the Market Participant or Network Operator may request that the IMO reassess the inclusion of the Facility or item of equipment on the list in accordance with this clause 3.18.3.

(4) Insert a new clause 3.18.4A, as follows—

3.18.4A. A proposal submitted to System Management in accordance with this clause 3.18 by a Market Participant or Network Operator in which permission is sought from System Management for the scheduling of the removal from service (or derating) of an item of equipment is a proposed outage plan ("Outage Plan").

(5) Delete the existing clause 3.18.5 and replace it with the following—

3.18.5. Market Participants—

(a) must, subject to clause 3.18.5A, submit to System Management details of a proposed Outage Plan at least one year but not more than three years in advance of the proposed outage, where—

    i. the outage relates to a Facility or item of equipment in respect of which a Market Participant holds Capacity Credits at any time during the proposed outage;

    ii. the Facility or item of equipment has a nameplate capacity greater than 10 MW; and

    iii. the proposed outage has a duration of more than one week; and

(b) otherwise may submit an Outage Plan to System Management not more than three years and not less than two days in advance of the proposed outage.

(6) Delete the existing clause 3.18.5A and replace it with the following—

3.18.5A. Market Participants may submit an Outage Plan to which clause 3.18.5(a) relates to System Management less than one year, but not less than two days, in advance of the proposed outage, but in such instances—

(7) Insert new clauses 3.18.5B and 3.18.5C, as follows—

3.18.5B. Network Operators may submit an Outage Plan to System Management not more than three years and not less than two days in advance of the proposed outage.

3.18.5C. Where a Network outage is likely to unduly impact the operation of one or more Market Participant Registered Facilities, System Management may require that in developing their Outage Plans the relevant Network Operator and affected Market Participants coordinate the timing of their outages so as to minimise the impact of the Network outage on the operation of the Market Participant Facilities.

(8) Insert a new clause 3.18.7A, as follows—

3.18.7A. System Management may reject an Outage Plan first submitted within 6 weeks of the commencement time of the outage without evaluating that Outage Plan if, in the opinion of System Management, the submitting party has not allowed adequate time for the Outage Plan to be assessed.

(9) Insert a new clause 3.18.11(aA), after clause 3.18.11(a), as follows—

(aA) the capacity of the total generation and Demand Side Management Facilities remaining in service must satisfy the Ready Reserve Standard described in clause 3.18.11A;

(10) Insert a new clause 3.18.11A and comment box as follows—

3.18.11A. The Ready Reserve Standard requires that the available generation and demand-side capacity at any time satisfies the following principles—

(a) Subject to (c), the additional energy available within fifteen minutes must be sufficient to cover—

    i. 30% of the total output, including parasitic load, of the generation unit synchronized to the SWIS with the highest total output at that time;

    ii. plus the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).

    (b) Subject to (c), and in addition to the additional energy described in (a), the additional energy available within four hours must be sufficient to cover;

        i. 70% of the total output, including parasitic load, of the generation unit synchronized to the SWIS with the second highest total output at that time;

        ii. less the Minimum Frequency Keeping Capacity as defined in clause 3.10.1(a).

    (c) System Management may relax the requirements in (a) and (b) in the following circumstances—

        i. where System Management expects that the load demand will be such that it exceeds the second standard deviation peak load forecast level, as described in clause 3.17.9(a), used in the most recently published Short Term PASA for that Trading Interval;

        ii. during the four hours following an event that has caused System Management to call on additional energy maintained in accordance with clauses (a) or (b).

> The current Spinning Reserve Standard covers 70% of the largest unit (and not 100%). This is possible because Ready Reserve requires that a sufficient capacity is maintained on the system to cover the difference within 15 minutes. In effect, the Ready Reserve Standard enables Spinning Reserve standard to be set at its current level (as defined in clause 3.9.2).

(11) Insert the following paragraph at clause 3.18.13, before 3.18.13(a), as follows—

    3.18.13. Following an evaluation of a new Outage Plan or an Outage Plan or group of Outage Plans that System Management has previously accepted fully or subject to conditions—

(12) Amend 3.18.13(a) by deleting the words "Following its evaluation," at the beginning of the sentence.

(13) Delete the existing clause 3.18.13(b) and replace it with the following—

    (b) Where System Management finds that an Outage Plan is acceptable, then it must schedule the Outage Plan in System Management's outage schedule accordingly and inform the Market Participants or Network Operators that submitted the Outage Plans.

(14) Insert a new clause 3.18.13(e), as follows—

    (e) Where, as a result of an evaluation, the status of an Outage Plan that was previously acceptable or acceptable under certain conditions changes then System Management must modify its outage schedule accordingly.

17.   Market Rule 3.19 amended

(1) Delete the existing clause 3.19.2 and replace it with the following—

    3.19.2. Market Participants and Network Operators may request that System Management approve an outage of a Facility or item of equipment that is not a Scheduled Outage ("**Opportunistic Maintenance**") to be carried out during a Trading Day—

        (a) at any time between 6:00 AM and 10:00 AM on the Scheduling Day for that Trading Day, where the request relates to an outage to occur at any time and for any duration during the following Trading Day; or

        (b) at any time on the Trading Day not later than 1 hour prior to the commencement of the Trading Interval during which the requested outage is due to commence, where

            i. the outage must be to allow minor maintenance to be performed;

            ii. the outage must not require any changes in scheduled energy or ancillary services; and

            iii. the outage must not exceed four hours duration and must end before the end of the Trading Day;

    where the request must include all of the information specified in clause 3.18.6, and must specify the Trading Intervals during which the Opportunistic Maintenance will occur.

(2) Delete the existing clause 3.19.3A(b) and replace it the following—

    (b) must not approve Opportunistic Maintenance for a Facility or item of equipment on two consecutive Trading Days;

(3) Delete the existing clause 3.19.3A(c) and replace it the following—

    (c) may decline to approve Opportunistic Maintenance for a Facility or item of equipment where it considers that the request has been made principally to avoid exposure to Reserve Capacity refunds as described in clause 4.26 rather than to perform maintenance; and

(4) Insert a new clause 3.19.3A(d), as follows—

    (d) may decline to approve Opportunistic Maintenance for a facility where it considers that inadequate time is available before the proposed commencement time of the outage to adequately assess the impact of that outage.

(5)   Delete the existing clause 3.19.5 and replace it with the following—

    3.19.5. Where a change in power system conditions after System Management has approved a Scheduled Outage or Opportunistic Maintenance means that the Scheduled Outage or Opportunistic Maintenance is no longer approvable applying the criteria in clause 3.19.6, System Management may decide to reject the Scheduled Outage or Opportunistic Maintenance. Where System Management makes such a decision, it must inform the relevant Market Participant or Network Operator of its decision immediately.

18.   Market Rule 3.21 amended

(1)   Delete the existing clause 3.21.4 and replace it with the following—

    3.21.4. If a Facility or item of equipment that is on the list described in clause 3.18.2 or a Facility or generation system to which clause 3.18.2A relates suffers a Forced Outage or Consequential Outage, then the relevant Market Participant or Network Operator must inform System Management of the outage as soon as practical. Information provided to System Management must include—

        (a) the time the outage commenced;

        (b) an estimate of the time the outage is expected to end;

        (c) the cause of the outage;

        (d) the Facility or item of equipment or Facilities or items of equipment affected; and

        (e) for each affected Facility or item of equipment, the expected available capacity by Trading Interval.

(2)   Insert a new section titled "Decommitment and Reserve Capacity Obligations" as a new clause 3.21B, as follows—

Decommitment and Reserve Capacity Obligations

3.21B. Decommitment and Reserve Capacity Obligations

    3.21B.1. Except where approval for a Planned Outage has been granted, or clause 7.9.6 applies, a Market Participant must seek permission from System Management before putting a Scheduled Generator holding Capacity Credits into a state where it will take more than four hours to re-synchronise the Scheduled Generator.

    3.21B.2. A Market Participant must request from System Management the permission described in clause 3.21B.1 not less than two hours prior to the facility ceasing to be able to be re-synchornised within four hours, including in that request—

        (a) the identity of the Scheduled Generator;

        (b) the time at which the Market Participant wants to have the Scheduled Generator enter a state where it will take more than four hours to re-synchronise; and

        (c) the first time after that in (b) at which the Scheduled Generator will be able to be resynchronised with four hours notice.

    3.21B.3. System Management must assess the request for permission, based on the information available to System Management at the time of the request, and applying the criteria set out in clause 3.21B.5.

    3.21B.4. System Management must either approve or reject the request and inform the Market Participant of its decision as soon as practicable, but no later than one hour prior to the time described in clause 3.21B.2(b).

    3.21B.5. System Management may only withhold the permission described in clause 3.21B.1 if—

        (a) the request for that permission is not in compliance with clause 3.21B.2 or the Power System Operation Procedure; or

        (b) granting permission would mean that System Management would be incapable of maintaining the Ready Reserve Standard.

    3.21B.6. Where System Management informs a Market Participant that permission is not granted, then System Management and the Market Participant must use their best endeavours to find an alternative time for the Scheduled Generator to be put into a state where it will take more than four hours to re-synchronise the Scheduled Generator

    3.21B.7. If System Management grants permission, then between the times between those stated in clause 3.21B.2(b) and 3.21B.2(c), or such alternative times as are mutually agreed in accordance with clause 3.21B.6, System Management must not require that Scheduled Generator to perform in accordance with its Reserve Capacity Obligations.

    3.21B.8. System Management must document the procedure it follows granting permission is accordance with this clause 3.21B in the Power System Operation Procedure and System Management and Market Participants must follow that documented Market Procedure.

19.   Market Rule 3.22 amended

(1)   Delete the existing comment box following clause 3.22.1(h).

(2)   Insert new clauses 3.22.2 and 3.22.3, as follows—

    3.22.2. When System Management has entered into an Ancillary Service Contract with a Rule Participant, System Management must as soon as practicable and not less than

20 Business Days prior to the Ancillary Service Contract taking effect, provide the IMO with—

    (a) the identity of the Rule Participant,

    (b) the Ancillary Service contracted to be provided by the Rule Participant;

    (c) a unique identifier for the Ancillary Service Contract;

    (d) the form of settlement data that System Management will provide to the IMO for the Contracted Ancillary Service provided by the Rule Participant, where this data must be one of the formats allowed by clause 3.22.3.

