**ELECTRICITY INDUSTRY ACT 2004**
**ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY - MARKET) REGULATIONS 2004**
**Wholesale Electricity Market Rules**

**IMO AMENDING RULES RC_2010_29 MADE ON 17 June 2011**
**These Amending Rules commence at 08.00am on 1 October 2011**

The following clauses are amended (~~deleted wording~~, new wording):

2.27.1. By 1 June of each year Network Operators must calculate and provide to the IMO Loss Factors for each connection point in their Networks at which any of the following is connected ~~a~~:

(a) a Scheduled Generator;

(b) a Non-Scheduled Generator;

(c) a Non-Dispatchable Load;

(d) an Interruptible Load; or

(e) ~~Curtailable Load; or~~ [Blank]

(f) a Dispatchable Load.

2.27.2. In calculating Loss Factors, Network Operators must apply the following principles:

…

(c) Loss Factors must be calculated using:

i. generation and load meter data from the preceding 12 months; or

iA. for a new facility or a Non-Dispatchable Load, any other relevant data provided to the Network Operator by the Market Participant and as agreed with the Network Operator and the IMO, and

…

(e) a specific Loss Factor must be calculated for each:

i. Scheduled Generator;

ii. Non-Scheduled Generator;

iii. ~~Curtailable Load;~~ [Blank]

iv. Interruptible Load;

v. Dispatchable Load; and

vi. Non-Dispatchable Load above 1000kVA peak consumption;

…

2.27.4. A Market Participant may apply to the IMO for ~~seek~~ a re-assessment ~~by the IMO~~ of any Loss Factor applying to a Scheduled Generator, Non-Scheduled

Generator, ~~Curtailable Load,~~ Interruptible Load, Dispatchable Load or Non-Dispatchable Load registered ~~by~~ to that Market Participant. ~~in accordance with the~~ The following process will apply to every application:

…

2.29.1. The following are Facilities for the purposes of these Market Rules:

(a) a distribution system;

(b) a transmission system;

(c) a generation system; ~~and~~

(d) a connection point at which electricity is delivered from a distribution system or transmission system to a Rule Participant ("**Load**").~~;~~ and

(e) a Demand Side Programme.

2.29.1A. The Facility Classes are:

(a) a Network;

(b) a Scheduled Generator;

(c) a Non-Scheduled Generator;

(d) an Interruptible Load;

(e) a Dispatchable Load; and

(f) a Demand Side Programme.

2.29.5. Subject to clauses 2.29.9 and 2.29.8A, a Market Customer that owns, operates or controls a Load:

…

(b) ~~may register that Load as a Curtailable Load if that Load can be interrupted on request~~[Blank];~~;~~

…

2.29.5A. A Market Customer that:

(a) has entered into; or

(b) intends to enter into

a contract with a person who owns, controls or operates a Non-Dispatchable Load or Interruptible Load, for the Load to provide curtailment on request by the Market Customer, may register a Demand Side Programme.

2.29.5B. A Market Customer with a Demand Side Programme may apply to the IMO to associate a Non-Dispatchable Load or Interruptible Load with the Demand Side Programme. The Market Customer must provide the following information to the IMO in support of the application:

(a) evidence satisfactory to the IMO that the Market Customer has entered into a contract with the person who owns, operates or controls the Load to provide curtailment on request by the Market Customer;

(b) the connection point of the Load;

(c) the expected minimum consumption of the Load in units of MW;

(d) the contract start date;

(e) the contract end date; and

(f) where the Load has a generation system that can connect to the network behind its associated meter, a single line diagram for the Load, including the locations of generators, transformers, switches, operational and settlement meters.

2.29.5C. The IMO must within one Business Day notify an applicant of the receipt of the application submitted under clause 2.29.5B. The IMO may, at its discretion, require that an applicant provide information that is missing from the application or is inadequately specified. The date the requested information is submitted to the IMO will become the date of receipt of the application.

2.29.5D. The IMO must determine, in accordance with clause 2.29.5E, whether to accept or reject an application submitted under clause 2.29.5B, and must notify the applicant of its decision within 10 Business Days of receipt of the application.

2.29.5E. The IMO must accept an application submitted under clause 2.29.5B unless:

(a) the IMO considers that the evidence provided by the Market Customer under clauses 2.29.5B and 2.29.5C is not satisfactory;

(b) the relevant Load is not equipped with interval metering;

(c) the relevant Load is an Interruptible Load assigned Capacity Credits for any part of the proposed Association Period;

(d) the relevant Load is registered as an Intermittent Load for any part of the proposed Association Period; or

(e) the relevant Load is already associated with a Demand Side Programme for any part of the proposed Association Period.

2.29.5F. If the IMO accepts an application under clause 2.29.5D then the IMO must:

(a) include in its notification to the applicant:

i. the date and time from which the relevant Load will be associated with the Demand Side Programme, as defined under clause 2.29.5G(a); and

ii. the date and time from which the relevant Load will cease to be associated with the Demand Side Programme, as defined under clause 2.29.5G(b); and

(b) provide System Management with any single line diagrams received in accordance with clause 2.29.5B(f), if applicable, within one Business Day.

2.29.5G If the IMO accepts an application submitted under clause 2.29.5B then the IMO must associate the relevant Load ("Associated Load") with the Demand Side Programme for the period ("Association Period") between:

(a) the later of:

i. the start of the Trading Day commencing on the contract start date provided under clause 2.29.5B(d); and

ii. the start of the Trading Day following the day that the IMO notifies the applicant of its decision under clause 2.29.5D; and

(b) the end of the Trading Day starting on the contract end date provided under clause 2.29.5B(e).

2.29.5H. If the IMO rejects an application submitted under clause 2.29.5B, then the IMO must include in its notification to the applicant under clause 2.29.5D the reasons for the rejection of the application. A Market Customer whose application is rejected may reapply to associate a Non-Dispatchable Load or Interruptible Load with a Demand Side Programme under clause 2.29.5B.

2.29.5I. A Market Customer with an Associated Load may apply to the IMO to:

(a) cancel the association of the relevant Load with the Demand Side Programme; or

(b) reduce the Association Period of the Associated Load.

2.29.5J. The IMO must within one Business Day notify an applicant of the receipt of an application submitted under clause 2.29.5I.

2.29.5K. The IMO must determine whether to accept or reject an application submitted under clause 2.29.5I and notify the applicant of its decision within two Business Days of the receipt of the application. The IMO must accept the application unless the proposed change would affect the association of the relevant Load with the Demand Side Programme during any period before the Trading Day commencing on the third Business Day after the receipt of the application.

2.29.5L. If the IMO accepts an application submitted under clause 2.29.5I then it must either:

(a) cancel the association of the relevant Load with the Demand Side Programme; or

(b) reduce the Association Period of the Associated Load,

as requested in the application.

2.29.5M. If the IMO rejects an application submitted under clause 2.29.5I, then the IMO must include in its notification to the applicant under clause 2.29.5K the reasons for the rejection of the application.

2.29.8A. A Rule Participant must ensure an Interruptible Load~~, Curtailable Load~~ or Dispatchable Load registered by that Rule Participant is equipped with an interval meter.

~~2.29.8B. When a Rule Participant registers a Curtailable Load the Rule Participant must undertake a Verification Test in accordance with clause 4.25A within 20 Business Days of registration.~~

2.29.9A. ~~A Rule Participant may~~The IMO must not register a Demand Side Programme ~~Curtailable Load after 1 April 2009~~ where the minimum notice period required for dispatch exceeds four hours as specified in Standing Data.

~~2.29.9B Where a Rule Participant has registered a Curtailable Load with a minimum notice period required for dispatch that is less than four hours the minimum notice period may be increased to no more than four hours.~~

~~2.29.9C Where a Rule Participant has registered a Curtailable Load with a minimum notice period required for dispatch that is equal to or greater than four hours the minimum notice period may not be increased.~~

2.30.3. ~~Subject to clause 2.30.5, Curtailable Loads at different locations, but operated by a single Market Participant, may be aggregated with respect to their annual hours of availability so as cumulatively provide Reserve Capacity with an annual number of hours of availability greater than that of any of the individual facilities.~~ [Blank]

2.30.5. The IMO must only allow the aggregation of facilities if, in its opinion:

(a) the aggregation will not adversely impact on System Management's ability to maintain Power System Security and Power System Reliability;

(b) adequate control and monitoring equipment exists for the aggregated Facility;

(c) none of the Facilities within the aggregated facility are subject to an Ancillary Service Contract or Network Control Service Contract that requires that Facility not be part of an aggregated facility;

(d) ~~with the exception of facilities aggregated under clause 2.30.3,~~ the aggregated facilities are at the same location or have the same Loss Factor; and

(e) System Management and the IMO will continue to be provided with the same Standing Data for each individual facility as before the facilities were aggregated.

