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## Wholesale Electricity Market Rule Change Proposal

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**Change Proposal No:** RC\_2010\_12  
**Received date:** 17 November 2010

### Change requested by

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<b>Date submitted:</b>	17 November 2010
<b>Urgency:</b>	Medium
<b>Change Proposal title:</b>	Required Level and Reserve Capacity Security
<b>Market Rules affected:</b>	Clauses 4.1.21, 4.1.27, 4.9.9, 4.10.3, 4.11.1, 4.13.1, 4.13.2, 4.13.3, 4.13.5, 4.13.8, 4.13.10, 4.13.10A, 4.13.11, 4.13.11A, 4.13.12, 4.20.1, 4.25.2, 4.25A.3, 4.26.1, 4.27.10A, 4.28.4, 4.28C.8, 4.28C.12 and new clauses 4.11.2A, 4.11.3B, 4.13.1A, 4.13.1B, 4.13.1C, 4.13.2A, 4.13.2B, 4.13.3A, 4.13.10B, 4.13.10C, 4.13.13, 4.13.14, 4.28C.8A, 4.28C.12A and the Glossary.

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### Introduction

Clause 2.5.1 of the Wholesale Electricity Market Rules (Market Rules) provides that any person (including the Independent Market Operator (IMO)) may make a Rule Change Proposal by submitting a completed Rule Change Proposal form to the IMO.

This Rule Change Proposal can be posted, faxed or emailed to:

**Independent Market Operator**  
Attn: General Manager Development  
PO Box 7096  
Cloisters Square, Perth, WA 6850

Fax: (08) 9254 4339  
Email: market.development@imowa.com.au

The IMO will assess the proposal and, within five Business Days of receiving this Rule Change Proposal form, will notify you whether the Rule Change Proposal will be further progressed.

In order for the proposal to be progressed, all fields below must be completed and the proposal must explain how it will enable the Market Rules to better contribute to the achievement of the wholesale electricity market objectives. The objectives of the market are:



- (a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system;
  - (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
  - (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
  - (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
  - (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.
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## **Details of the proposed Market Rule Change**

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### **1. Describe the concern with the existing Market Rules that is to be addressed by the proposed Market Rule change:**

#### **Background**

When a Market Participant has committed to the development of a new Facility, or a Facility upgrade, the Wholesale Electricity Market (WEM) Rules (Market Rules) require the Market Participant to provide Reserve Capacity Security in respect of the Facility. This security is required after either:

- the Bilateral Trade Declaration for the Facility is made – if the Market Participant indicates that it intends to bilaterally trade the Certified Reserve Capacity (CRC) associated with the Facility; or
- at the time the Reserve Capacity Auction Offer for the Facility is made – if the CRC is to be offered into the Reserve Capacity Mechanism through the Reserve Capacity Auction process.

The Market Rules require Market Participants to provide a Reserve Capacity Security for a new Facility or upgrade to an existing Facility due to the greater delivery risk associated with the unproven capacity. Currently the IMO holds in excess of \$24 million dollars in Reserve Capacity Security.

Clause 4.13.10 of the Market Rules outlines that the Reserve Capacity Security is no longer required once:

- The Reserve Capacity Obligations commence; and



- The Facility has operated at 100 percent of its Reserve Capacity Obligation Quantity (RCOQ) for one Trading Interval within the Reserve Capacity Year. In this case the requirement ceases immediately, subject to a processing period; or
- The Facility has demonstrated that it has operated to a level of at least 90 percent (but not 100 percent) of its RCOQ within the Reserve Capacity Year. In this case the requirement for Reserve Capacity Security ceases following the end of the Reserve Capacity Year.

Note: if the Facility has an RCOQ of zero, the Reserve Capacity Security is to be returned at the end of the Reserve Capacity Year.

If a Facility fails to satisfy the obligations specified in clause 4.13.10 during the Reserve Capacity Year the Reserve Capacity Security is first used to fund any Supplementary Reserve Capacity required in that year, with the remainder distributed to Market Customers proportional to their Individual Reserve Capacity Requirement level.

### **Issues**

After a comprehensive review of the administration of Reserve Capacity Security a number of issues with the process have been identified. These issues have been further highlighted as new and diverse facilities have begun commissioning and started to participate in the WEM. Additionally, the recent failure of some Market Participants to meet their obligations has brought these issues to the forefront.