3.22.3. System Management must provide the following information to the IMO for each Rule Participant holding an Ancillary Service Contract for a Trading Month by the date specified in clause 9.16.2(a)—

    (a) the identity of the Rule Participant;

    (b) for each Ancillary Service Contract held—

        i. the type of Ancillary Service where this can be one of—

            1. Spinning Reserve;

            2. Load Following;

            3. Load Rejection;

            4. System Restart; or

            5. Dispatch Support;

        ii. for each Trading Interval of the Trading Month the quantity of Ancillary Service to a precision of 0.001 units (where no specific unit of measure will be assumed).

        iii. either—

            1. a total monthly payment for the Ancillary Service in dollars and whole cents; or

            2. a price in dollars and whole cents per unit of the quantity described in (ii) per Trading Interval.

20. Market Rule 4.1 amended

(1)   Insert a new clause 4.1.1A and comment box as follows—

4.1.1A. Clause 4.28B takes precedence over this clause 4.1 and events described in clause 4.28B are not required to comply with the timetable of this section 4.1 except where specified in clause 4.28B.

> Clause 4.28B allows very small generators to be granted Capacity Credits outside of the normal process.

(2)   Delete the existing clause 4.1.13 and replace it with the following—

4.1.13. Each Market Participant must provide to the IMO any Reserve Capacity Security (in full) required in accordance with clause 4.13.1 not later than 5 PM of the last Business Day falling on or before—

    (a) 10 August of Year 1 of the relevant Reserve Capacity Cycle if any of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c); or

    (b) 29 August of Year 1 of the relevant Reserve Capacity Cycle if any of the Facility's Certified Reserve Capacity is specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where none of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c).

(3)   Delete the existing clause 4.1.30 and replace it with the following—

4.1.30. The Reserve Capacity Obligations for a Facility arising through holding Capacity Credits for a Reserve Capacity Cycle cease to apply from—

21. Market Rule 4.5 amended

(1)   Amend clause 4.5.3A(b)(i) by deleting the word "and" after the semicolon.

(2)   Amend clause 4.5.3A(b)(ii) by deleting the full stop at the end of the clause and replacing it with "; and".

(3)   Insert a new clause 4.5.3A(b)(iii), as follows—

        iii. the expected firm MW capacity and location of any generation system to serve that Intermittent Load in accordance with clause 2.30B.2(a) that is to be located at a different connection point to the Intermittent Load.

22. Market Rule 4.8 amended

(1)   Insert a new clause 4.8.3, as follows—

4.8.3. A Market Customer may apply for the certification of Demand Side Programme including Loads at different locations as a Curtailable Load subject to the following conditions and provisions—

    (a) No Intermittent Load may be included in the Demand Side Programme.

(b) The Loads comprising the Demand Side Programme must be registered as Curtailable Loads if they are to count towards satisfying the relevant Reserve Capacity Obligations of the Demand Side Program and must not have been separately awarded Capacity Credits.

(c) As the Loads comprising the Demand Side Program are registered, the IMO must assign Certified Reserve Capacity and Reserve Capacity Obligations to those Facilities and must correspondingly reduce the Certified Reserve Capacity and Reserve Capacity Obligations associated with the Demand Side Programme during the time those Facilities are registered.

(d) After accounting for the modifications in (c), if at any time a Market Customer has Reserve Capacity Obligations associated with its Demand Side Programme then, for settlement purposes, the Demand Side Programme must be treated by the IMO as a Facility that has failed to satisfy its Reserve Capacity Obligations.

23.　Market Rule 4.9 amended

(1)　Amend clause 4.9.3(b) by deleting the word "may" and replacing it with "must" instead.

24.　Market Rule 4.10 amended

(1)　Amend clause 4.10.1 by deleting the existing clauses 4.10.1(c)(iii) and 4.10.1(c)(iii)(1) and replacing them with the following—

　　iii. key project dates occurring after the date the request is submitted to the IMO, including, as applicable, but not limited to—

　　　　1. when all approvals will be finalised or, in the case of Interruptible Loads and Curtailable Loads all required contracts will be in place;

(2)　Amend clause 4.10.1 by deleting the existing clause 4.10.1(c)(iii)(5) and replacing it with the following—

　　　　5. when generating equipment or Dispatchable Load equipment will be installed or, in the case of Interruptible Loads and Curtailable Loads all required control equipment will be in place;

(3)　Amend clause 4.10.3 by deleting the word "may" and replacing it with "must" instead.

25.　Market Rule 4.11 amended

(1)　Delete the existing clause 4.11.1(i) and replace it with the following—

　(i) the Certified Reserve Capacity assigned to a Facility is to be expressed to a precision of 0.005 MW.

(2)　Delete the existing clause 4.11.3 and insert "[Blank]" instead.

26.　Market Rule 4.12 amended

(1)　Delete the existing clause 4.12.1(a)(iii) and replace it with the following—

　　iii. the MW quantity calculated by doubling the total MWh quantity covered by STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction determined by the IMO for that Market Participant under clause 6.9 for that Trading Interval, corrected for loss factor adjustments so as to be a sent out quantity,

(2)　Delete the existing clause 4.12.1(b)(iii) and replace it with the following—

　　iii. the MW quantity calculated by doubling the total MWh quantity covered by STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction determined by the IMO for Western Power under clause 6.9 for that Trading Interval, corrected for loss factor adjustments so as to be a sent out quantity,

(3)　Insert a new clause 4.12.4(aA), after clause 4.12.4(a), as follows—

　(aA) for generation systems that are Intermittent Generators, the Reserve Capacity Obligation Quantity is zero;

(4)　Delete the existing clause 4.12.6 and replace it with the following—

　4.12.6. Subject to clause 4.12.7, any initial Reserve Capacity Obligation Quantity set in accordance with clauses 4.12.4, 4.12.5, or 4.28B.4 is to be reduced once the Reserve Capacity Obligations take effect, as follows—

27.　Market Rule 4.13 amended

(1)　Delete the existing clause 4.13.9 and replace it with the following—

　4.13.9. If a Market Participant does not comply with clause 4.13.1 in full by the date and time specified in—

　　(a) clause 4.1.13(a) in the case of Facility with Certified Reserve Capacity specified to be traded bilaterally in accordance with clause 4.14.1(c); or

　　(b) clause 4.1.13(b) in the case of Facility with Certified Reserve Capacity specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where none of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c),

　for the Reserve Capacity Cycle to which the certification relates, the Certified Reserve Capacity of that Facility will lapse.

28.   Market Rule 4.14 amended

(1)   Delete existing clause 4.14.1 and replace it with the following—

4.14.1. Subject to clause 4.14.3, each Market Participant holding Certified Reserve Capacity for the current Reserve Capacity Cycle must, by the date and time specified in clause 4.1.14 provide the following information to the IMO for each Facility in respect of which it holds Certified Reserve Capacity (expressed in MW to a precision of 0.005 MW)—

29.   Market Rule 4.22 amended

(1)   Delete existing clause 4.22.2(a) and replace it with the following—

(a) a level of coverage, in MW and to a precision of 0.005 MW, subject to the limits that—

30.   Market Rule 4.26 amended

(1)   Delete existing clause 4.26.2 and replace it with the following—

4.26.2. The IMO must determine the capacity shortfall ("Capacity Shortfall") in Reserve Capacity supplied by each Market Participant p holding Capacity Credits in each Trading Interval t of Trading Day d and Trading Month m relative to its Reserve Capacity Obligation Quantity as—

$$SF(p,m,d,t) = Max(RTFO(p,d,t), RCOQ(p,d,t) - A(p,d,t)) + Max(0, B(p,d,t) - C(p,d,t))$$

Very loosely, this equation means that the short fall in a trading interval equals the reserve capacity obligation in that period less the capacity actually made available to the market based on Bilateral Trade, STEM and Resource Plan submissions (A), or the cumulative Forced Outage of the Market Participant in real-time if this is greater than this difference, where any resultant shortfall is then increased by the difference between what the participant was obliged to do based on dispatch instructions (B) that it should have been able to comply with and what it actually did do (C). The Min and Max terms in what follows are set up to ignore situations where a Market Participant provides more than it is required to.

Where

$A(p,d,t) = Min(RCOQ(p,d,t), CAPA(p,d,t));$

$B(p,d,t) = Min(RCOQ(p,d,t) - RTFO(p,d,t), DSQ(p,d,t));$

$C(p,d,t) = Min(DSQ(p,d,t), MSQ(p,d,t) + TOL(p,d,t));$

"A" represents the capacity actually made available via the bilateral, STEM and Resource Plan submissions. This capacity is capped by the capacity the participant is obliged to make available.

"B" represents what the participant was dispatched to do, but is capped by the capacity the participant is obliged to make available, less any Forced Outages of which System Management has been notified. Forced outages are removed from this term because they are already accounted for in other terms forming the shortfall.

"C" accounts for the difference between what a participant was dispatched to do and what it actually did. This term addresses the possibility that a participant either does not follow instructions or is incapable of following them because it has had a forced outage which it has not declared.

The TOL term recognises that MSQ must be adjusted by the tolerance that is applied when assessing compliance to dispatch instructions.

RCOQ(p,d,t) is the total Reserve Capacity Obligation Quantity of Market Participant p's unregistered facilities that have Reserve Capacity Obligations, plus the sum over all of the Registered Facilities registered to Market Participant p of the product of the factor described in clause 4.26.2B as it applies to the Registered Facility and the Facility's Reserve Capacity Obligation Quantity in Trading Interval t of Trading Day d;

CAPA(p,d,t) is for Market Participant p and Trading Interval t of Trading Day d—

(a) equal to RCOQ(p,d,t) for a Trading Interval where the STEM auction has been suspended by the IMO in accordance with clause 6.10;

(b) subject to paragraph (a), for the case where Market Participant p is not Western Power, the sum of—

i. the sum of the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads and Curtailable Loads; plus

That Interruptible Load and Curtailable Loads cannot meaningfully be offered into the STEM (as the maximum STEM price could be lower than their actual activation cost). Hence we have removed these from the requirement that they be offered into the STEM and have barred them from being included in Resource Plans. They can however be self-dispatched by a market participant based on STEM prices (which counts as meeting the obligations) and must be available to be called by SM in real-time

ii. the MW quantity calculated by doubling the total MWh quantity of energy sent out during that Trading Interval by Facilities registered by that Market Participant as indicated by the applicable Resource Plan; plus

iii. the MW quantity calculated by doubling the total MWh quantity covered by the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by the IMO for that Market Participant under clause 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

iv. double the total MWh quantity to be provided as Ancillary Services as specified by the IMO in accordance with clause 6.3A.2(e)(i) for that Market Participant corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

v. the greater of zero and $(BSFO(p,d,t) - RTFO(p,d,t))$; and

The previous term in the above clause acts to increase the capacity deemed to have been provided by a participant if the participant's real-time level of Forced Outage, $RTFO(p,d,t,)$ is lower than its "before the STEM" level of Forced Outage $BSFO(p,d,t)$. This adjustment is made because $BSFO(p,d,t)$ restricts how much capacity a participant can offer in the STEM, but if capacity is returned to service by real-time then that capacity is available to System Management for dispatch in real-time.