2.30B.2. For a Load to be eligible to be an Intermittent Load the IMO must be satisfied that the following conditions ~~must be satisfied~~ are met:

…

(c) the Market Customer for that Load must have an agreement in place with a Network Operator to allow energy to be supplied to the Load from a Network; ~~and~~

(d) the Load ~~must be~~ is an Interruptible Load~~, Curtailable Load,~~ or a Non-Dispatchable Load~~.~~; and

(e) the Load is not expected (based on applications accepted by the IMO under clause 2.29.5D and any amendments accepted by the IMO under clause 2.29.5K) to be associated with any Demand Side Programme for any period following the registration of the Load as an Intermittent Load.

2.30B.5. A Market Customer, or applicant to become a Market Customer, may apply for a Load to be treated as an Intermittent Load as part of Market Customer registration (for a Non-Dispatchable Load) or Facility registration (for an Interruptible Load ~~or Curtailable Load~~).

2.33.1. The Rule Participant registration form must ~~prescribed by IMO must~~ require ~~that~~ an applicant for registration as a Rule Participant to provide the following information, and the applicant must provide the information required:

…

(h) if the application relates to the sale of electricity to Contestable Customers by an applicant for the Market Customer class:

i. evidence that the applicant holds an Arrangement for Access for the purpose of taking power from the electricity grid; and

ii. the information described in Appendix 1(f);

…

2.33.4. The Facility de-registration form prescribed by the IMO must require that the applicant provide the following:

…

(d) a proposed date on which that Registered Facility is to cease to be registered in the name of that Rule Participant where that date must be;

…

ii. the date the application is accepted in the event that the Facility has been rendered permanently inoperable; or

iii. not earlier than one month after the date of application if the Facility is a Demand Side Programme ~~Curtailable Load, which is associated with a Demand Side Programme and has been registered in accordance with clause 4.8.3~~; and

…

2.35.1. Market Participants with Scheduled Generators, Non-Scheduled Generators, Dispatchable Loads~~,~~ and Demand Side Programmes ~~Curtailable Loads~~ that are not under the direct control of System Management must maintain communication systems that enable communication with System Management for dispatch of those Registered Facilities.

3.14.1. Market Participant p's share of the Load Following Service payment cost in each Trading Month m is Load_Following_Share(p,m) which equals :

(a) the Market Participant's contributing quantity; divided by

(b) the total contributing quantity of all Market Participants,

where a Market Participant's contributing quantity for Trading Month m is the sum of:

i. the absolute value of the sum of the Metered Schedules for the Non-Dispatchable Loads~~,~~ and Interruptible Loads~~, Curtailable Loads~~ registered by the Market Participant for all Trading Intervals during Trading Month m; and

…

3.17.5. Unless otherwise directed by System Management, Rule Participants must, before 10 AM every Thursday, submit information to System Management ~~before 10 AM every Thursday~~, consisting of:

…

(c) for a Market Customer, information about the availability over the next Short-Term PASA Horizon of all its Registered Facilities ~~which~~ that are Loads or Demand Side Programmes and demand forecasts for any other load facilities designated as significant by System Management.

~~4.8.3. A Market Customer may apply for the certification of a 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.~~

~~(e) Loads comprising the Demand Side Programme must have the same or higher availability as the Demand Side Programme.~~

4.10.1.[1] ~~The~~ Each Market Participant must ensure that information ~~to be~~ submitted to the IMO with an application for certification of Reserve Capacity ~~must~~ pertains to the Reserve Capacity Cycle to which the certification relates, ~~must be~~ is supported by documented evidence and ~~must~~ includes, where applicable, the following information:

…

(c) if the Facility, or part of the facility, is yet to enter service:

…

iii. the Key Project Dates occurring after the date the request is submitted ~~to the IMO~~, including, ~~as~~ if applicable, but not limited to:

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

…

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

…

(f) for Interruptible Loads, ~~Curtailable Loads~~ Demand Side Programmes and Dispatchable Loads~~, details for each of up to three blocks of capacity of~~:

i. ~~either~~

~~1.~~ the Reserve Capacity ~~expected to be~~ the Market Participant expects to make available from each of up to 3 blocks of capacity; ~~or~~

~~2. the Stipulated Default Load;~~

ii. the maximum number of hours per year the ~~block~~ Interruptible Load, Demand Side Programme or Dispatchable Load is

[1] The IMO notes that it has reflected the final changes approved in the Rule Change Proposal: Certification of Reserve Capacity (RC_2010_14). For further details refer to the following webpage: http://www.imowa.com.au/RC_2010_14

available to provide Reserve Capacity, where this must be ~~not less than~~ at least 24 hours;

iii. the maximum number of hours per day that the ~~block~~ Interruptible Load, Demand Side Programme or Dispatchable Load is available to provide Reserve Capacity if called, where this must be ~~not~~:

1. not less than four hours; and

2. not more than the maximum of the periods specified in sub-clause (vi);

iv. the maximum number of times the ~~block~~ Interruptible Load, Demand Side Programme or Dispatchable Load can be called to provide Reserve Capacity during a 12 month period, where this must be at least six times;

v. the minimum notice period required for dispatch of the ~~block~~ Interruptible Load, Demand Side Programme or Dispatchable Load, where this must not be more than 4 hours; and

vi. the periods when the ~~block~~ Interruptible Load, Demand Side Programme or Dispatchable Load can be dispatched, which must include the period between noon and 8:00~~pm~~ PM on all Business Days~~.~~;

…

4.11.1.[2] Subject to clause 4.11.7, the IMO must apply the following principles in assigning a quantity of Certified Reserve Capacity to a Facility for the Reserve Capacity Cycle for which an application for Certified Reserve Capacity has been submitted in accordance with section 4.10:

(a) subject to clause 4.11.2, the Certified Reserve Capacity for a Scheduled Generator for a Reserve Capacity Cycle ~~is not to~~ must not exceed the IMO's reasonable expectation ~~as to~~ of the amount of capacity likely to be available, after netting off capacity required to serve Intermittent Loads, embedded loads and Parasitic Loads, for Peak Trading Intervals on Business Days in the period from the:

…

(c) the IMO must not assign Certified Reserve Capacity to a Facility for a Reserve Capacity Cycle if:

i. for Reserve Capacity Cycles up to and including 2009 that Facility is not operational or is not scheduled to commence operation for the first time so as to meet its Reserve Capacity Obligations by 30 November of Year 3 of that Reserve Capacity Cycle;

[2] The IMO notes that it has reflected the final changes approved in the Rule Change Proposal: Certification of Reserve Capacity (RC_2010_14). For further details refer to the following webpage: http://www.imowa.com.au/RC_2010_14

ii. for Reserve Capacity Cycles from 2010 onwards that Facility is not operational or is not scheduled to commence operation for the first time so as to meet its Reserve Capacity Obligations by 1 October of Year 3 of that Reserve Capacity Cycle; or

iii. that Facility will cease operation permanently, and hence cease to meet Reserve Capacity Obligations, from a time earlier than 1 August of Year 4 of that Reserve Capacity Cycle;

iv. that Facility already has Capacity Credits assigned to it under Clause 4.28C for the Reserve Capacity Cycle~~.~~; or

v. that Facility is an Interruptible Load and, based on applications accepted under clauses 2.29.5D and 2.29.5K (as applicable), the Facility will be associated with a Demand Side Programme for any period when Reserve Capacity Obligations would apply for the Facility for the Reserve Capacity Cycle;

…

(h) the IMO may decide not to assign Certified Reserve Capacity to a Facility if:

i. the Facility has operated for at least 36 months and has had a Forced Outage rate of greater than 15% or a combined Planned Outage rate, Forced Outage rate and Equipment Test rate of greater than 30% over the preceding 36 months; or

ii. the Facility has operated for less than 36 months, or is yet to commence operation, and the IMO has cause to believe that over a period of 36 months the Facility is likely to have a Forced Outage rate of greater than 15% or a combined Planned Outage rate, Forced Outage rate and Equipment Test rate of greater than 30%,

where the Planned Outage rate, the Forced Outage rate and Equipment Test rate for a Facility for a period will be calculated in accordance with the Power System Operation Procedure. ~~(~~The IMO may consult with System Management in deciding whether or not to refuse to grant Certified Reserve Capacity under this paragraph~~)~~; ~~and~~

(i) the Certified Reserve Capacity assigned to a Facility is to be expressed to a precision of 0.001 MW~~.~~; and

(j) the Certified Reserve Capacity for a Demand Side Programme for a Reserve Capacity Cycle must not exceed the IMO's reasonable expectation of the amount of capacity likely to be available from that Facility during the periods specified in clause 4.10.1 (f)(vi), after netting off capacity required to serve minimum loads, from the Trading Day starting on 1 October in Year 3 of the Reserve Capacity Cycle to the end of July in Year 4 of the Reserve Capacity Cycle.