A paper outlining these issues was presented to the Market Advisory Committee (MAC) at its 12 May 2010 meeting. In preparing this Pre Rule Change Discussion Paper, the views expressed by the MAC have been taken into account.

Reserve Capacity Security related issues have also been identified for the treatment of Demand Side Programmes, Load Reduction Curtailable Loads and Stipulated Default Loads. These issues will be addressed in a separate Rule Change Proposal regarding Curtailable Loads to be presented later this year.

Finally, there is no civil penalty currently associated with the failure to provide Reserve Capacity Security as required by clauses 4.13.3 and 4.13.4. The IMO considers that a contravention of these clauses should attract a civil penalty. For example, consider a Reserve Capacity Security provided by means of a Bank Undertaking from Bank X. If Bank X's Acceptable Credit Criteria status changes the obligation to provide the new Reserve Capacity Security is with the Market Participant. If the Market Participant fails to update the Bank Undertaking then currently no civil penalty will apply.

The IMO will work with the Office of Energy to include these as civil penalty provisions in the Electricity (Wholesale Electricity Market) Regulations 2004. The IMO will recommend that the civil penalties associated with the failure to provide Reserve Capacity Security mirror those associated with the failure to provide Credit Support (clauses 2.38.2 and 2.38.3 of the Market Rules). These are both Category B civil penalty provisions and are set at:

- First contravention: \$25,000 plus a daily amount of \$5,000; and
- Subsequent contraventions: \$50,000 plus a daily amount of \$10,000.



### ***Issue 1: Treatment of Facilities once the first Reserve Capacity Cycle has lapsed***

Currently the Market Rules are ambiguous as to whether it is necessary to maintain Reserve Capacity Security after the end of the first Reserve Capacity Cycle. In particular, clause 4.13.1 and 4.1.13 require that Market Participants with Facilities that have been assigned Certified Reserve Capacity by the IMO provide Reserve Capacity Security to the IMO in August of Year 1 of the relevant Reserve Capacity Cycle. The Market Rules are silent as to whether this requirement is repeated for every Reserve Capacity Cycle that the Certified Reserve Capacity appears in for new capacity.

The practice since market start has been to only require Reserve Capacity Security to be provided for the first Reserve Capacity Cycle regardless of whether the Certified Reserve Capacity was delivered in full, partially or not at all.

#### ***Proposed Solution***

Clause 4.13.1, in conjunction with the proposed new clauses 4.13.1A, 4.13.1B and 4.13.1C, has been amended to remove any doubt and clearly state that Reserve Capacity Security is to either be returned to the Market Participant or forfeited within the first Reserve Capacity Cycle and that no further Reserve Capacity Security obligation will apply to that Certified Reserve Capacity thereafter, unless a Market Participant decides to upgrade the Facility at a later date.

Clause 4.13.3 has also been amended to clarify that replacement Reserve Capacity Security is only required if the obligation to provide security extends beyond the period of the validity of the current security. For example, it would not be necessary to provide a replacement security if the existing security happens to expire a day after the end of Year 4 of the first Reserve Capacity Cycle for which the Market Participant applied for certification.

### ***Issue 2: Treatment of Intermittent Facilities***

Clause 4.13.11A (via a reference to clause 4.13.11) stipulates that the Reserve Capacity Security provided will be forfeited for Facilities that cannot, at least once during the Capacity Year, operate at least at 90 percent of the RCOQ level, in a Trading Interval when the RCOQ for that Facility is greater than zero. Intermittent Facilities have an RCOQ level of zero at all times and it is therefore impossible for them to meet the requirements of clause 4.13.11A.

At the same time, clause 4.13.10(c), stipulates that the Facilities captured by that clause (which applies to Intermittent Facilities) should have their securities returned by the end of the Reserve Capacity Cycle irrespective of performance. This is in contrast to the requirements under clause 4.13.11A.

As agreed at the May 2010 MAC meeting, all Facilities (conventional and non-conventional) should be entitled to receive their Reserve Capacity Security back when they can prove to the IMO that they can perform to the level at which their certification is based.