(c) subject to paragraph (a), for the case where Market Participant p is Western Power, the sum of—

i. the sum of the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads and Curtailable Loads; plus

ii the MW quantity calculated by doubling the total MWh quantity of the Bilateral Contract quantity issued by that Market Participant and accepted by the IMO in accordance with clause 6.2 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

iii the MW quantity calculated by doubling the total MWh quantity of the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by the IMO for that Market Participant under clause 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

iv. double the total MWh quantity to be provided as Ancillary Services as specified by the IMO in accordance with clause 6.3A.2(e)(i) for Western Power corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

v. the greater of zero and $(BSFO(p,d,t) - RTFO(p,d,t))$.

The previous term is explained in the context of (b) above.

$BSFO(p,d,t)$ is the total MW quantity of Forced Outage associated with Market Participant p before the STEM Auction for Trading Interval t of Trading Day d, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as provided to the IMO by System Management in accordance with clause 7.3;

$RTFO(p,d,t)$ is the total MW quantity of Forced Outage associated with Market Participant p in real-time for Trading Interval t of Trading Day d, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as provided to the IMO by System Management in accordance with clause 7.13.1(e);

$DSQ(p,d,t)$ is a MW quantity calculated by doubling the MWh value of the sum over all of the Facilities registered by Market Participant p of each Facility's Dispatch Schedule for Trading Interval t of Trading Day d;

$TOL(p,d,t)$ is a MW quantity calculated by doubling the MWh value of the sum over all of the Scheduled Generators and Dispatchable Loads registered by Market Participant p of each Facility's Facility Dispatch Tolerance in Trading Interval t of Trading Day d;

In the following clause MSQ is based on the greater of zero and the metered schedule because if a generator has embedded load and is not running then the metered schedule could be less than zero. E.g. a 100 MW generator with 40 MW of embedded load might only have 60 MW of capacity credits. If it is dispatched to a level of 60 MW but its metered schedule is negative 40 MW, then its reserve capacity shortfall should be $60 - \text{Max}(0,-40) = 60$ MW. Without this adjustment the generator would have to pay a refund for capacity it is not obliged to provide.

MSQ(p,d,t) is a MW quantity calculated by doubling the MWh value of the sum over all of the Facilities registered by Market Participant p of the greater of zero and each Facility's Metered Schedule for Trading Interval t of Trading Day d corrected for Loss Factor adjustments applicable to that Facility so as to be a sent out quantity.

> The equation SF(p,d,t) = Max(RTFO(p,d,t), RCOQ(p,d,t) - A(p,d,t)) + Max(0, B(p,d,t) – C(p,d,t)) has two components. The component Max(RTFO(p,d,t),RCOQ(p,d,t) - A(p,d,t)) quantifies the amount of capacity that should have been made available but was not (whether due to capacity not being offered or Forced Outages preventing the capacity being offered), while Max(0, Min(B(p,d,t) – C(p,d,t))) quantifies the amount by which metered schedules fall short of scheduled quantities. The following table illustrates the calculations, ignoring Facility Dispatch Tolerances.
>
> | Trading Interval | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
> |---|---|---|---|---|---|---|---|---|---|---|
> | Reserve Capacity Obligation Quantity (RCOQ) | 0 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
> | Energy offered in balancing/RTM (CAPA) | 10 | 10 | 8 | 10 | 8 | 8 | 9.5 | 10 | 4 | 12 |
> | Total real timie Forced Outage (RTFO) | 0 | 0 | 0 | 5 | 0 | 2.5 | 0 | 2 | 0 | 0 |
> | Dispatch Schedule (DSQ) | 8 | 7 | 7 | 4 | 8 | 8 | 8 | 8 | 4 | 12 |
> | Metered Schedule (MSQ) | 1 | 10 | 7 | 4 | 8 | 7 | 6 | 8 | 0 | 2 |
> | A = Min(RCOQ, CAPA) | 0 | 10 | 8 | 10 | 8 | 8 | 9.5 | 10 | 4 | 10 |
> | B = Min(RCOQ-RTFO, DSQ) | 0 | 7 | 7 | 4 | 8 | 7.5 | 8 | 8 | 4 | 10 |
> | C = Min(DSQ, MSQ) | 1 | 7 | 7 | 4 | 8 | 7 | 6 | 8 | 0 | 2 |
> | RCOQ - A | 0 | 0 | 2 | 0 | 2 | 2 | 0.5 | 0 | 6 | 0 |
> | Max(RTFO, RCOQ - A) | 0 | 0 | 2 | 5 | 2 | 2.5 | 0.5 | 2 | 6 | 0 |
> | Max(0,B-C) | 0 | 0 | 0 | 0 | 0 | 0.5 | 2 | 0 | 4 | 8 |
> | SF = Max(RTFO, RCOQ - A) + Max(0,B-C) | 0 | 0 | 2 | 5 | 2 | 3 | 2.5 | 2 | 10 | 8 |
>
> Note that if Western Power generators do not have revenue quality meters then this may need to be applied to an estimate of Western Power's total generation. For this reason, penalties are applied based on the overall performance of each Market Participant, rather than on a facility by facility basis.

(2)   Insert new clauses 4.26.2A and 4.26.2B, as follows—

4.26.2A. All values in clause 4.26.2 which are required to be corrected for Loss Factor adjustments so as to be a sent out quantity are to be adjusted based on an assumed Loss Factor of 1.

4.26.2B. The IMO is to set the factor described in the definition of RCOQ(p,d,t) in clause 4.26.2 to equal one in all situations except for Scheduled Generators, Non-Scheduled Generators and Dispatchable Loads with Loss Factors less than one in which event the factor must equal the facilities Loss Factor.

> A Loss Factor of 1 is assumed in clause 4.26.2A for simplicity. Almost all generators have Loss Factors greater than 1, meaning that if 1 MW is offered at the site of a facility then the Loss Factor adjusted quantities at the reference Node will exceed 1, making it easier for these generators to cover their Reserve Capacity Obligation Quantities. Currently there are a very small number of generators (e.g. 1 or 2) with Loss Factors fractionally less than 1. To the extent that such generators are not in a portfolio of generators (with an average loss factor greater than 1) then assuming a Loss Factor of 1 could unfairly expose such generators to Reserve Capacity Refunds. To avoid this, clause 4.26.2B specifies a weighting to apply in clause 4.26.2 to the Reserve Capacity Obligation Quantity of the Facility so as to ensure that it is not disadvantaged by its Loss Factor.
>
> Thus a facility with a Reserve Capacity Obligation Quantity of 1 MW and a Loss Factor of 1.2 would have a factor of 1, so if it offered this energy into the STEM it would have A = 1.2 and RCOQ of 1, which would not expose it to a shortfall.
>
> If it has a Loss Factor of 0.98 then it would offer 1 MW at the site of the Facility, so the energy it offers into the STEM would be Loss Factor adjusted by 0.98 to give A = 0.98. But because its Loss Factor is less than 1, the Reserve Capacity Obligation Quantity would also be adjusted to be 0.98, preventing the Market Participant from being exposed to a shortfall of 0.02.

31.   Market Rule 4.28 amended

(1)   Insert a new section titled "Treatment of New Small Generators" as a new clause 4.28B, as follows—

Treatment of New Small Generators

4.28B. Treatment of New Small Generators

> A Non-Scheduled Generator with a nameplate capacity of less than 1 MW may gain Capacity Credits through the process described in this clause 4.28B for a period of up to a year starting 1 October and then only until the first time it could (or has) acquired Capacity Credits through the normal processes.

4.28B.1 This section 4.28B is applicable to Registered Facilities to which the following conditions apply—

(a) the Facility is a Non-Scheduled Generator and has commenced operation;

(b) the Facility has a nameplate capacity not exceeding 1 MW;

(c) the Facility has not previously held Capacity Credits for past Reserve Capacity Cycles and does not hold Capacity Credits for the Reserve Capacity Cycle for which Capacity Credits are sought; and

(d) there has been no opportunity for the Market Participant to which the Facility is registered to apply for certification of Reserve Capacity for the Facility for the Reserve Capacity Cycle for which Capacity Credits are sought in accordance with clause 4.9 since the date upon which the Facility became a Registered Facility;

4.28B.2 A Market Participant to which a Facility is registered that this clause 4.28B relates to may apply to the IMO for Capacity Credits for that Facility at any time between the date upon which the Facility became a Registered Facility and the earliest date upon which either—

(a) Reserve Capacity Obligations could apply to the Facility where such Reserve Capacity Obligations relate to Capacity Credits secured in accordance with clause 4.20 at the earliest possible opportunity following the registration of the Facility; or

(b) Reserve Capacity Obligations actually apply to the Facility due to Capacity Credits secured in accordance with clause 4.20 prior to the registration of the Facility.

4.28B.3 An application made under clause 4.28B.2 must include all the information required by clause 4.10 for a Non-Scheduled Generator, with the modification that the decommissioning date required by clause 4.10.1(d) is only required if the Facility will be decommissioned prior to the end date defined in clause 4.28B.6.

4.28B.4 The IMO must process an application made in accordance with clause 4.28B.2 so as to determine the Certified Reserve Capacity, Capacity Credits and Reserve Capacity Obligations to associate with the Facility—

(a) The IMO must set Certified Reserve Capacity for the Facility to that amount it would normally grant the Facility if processing an application for Certified Reserve Capacity in accordance with clause 4.11;

> These rules only relate to the issuing of Capacity Credits for a Capacity Year after the normal bilateral trade/auction process is complete and as such the only reason for defining Certified Reserve Capacity is to provide a basis for reducing Reserve Capacity Obligation Quantities in accordance with clause 4.12.6 (if required).