4.11.4. When assigning Certified Reserve Capacity to ~~a block of capacity provided by~~ an Interruptible Load, ~~Curtailable Load,~~Demand Side Programme or Dispatchable Load, the IMO must indicate what Availability Class is applicable to that Reserve Capacity where this Availability Class must reflect the maximum number of hours per year that the capacity will be available and must not be Availability Class 1.

~~4.11.4A. If the capacity of a Curtailable Load is specified in accordance with clause 4.10.1(f)(i)(1), the Certified Reserve Capacity assigned by the IMO to that Curtailable Load, including during the registration of that Curtailable Load in accordance with clause 4.8.3(c), must not exceed the Relevant Demand for the Curtailable Load set by the IMO in accordance with clause 4.26.2C~~

4.12.1. The Reserve Capacity Obligations of a Market Participant holding Capacity Credits, are as follows:

(a) a Market Participant (other than the Electricity Generation Corporation) must ensure that for each Trading Interval:

i. the aggregate MW equivalent of the quantity of Capacity Credits held by the Market Participant applicable in that Trading Interval for Interruptible Loads and ~~Curtailable Loads~~ Demand Side Programmes registered ~~by~~ to the Market Participant; plus

…

iiA. if a STEM submission does not exist for that Trading Interval, the MW quantity calculated by doubling the total MWh quantity of energy to be consumed by that Market Participant including demand associated with any ~~Curtailable Load or~~ Interruptible Load, but excluding demand associated with any Dispatchable Load, during that Trading Interval as indicated in the applicable Resource Plan; plus

…

is not less than the total Reserve Capacity Obligation Quantity for that Trading Interval for Facilities registered ~~by~~ to the Market Participants, less double the total MWh quantity to be provided as Ancillary Services as specified by the IMO for that Market Participant in accordance with clause 6.3A.2(e)(i).

…

4.12.4. Subject to clause 4.12.5, where the IMO establishes the ~~must apply the following principles in establishing the~~ initial Reserve Capacity Obligation Quantity to apply for a Facility for a Trading Interval:

(a) the Reserve Capacity Obligation Quantity ~~is not to~~ must not exceed the Certified Reserve Capacity held by the Market Participant for the Facility;

…

(c) for Interruptible Loads, ~~Curtailable Loads~~ Demand Side Programmes and Dispatchable Loads, except where otherwise precluded by this clause 4.12.4, the Reserve Capacity Obligation Quantity ~~for each block~~:

i. ~~must be required~~ will equal zero once the capacity has been dispatched ~~to be available~~ for ~~a~~ the number of hours per year ~~that does not exceed the maximum number of hours per year as~~ that are specified ~~in accordance with~~ under clause 4.10.1(f)(ii);

ii. ~~must be required~~ will equal zero for the remainder of a Trading Day in which the capacity has been dispatched ~~to be available~~ for ~~a~~ the number of hours per day ~~that does not exceed the maximum number of hours per day as~~ that are specified ~~in accordance with~~ under clause 4.10.1(f)(iii);

iii. ~~must be specified as dropping to~~ will equal zero once the capacity ~~from the block~~ has been ~~called~~ dispatched the maximum number of times per year ~~as~~ specified under ~~in accordance with~~ clause 4.10.1(f)(iv) excluding where the Facility has been requested to perform a Reserve Capacity test in accordance with clause 4.25; ~~and~~

iv. must account for staffing and other restrictions on the ability of the Facility to ~~provide~~ curtail energy upon request~~.~~; and

v. will equal zero for intervals which fall outside of the periods specified in clause 4.10.1(f)(vi).

4.12.8. Where a ~~Curtailable Load~~ Demand Side Programme is dispatched to a level equal to its Reserve Capacity Obligation Quantity on two consecutive days the Reserve Capacity Obligation Quantity for the ~~following day~~ third consecutive day ~~shall~~ will be zero.

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 ~~or, in the case of Interruptible Loads, Curtailable Loads and Dispatchable Loads with at least two blocks holding Certified Reserve Capacity in different Availability Classes, for each block in respect of which it holds Certified Reserve Capacity~~ (expressed in MW to a precision of 0.001 MW):

…

4.18.1. A Market Participant must ensure that its Reserve Capacity Offers ~~must~~ include the following information:

…

(c) ~~a single Price-Quantity Pair for each Facility except~~ for Interruptible Loads, ~~Curtailable Loads~~ Demand Side Programmes and Dispatchable Loads, ~~where~~ a single Price-Quantity Pair ~~is to be included~~ for each block of Certified Reserve Capacity associated with the Facility; and

(d) for every other Facility, a single Price-Quantity Pair for each Facility.

4.18.2. Each Reserve Capacity Price-Quantity Pair must comprise:

(a) the identity of the Facility to which it relates;

(b) an offer price in units of dollars per ~~megawatt~~ MW per year expressed to a precision of $0.01/MW between zero and the Maximum Reserve Capacity Price;

(c) a quantity in units of ~~megawatts~~ MW equal to the amount determined in accordance with clause 4.14.10 in respect of that Facility; and

(d) if the Facility is an Interruptible Load, ~~Curtailable Load~~ Demand Side Programme or Dispatchable Load, the Availability Class of that Price-Quantity Pair, as specified by the IMO in assigning Certified Reserve Capacity to that Facility in accordance with clause 4.11.

4.25.1. The IMO must take steps to verify, in accordance with clause 4.25.2, that each Facility providing Capacity Credits can:

(a) in the case of a generation system ~~can~~, during the term the Reserve Capacity Obligations apply, operate at its maximum Reserve Capacity Obligation Quantity at least once during each of the following periods and such operation must be achieved on each type of fuel available to that Facility notified under clause 4.10.1(e)(v):

i. 1 October to 31 March; and

ii. 1 April to 30 September; and

(b) ~~can,~~ during the six months prior to the Reserve Capacity Obligations for the first Reserve Capacity Cycle taking effect, operate at its maximum Reserve Capacity Obligation Quantity at least once and, in the case of a generating system, such operation on each type of fuel available to that Facility notified under clause 4.10.1(e)(v). This paragraph (b) does not apply to facilities that are not commissioned prior to their Reserve Capacity Obligations coming into force~~.~~; and

(c) in the case of a ~~Curtailable Load~~ Demand Side Programme ~~can~~, during the term the Reserve Capacity Obligations apply, and during the period specified in clause 4.10.1(f)(vi), ~~operate at~~ decrease its consumption to operate at a level equivalent to its maximum Reserve Capacity Obligation Quantity at least once during the period between 1 October to 31 March.

4.25.2. The verification referred to in clause 4.25.1 can be achieved by the IMO:

(a) ~~by the IMO~~ in the case of a generation system:

i. observing the Facility operate at the required level at least once as part of normal market operations in Metered Schedules specific to the Facility; or

ii. requiring System Management, in accordance with clause 4.25.7, to test the Facility's ability to operate at the required level for not less than 60 minutes and the Facility successfully passing that test; or

(b) in the case of a Demand Side Programme:

i. observing the Facility operate at the required level at least once in response to an activation of the Facility by the relevant Market Customer as measured in metered consumption; or

ii. requiring System Management, in accordance with clause 4.25.7, to test the Facility's ability to reduce demand to the required level for not less than one Trading Interval and the Facility successfully passing that test; or

(c) in the case of an Interruptible Load or Dispatchable Load, requiring System Management, in accordance with clause 4.25.7, to test the Facility's ability to reduce demand to the required level for not less than one Trading Interval and the Facility successfully passing that test.

~~(b) by the IMO:~~

~~i. in the case of a generation system, requiring System Management, in accordance with clause 4.25.7, to test the Facility's ability to operate at the required level for not less than 60 minutes and the Facility successfully passing that test; and~~

~~ii. in the case of Interruptible Loads, Curtailable Loads and Dispatchable Loads, requiring System Management, in accordance with clause 4.25.7, to test the Facility's ability to reduce demand to the required level for not less than one Trading Interval and the Facility successfully passing that test.~~

4.25.3B. If a ~~Curtailable Load~~ Demand Side Programme fails a Reserve Capacity test under clause 4.25.2(b)(ii) and is ~~activated~~ issued a Dispatch Instruction by System Management to decrease its consumption by a quantity equivalent to its maximum Reserve Capacity Obligation Quantity prior to a second Reserve Capacity test being undertaken in accordance with clause 4.25.4, then the activation shall be deemed to be the second Reserve Capacity test.