#### ***Proposed Solution***

It is prudent to develop a criterion for the return of Reserve Capacity Security which would ensure consistent treatment of all generation types but at the same time take into account



each generation type's unique characteristics (in particular Intermittent Generators). The IMO proposes to define a level of output a Facility is required to perform at (the "Required Level" outlined in new clause 4.13.10). The Required Level for each Facility type will be calculated by the IMO as follows:

- for Facilities assigned CRC under clause 4.11.1(a), using the Metered Schedule and Temperature Dependence Curves submitted to the IMO under clause 4.10.1(e)i. and converted to a sent out basis at 41 °C;
- for Facilities assigned CRC under clause 4.11.2(b), using either the:
  - a value which equals the 5 percent probability of exceedance (POE) of the 3-year expected generation output for the Facility, expressed in MW, provided to the IMO under clause 4.10.3; or
  - in the case where the value which equals the 5 percent POE is not considered to be appropriate by the IMO, an alternative value, expressed in MW, to that identified in the report provided under clause 4.10.3; and
- Curtailable Loads and Demand Side Management Programmes, using the Facility's Relevant Demand minus Capacity Credits assigned to that Facility.

Note that a Facility will also be required to operate at the Required Level for a specified number of Trading Intervals (two for the purposes of the return of Reserve Capacity Security) and also be in Commercial Operation. For a Traditional Facility, CRC is assigned on a Facility's ability to meet a specified output level during a Capacity Year. However, a Facility assigned CRC under 4.11.2(b) would be certified based on an average output over a three year period, with no assumptions about output being achieved in consecutive intervals. Therefore for the purposes of the return of Reserve Capacity Security the intervals at which the Required Level must be achieved need not be consecutive. Under the IMO's proposed amendments a Facility will be required to meet a Required Level which mirrors the basis on which it was assigned CRC.

Alternatively a Market Participant who does not consider that its Facility, that was assigned CRC under clause 4.11.2(b), will be able to meet the 90 percent requirement prior to the end of the relevant Capacity Year, may provide to the IMO a report prepared by one of the IMO's accredited experts that specifies the Facility has been built to the specifications its certification was based on. In this case the security will also be returned to a Market Participant following the end of the Capacity Year.

The IMO proposes to define the term "Commercial Operation" in the Market Rules and the considerations that will taken into account in making its decision as to whether a Facility meets the criteria to be deemed in Commercial Operation. Further details will be specified in the Market Procedure for Reserve Capacity Security (see Appendix 1 of this proposal for further details). The IMO will also include details of its basis for determining whether an alternative value to the 5 percent POE should be accepted in the Market Procedure for Reserve Capacity Security.

In determining the Required Level to be met for Facilities assigned CRC under clause 4.11.2(b) (mainly Intermittent Generators), the views of the IMO's panel of independent experts were sought on:



- the appropriate number of Trading Intervals an Intermittent Facility should meet the Required Level for; and
- how to set the value for the Required Level for an Intermittent Facility.

Further details of this advice provided by Senergy Econnect and McLennan, Magasanik and Associates (MMA) are presented in Appendix 2 of this proposal. The IMO met with a number of key stakeholders while developing the proposed basis for calculating the Required Level for Intermittent Generators. The concerns expressed by these stakeholders have, where possible, been taken into account in developing this methodology.

Based on the advice received, using the 5 percent POE of the 3 year expected generation output will accurately represent the maximum output that a Facility should be able to achieve in at least two Trading Intervals over the year. For example, the use of the 5 percent POE percentile will not subject a wind farm to the risk that the wind does not blow (at least to the extent of achieving 90 percent of the Required Level).

In the case where an independent expert does not consider that the value corresponding to the 5 percent POE will be appropriate for a Facility, an alternative value may be proposed to the IMO for consideration when setting the Required Level (Clause 4.10.3(c)). The IMO will advise Market Participants of the Required Level that has been set for each of its Facilities certified under clause 4.11.2(b) following its determination (amended clause 4.9.9).

The introduction of a Required Level to be met by each type of generation will ensure equitable treatment of both conventional and non-conventional technologies. Clause 4.13.10 will be amended to refer to the 90 percent test having been achieved within the relevant Capacity Year, as previously contained in clause 4.13.11. New clause 4.13.13 will specify the requirements for the 100 percent test, as previously contained in clause 4.13.10. Both of these clauses will also be amended to specifically set out the requirement for a Facility to operate at its Required Level, as scaled to its level of Capacity Credits as assigned for the Capacity Year, for at least two Trading Intervals before its Reserve Capacity Security may be returned. The requirement to scale the Required Level to the level of Capacity Credits assigned for the Capacity Year will ensure that if the Capacity Credits for the Facility are reduced by the IMO (e.g. following a test) these will not be taken into account in determining whether Reserve Capacity Security can be returned.