(b) The IMO must set the Capacity Credits for the facility to equal the Certified Reserve Capacity of the Facility; and

(c) The IMO must set the Reserve Capacity Obligations, including the initial Reserve Capacity Obligation Quantity, for the Facility in accordance with clause 4.12 as if set as part of an application for Certified Reserve Capacity made in accordance with clause 4.11.

4.28B.5 The IMO must process an application made in accordance with clause 4.28B.2 within 10 Business Days of receipt of the application.

4.28B.6 If the IMO approves the granting of Capacity Credits to the Facility then the Capacity Credits and the Reserve Capacity Obligations associated with that Facility are to apply from the commencement of the Trading Day commencing on the start date until the end of the Trading Day ending on the end date where—

(a) the start date is the next occurrence of the date 1 October after the date on which the IMO grants approval, or if the IMO grants approval prior to Energy Market Commencement then the date of Energy Market Commencement; and

(b) the end date is the earlier of—

i. the first date that Reserve Capacity Obligations could apply to the Facility where such Reserve Capacity Obligations relate to Capacity Credits secured in accordance with clause 4.20 at the earliest possible opportunity following the registration of the Facility;

ii. the first date that Reserve Capacity Obligations actually apply to the Facility due to Capacity Credits secured in accordance with clause 4.20 prior to the registration of the Facility;

iii. the first instance of the date 1 October after the start date; and

iv. the decommissioning date of the Facility;

> If the IMO approves the capacity credits prior to Energy Market Commencement, then if the market commences on 1 July 2006 the end date would be 1 October 2006.

4.28B.7 A Market Participant may re-apply to the IMO for Capacity Credits in accordance with this clause 4.28B if Capacity Credits issued in accordance with this clause 4.28B have, or are due to, expire in accordance with clause 4.28B.6(b)(iii).

4.28B.8 Any Capacity Credit issued by the IMO under this clause 4.28B

(a) is, for the purpose of settlement, to be treated as if it were traded bilaterally in accordance with clause 4.14; and

(b) is not eligible to have a Long Term Special Price Arrangement or Short Term Special Price Arrangement associated with it.

4.28B.9. The IMO must document the process for applying for and approving Capacity Credits in accordance with this clause 4.28B in the Reserve Capacity Procedure, and the IMO and Market Participants must follow that documented Market Procedure.

32.   Market Rule 4.29 amended

(1)   Amend clause 4.29.1 by inserting a second paragraph in the comment box at the end of the clause, as follows—

> Consideration is being given to a proposal to change the 85% factor described here and in the context of Reserve Capacity Refunds be modified in the future so that the percentage drops as a function of the degree to which the market has significant surplus capacity. Thus, based on the outcome of the bilateral trade/auction process described in Chapter 4, the more Capacity Credits the market has which are significantly in excess of the Reserve Capacity Requirement, the lower the percentage would be.

33.   Market Rule 6.3A amended

(1)   Delete the existing clause 6.3A.2(c) and (d) and replace them with the following—

(c)   for each Scheduled Generator and Non-Scheduled Generator that is registered as being able to run on Liquid Fuel only, the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be supplied during the Trading Interval based on the Standing Data of that Scheduled Generator or Non-Scheduled Generator less an allowance for outages of which the IMO has been made aware by System Management in accordance with clauses 7.3.4 or 7.3.6; and

(d)   for each Scheduled Generator and Non-Scheduled Generator that is registered as being able to run on both Liquid Fuel and Non-Liquid Fuel, the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be supplied during the Trading Interval when run on each of Liquid Fuel and Non-Liquid Fuel based on the Standing Data of that Scheduled Generator or Non-Scheduled Generator less an allowance for outages of which the IMO has been made aware by System Management in accordance with clauses 7.3.4 or 7.3.6.

(2)   Amend clause 6.3A.2(e) in the last paragraph of the comment box by deleting "liquid fuel" and replacing it with "Liquid Fuel".

34.   Market Rule 6.6 amended

(1)   Delete the existing clause 6.6.2A(a)(i) and replace it with the following—

(a)   a Fuel Declaration—

i.   the Market Participant must declare for each of its dual fuel Facilities whether or not that Facility was assumed to be operating on Liquid Fuel or Non-Liquid Fuel in forming the Portfolio Supply Curve;

(2)   Amend clause 6.6.2A(c)(i)(1) and (2) and replace it with the following—

(c)   an Ancillary Service Declaration—

i.   a Market Participant which is a provider of Ancillary Services must declare—

1.   the MWh quantity of energy from Non-Liquid Fuelled Facilities (as defined by the Fuel Declaration) that the Market Participant has not committed for inclusion in the Portfolio Supply Curve because it expects to have to maintain surplus capacity with which to provide Ancillary Services;

2.   the MWh quantity of energy from Liquid Fuelled Facilities (as defined by the Fuel Declaration) that the Market Participant has not committed for inclusion in the Portfolio Supply Curve because it expects to have to maintain surplus capacity with which to provide Ancillary Services,

(3)   Amend clause 6.6.2A(c)(i)(2) by deleting "liquid fuelled facilities" and replacing it with "Liquid Fuelled Facilities".

(4)   Amend clause 6.6.2A(d)(iii)(1) by deleting "liquid fuels" and replacing it with "Liquid Fuel".

(5)   Amend clause 6.6.2A(d)(iii)(2) by deleting "liquid fuels" and replacing it with "Liquid Fuel".

(6)   Amend clause 6.6.2A(d)(iii)(3) by deleting "liquid fuelled" and replacing it with "Liquid Fuelled".

(7)   Delete the existing clause 6.6.5(c)(i) and replace it with the following—

i.   in units of MWh expressed to a precision of 0.001 MWh;

(8)   Delete the existing clause 6.6.8(b)(i) and replace it with the following—

(b)   each Price-Quantity Pair quantity must be—

i.   in units of MWh expressed to a precision of 0.001 MWh;

(9)   Amend clause 6.6.10(b) by deleting "liquid fuel" and replacing it with "Liquid Fuel".

35.   Market Rule 6.7 amended

(1)   Delete the existing clause 6.7.2(d) and replace it with the following—

(d)   must be expressed to a precision of 0.001 MWh; and

36.   Market Rule 6.11 amended

(1)   Delete the existing clause 6.11.1(b)(iii)(2) and replace it with the following—

    2.   must be expressed to a precision of 0.001 MWh;

(2)   Delete the existing clause 6.11.1(c)(ii)(2) and replace it with the following—

    2.   must be expressed to a precision of 0.001 MWh; and

(3)   Delete the existing clause 6.11.1(d) and replace it with the following—

    (d)   the total Loss Factor adjusted demand to be consumed by that Market Participant for each Trading Interval including demand associated with any Curtailable Load or Interruptible Load, but excluding demand associated with any Dispatchable Load; and

(4)   Delete the existing clause 6.11.1(e) and replace it with the following—

    (e)   any shortfall for each Trading Interval between the net energy scheduled in the Resource Plan Submission and the Net Contract Position of the Market Participant.

37.   Market Rule 6.11A amended

(1)   Amend clause 6.11A.1(b)(ii) by deleting "non-liquid fuels" and replacing it with "Non-Liquid Fuel".

(2)   Amend clause 6.11A.1(b)(iii) by deleting "liquid fuels" and replacing it with "Liquid Fuel".

(3)   Delete the existing clause 6.11A.1(c)(ii)(2) and replace it with the following—

    2.   a Consumption Decrease Price for Peak Trading Intervals, where this price must be not less than that in (1);

(4)   Delete the existing clause 6.11A.1(c)(ii)(4) and replace it with the following—

    4.   a Consumption Decrease Price for Off-Peak Trading Intervals, where this price must be not less than that in (3),

(5)   Delete the existing clause 6.11A.1(d) and replace it with the following—

    (d)   for each Curtailable Load registered by the Market Participant—

38.   Market Rule 6.12 amended

(1)   Delete the existing clause 6.12.1(b) and replace it with the following—

    (b)   A Dispatch Merit Order for an increase in generation or decrease in consumption relative to the quantities included in the applicable Resource Plan (or the current operating level of a Facility not included in a Resource Plan) during Peak Trading Intervals. The IMO must take into account the following principles when determining this Dispatch Merit Order—

(2)   Amend clause 6.12.1(b)(iii) by deleting "liquid fuels" where they appear in two instances and replacing them with "Liquid Fuel".

(3)   Amend clause 6.12.1(b)(iv) by deleting "liquid fuelled" and replacing it with "Liquid Fuelled" and by also deleting "liquid fuels" and replacing it with "Liquid Fuel".

(4)   Delete the existing clause 6.12.1(c) and replace it with the following—

    (c)   A Dispatch Merit Order for a decrease in generation or increase in consumption relative to the quantities included in the applicable Resource Plan (or the current operating level of a Facility not included in a Resource Plan) during Peak Trading Intervals. The IMO must take into account the following principles when determining this Dispatch Merit Order—

(5)   Amend clause 6.12.1(c)(iii) by deleting "liquid fuels" where they appear in two instances and replacing them with "Liquid Fuel".

(6)   Amend clause 6.12.1(c)(iv) by deleting "liquid fuelled" and replacing it with "Liquid Fuelled" and also by deleting "liquid fuels" and replacing it with "Liquid Fuel".

(7)   Delete the existing clause 6.12.1(e) and replace it with the following—

    (e)   A Dispatch Merit Order for an increase in generation or decrease in consumption relative to quantities included in the applicable Resource Plan (or the current operating level of a Facility not included in a Resource Plan) during Off-peak Trading Intervals. The IMO must take into account the following principles when determining this Dispatch Merit Order—

(8)   Amend clause 6.12.1(e)(iii) by deleting "liquid fuels" where they appear in two instances and replacing them with "Liquid Fuel".

(9)   Amend clause 6.12.1(e)(iv) by deleting "liquid fuelled" and replacing them "Liquid Fuelled" and also by deleting "liquid fuels" and replacing them with "Liquid Fuel".