4.25.4. Subject to clause 4.25.3B, ~~the IMO must, in the event that~~ if a Facility fails a Reserve Capacity test requested by the IMO under clause 4.25.2~~(b)~~, the IMO must require System Management to re-test that Facility in accordance with clause 4.25.2~~(b)~~, not earlier than 14 days and not later than 28 days after the first test. If the Facility fails this second test, then the IMO must, from the ~~next Trading Day~~second Trading Day following the Scheduling Day on which the IMO determines that the second test was failed:

(a) if the test related to a generation system, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to reflect

the maximum capabilities achieved in either test performed (after adjusting these results to the equivalent values at a temperature of 41$^{o}$C and allowing for the capability provided by operation on different types of fuels); or

(b) if the test related to a Dispatchable Load, ~~Curtailable Load~~ Demand Side Programme or Interruptible Load, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to the maximum level of reduction achieved in either of the two tests~~;~~.

4.25.4E. Where the Capacity Credits associated with a ~~Curtailable Load~~ Demand Side Programme are reduced in accordance with clause 4.25.4C the Market Participant must pay a refund of an amount equal to all Reserve Capacity Payments associated with the reduced Capacity Credits for the relevant Reserve Capacity Year to the IMO calculated in accordance with the provisions of clause 4.26.

4.25.4F. A Market Participant may not offer a ~~Curtailable Load~~ Demand Side Programme for Supplementary Reserve Capacity if the ~~Curtailable Load~~ Demand Side Programme has had its Capacity Credits reduced in accordance with clause 4.25.4C for any part of that Capacity Year.

4.25.9. In conducting a test, System Management must:

(a) subject to paragraphs (b), (c) and (d), endeavour to conduct the test without warning;

(b) allow sufficient time for the Market Participant to schedule fuel that it is not required under these Market Rules to be stored on-site;

(c) allow sufficient time for switching a Facility from one fuel to an alternative fuel if operation using the alternative fuel is being tested;

(d) ~~must,~~ in the case of an Interruptible Load or a ~~Curtailable Load~~ Demand Side Programme, give at least as much notice as is specified under clause 4.10.1(f)(v) to allow ~~allow sufficient time~~ for arrangements to be made for the Facility to be triggered;

(e) report to the IMO whether the test was successfully performed;

(f) maintain adequate records of the test to allow independent verification of the test results; and

(g) conduct the test in the time interval specified by the IMO in accordance with clause 4.25.7(c) unless System Management has notified the IMO of an alternative time interval in accordance with clause 4.25.8, in which case, System Management must conduct the test in the time interval specified in accordance with clause 4.25.8(b).

4.25.10. Where a Facility, excluding a Demand Side Programme, is tested in accordance with this clause 4.25, the Dispatch Schedule for that Facility during the period of the test is to reflect the energy scheduled in the test.

**4.25A. Verification Test for a ~~Curtailable Load~~ Demand Side Programme**

4.25A.1. In each Reserve Capacity Year each ~~A Rule Participant~~ Market Customer must undertake a Verification Test during the period specified in clause 4.10.1(f)(vi) ~~of~~ for each ~~Curtailable Load~~ Demand Side Programme registered ~~by~~ to the ~~Rule Participant~~ Market Customer. Each test must be conducted in accordance with the Reserve Capacity Procedure and be carried out:

(a) within 20 Business Days of registration, as notified by the IMO under clause 2.31.6, of the ~~Curtailable Load~~ Demand Side Programme, if applicable; or

(b) between 1 October and 30 November ~~of each Reserve Capacity Year~~.

4.25A.2. To undertake a Verification Test ~~the Rule~~ a Market Customer ~~Participant will~~ must activate the ~~Curtailable Load~~ Demand Side Programme and ~~advise~~ provide evidence satisfactory to the IMO of the Trading Intervals during which the Verification Test was conducted.

4.25A.3. A Demand Side Programme will be deemed to have failed the ~~The~~ Verification Test ~~is failed if~~ unless a reduction in demand equal to at least 10% of the Capacity Credits, when measured against the Demand Side Programme's Relevant Demand determined under clause 4.26.2CA, is ~~not~~ identified from the ~~Curtailable Load~~ Demand Side Programme Load associated with that Demand Side Programme ~~meter data~~.

4.25A.4. Where a Demand Side Programme fails a Verification Test ~~is failed~~ the IMO must reduce the Capacity Credits assigned to the ~~Curtailable Load~~ Demand Side Programme to zero from the second Trading Day following the Scheduling Day on which the IMO determines that the Verification Test was failed under clause 4.25A.3.

4.25A.5. Where a Demand Side Programme fails a ~~the~~ Verification Test ~~is failed~~ the relevant ~~Rule~~ Market Participant may request that a second Verification Test be undertaken. If the ~~Curtailable Load~~ Demand Side Programme fails ~~this~~ the second Verification Test then the Capacity Credits assigned to the Demand Side Programme are to remain at zero until the end of the relevant Reserve Capacity Year.

4.26.1. If a Market Participant holding Capacity Credits associated with a generation system fails to comply with its Reserve Capacity Obligations applicable to any given Trading Interval then the Market Participant must pay a refund to the IMO calculated in accordance with the following provisions.

**REFUND TABLE**

| **Dates** | **1 April to 1 October** | **1 October to 1 December** | **1 December to 1 February** | **1 February to 1 April** |
|---|---|---|---|---|
| Business Days Off-Peak | | | | |

| | | | | |
|---|---|---|---|---|
| Trading Interval Rate ($ per MW shortfall per Trading Interval) | 0.25 x Y | 0.25 x Y | 0.5 x Y | 0.75 x Y |
| Business Days Peak Trading Interval Rate ($ per MW shortfall per Trading Interval) | 1.5 x Y | 1.5 x Y | 4 x Y | 6 x Y |
| Non-Business Days Off-Peak Trading Interval Rate ($ per MW shortfall per Trading Interval) | 0.25 x Y | 0.25 x Y | 0.5 x Y | 0.75 x Y |
| Non-Business Days Peak Trading Interval Rate ($ per MW shortfall per Trading Interval) | 0.75 x Y | 0.75 x Y | 1.5 x Y | 2 x Y |
| Maximum Participant Generation Refund | The total value of the Capacity Credit payments paid or to be paid under these Market Rules to the relevant Market Participant for the 12 Trading Months commencing at the start of the Trading Day of the previous 1 October (excluding any payments relating to a Demand Side Programme) assuming the IMO acquires all of the Capacity Credits held by the Market Participant (excluding any Capacity Credits held for Demand Side Programmes) and the cost of each Capacity Credit so acquired is determined in accordance with clause 4.28.2(b), (c) and (d) (as applicable). | | | |
| Where:<br><br>For an Intermittent Facility that has been commissioned: Y equals 0<br><br>For all other facilities, including Intermittent Facilities that have not been commissioned: Y is determined by dividing the Monthly Reserve Capacity Price (calculated in accordance with clause 4.29.1) by the number of Trading Intervals in the relevant month.<br><br>For the purposes of this clause, an Intermittent Facility will be deemed to be commissioned when the IMO determines that the facility is fully operational. In this case the IMO must apply the principle that the Facility is fully operating in accordance with the basis on which the Facility applied for, and was granted, Certified Reserve Capacity, in accordance with clause 4.10 and 4.11 respectively and was subsequently assigned Capacity Credits in accordance with clause 4.14. | | | | |

4.26.1A. The IMO must calculate the ~~Forced Outage~~ Reserve Capacity Deficit refund for each Facility ("**~~Facility Forced Outage Refund~~ Facility Reserve Capacity Deficit Refund**") for each Trading Month m as the lesser of:

(a) the sum over all Trading Intervals t in Trading Month m of the product of:

i the Off-Peak Trading Interval Rate or Peak Trading Interval Rate determined in accordance with the Refund Table applicable to Trading Interval t; and

ii the ~~Forced Outage Shortfall~~ Reserve Capacity Deficit in Trading Interval t,

where the ~~Forced Outage Shortfall~~ Reserve Capacity Deficit for a Facility is equal to which ever of the following applies:

iii. if the Facility is required to have submitted a Forced Outage under clause 3.21.4, the Forced Outage in that Trading Interval

measured in MW; or

iv. if the Facility is an Intermittent Facility which is deemed to have not been commissioned, for the purposes of clause 4.26.1, the number of Capacity Credits associated with the relevant Intermittent Facility; or

v. if, from the Trading Day commencing on 30 November of Year 3 for Reserve Capacity Cycles up to and including 2009 or 1 October of Year 3 for Reserve Capacity Cycles from 2010 onwards, the Facility is undergoing an approved Commissioning Test and, for the purposes of permission sought under clause 3.21A.2, is a new generating system, the number of Capacity Credits associated with the relevant Facility; or

vi. if, from the Trading Day commencing on 30 November of Year 3 for Reserve Capacity Cycles up to and including 2009 or 1 October of Year 3 for Reserve Capacity Cycles from 2010 onwards, the Facility is not yet undergoing an approved Commissioning Test and, for the purposes of permission sought under clause 3.21A.2, is a new generating system, the number of Capacity Credits associated with the relevant Facility; ~~and~~ or

vii. if the Facility is a Demand Side Programme:

max(0, RCOQ – max(0, (RD – MinLoad)))

where:

RCOQ is the Reserve Capacity Obligation Quantity determined for the Facility under clause 4.12.4;

RD is the Relevant Demand for the Facility determined in accordance with clause 4.26.2CA; and

MinLoad is the sum of the minimum load MW quantities provided under clause 2.29.5B(c) for the Facility's Associated Loads; and

(b) the total value of the Capacity Credit payments associated with the relevant Facility paid or to be paid under these Market Rules to the relevant Market Participant for the 12 Trading Months commencing at the start of the Trading Day of the most recent 1 October, assuming the IMO acquires all of the Capacity Credits associated with that Facility and the cost of each Capacity Credit so acquired is determined in accordance with clause 4.28.2(b), (c) and (d) (as applicable), less all ~~Facility Forced Outage Refunds~~ Facility Reserve Capacity Deficit Refunds applicable to the Facility in previous Trading Months falling in the same Capacity Year.

4.26.1B. The IMO must calculate the ~~Forced Outage~~ Generation Reserve Capacity Deficit R~~r~~efund for each Market Participant ~~("**Participant Forced Outage Refund**")~~ for each Trading Month as the sum of the Facility ~~Forced Outage~~

Reserve Capacity Deficit Refunds for the Trading Month for each Facility registered to the relevant Market Participant, excluding any registered Demand Side Programmes.

~~4.26.1C. If a Market Participant holding Capacity Credits associated with a Curtailable Load fails to comply with its Reserve Capacity Obligations applicable to any given Trading Interval then the Market Participant must pay a refund to the IMO calculated in accordance with the provisions of this clause 4.26.~~

4.26.2. The IMO must determine the net STEM shortfall ("**Net STEM Shortfall**") in Reserve Capacity supplied by each Market Participant p holding Capacity Credits associated with a generation system in each Trading Interval t of Trading Day d and Trading Month m as:

...

(b) the sum of the product of:

i. the factor described in clause 4.26.2B as it applies to Market Participant p's Registered Facilities; and

ii. the Reserve Capacity Obligation Quantity for each Facility

for all Market Participant p's Registered Facilities, excluding ~~Curtailable Loads~~ Demand Side Programmes;

…

(d) subject to paragraph (c), for the case where Market Participant p is not the Electricity Generation Corporation, the sum of:

…

iiA if a STEM submission does not exist for that Trading Interval, the MW quantity calculated by doubling the total MWh quantity of energy to be consumed by that Market Participant including demand associated with any ~~Curtailable Load or~~ Interruptible Load, but excluding demand associated with any Dispatchable Load during that Trading Interval as indicated by the applicable Resource Plan; plus

…

~~4.26.2C. The IMO must:~~

~~(a) Identify the eight consecutive Trading Intervals with the highest aggregate system demand in each month during the preceding Hot Season;~~

~~(b) Subject to clause 4.26.2C(c), set the Relevant Demand (in MW) for the Curtailable Load equal to the median of the metered consumption during the 32 Trading Intervals identified in clause 4.26.2C(a), where the Relevant Demand is a positive number.~~

~~(c) Where the metered consumption during the 32 Trading Intervals identified in clause 4.26.2C(b) is not available the IMO must set the Relevant Demand based on:~~

~~i. Available Meter Data, or~~

~~ii. Load information provided by the Rule Participant, or~~

~~iii. Other relevant information.~~

~~(d) Where evidence is provided by the Market Customer that the Curtailable Load was operating at below capacity due to its consumption being reduced at the request of System Management or because of maintenance during one or more of the 32 Trading Intervals identified in clause 4.26.2C(a), the IMO must set the Relevant Demand based on the IMO's estimate of the Curtailable Load consumption during those intervals.~~

For each Capacity Year, the IMO must:

(a) identify the eight consecutive Trading Intervals with the highest aggregate system demand in each month during the Hot Season of the previous Capacity Year; and

(b) for each Non-Dispatchable Load or Interruptible Load associated with a Demand Side Programme (Associated Load) during the Capacity Year and each of the 32 Trading Intervals identified under clause 4.26.2C(a), determine a MW quantity equal to:

i. the metered consumption of the Associated Load for the Trading Interval, multiplied by two to convert to units of MW; or

ii. where the metered consumption of the Associated Load for the Trading Interval is not available or is considered by the IMO to be inappropriate, a MW quantity determined by the IMO based on:

1. available Meter Data Submissions; or

2. Load information provided by the Market Customer; or

3. other relevant information; or

iii. where a Market Customer provides evidence satisfactory to the IMO that the Associated Load was operating at below capacity due to its consumption being reduced at the request of System Management or because of maintenance, the IMO's estimate of what the consumption of the Associated Load would have been if it had not been reduced, multiplied by two to convert to units of MW.

4.26.2CA. The Relevant Demand of a Demand Side Programme for a Trading Day d in a Capacity Year is the median of the historical consumption quantities determined by the IMO for each of the 32 Trading Intervals identified under clause 4.26.2C(a) for the Capacity Year. The historical consumption quantity for each

Trading Interval is the sum, over all the Associated Loads associated with the Demand Side Programme during Trading Day d, of the MW quantity determined by the IMO for each Associated Load and the Trading Interval under clause 4.26.2C(b).

4.26.2D. The IMO must determine the capacity shortfall ~~("Capacity Shortfall")~~ in Reserve Capacity ("Capacity Shortfall") supplied by each Market Participant p holding Capacity Credits associated with a ~~Curtailable Load~~ Demand Side Programme in each Trading Interval t of Trading Day d and Trading Month m relative to its Reserve Capacity Obligation Quantity as:

(a) ~~for Capacity Credits assigned in accordance with clause 4.10.1(f)(i)(1), and~~ where System Management has issued a Dispatch Instruction to the ~~Curtailable Load~~ Demand Side Programme for the Trading Interval as advised to the IMO by System Management under clause 7.13.1:

max(0, min(RCOQ, DIMW) – max(0, RD – DSPLMW))

where

RCOQ is the Reserve Capacity Obligation Quantity of the Demand Side Programme for Trading Interval t (in MW), determined in accordance with clause 4.12.4;

DIMW is the quantity by which the Demand Side Programme was instructed by System Management to reduce its consumption in Trading Interval t as specified by System Management in accordance with clause 7.13.1(eC), multiplied by two to convert to units of MW;

RD is the Relevant Demand of the Demand Side Programme for Trading Day d, determined by the IMO in accordance with clause 4.26.2CA; and

DSPLMW is the Demand Side Programme Load of the Demand Side Programme in Trading Interval t, multiplied by two to convert to units of MW; and

~~i. zero; if negative two multiplied by the Metered Schedule is less than the Relevant Demand set in clause 4.26.2C minus the Capacity Credits assigned to the Curtailable Load;~~

~~ii. the greater of:~~

~~1. zero, or~~

~~2. the required decrease, in MW, minus the load reduction, where the load reduction is equal to the Relevant Demand set in clause 4.26.2C minus negative two multiplied by the Metered Schedule for the Trading Interval,~~

~~if the Capacity Credits assigned to the Curtailable Load are greater than the Dispatch Instruction for the Trading Interval; or~~

~~iii. negative two multiplied by the Metered Schedule plus the Capacity Credits assigned to the Curtailable Load minus the Relevant Demand set in clause 4.26.2C;~~

(b) zero, where System Management has not issued a Dispatch Instruction to the Demand Side Programme for Trading Interval t as advised to the IMO by System Management under clause 7.13.1.~~for Capacity Credits assigned in accordance with clause 4.10.1(f)(i)(2), and where System Management has issued a Dispatch Instruction to the Curtailable Load for the Trading Interval as advised to the IMO by System Management under clause 7.13.1:~~

~~i. zero, if negative two multiplied by the Metered Schedule is less than the Stipulated Default Load;~~

~~ii. the greater of:~~

~~1. zero, or~~

~~2. negative two multiplied by the Metered Schedule minus the load reduction, where the load reduction is equal to the Stipulated Default Load plus the Capacity Credits assigned to the Curtailable Load minus the Dispatch Instruction for the Trading Interval,~~

~~if the Capacity Credits assigned to the Curtailable Load are greater than the Dispatch Instruction for the Trading Interval; or~~

~~iii. negative two multiplied by the Metered Schedule minus the Stipulated Default Load, if the Capacity Credits assigned to the Curtailable Load are less than the Dispatch Instruction for the Trading Interval; and~~

~~(c) for Capacity Credits assigned in accordance with either clause 4.10.1(f)(i)(1) or 4.10.1(f)(i)(2), and where System Management has not issued a Dispatch Instruction to the Curtailable Load for the Trading Interval as advised to the IMO by System Management under clause 7.13.1, zero.~~

4.26.2E. For each Market Participant holding Capacity Credits, the IMO must determine the amount of the refund ("**Capacity Cost Refund**") to be applied for Trading Month m in ~~respect of a Net STEM Shortfall as determined under clause 4.26.2 and a Capacity Shortfall as determined under clause 4.26.2D during that Trading Month~~ accordance with clause 4.26.2F.