#### *Reserve Capacity Testing and refunds*

The concept of a Required Level will be also used for the purposes of Reserve Capacity Testing and Reserve Capacity refunds. Clause 4.26.1 will be amended to link the IMO's decision that an Intermittent Facility is commissioned to when it has met 100 percent of its Required Level. This will be as scaled to the level of Capacity Credits assigned for the Capacity Year, in at least two Trading Intervals and is considered by the IMO to be in Commercial Operation. Further details of this proposed change and the introduction of partial commissioning of Intermittent Generators are discussed in issue 2.2.

Note that the IMO proposes to scale the Required Level for the purposes of Reserve Capacity Testing to the level of Capacity Credits assigned to the Facility. By using the dynamic level of Capacity Credits, the level of Capacity Credits as amended by the IMO following any previous tests will be taken into account when undertaking any Reserve



Capacity Testing. This proposal does not amend the requirement to meet the Required Level for at least one Trading Interval.

### ***Issue 3: Timing for return of Reserve Capacity Security***

The earliest opportunity for a Market Participant to prove it can meet its capacity obligations and request the IMO to return the associated Reserve Capacity Security is once a RCOQ exceeding zero applies to the Facility (e.g. from 1 July in Year 3). Currently early commissioning of a Facility (which is allowed for under the Market Rules) does not entitle the Market Participant to have its Reserve Capacity Security returned earlier than the first date that the RCOQ's apply. The IMO considers that this treatment places an unnecessary financial burden on early commissioning Facilities.

#### ***Proposed Solution***

As with the solution to issue 2.1, the IMO proposes that the Market Rules be amended (clause 4.13.10) to introduce the concept of a Required Level and allow for the return of the Reserve Capacity Security when a Facility can operate at this level and is considered by the IMO to be in Commercial Operation regardless of whether this occurs before or after an RCOQ greater than zero applies (clause 4.13.10 and new clause 4.13.13).

### ***Issue 4: Treatment of upgraded Facilities***

A Market Participant will be required to provide Reserve Capacity Security when it undertakes an upgrade of an existing facility (clause 4.13.1). However, for the purposes of determining whether to return any security, it is currently unclear how the IMO would assess that part of a Facility has performed at its Required Level (either 100 percent or 90 percent) where the upgrade is not independent of the rest of the plant.

It is particularly the application of the 90 percent requirement in clause 4.13.11 (to be amended to clause 4.13.10(c)) that presents difficulties with regard to upgraded Facilities. For example consider a Market Participant who upgrades its previous 100MW Facility by installing inlet cooling and increasing the output of the facility to 120MW. Currently it is unclear whether the Required Level of output for the return of any Reserve Capacity Security should be at:

- 118 MW (the existing 100MW Facility and 90 percent of upgrade);
- 108 MW (90 percent of the existing 100MW Facility and 90 percent of the upgrade);  
or
- 108 MW (90 percent of the Facility as a whole).

#### ***Proposed Solution***

As agreed at by the MAC, the Market Rules will be amended to clarify that, for the purposes of returning Reserve Capacity Security held for upgrades to Facilities, those Facilities as a whole must pass the relevant test in clause 4.13.13 (the 100 percent test) or clause 4.13.10 (the 90 percent test).

### ***Issue 5: Treatment of Early Certification of Capacity***



On 1 February 2010 the Rule Change Proposal “Early Certified Reserve Capacity” (ECRC) (RC\_2009\_10) was implemented. This provided an avenue to allow potential Reserve Capacity providers to certify capacity earlier than was previously possible under the Market Rules. The changes to the Market Rules were implemented via new clause 4.28C.

Following implementation of RC\_2009\_10 the following additional amendments to section 4.28C have been identified, including:

- Splitting clause 4.28C.8 (Reserve Capacity Security for ECRC) into two clauses. This will ensure consistency with the current drafting of clause 4.13.9 and uniformity in treatment between capacity that enters the market via the ECRC provisions and capacity that enters the market via the “normal” route. New clause 4.28C.8A will state that if a Market Participant does not comply with clause 4.28C.8 in full by the time specified in clause 4.28C.8, the ECRC assigned to that Facility will lapse.
- Clause 4.28C.12 deals with the transition of early Reserve Capacity Security provisions and Reserve Capacity Obligations to the starting point of the normal certification and security provisions. To ensure consistency in treatment of all capacity, ECRC should be subject to the same requirements as capacity that enters the system via the normal process from this point forward (i.e. the time and date specified in clause 4.1.14(a)).
- Amending the wording of clause 4.28C.12 to clarify that it is the IMO’s responsibility to perform the calculation to determine whether the Reserve Capacity Security amount should be adjusted. The current wording only stipulates that a calculation must take place, without firmly identifying the party responsible for the calculation.
- If the calculation in 4.28C.12 results in a reduction in a Market Participant’s required level of Reserve Capacity Security there is currently no explicit obligation for the IMO to return any excess Reserve Capacity Security within a stipulated timeframe. This part of the Market Rules should be consistent with the provisions that apply to capacity that is certified via the standard process. Therefore, a change is proposed to explicitly mandate that in the case when the calculation in 4.28C.12 results in a reduction in Reserve Capacity Security, any excess held by the IMO must be returned within 10 Business Days in accordance with clause 4.13.10A. This will ensure consistency with the provisions in clause 4.13.10A.
- There are a number of provisions in clause 4.13 that apply to “normal” capacity and the security for that capacity that were not mirrored in the drafting of clause 4.28C. To ensure consistency in the treatment of ECRC and “normal” capacity the following clauses from section 4.13 will also apply to ECRC:
  - Clause 4.13.3 – expiration of security;
  - Clause 4.13.4 – non-valid or non-current security;
  - Clause 4.13.5 – acceptable security;
  - Clause 4.13.6 – any interest to accrue on cash provided as security;
  - Clause 4.13.7 – the acceptable credit criteria;
  - Clause 4.13.8 – establishing that the IMO must have a procedure in place and any special requirements for ECRC; and



- Clause 4.13.10 – 4.13.12 – the criteria for the return of the security or forfeiting the security as the case may be.

### ***Issue 6: Clarification of rules surrounding return of non-cash Reserve Capacity Security***

Currently, clause 4.13.10A(c) stipulates that a Reserve Capacity Security in the form of a cash deposit must be returned within 10 Business Days. This is once the IMO has determined the Market Participant's facility has fulfilled the requirements of either the 100 percent test or the 90 percent test. The clause is silent as to the treatment of non-cash Reserve Capacity Security.

#### ***Proposed Solution***

New clause 4.13.14 has been proposed to treat security provided as a non-cash deposit in the same manner as security provided as a cash deposit. The IMO notes that the current requirements of clause 4.13.10A around a Market Participant requesting the release of the relevant security and the IMO's obligations for its return have been incorporated into the new proposed clause 4.13.14.

### ***Issue 7: Typographical amendments***

A number of minor changes to the wording of the Reserve Capacity Security section of the Market Rules (section 4.13) have been proposed along with amendments to the structure of these clauses to follow a more logical sequence, particularly around the return of security.

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## **2. Explain the reason for the degree of urgency:**

The IMO proposes that the Rule Change Proposal be progressed via the Standard Rule Change Process.

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## **3. Provide any proposed specific changes to particular Rules: (for clarity, please use the current wording of the Rules and place a ~~strike through~~ where words are deleted and underline words added)**

The proposed changes to the Market Rules to implement each of the proposed solutions identified are provided below.

The proposed amendments to clause 2.8.13 will remove clause 4.1.27 as being a Protected Provision and therefore requiring the Ministers approval for any changes to be made. The proposed removal of this clause is consistent with the IMO's intent to remove clause 4.1.27, as presented below.

The proposed amendments also account for the restructuring of section 4.13.10. In particular the details of the 90 percent test will be included in clause 4.13.10. The IMO considers that the requirements around the 90 percent test should remain a Protected Provision due to the IMO's potential conflict of interest.

The IMO proposes to remove clause 4.13.11B as this is proposed to become blank. The requirements currently specified under this clause around the satisfaction of payment obligations will be incorporated under amended clause 4.13.11A.

2.8.13. The following clauses are Protected Provisions:

- (a) clauses 1.1 to 1.3 and 1.5 to 1.9 ;
- (b) clauses 2.1 to 2.24, 2.28, 2.31.1, 2.31.3, 2.31.5(a), 2.31.6, 2.34.1 and 2.36.1;
- (c) clauses 3.15, 3.18.18 and 3.18.19;
- (d) clauses 4.1.4 to 4.1.12, 4.1.15 to 4.1.19, 4.1.21, 4.1.22, 4.1.24, ~~4.1.27~~, 4.5.10, 4.5.11, 4.5.15 to 4.5.20, 4.13.10, 4.13.10A, 4.13.10B, 4.13.11, 4.13.11A, ~~4.13.11B~~, 4.16, 4.24.1, 4.24.2 and 4.24.12;
- (e) clauses 5.2.3, 5.2.7 and 5.5.1;
- (f) clauses 9.16.3, 9.16.4 and 9.20.2; and
- (g) clauses 10.1.1, 10.1.2, 10.2.1, 10.3 and 10.4.