(10)   Delete the existing clause 6.12.1(f) and replace it with the following—

    (f)   A Dispatch Merit Order for a decrease in generation or increase in consumption relative to the quantities included in the applicable Resource Plan (or zero where the quantity was not included in a Resource Plan Submission) during Off-peak Trading Intervals. The IMO must take into account the following principles when determining this Dispatch Merit Order—

(11)   Amend clause 6.12.1(f)(iii) by deleting "liquid fuels" where they appear in two instances and replacing them with "Liquid Fuel".

(12)   Amend clause 6.12.1(f)(iv) by deleting "liquid fuelled" and replacing them "Liquid Fuelled" and also by deleting "liquid fuels" and replacing them with "Liquid Fuel".

39.   Market Rule 6.14 amended

(1)   Delete the existing clauses 6.14.2(b)(i)(2), (3), (4) and 6.14.2(b)(ii) and replace them with the following—

     2. the Relevant Quantity for the Trading Interval is not between 95% and 105% of the Scheduled System Load for that Trading Interval.

     3. [Blank]

     4. [Blank]

       ii. If paragraph (i) does not apply then MCAP equals the STEM Clearing Price for that Trading Interval.

40.   Market Rule 6.17 amended

(1)   Delete the existing clause 6.17.6(a)(ii) and replace it with the following—

     ii. was issued no Dispatch Instructions or was issued instructions described by either (c) or (d) for the Trading Interval;

(2)   Amend clause 6.17.6(b)(ii)(2) by deleting the full stop at the end and replacing it with a semicolon.

(3)   Delete the existing clauses 6.17.6(c)(i) and (ii) and replace them with the following—

     i. the quantity by which the Non-Scheduled Generator was instructed by System Management to reduce its output; and

     ii. the Standing Data price defined in Appendix 1(e)(v) that was current at the time of the Trading Interval for the Non-Scheduled Generator for a decrease in generation, (accounting for whether the Trading Interval is a Peak Trading Interval or an Off-Peak Trading Interval);

(4)   Insert a new clause 6.17.6(d), as follows—

     (d) plus the sum over all Curtailable Loads registered by the Market Participant of the amount that is the product of:

       i. the quantity by which the Curtailable Load was instructed by System Management to reduce its consumption; and

       ii. the price defined in clause 6.11A.1(d)(ii) that was current at the time of the Trading Interval for the Curtailable Load (accounting for whether the Trading Interval is a Peak Trading Interval or an Off-Peak Trading Interval).

(5)   Amend clause 6.17.7(a)(ii) by deleting "liquid fuel" and replacing it with "Liquid Fuel".

(6)   Amend clause 6.17.7(b)(ii) by deleting "liquid fuel" and replacing it with "Liquid Fuel".

41.   Chapter 7 amended

(1)   Amend Chapter 7 by deleting "liquid fuelled" and replacing it with "Liquid Fuelled" in the last paragraph of the comment box, following the heading of Chapter 7.

42.   Market Rule 7.2 amended

(1)   Insert new clauses 7.2.5 and 7.2.6, as follows—

     7.2.5. Each Market Generator must by 10 AM each day provide to System Management for each of its Intermittent Generators with capacity exceeding 10 MW its most current forecast of the MWh energy output of the Intermittent Generator for each Trading Interval between noon of the current Scheduling Day and the end of the corresponding Trading Day in a format and by a method specified in the Power System Operation Procedure.

     7.2.6. System Management may only use forecasts provided to it in accordance with clause 7.2.5 for the purpose of setting and revising requirements for Ancillary Service and to update its dispatch plans during the Trading Day.

43.   Market Rule 7.5 amended

(1)   Delete the existing clause 7.5.4 and replace it with the following—

     7.5.4. Subject to clause 7.5.5, a Market Participant other than Western Power may at any time between 1:30 PM on the Scheduling Day and 30 minutes prior to the commencement of the Trading Interval described in (b) notify System Management that the Market Participant will change the fuel upon which a Scheduled Generator registered to it will operate on from a Liquid Fuel to a Non-Liquid Fuel, or vice versa, where the notification must include—

(2)   Delete the existing clause 7.5.4(d) and replace it with the following—

     (d) the fuel (Liquid Fuel or Non-Liquid Fuel) to be used;

(3)   Delete the existing clause 7.5.5(a) and replace it with the following—

     7.5.5. A Market Participant may only issue a notification in accordance with clause 7.5.4 for a Scheduled Generator if:

       (a) the Scheduled Generator is switching from Non-Liquid Fuel to Liquid Fuel because it has lost its supply of Non-Liquid Fuel; or

       (b) the Scheduled Generator is switching from Liquid Fuel to Non-Liquid Fuel because it has obtained a new supply of Non-Liquid Fuel.

44. Market Rule 7.6 amended

(1) Delete the existing clause 7.6.3 and replace it with the following—

7.6.3. Where meeting the criteria in clause 7.6.1 would otherwise require the use of Liquid Fuelled Registered Facilities of Western Power or Liquid Fuelled Registered Facilities covered by any Balancing Support Contract, or Ancillary Service Contract, then System Management may issue Dispatch Instructions to Market Participants other than Western Power that, if followed, will allow it to meet the criteria in clause 7.6.1, provided that in issuing such Dispatch Instructions System Management does not issue Dispatch Instructions with respect to a Facility that would result in that Facility using Liquid Fuel.

45. Market Rule 7.7 amended

(1) Delete the existing clause 7.7.1 and replace it with the following—

7.7.1. A Dispatch Instruction is an instruction issued by System Management to a Market Participant other than Western Power directing that the Market Participant vary the output or consumption of one of its Registered Facilities from the level indicated in its Resource Plan, or to vary the output of any Registered Facility holding Capacity Credits but not included in a Resource Plan, for specified Trading Intervals.

(2) Amend clause 7.7.4(b) by deleting the full stop and replacing it with "; or" instead.

(3) Insert a new clause 7.7.4(c), as follows—

(c) the Dispatch Merit Order would otherwise require that System Management curtail a Curtailable Load when, due to limitations on the availability of the Curtailable Load, such curtailment would prevent that Curtailable Load from being available to System Management at a later time when it would have greater benefit with respect to maintaining Power System Security and Power System Reliability.

(4) Insert a new clause 7.7.4A, as follows—

7.7.4A. When selecting Curtailable Loads from the Dispatch Merit Order System Management must select them in accordance with the Power System Operations Procedure, where the selection process specified in the Power System Operations Procedure must only discriminate between Curtailable Loads based on size of the capacity, response time, availability and cost of different Curtailable Loads.

(5) Insert new clauses 7.7.5A to 7.7.5D, as follows—

7.7.5A. For the purpose of determining the quantity described in clause 6.17.6(c)(i) for a Non-Scheduled Generator for each Trading Interval the quantity is—

(a) in the case of a Non-Scheduled Generator included in a Resource Plan, to be the greater of zero and the MWh difference between the Resource Plan MWh quantity of the Non-Scheduled Generator less the MWh output of the Non-Scheduled generator over the Trading Interval implied by its Dispatch Instruction; and

(b) in the case of a Non-Scheduled Generator not included in a Resource Plan, System Management's estimate of the MWh reduction in output, by Trading Interval, of the Non-Scheduled Generator as a result of System Managements Dispatch Instruction.

7.7.5B. A Market Participant may provide System Management with information specified in the Power System Operation Procedure to support the calculation of the quantity described in clause 7.7.5A(b).

7.7.5C. The Power System Operation Procedure must specify that actual wind data for the site of a wind farm and the number of turbines operating, if made available by a Market Participant to System Management, are sufficient to allow System Management to determine what the output of a wind farm would have been had no Dispatch Instruction been issued.

7.7.5D. For the purpose of determining the quantity described in clause 6.17.6(d)(i) for a Curtailable Load for each Trading Interval the quantity is the level of curtailment requested by System Management in its Dispatch Instructions—

(6) Amend clause 7.7.6(b) by inserting the word "the" before the last "Dispatch Instruction" at the end of the clause.

(7) Delete the existing clause 7.7.9 and replace it with the following—

7.7.9. System Management must document the procedure System Management and Market Participants must follow in forming, issuing, recording, receiving and confirming Dispatch Instructions and in determining the quantities described in clauses 7.7.5A and 7.7.5D in the Power System Operation Procedure, and—

(a) System Management must follow that documented Market Procedure when issuing, recording, and confirming a Dispatch Instruction and in determining the quantities described in clauses 7.7.5A and 7.7.5D; and

(b) Market Participants must follow that documented Market Procedure when receiving and confirming a Dispatch Instruction and in providing information to support the calculation of the quantity described in clause 7.7.5A.

46.   Market Rule 7.9 amended

(1)   Delete the existing clauses 7.9.5 and 7.9.6 and replace them with the following—

7.9.5.   Subject to clauses 7.9.6 and 7.9.6A, if a Market Participant (other than Western Power) intends to desynchronise a Scheduled Generator, then it must confirm with System Management the expected time of desynchronisation

(a)   at least one hour before the expected time of desynchronisation; and

(b)   must update this advice five minutes before desynchronising.

7.9.6.   Clauses 7.9.5(a) and 7.9.6A do not apply where System Management has issued a Dispatch Instruction to the Facility that requires desynchronisation within one hour of the Dispatch Instruction being issued.

(2)   Insert a new clause 7.9.6A, as follows—

7.9.6A.   If a Market Participant intends to decommit a Facility to such an extent that it will not be available to be synchronised for four hours or more after the time of desynchronisation then the Market Participant must have been granted permission by System Management to do this in accordance with clause 3.21B.

47.   Market Rule 7.13 amended

(1)   Insert new clauses 7.13.1(cA) and (cB), after 7.13.1(c), as follows—

(cA)   a schedule of the MWh output of each generating system monitored by System Management's SCADA system for each Trading Interval of the Trading Day;

(cB)   the temperature at the site of each generating system monitored by System Management's SCADA system for each Trading Interval of the Trading Day;

(2)   Insert new clauses 7.13.1(eB) and (eC), after clause 7.13.1(e), as follows—

(eB)   the estimated decrease, in MWh, in the output of each Intermittent Generator, by Trading Interval, as a result of System Management Dispatch Instructions, as determined in accordance with clause 7.7.5A, where this is to be used in settlement as the quantity described in clause 6.17.6(c)(i).

(eC)   the required decrease, in MWh, in the output of each Curtailable Load, by Trading Interval, as a result of System Management Dispatch Instructions, as determined in accordance with clause 7.7.5D, where this is to be used in settlement as the quantity described in clause 6.17.6(d)(i).