4.26.2F. ~~For each Market Participant holding Capacity Credits, the IMO must determine the amount of the refund ("**Capacity Cost Refund**") to be applied for Trading Month m.~~ The Capacity Cost Refund for Market Participant p and Trading Month m is the sum of:

(a) either:

i. where Market Participant p holds Capacity Credits associated with a generation system, the Generation Capacity Cost Refund for Market Participant p for Trading Month m, determined in accordance with clause 4.26.3; or

ii. zero, otherwise; and

(b) the sum over all Demand Side Programmes for which Market Participant p holds Capacity Credits of the Demand Side Programme Capacity Cost Refund for Trading Month m, determined in accordance with clause 4.26.3A.

4.26.3. The Generation Capacity Cost Refund for Trading Month m for a Market Participant p holding Capacity Credits associated with a generation system is the lesser of:

(a) the Maximum Participant Generation Refund determined for Market Participant p and Trading Month m in accordance with the Refund Table, less all Generation Capacity Cost Refunds applicable to ~~the~~ Market Participant p in previous Trading Months falling in the same Capacity Year as Trading Month m; and

(b) the ~~Participant Forced Outage~~ Generation Reserve Capacity Deficit Refund for Market Participant p and Trading Month m, plus the sum over all Trading Intervals t in Trading Month m of the Net STEM Refund,

where the Net STEM Refund is the product of:

i. the Off-Peak Trading Interval Rate or Peak Trading Interval Rate determined in accordance with the Refund Table applicable to Trading Interval t; and

ii. the Net STEM Shortfall for Market Participant p in Trading Interval t.

4.26.3A. The Demand Side Programme Capacity Cost Refund for Trading Month m for a Demand Side Programme ~~associated with a Curtailable Load~~ is equal to the lesser of:

(a) twelve times the Monthly Reserve Capacity Price for Trading Month m multiplied by the number of Capacity Credits associated with the Facility, less all Demand Side Programme Capacity Cost Refunds applicable to the ~~Market Participant~~ Facility in previous Trading Months falling in the same Capacity Year as Trading Month m; and

(b) the sum of:

i. the sum over all Trading Intervals t in Trading Month m of:

12 * Monthly Reserve Capacity Price * S / (2 * H)

Where:

S is the Capacity Shortfall in MW determined in accordance with clause 4.26.2D in any Trading Interval; and

H is the maximum number of hours that the Facility was certified to be available in accordance with clause 4.10.1(f)(ii)~~.~~; and

ii. the Facility Reserve Capacity Deficit Refund for Trading Month m for the Facility, determined in accordance with clause 4.26.1A.

4.26.4. The IMO must apply any revenue generated from the application of clause ~~4.26.3~~ 4.26.2E to Market Customers in accordance with clause 4.28.4.

6.3A.2. By 9:00 AM on the Scheduling Day the IMO must have calculated and released to each Market Participant the following parameters to be applied by that Market Participant in forming its STEM Submissions for each Trading Interval in the Trading Day:

…

(b) the Maximum Consumption Capability where this equals the maximum Loss Factor adjusted quantity of energy, in units of MWh, that could be consumed during a Trading Interval by that Market Participant's Non-Dispatchable Loads, Interruptible Loads~~, Curtailable Loads~~ and Dispatchable Loads based on the Standing Data maximum consumption quantities for those Facilities and Non-Dispatchable Loads, 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;

…

6.5A.1. Market Participants other than the Electricity Generation Corporation that are Market Generators, or that are Market Customers with Dispatchable Loads or ~~Curtailable Loads~~ Demand Side Programmes, may submit Balancing Data Submission data for a Trading Day to the IMO between:

…

6.11.1. A Market Participant submitting Resource Plan Submission data or Standing Resource Plan Submission data must include in the submission:

…

(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

…

6.11.2. For Resource Plan Submission data or Standing Resource Plan Submission data to be valid:

…

(c) it must not include Interruptible Loads ~~or Curtailable Loads~~; and

…

6.11A.1. A Market Participant submitting Balancing Data Submission data must include in the submission:

…

(d) for each Demand Side Programme ~~Curtailable Load~~ registered ~~by~~ to the Market Participant:

…

6.12.1.

(a) By 1:30 PM on the Scheduling Day, (or within 40 minutes of a closing time extended in accordance with clause 6.5.1(b) or clause 6.5A.1(b)), the IMO must determine the Dispatch Merit Orders identified in paragraphs (b) to (g). A Dispatch Merit Order lists the order in which the Scheduled Generators, ~~and~~ Dispatchable Loads and Demand Side Programmes of Market Participants other than the Electricity Generation Corporation will, in the absence of transmission limitations or limitations necessary to maintain Power System Security, be issued Dispatch Instructions by System Management to increase or decrease output.

(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:

i. this Dispatch Merit Order must list all Scheduled Generators, ~~Curtailable Loads~~ Demand Side Programmes and Dispatchable Loads registered by Market Participants other than the Electricity Generation Corporation;

…

(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:

i. this Dispatch Merit Order must list all Scheduled Generators, ~~Curtailable Loads~~ Demand Side Programmes and Dispatchable Loads registered by Market Participants other than the Electricity Generation Corporation;

...

(h) Where the prices in Balancing Data or payments described in Standing Data, as applicable, for two or more Registered Facilities ~~Market Participants~~ are equal, then for the purpose of determining the ranking in any Dispatch Merit Order other than those for decommitment, the IMO must rank a Registered Facility with a greater sent out capacity registered in Standing Data before a Registered Facility with a lesser sent out capacity. For a Dispatch Merit Order for decommitment, the IMO must rank a Registered Facility with a greater name plate capacity registered in Standing Data before a Registered Facility with a lesser name plate capacity.

6.15.2. ~~The Dispatch Schedule for a Trading Interval~~ The Dispatch Schedule for a Trading Interval equals the corresponding Metered Schedule for any of the following Facilities ~~equals the corresponding Metered Schedule~~:

(a) a Non-Scheduled Generator;

(aA) a Scheduled Generator to which clauses 3.21.2, 3.21A.14 or 4.25.10 apply;

(b) a Non-Dispatchable Load;

(c) ~~a Curtailable Load;~~ [Blank]

(d) an Interruptible Load;

(e) a Scheduled Generator or Dispatchable Load registered by the Electricity Generation Corporation; and

(f) a Scheduled Generator or Dispatchable Load registered by a Market Participant (other than the Electricity Generation Corporation) where a Dispatch Instruction of the type described in clause 7.7.3(d)(ii) was issued to the Market Participant in respect of the Facility.

6.16.1. Subject to clause 9.3.3, ~~T~~the IMO must determine the Metered Schedule for a Trading Interval for a Registered Facility or Non-Dispatchable Load ~~is determined by the IMO~~ in accordance with clause 9.3.4.

6.16.2. The IMO must determine the Demand Side Programme Load for a Demand Side Programme for a Trading Interval as the total net MWh quantity of energy consumed by the Associated Loads of that Demand Side Programme during the Trading Interval, determined from Meter Data Submissions and expressed as a positive non-loss adjusted value.

6.17.6. The Dispatch Instruction Payment, DIP(p,d,t), for Market Participant p and Trading Interval t of Trading Day d equals either ~~the sum of~~:

(a) zero, if Market Participant p:

i. is the Electricity Generation Corporation; or

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

or the sum of:

(b) the sum over all Scheduled Generators and Dispatchable Loads registered by the Market Participant of the following amounts for Trading Interval t:

i. if the Dispatch Schedule for the Registered Facility is set in accordance with clause 6.15.1(a) for Trading Interval t, the Balancing Support Contract energy dispatched from the Facility in Trading Interval t as specified by System Management in accordance with clause 7.13.1(dA) is zero (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node) and the Network Control Service Contract energy dispatched from the Facility in Trading Interval t as specified by System Management in accordance with clause 7.13.1(dB) is zero (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node), the amount for the Registered Facility is zero;

iA. if clauses 3.21A.14 or 4.25.10 apply to the Registered Facility during the Trading Interval, the amount for the Registered Facility is zero;

ii. if neither paragraph (i) nor (iA) applies, the amount for the Registered Facility is the product of:

1. the qualifying quantity for Trading Interval t as calculated in accordance with clause 6.17.8, less the sum of the quantity indicated in the applicable Resource Plan (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity so that the result is measured at the Reference Node) for the Registered Facility for Trading Interval t and the Balancing Support Contract energy dispatched from the Facility in Trading Interval t as specified by System Management in accordance with clause 7.13.1(dA) (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node) and the Network Control Service Contract energy dispatched from the Facility in Trading Interval t as specified by System Management in accordance with clause 7.13.1(dB) (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity

specified by System Management so that the result is measured at the Reference Node); and

2. the price defined as:

i. the contracted price, if the Dispatch Instruction is for the purposes of an Ancillary Services Contract for System Restart, Dispatch Support or Load Rejection;

ii. zero, if the Dispatch Instruction is for the purposes of an Ancillary Services Contract other than for System Restart, Dispatch Support or Load Rejection; or

iii. the applicable price as defined by clause 6.17.7 less MCAP for Trading Interval t~~.~~; and

(c) the sum over all Non-Scheduled Generators registered by the Market Participant of the amount that is the product of:

i. the quantity, defined as a negative value, by which the Non-Scheduled Generator was instructed by System Management to reduce its output (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node); 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) less MCAP for the Trading Interval; and

(d) the sum over all ~~Curtailable Loads~~ Demand Side Programmes registered to ~~by~~ the Market Participant of the amount that is the product of:

i. the quantity (in MWh) by which the ~~Curtailable Load~~ Demand Side Programme reduced its consumption~~, where~~ in response to a Dispatch Instruction, excluding any instructions given under a Network Control Service Contract, where this quantity is equal to the least of:

1. ~~for a Curtailable Load that has nominated that its measurement is to be based on its Capacity Credits, the quantum of reduction in any Trading Interval is to be equal to half of the lesser of~~ half of the Facility's Capacity Credits~~Reserve Capacity (in MW),~~;

2. the Dispatch Instruction amount provided by System Management in accordance with clause 7.13.1(eC); or ~~and~~

3. the greater of zero and the difference between half of the Relevant Demand set in clause 4.26.2CA and the Demand Side Programme Load ~~twice the absolute value of the metered quantity (in MWh)~~ measured in the Trading Interval; and

~~2. for a Curtailable Load that has nominated that its measurement is to be based on the Stipulated Default Load, the quantum of reduction in each Trading Interval is to equal half of the lesser of the Relevant Demand (in MW) minus Stipulated Default Load (in MW), and the Relevant Demand (in MW) minus twice the absolute value of the metered quantity (in MWh) measured in the Trading Interval; and~~

ii. the price defined in ~~clause 6.11A.1(d)(ii)~~ the Market Participant's Balancing Data Submission provided in accordance with clause 6.5A, that was current at the time of the Trading Interval, for the ~~Curtailable Load~~ Demand Side Programme (accounting for whether the Trading Interval is a Peak Trading Interval or an Off-Peak Trading Interval); and

…

7.1.1. System Management must maintain the following data set, and must use this data set when determining which Dispatch Instructions it will give:

…

(i) Scheduled Generator, Non-Scheduled Generator, Dispatchable Load, ~~Curtailable Load~~ and Interruptible Load Forced Outages and Consequential Outages by Trading Interval received from Market Participants in accordance with clause 3.21;

…

7.2.2. The Load Forecasts for a Trading Day described in clause 7.2.1 must:

(a) represent Non-Dispatchable Load~~, Curtailable Load~~ and Interruptible Load net of forecast Non-Scheduled Generation;

…

7.6.10. Where a Market Participant has Capacity Credits granted in respect of a ~~Curtailable Load~~ Demand Side Programme:

(a) the IMO must provide System Management with the details of the Reserve Capacity Obligations to enable System Management to dispatch the ~~Curtailable Load~~ Demand Side Programme~~.~~; and

(b) System Management may issue directions to the ~~Curtailable Load~~ Demand Side Programme in accordance with the Reserve Capacity Obligations.

7.7.3. Each Dispatch Instruction must contain the following information:

(a) the Registered Facility to which the Dispatch Instruction relates;

(b) the time the Dispatch Instruction was issued;

(c) the time by which response to the Dispatch Instruction is required to commence (which must not be earlier than the time it was issued, except as contemplated by clause 7.7.7(b));

(d) the required level of sent out generation or consumption which may be ~~either~~ any one of the following:

i. a target MW output; ~~or~~

ii. a minimum MW level; ~~and~~ or

iii. a required decrease in consumption (in MW) for a Demand Side Programme; and

(e) the ramp-rate to maintain until the required level of sent out generation or consumption is reached, if a ramp rate has been identified in Standing Data.

7.7.4. System Management must determine which Facilities will be the subject of Dispatch Instructions by applying the Dispatch Merit Order relevant to the action required, except where:

…

(c) the Dispatch Merit Order would otherwise require that System Management dispatch a Demand Side Programme ~~curtail a Curtailable Load~~ when, due to limitations on the availability of the Demand Side Programme ~~Curtailable Load~~, such ~~curtailment~~ dispatch would prevent that Demand Side Programme ~~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.

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

7.7.10. When System Management has issued a ~~d~~Dispatch ~~i~~Instruction to a Demand Side Programme ~~Curtailable Load to reduce demand~~ to decrease its consumption System Management ~~it~~ may issue a further instruction terminating the requirement for the Demand Side Programme ~~Curtailable Load~~ to ~~reduce demand~~ decrease its consumption providing that:

(a) ~~Such~~ the further instruction is issued ~~no less than~~ at least four hours before it is to come into effect, and

(b) ~~The~~ the minimum period for which the Demand Side Programme ~~Curtailable Load has been~~ is instructed to ~~reduce demand~~ decrease its consumption is not less than two hours.

7.10.4. System Management must monitor the behaviour of Market Participants with Registered Facilities to assess whether they are complying with clause 7.10.1 in accordance with its Monitoring and Reporting Protocol~~.~~, except where it relates to a Demand Side Programme.

7.13.1. System Management must provide the IMO with the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:

…

(eC) the required decrease, in MWh, in the consumption of each ~~Curtailable Load~~ Demand Side Programme, by Trading Interval, as a result of System Management Dispatch Instructions~~, where t~~. This is to be used in settlement as the quantity described in clause 6.17.6(d)(i)(2).

(g) details of the instructions provided to:

i. ~~Curtailable Loads~~ Demand Side Programmes that have Reserve Capacity Obligations; and

ii. providers of Supplementary Capacity;

…

9.3.3. The IMO must determine the Metered Schedule for each of the following ~~Facility~~ Facilities ~~and Non-Dispatchable Load~~ for each Trading Interval in accordance with clause 9.3.4~~.~~:

(a) Non-Dispatchable Loads;

(b) Interruptible Loads;

(c) Dispatchable Loads;

(d) Scheduled Generators; and

(e) Non-Scheduled Generators.

9.3.4. Subject to clause 2.30B.10, the Metered Schedule for a Trading Interval for each of the following ~~a~~ ~~Facility~~ Facilities ~~or Non-Dispatchable Load,~~:

(a) Non-Dispatchable Loads, excluding those Non-Dispatchable Loads referred to in clause 9.3.4A;

(b) Interruptible Loads;

(c) Dispatchable Loads;

(d) Scheduled Generators; and

(e) Non-Scheduled Generators,

~~,~~ 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.

9.3.7. The IMO must determine the Consumption_Share(p,m) for Market Participant p in each Trading Month m, ~~which~~ to equal~~s~~

(a) the Market Participant's contributing quantity; divided by

(b) the total contributing quantity of all Market Participants,

where the contributing quantity for a Market Participant for Trading Month m is the sum of the Metered Schedules for the Non-Dispatchable Loads, Interruptible Loads~~, Curtailable Loads,~~ and Dispatchable Loads registered to the Market Participant for all Trading Intervals during Trading Month m.