48.   Market Rule 8.6 amended

(1)   Delete the comment box following clause 8.6.1(c)(iii).

(2)   Delete the existing clause 8.6.1(d) and insert "[Blank]; and" instead.

(3)   Amend the existing clause 8.6.1(e)(i)(2) by inserting the word "and" after the semicolon.

(4)   Delete the existing clause 8.6.1(e)(ii) and insert "[Blank]" instead.

(5)   Delete the existing clause 8.6.1(e)(iii) and insert "[Blank]" instead.

(6)   Amend the existing clause 8.6.2(a) by deleting the word "and" after the semicolon.

(7)   Delete the existing clause 8.6.2(b) and insert "[Blank]" instead.

49.   Market Rule 8.8 amended

(1)   Delete the existing clause 8.8.1 and replace it with the following—

8.8.1.   Each Metering Data Agent must provide to the IMO within five Business Days of being requested, any of the meter information held by the Metering Data Agent that is required by the IMO for the purposes of these Market Rules

50.   Market Rule 9.3 amended

(1)   Delete the existing clause 9.3.4 and replace it with the following—

9.3.4.   Subject to clauses 2.30B.10, the Metered Schedule for a Trading Interval for a Facility or Non-Dispatchable Load, excluding those Non-Dispatchable Loads referred to in clause 9.3.4A, is the net quantity of energy generated and sent out into the relevant Network or consumed by the Facility or Non-Dispatchable Load (as applicable) during that Trading Interval, Loss Factor adjusted to the Reference Node, and determined from meter data submissions received by the IMO in accordance with clause 8.4 or SCADA data received from System Management in accordance with clause 7.13.1(cA) where interval meter data is not available

(2)   Insert a new clause 9.3.4A and comment box as follows—

9.3.4A.   The IMO must determine a single Metered Schedule for a Trading Interval for those Non-Dispatchable Loads without interval meters or with meters not read as interval meters that are served by the Retail business unit of Western Power where:

(a)   the Metered Schedule equals the Notional Wholesale Meter value for that Trading Interval;

(b)   the Notional Wholesale Meter value for a Trading Interval equals negative one multiplied by—

i. the sum of the Metered Schedules with positive quantities for that Trading Interval; plus

ii. the sum of the Metered Schedules with negative quantities for that Trading Interval;

where the Metered Schedules referred to in (ii) exclude the Metered Schedule for the Notional Wholesale Meter.

> Clause 2.27.2A states that, for the purpose of these Market Rules, where a Loss Factor must be applied to a Notional Wholesale Meter value, e.g. to convert it back to consumption at the connection point, then the system average loss factor applicable to small loads and as described in clause 2.27.2(f) is to apply.

(3) Delete the existing clause 9.3.5 and replace it with the following—

9.3.5 For the purpose of clauses 9.3.4 and 9.3.4A, a quantity of energy generated and sent out into the relevant Network has a positive value and a quantity of energy consumed has a negative value.

(4) Delete the existing comment box after 9.3.5.

51. Market Rule 9.5 amended

(1) Delete the existing clause 9.5.2 and replace it with the following—

9.5.2. A Capacity Credit Allocation Submission may allocate part of a Capacity Credit provided that the number of Capacity Credits allocated is specified to a precision of 0.005 MW.

52. Market Rule 9.6 amended

(1) Delete the existing clause 9.6.1 and replace it with the following—

9.6.1. The STEM settlement amount for the IMO to Market Participant p for Trading Week w is—

$$STEMSA(p,w) = Sum(d \in D, t \in T, \text{ STEM Price}(d,t) \times \text{STEM Quantity}(p,d,t) \times SSF(d,t));$$

Where—

STEM Price(d,t) is the STEM Clearing Price for Trading Interval t of Trading Day d within Trading Week w;

STEM Quantity(p,d,t) is the quantity of electricity purchased from, or sold to, the IMO through the STEM by Market Participant p for Trading Interval t of Trading Day d where a quantity sold through the STEM has a positive value, and a quantity purchased through the STEM has a negative value;

SSF(d,t) is the STEM suspension flag where this has a value of zero if the STEM was suspended for Trading Interval t of Trading Day D and a value of one otherwise;

D is the set of all Trading Days in Trading Week w where "d" is used to refer to a member of that set; and

T is the set of all Trading Intervals in Trading Day d, where "t" is used to refer to a member of that set.

53. Market Rule 9.7 amended

(1) Delete the existing clause 9.7.1 and replace it with the following—

9.7.1. The Reserve Capacity settlement amount for Market Participant p for Trading Month m is—

54. Market Rule 9.9 amended

(1) Delete the existing clause 9.9.1 and replace it with the following—

9.9.1. The Ancillary Service settlement amount for Market Participant p for Trading Month m is—

$$
\begin{aligned}
ASSA(p,m) = \ & \text{Western Power AS Provider Payment}(p,m) \\
& + d(p,i) \times ASP\_Payment(i,m) \\
& - Load\_Following\_Share(p,m) \\
& \quad \times (Capacity\_LF(m) + Availability\_Cost\_LF(m)) \\
& - Reserve\_Cost\_Share(p,m) \\
& - Consumption\_Share(p,m) \times Cost\_LRD(m)
\end{aligned}
$$

Where

Western Power AS Provider Payment(p,m) =
0 if Market Participant p is not the generation business unit of Western Power and
$(Availability\_Cost\_R(m) + Availability\_Cost\_LF(m) + Cost\_LRD(m))$
- $Sum(i \in I, ASP\_Payment(i,m))$ otherwise.

> The payment for Ancillary Services to Western Power does not include the capacity components of the Ancillary Service costs, since the Reserve Capacity payment has already covered these costs. Note that users of the Load Following service pay the full cost, including capacity costs. Market Customers paying for Reserve Capacity receive a rebate on their Reserve Capacity payments equal to the amount paid by the users of the Load Following service. This means that the IMO does not collect the money twice. Users of Spinning Reserve only pay the Availability Cost for these services, with Market Customers fully funding the capacity costs of these services.

> The total payment to the generation business unit of Western Power for the provision of Ancillary Services is just the total costs of the relevant services, less the payments made by System Management under Ancillary Service Contracts.

　　　$d(p,i)$ is 1 if ASP i corresponds to Market Participant p and zero otherwise;

　　　ASP_Payment(i,m) is determined in accordance with clause 9.9.3;

　　　Load_Following_Share(p,m) is the share of the Cost_LF(m) allocated to Market Participant p in Trading Month m, where this is to be determined by the IMO using the methodology described in clause 3.14.1;

　　　Reserve_Cost_Share(p,m) is defined in clause 9.9.2(b);

　　　Consumption_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by the IMO in accordance with clause 9.3.7;

　　　Capacity_LF(m) is the total Load Following service payment cost for Trading Month m as specified by the IMO under clause 3.22.1(a);

　　　Availability_Cost_R(m) is the total Spinning Reserve availability payment costs, excluding Load Following costs, for Trading Month m, as calculated under clause 9.9.2(c);

　　　Availability_Cost_LF(m) is the Load Following availability payment costs for Trading Month m, as calculated under clause 9.9.2(d); and

　　　Cost_LRD(m) is the total Load Rejection Reserve, System Restart, and Dispatch Support services payment costs for Trading Month m as specified by the IMO under clause 3.22.1(g).

(2)　　Insert a new clause 9.9.1A, as follows—

　　9.9.1A.　The Ancillary Service settlement amount for Trading Month m for Rule Participant k where Rule Particant k is not a Market Participant is $d(k,i) \times$ ASP_Payment(i,m) where $d(k,i) = 1$ if ASP i corresponds to Rule Participant k and zero otherwise and ASP_Payment(i,m) is determined in accordance with clause 9.9.3.

(3)　　Delete the existing clause 9.9.2 and replace it with the following—

　　9.9.2.　The following terms related to Ancillary Service availability costs—

　　　(a)　the total availability cost for Trading Month m—

　　　　Availability_Cost(m) =
　　　　　$0.5 \times$ (Margin_Peak(m) $\times$ Sum(d$\in$D,t$\in$Peak,MCAP(d,t)
　　　　　　$\times$ (Capacity_R_Peak(m) – Sum(i$\in$I,ASP_SRQ(i,t)))))
　　　　　+ $0.5 \times$ (Margin_Off-Peak(m) $\times$ Sum(d$\in$D,t$\in$Off-
　　　　　Peak,MCAP(d,t) $\times$ (Capacity_R_Off-Peak(m) –
　　　　　Sum(i$\in$I,ASP_SRQ(i,t)))))
　　　　　+ Sum(i$\in$I,ASP_SRPayment(i,m))
　　　　　+ Sum(i$\in$I,ASP_LFPayment(i,m))

　　　(b)　the Spinning Reserve Cost Share for Market Participant p, which is a Market Generator, for Trading Month m—

　　　　Reserve_Cost_Share(p,m) =
　　　　　$0.5 \times$ (Margin_Peak(m) $\times$ Sum(d$\in$D,t$\in$Peak,MCAP(d,t) $\times$
　　　　　Reserve_Share(p,t) $\times$ (Capacity_R_Peak(m) –
　　　　　Sum(i$\in$I,ASP_SRQ(i,t)) - 0.5 LFR(m))))
　　　　　+ $0.5 \times$ (Margin_Off-Peak(m) $\times$ Sum(d$\in$D,t$\in$Off-Peak,
　　　　　MCAP(d,t) $\times$ Reserve_Share(p,t) $\times$
　　　　　(Capacity_R_Off -Peak(m) – Sum(i$\in$I,ASP_SRQ(i,t)) - 0.5
　　　　　LFR(m))))
　　　　　　+ Sum(t$\in$Peak and Off_Peak, Reserve_Share(p,t) $\times$
　　　　　Sum(i$\in$I,ASP_SRPayment(i,m) / TITM))

> The Availability Cost is an estimate of the opportunity cost of holding capacity out of the schedule to supply Spinning Reserve and Load Following capability. It is based on the capacity required to be procured from the generation business unit of Western Power. For a peak trading interval this is the system requirement, Capacity_R_Peak less the Trading Interval quantity of capacity provided under Ancillary Service Contracts. Similar terms apply for off-peak Trading Intervals. The Margin_Peak and Margin_Off-Peak terms are applied to give a return on the capacity provided by the generation business unit of Western Power. The factors of 0.5 are required to convert MW quantities to equivalent Trading Interval MWh quantities.
>
> The Reserve Cost Share reflects the share of the cost of reserve borne by each Market Participant. It is calculated in a similar manner to the Availability Cost with two exceptions. First, the capacity required is further reduced by half of the required load following capacity. The factor of a half appears because the same unit of capacity is getting half its payment as Load Following and half as Spinning Reserve. Second, the term Reserve Share is introduced to account for each facilities share of the cost of reserve by Trading Interval.
>
> The cost of Ancillary Service Contracts for Spinning Reserve over a Trading Month is divided by the number of Trading Intervals in a Trading Month to produce a per Trading Interval amount before being allocated to Market Participants based on their Reserve Share in each Trading Interval.