9.13.1. The applicable Market Participant Fee settlement amount for Market Participant p for Trading Month m is:

MPFSA(p,m) = (-1) x (Market Fee rate + System Operation Fee rate + Regulator Fee rate) x (Monthly Participant Load(p,m) + Monthly Participant Generation(p,m) )

Where

Market Fee rate is the charge per MWh for IMO's services determined in accordance with clause 2.24.2 for the year in which Trading Month m falls;

System Operation Fee rate is the charge per MWh for System Management's services determined in accordance with clause 2.24.2 for the year in which Trading Month m falls;

Regulator Fee rate is the charge per MWh for funding the Economic Regulation Authority's activities with respect to the Wholesale Electricity Market determined in accordance with clause 2.24.2 for the year in which Trading Month m falls;

Monthly Participant Load(p,m) = (-1) $\times$ Sum(d,D,t$\in$T,Metered Load(p,d,t));

where

Metered Load(p,d,t) for a Market Participant p for a Trading Interval t is the sum of the mathematical absolute values of the Metered Schedules for the Non-Dispatchable Loads, Dispatchable Loads~~,~~ and Interruptible Loads ~~and Curtailable~~

~~Loads~~, registered to the Market Participant for Trading Interval t; and

Monthly Participant Generation(p,m)
= Sum(d∈D,t∈T, Metered Generation(p,d,t));

where

Metered Generation(p,d,t) for Market Participant p for Trading Interval t is the sum of the mathematical absolute values of the Metered Schedules for Scheduled Generators and Non-Scheduled Generators, registered to the Market Participant for Trading Interval t; and

D is the set of all Trading Days in Trading Month m, where "d" is used to refer to a member of that set;

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

10.5.1. The IMO must set the class of confidentiality status for the following information under clause 10.2.1, as Public and the IMO must make each item of information available from the Market Web-Site after that item of information becomes available to the IMO:

…

(f) the following Reserve Capacity information (if applicable):

…

iv. for each Market Participant holding Capacity Credits, the Capacity Credits provided by each Facility for each Reserve Capacity Cycle~~. In the case of a Market Participant with a Demand Side Programme, the IMO must publish the total Capacity Credits for the programme and not for each Curtailable Load comprising the programme~~;

…

(j) for each Trading Interval in each completed Trading Day in the previous 12 calendar months the following dispatch summary information:

i. the values of MCAP, UDAP and DDAP;

ii. the Load Forecasts prepared by System Management in accordance with clause 7.2.1;

iii. the sum of the Metered Schedule load for all Non-Dispatchable Load, Dispatchable Load~~,~~ and Interruptible Load ~~and Curtailable Load~~;

iv. estimates of the energy not served due to involuntary load curtailment; and

v. any shortfalls in Ancillary Services;

…

## Chapter 11: Glossary

**Associated Load:** Has the meaning given in clause 2.29.5G.

**Association Period:** Has the meaning given in clause 2.29.5G.

**Capacity Cost Refund:** Has the meaning given in clause ~~4.26.3~~ 4.26.2E.

~~**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).~~

**Demand Side Programme**: Means a ~~programme~~ Facility registered in accordance with clause 2.29.5A. ~~under which a Market Customer contracts Loads to be available for curtailment upon request of the Market Customer or System Management.~~

**Demand Side Programme Capacity Cost Refund:** Has the meaning given in clause 4.26.3A.

**Demand Side Programme Load:** Has the meaning given in clause 6.16.2.

**Facility Classes**: Any one of the classes of Facility specified in clause 2.29.1A. ~~Network, Scheduled Generator, Non-Scheduled Generator, Interruptible Load, Curtailable Load and Dispatchable Load.~~

**Facility Reserve Capacity Deficit Refund:** Has the meaning given in clause 4.26.1A.

~~**Forced Outage Shortfall:** Has the meaning given in clause 4.26.1A.~~

**Generation Capacity Cost Refund:** Has the meaning given in clause 4.26.3.

**Generation Reserve Capacity Deficit Refund:** Has the meaning given in clause 4.26.1B.

**Non-Dispatchable Load**: A Load which is not a Dispatchable Load~~, a Curtailable Load~~ or an Interruptible Load~~, and is therefore self scheduled~~.

~~**Participant Forced Outage Refund:** Has the meaning given in clause 4.26.1B.~~

**Relevant Demand:** The consumption of a ~~Curtailable Load~~ Demand Side Programme as determined in clause 4.26.2CA. Relevant Demand is used to ~~set the maximum Certified Reserve Capacity that can be assigned to a Curtailable Load. It is also used to~~ determine Reserve Capacity shortfalls.

**Reserve Capacity Deficit:** Has the meaning given in clause 4.26.1A.

~~**Stipulated Default Load**: The maximum energy consumption to be maintained by an Interruptible Load, Curtailable Load or Dispatchable Load if activated, as specified in its Reserve Capacity Obligations.~~

**Appendix 1: Standing Data**

This Appendix describes the Standing Data to be maintained by the IMO for use by the IMO in market processes and by System Management in dispatch processes.

Standing Data required to provided as a pre-condition for Facility Registration, and which is to be updated by Rule Participants as necessary, is described by clauses (a) to (j).

Standing Data not required to be provided as a pre-condition for Facility Registration but that which is required to be maintained by the IMO includes the data described in clauses (k) onwards.

(a) for a Network:

…

(h) for a ~~Curtailable Load~~ Demand Side Programme:

i. ~~the Market Customer's nominated maximum consumption quantity, in units of MWh per Trading Interval;~~ [Blank]

ii. evidence that the communication and control systems required by clause 2.3~~6~~5 are in place and operational;

iii. the maximum amount of load that can be curtailed;

iv. the maximum duration of any single curtailment;

v. [Blank]

vi. for a ~~facility~~ Demand Side Programme that is registered to a Market Participant other than the Electricity Generation Corporation, Standing Balancing Data comprising;

1. a Consumption Decrease Price for Peak Trading Intervals; and

2. a Consumption Decrease Price for Off-Peak Trading Intervals;

where these prices must be not less than the Minimum STEM Price, not more than the Alternative Maximum STEM Price, and must be expressed in units of $/MWh to a precision of $0.01/MWh;

vii. the minimum response time before the ~~facility~~ Demand Side Programme can begin to respond to an instruction from System Management to change its output;

viii. ~~the Metering Data Agent for the facility;~~ the maximum number of hours per year the Demand Side Programme can be curtailed;

ix. ~~where the Curtailable Load has a generation system that can connect to the network behind its associated meter, a single line diagram for the Curtailable Load, including the locations of generators, transformers, switches, operational and settlement~~

~~meters;~~the Trading Intervals where the Demand Side Programme can be curtailed;

x. ~~the network nodes at which the facility can connect;~~ any restrictions on the availability of the Demand Side Programme;

xi. ~~the short circuit capability of facility equipment;~~ the normal ramp up and ramp down rates as a function of output level, if applicable;

xii. ~~whether the Curtailable Load is an Intermittent Load;~~ emergency ramp up and ramp down rates, if applicable; and

xiii. ~~if the Curtailable Load is an Intermittent Load, the maximum allowed level of Intermittent Load, where this cannot exceed the quantity in (i);~~ the maximum number of times that the Demand Side Programme can be curtailed during the term of its Capacity Credits;

~~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.~~

…

(k) For each Registered Facility:

i. Reserve Capacity information including:

…

5. for Interruptible Loads and ~~Curtailable Loads~~ Demand Side Programmes, the maximum number of times that interruption can be called during the term of the Capacity Credits;

…

**Appendix 3: Reserve Capacity Auction & Trade Methodology**

This appendix describes a single algorithm which performs two functions. One version of the algorithm is used to prevent the IMO accepting bilateral trades that have insufficient availability to usefully address the Reserve Capacity Requirement. Another version of the algorithm is used in the conduct of the Reserve Capacity Auction as required by clause 4.19.1.

The parameter “a” denotes the active Availability Class where “a” can have a value of {1, 2, 3, 4}. For the purpose of identifying which capacity can be applied to satisfying capacity

requirements the minimum availability of each Availability Class is set to the maximum availability of the next Availability Class. However the algorithms in this appendix allow capacity from an Availability Class with high availability to be used in place of capacity from an Availability Class with lower availability. The following table indicates the required availability of capacity offered for each Availability Class:

| Availability Class (i.e. value of "a") | Minimum Hours of Availability Per Year | Maximum Hours of Availability Per Year |
|---|---|---|
| 1 | 96 | All |
| 2 | 72 | 96 |
| 3 | 48 | 72 |
| 4 | 24 | 48 |

All Certified Reserve Capacity associated with Interruptible Loads, ~~Curtailable Loads~~ Demand Side Programmes or Dispatchable Loads is explicitly assigned an Availability Class, whereas all other Certified Reserve Capacity is automatically in Availability Class 1.