> Note that there is no apparent distinction between peak and off-peak load following requirements in clause 3.13.1(aA)(i)(2), so no distinction has been made between these in (b).
>
> The terms in (b) are summed to give a total Spinning Reserve availability payment in (c), and this total is subtracted from the total Availability Cost determined in (c) to determine the total Load Following Availability Cost in (d).

(c) the total Spinning Reserve Availability Cost for Trading Month m—

$$\text{Availability\_Cost\_R}(m) = \text{Sum}(p \in P, \text{Reserve\_Cost\_Share}(p,m))$$

(d) the total Load Following Availability Cost for Trading Month m—

$$\text{Availability\_Cost\_LF}(m) = \text{Availability\_Cost}(m) - \text{Availability\_Cost\_R}(m)$$

Where

$\text{ASP\_SRQ}(i,t)$ is the quantity of Spinning Reserve provided by Ancillary Service Provider i in Trading Interval t (this being one of the quantities referred to in clause 9.9.3);

$\text{ASP\_SRPayment}(i,m)$ is defined in clause 9.9.3;

$\text{ASP\_LFPayment}(i,m)$ is defined in clause 9.9.3;

TITM is the number of Trading Intervals in the Trading Month;

$\text{Reserve\_Share}(p,m)$ is the share of the $\text{Cost\_R}(m)$ allocated to Market Participant p in Trading Month m, where this is to be determined by the IMO using the methodology described in clause 3.14.2;

$\text{Margin\_Peak}(m)$ is the reserve availability payment margin applying for Peak Trading Intervals for Trading Month m as specified by the IMO under clause 3.22.1(c);

$\text{Margin\_Off-Peak}(m)$ is the reserve availability payment margin applying for Off-Peak Trading Intervals for Trading Month m as specified by the IMO under clause 3.22.1(d);

$\text{Capacity\_R\_Peak}(m)$ is the capacity necessary to cover the Ancillary Services Requirement for Spinning Reserve for Peak Trading Intervals for Trading Month m as specified by the IMO under clause 3.22.1(e);

$\text{Capacity\_R\_Off-Peak}(m)$ is the capacity necessary to cover the Ancillary Services Requirement for Spinning Reserve for Off-Peak Trading Intervals for Trading Month m as specified by the IMO under clause 3.22.1(f);

$\text{LFR}(m)$ is the capacity necessary to cover the Ancillary Services Requirement for Load Following for Trading Month m as specified by the IMO under clause 3.22.1(fA);

$\text{MCAP}(d,t)$ has the meaning given in clause 9.8.1;

Peak denotes the set of Trading Intervals occurring during Peak Trading Intervals, where "t" refers to a Trading Interval during a Trading Day;

Off-Peak denotes the set of Trading Intervals occurring during Off-Peak Trading Intervals, where "t" refers to a Trading Interval during a Trading Day; and

D denotes the set of Trading Days within Trading Month m, where "d" is used to refer to a member of that set.

(4) Insert new clauses 9.9.3 and 9.9.4, as follows—

9.9.3. The value of $\text{ASP\_Payment}(i,m)$ for Ancillary Service Provider i in Trading Month m is the sum of—

(a) the sum over all Ancillary Service Contracts for Spinning Reserve of $\text{ASP\_SRPayment}(i,m)$, the payment under that contract;

(b) the sum over all Ancillary Service Contracts for Load Following of $\text{ASP\_LFPayment}(i,m)$, the payment under that contract;

(c) the sum over all Ancillary Service Contracts for Load Rejection Reserve of $\text{ASP\_LRPayment}(i,m)$, the payment under that contract;

(d) the sum over all Ancillary Service Contracts for System Restart of $\text{ASP\_BSPayment}(i,m)$, the payment under that contract; and

(e) the sum over all Ancillary Service Contracts for Dispatch Support of $\text{ASP\_DSPayment}(i,m)$, the payment under that contract

where each of the terms $\text{ASP\_SRPayment}(i,m)$, $\text{ASP\_LFPayment}(i,m)$, $\text{ASP\_LRPayment}(i,m)$, $\text{ASP\_BSPayment}(i,m)$ and $\text{ASP\_DSPayment}(i,m)$ is determined in accordance with clause 9.9.4.

9.9.4. For each Ancillary Service Provider i and each Ancillary Service Contract, the payments $\text{ASP\_SRPayment}(i,m)$, $\text{ASP\_LFPayment}(i,m)$, $\text{ASP\_LRPayment}(i,m)$, $\text{ASP\_BSPayment}(i,m)$ and $\text{ASP\_DSPayment}(i,m)$, as applicable, are—

(a) the applicable monthly dollar value specified by System Management for that Trading Month in accordance with clause 3.22.3(b)(iii)(1); or, if no such value is specified,

        (b) the product of the applicable price specified in clause 3.22.3(b)(iii)(2) for that Trading Month and the sum over Trading Intervals in that Trading Month of the applicable quantities specified in clause 3.22.3(b)(ii).

55. Market Rule 9.10 amended

(1) Delete the existing clause 9.10.1 and replace it with the following—

9.10.1. The Commitment and Outage Compensation settlement amount for Market Participant p for Trading Month m is—

$$COCSA(p,m) = (Com\_Compensation(p,m) + Out\_Compensation(p,m))$$
$$- (Consumption\_Share(p,m) \times Sum(q, Com\_Compensation(q,m) +$$
$$Out\_Compensation(q,m)))$$

Where

Com_Compensation(x,m) is the sum over all Trading Days in the Trading Month of the Commitment Compensation calculated for Market Participant x (denoted by either p or q) under clause 6.18.1;

Out_Compensation(x,m) is the Outage Compensation specified for Market Participant x (denoted by either p or q) for the Trading Month under clause 3.22.1(h); and

Consumption_Share(p,m) is the proportion of consumption associated with Market Participant p for Trading Month m determined by the IMO in accordance with clause 9.3.7.

56. Market Rule 9.13 amended

(1) Amend clause 9.13.1 by deleting "MPFSA" and replacing it with "MPFSD".

57. Market Rule 9.18 amended

(1) Delete the existing clause 9.18.3(c)(vii) and comment box and replace them with the following—

    vii. Notional Wholesale Meter values;

> This last clause relates to the Retail business unit of Western Power which will have a high proportion of its load estimated due to it not having interval meters.

58. Market Rule 9.24 amended

(1) Delete the existing clause 9.24.3(a)(ii) and replace it with the following—

    ii. payments which the IMO is required to make under Supplementary Capacity Contracts or to a provider of Ancillary Services holding an Ancillary Service Contract with System Management; and

59. Market Rule 10.5 amended

(1) Delete the existing clause 10.5.1(y) and replace it with the following—

    (y) as soon as possible after a Trading Interval—

      i. the total generation;

      ii. the total spinning reserve;

      iii. an initial value of the Operational System Load Estimate, taken directly from System Management's EMS/SCADA system.

> This is called an "initial value" since the final value provided by System Management after the Trading Day may need to be refined to clean up any data errors.

where these values are to be available from the IMO Web Site each Trading Interval in the previous 12 calendar months; and

(2) Insert a new clause 10.5.1(z) as follows—

    (z) as soon as possible after real-time—

      i. the total generation;

      ii. the total spinning reserve;

      iii. an initial value of the Operational System Load Estimate, taken directly from System Management's EMS/SCADA system;

where these values are not required to be maintained on the IMO Web Site after their initial publication.

60. Glossary definitions amended

(1) Delete the existing definition, shown below, from the Glossary—

Fifteen Minute Reserve: Has the meaning given in clause 3.9.4.

(2) Delete the existing definitions and replace them with the following—

Alternative Maximum STEM Price: The maximum price set in accordance with clause 6.20.3 that may be associated with a Portfolio Supply Curve for a portfolio including Facilities expected to run on Liquid Fuel or any Portfolio Demand Curve forming part of a STEM Submission or Standing STEM Submission.

Capacity Credit: A notional unit of Reserve Capacity provided by a Facility during a Capacity Year. The total number of Capacity Credits provided by a Facility is determined in accordance with clause 4.20 or clause 4.28B. Each Capacity Credit is equivalent to 1MW of Reserve Capacity. The Capacity Credits to be provided by a Facility are held by the Market Participant registered in respect of that Facility. The number of Capacity Credits to be provided by a Facility may be reduced in certain circumstances under the Market Rules, including under clause 4.25.4 or adjusted under clause 4.25.6.

Certified Reserve Capacity: For a Facility, and in respect of a Reserved Capacity Cycle, is the quantity of Reserve Capacity that the IMO has assigned to the Facility for the Reserve Capacity Cycle in accordance with clause 4.11 or clause 4.28B, as adjusted under these Market Rules including clause 4.14.8. Certified Reserve Capacity assigned to a Facility registered by a Market Participant is held by that Facility.

Curtailable Load: A Load through which electricity is consumed where such consumption can be curtailed at short notice by the party managing the Load or in response to a request from System Management to the party managing the Load, and registered as such in accordance with clause 2.29.5(b).

Liquid Supply Decrease Price: A price specified in Balancing Data to apply in forming the Dispatch Merit Order for a Trading Interval for a Scheduled Generator declared to be operating on Liquid Fuel and in the calculation of the Dispatch Instruction Payment for that Scheduled Generator when declared to be operating on Liquid Fuel during that Trading Interval. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

Liquid Supply Increase Price: A price specified in Balancing Data to apply in forming the Dispatch Merit Order for a Trading Interval for a Scheduled Generator declared to be operating on Liquid Fuel and in the calculation of the Dispatch Instruction Payment for that Scheduled Generator when declared to be operating on Liquid Fuel during that Trading Interval. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

Maximum STEM Price: The price determined in accordance with clause 6.20.2 as the maximum price that may be associated with a Portfolio Supply Curve for a portfolio including no Facilities expected to run on Liquid Fuel forming part of a STEM Submission or Standing STEM Submission.

Non-Liquid Supply Decrease Price: A price specified in Balancing Data to apply in forming the Dispatch Merit Order for a Trading Interval for a Scheduled Generator declared to be operating on Non-Liquid Fuel and in the calculation of the Dispatch Instruction Payment for that Scheduled Generator when declared to be operating on Non-Liquid Fuel during that Trading Interval. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

Non-Liquid Supply Increase Price: A price specified in Balancing Data to apply in forming the Dispatch Merit Order for a Trading Interval for a Scheduled Generator declared to be operating on Non-Liquid Fuel and in the calculation of the Dispatch Instruction Payment for that Scheduled Generator when declared to be operating on Non-Liquid Fuel during that Trading Interval. Different values apply for Peak Trading Intervals and Off-Peak Trading Intervals.

Notional Wholesale Meter: A notional interval meter quantity associated with a Market Customer's aggregate non-interval meter consumption. This value will be an estimate produced by the IMO.

Outage Plan: Has the meaning given in clause 3.18.4A and includes a revised Outage Plan submitted under clause 3.18.9.

Reserve Capacity Obligations: For a Market Participant holding Capacity Credits, determined in accordance with clause 4.12.1 or clause 4.28B.

Reserve Capacity Obligation Quantity: The specific amount of capacity required to be provided in a Trading Interval as part of a Reserve Capacity Obligation set by the IMO in accordance with clauses 4.12.4 and 4.12.5 or clause 4.28B as adjusted from time to time in accordance with these Market Rules, including under clause 4.12.6.

(3) Insert new definitions as follows in their appropriate alphabetical order—

Ancillary Service Provider: A Rule Participant registered as an Ancillary Service Provider under clauses 2.28.11A.

Demand Side Programme: Means a programme under which a Market Customer contracts Loads to be available for curtailment upon request of the Market Customer or System Management.

Liquid Fuel: Means distillate, fuel oil or liquefied petroleum gas.

Non-Liquid Fuel: Means all fuels other than Liquid Fuel.

Ready Reserve Standard: Has the meaning given in clause 3.18.11A.

61. Appendix 1 amended

(1) Delete the existing clause (b)(x)(3) and insert "[Blank]" instead.

(2)   Delete the existing clause (c)(v) and replace it with the following—
     v. Standing Balancing Data for Scheduled Generators registered as being capable of running on Non-Liquid Fuel comprising—

(3)   Delete the existing clause (c)(vi) and replace it with the following—
     vi. Standing Balancing Data for Scheduled Generators registered as being capable of running on Liquid Fuel comprising—

(4)   Delete the existing clause (e)(v) replace it with the following—
     v. for a facility not registered to Western Power a price between the Minimum STEM Price and the Maximum STEM Price in units of $/MWh expressed to a precision of $0.01/MWh to be the basis for payments by the Market Participant for decreases in generation in response to a Dispatch Instruction where a different price may be specified for Peak Trading Intervals and Off-Peak Trading Intervals;

(5)   Delete the existing clauses (g)(vi)(1) and (2) and replace them with the following—
     1. Spinning Reserve.
     2. [Blank]

(6)   Delete the existing clauses (g)(xiii) and (xiv) and replace them with the following—
     xiii. if the Interruptible Load is an Intermittent Load, the maximum level of net consumption behind the meter associated with the Interruptible Load which is not separately metered and which is not Intermittent Load; and
     xiv. if the Interruptible Load is an Intermittent Load, the separately metered generating systems and loads behind that meter associated with the Interruptible Load which are not to be included in the definition of that Intermittent Load.

(7)   Delete the existing clause (h)(v) and insert "[Blank]" instead.

(8)   Delete the existing clauses (h)(xiv) and (xv) and replace them with the following—
     xiv. if the Curtailable Load is an Intermittent Load, the maximum level of net consumption behind the meter associated with the Curtailable Load which is not separately metered and which is not Intermittent Load; and
     xv. if the Curtailable Load is an Intermittent Load, the separately metered generating systems and loads behind that meter associated with the Curtailable Load which are not to be included in the definition of that Intermittent Load.

(9)   Delete the existing clauses (i)(x)(3) and insert "[Blank]" instead.

62.   Appendix 2 amended

(1)   Amend Appendix 2 by deleting the heading and opening two paragraphs and replacing them with the following—

Appendix 2: Spinning Reserve Cost Allocation

This methodology resembles the current allocation of spinning reserves, except that it does not distinguish different stages of spinning reserve.

This Appendix determines the value of Reserve_Share(p,t) of the Spinning Reserve service payment costs in Trading Interval t to be borne by Market Participant p.

(2)   Amend Appendix 2 by deleting the existing paragraph following the third comment box and before the equation for USHARE and replacing it with the following:

For each Market Participant p, its unadjusted share of the Spinning Reserve service payment costs for the Trading Interval is—

$$USHARE(p) = Sum(f(p), RGS(b(f)) \times TIS(f))$$

63.   Appendix 4 amended

(1)   Amend Appendix 4 by deleting the existing paragraph commencing "FFC[t]" and replacing it with the following instead—

FFC[t] is the fixed fuel costs and must represent the fixed costs associated with an on-site liquid storage tank with sufficient capacity for 24 hours of Liquid Fuel including the cost of keeping this tank half full at all times expressed in Australian million dollars in year t; and

64.   Appendix 5 amended

(1)   Amend Appendix 5 by inserting new text between the existing first and second paragraphs immediately under the Appendix 5 as follows—

For the purpose of this Appendix—
   • all references to meters are interval meters.
   • the Notional Wholesale Meter is to be treated as a registered interval meter measuring Temperature Dependent Load. This meter is denoted by Temperature Dependent Load meter v=v*.
   • the meter registration data to be used in the calculations is to be the most current complete set of meter registration data as at the time of commencing the calculations.

(2)   Amend Appendix 5 by deleting the existing opening two paragraphs for Step 2 and replacing them with the following—

STEP 2: For each meter, u, measuring Non-Temperature Dependent Load determine NTDL(u) and d(u,i), where:

NTDL(u) is the contribution to the system peak load of meter u during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 peak Trading Intervals; and

(3)   Amend Appendix 5 by deleting the existing opening two paragraphs for Step 3 and replacing them with the following—

STEP 3: For each meter, v, measuring Temperature Dependent Load determine TDL(v) and d(v,i), where—

TDL(v) is the contribution to the system peak load of meter v during the preceding Hot Season where this contribution is double the median value of the metered consumption during the 12 peak Trading Intervals; and

(4)   In Appendix 5, after the last paragraph under Step 7, shown below—

For a new meter w that measures Intermittent Load set IILRCR(w) in accordance with Appendix 4A to the value applicable to Trading Month n.

Insert the following new text, after the above paragraph, as follows—

Identify the set NM of all those new meters v that measured consumption by a load during Trading Month n where the consumption of that same load was measured by meter v=v* during all or some of Trading Month n-1 and set WMTDL(v,n) for meter v=v* to equal—

- in the case of Trading Month n=1:
  $WMTDL(v^*,n) = TDL(v^*) – Sum(v{\in}NW, NMTDCR(v))$

- in the case of Trading Month n$\geq$1:
  $WMTDL(v^*,n) = WNTDL(v^*,n\text{-}1) – Sum(v{\in}NW, NMTDCR(v))$

(5)   Amend Appendix 5 by deleting the existing opening two paragraphs for Step 9 and replacing it with the following:

STEP 9: For each Market Customer, i, calculate

NTDLRCR(i)*, TDLRCR(i)*, ILRCR(i)* as the values of NTDLRCR(i), TDLRCR(i) and ILRCR(i), respectively, in STEP 5 recalculated using the identical equations and data as used in STEP 5 but using the d(u,i), d(v,i), d(w,i) and IILRCR(w) values applicable to Trading Month n, using WNTDL(v*,n) in place of NTL(v*) only for meter v=v*, and setting NTDL(u) and TDL(v) to be zero for any meters not registered at the time of the original STEP 5 calculation. Note that IILRCR(w) is updated monthly in accordance with clause 4.28.11 and Appendix 4A.

65.   Appendix 6 amended

(1)   Delete the second comment box appearing in Appendix 6, and replace it with the following—

Suppose we have a Portfolio Supply Curve comprising the following Price Quantity Pairs: 20 MWh @ $50/MWh and a Portfolio Demand Curve comprising the following Price Quantity Pairs 5 MWh @ $50/MWh, 10 MWh @ $100/MWh.

At a price above $100 the values in (a) are (i) 20 (ii) 20 (iii) 0 (iv) 0 so (v)(1) = 20, v(2)=20. Hence at any price above $100 up to the Alternative Maximum STEM Price the STEM Price Curve quantity is +20 MWh, meaning that the participant is a net supplier of 20 MWh.

At a price of $100 the values in (a) are (i) 20 (ii) 20 (iii) 10 (iv) 0 so (v)(1) = 10, v(2)=20. Hence at price of $100 the STEM Price Curve quantity is all values between +10 MWh and +20 MWh.

At a price of $51 the values in (a) are (i) 20 (ii) 20 (iii) 10 (iv) 10 so (v)(1) = 10, v(2)=10. Hence at price of $51 the STEM Price Curve quantity is +$10 MWh.

At a price of $50 the values in (a) are (i) 20 (ii) 0 (iii) 15 (iv) 10 so (v)(1) = -15, v(2)=10. Hence at price of $50 the STEM Price Curve quantity is all values between—15 MWh and +10 MWh. That is, at a price of $50/MWh the supply could be 20 MWh and demand 10 MWh (STEM Price Curve quantity +10 MWh) or supply could be 0 MWh and demand could be 15 MWh (STEM Price Curve Quantity of—10 MWh).

At a price below $50 the values in (a) are (i) 0 (ii) 0 (iii) 15 (iv) 15 so (v)(1) = -15, v(2)=-15. Hence at any price below $50 down to the Minimum STEM Price the STEM Price Curve quantity is -15 MWh, meaning that the Market Participant is a net consumer.