The proposed amendments to clause 4.1.21 will remove the substantive details around Reserve Capacity Security obligations from this clause. The amended clause 4.1.21 will provide details around the timelines for the IMO to calculate the amount of Reserve Capacity Security to be held following a request by a Market Participant for a recalculation under new clause 4.13.2A.

The IMO notes that the Pre Rule Change Discussion Paper: Certification of Reserve Capacity (PRC\_2010\_14) currently proposes an amendment to the timeframes around Reserve Capacity Security from 5pm on the last Business Day on or before 23 December to 10 September of Year 1. The IMO notes that any final drafting under this Rule Change Proposal will take into account the outcomes of the consultation on PRC\_2010\_14.

- 4.1.21. ~~Not later than~~ Following a request from a Market Participant under clause 4.13.2A the IMO must recalculate the amount of Reserve Capacity Security required to be held by the IMO for a Facility in accordance with clause 4.13.2(b) by 5 PM of the last Business Day falling on or before 23 December of Year 1 of a Reserve Capacity Cycle. The IMO must, in accordance with clause 4.13.10:
- ~~(a) notify a Market Participant that has provided a Reserve Capacity Security for a Facility that the Reserve Capacity Security is no longer required; and~~
  - ~~(b) return any Reserve Capacity Security which was provided in the form of a cash deposit,~~
- ~~in the event that the Market Participant does not hold Capacity Credits for the Facility to which the Reserve Capacity Security relates in the relevant Reserve Capacity Cycle.~~



The proposed amendment to clause 4.1.27 will remove this clause as it duplicates the requirements specified in clause 4.13.10A. The IMO notes that section 4.1 provides timelines for Reserve Capacity Cycle, where as clause 4.1.27 provides details of the requirement for Reserve Capacity Security to be provided by a Market Participant which is replicated in section 4.13.

4.1.27. ~~The IMO must in accordance with clause 4.13.10 notify a Market Participant that has provided a Reserve Capacity Security for a Facility that the Reserve Capacity Security is no longer required, and return any cash deposit within five Business Days of the first day that the Facility to which the Reserve Capacity Security relates is considered by the IMO to be in commercial operation and capable of meeting its Reserve Capacity Obligation. [Blank]~~

The proposed amendment to clause 4.9.9 will ensure that Market Participants with Facilities certified under clause 4.11.2(b) are advised of whether the IMO accepted or rejected the proposed alternative value to apply for the purposes of the Required Level for each of its Facilities.

- 4.9.9. If the IMO assigns Certified Reserve Capacity to a Facility in respect of a Reserve Capacity Cycle, the IMO must advise the applicant:
- (a) of the amount of Certified Reserve Capacity assigned to the Facility in respect of the Reserve Capacity Cycle, as determined in accordance with clause 4.11 or clause 4.9.5(c) (as applicable);
  - (b) of the initial Reserve Capacity Obligations Quantity set for the Facility, as determined in accordance with clause 4.12 or clause 4.9.5(c) (as applicable);
  - (c) of any Reserve Capacity Security required as a condition of a Market Participant holding the Certified Reserve Capacity, as determined in accordance with clause 4.13.12 or clause 4.9.5(c) (as applicable);
  - (d) in the case of Conditional Certified Reserve Capacity, that the certification is subject to the conditions in clause 4.9.5(a) and (b); ~~and~~
  - (e) the calculations upon which the IMO's determinations are based; and
  - (f) whether the IMO accepted or rejected a proposed alternative value to be used in the calculation of the Required Level for a Facility which applied to be certified under clause 4.11.2(b) (if applicable).

The proposed amendment to clause 4.10.3 will require the report provided by an independent expert for the purposes of CRC to include details of the value of the 5 percent POE of the 3-year expected generation output of the Facility. An alternative value may also be proposed to the IMO for consideration in the case where the independent expert does not consider the value corresponding with the 5 percent POE is appropriate. In proposing an

alternative value the independent expert must provide reasons why the value is appropriate for the IMO's consideration under clause 4.13.10B.

The IMO notes that further amendments to the structure of this clause are being considered under the Pre Rule Change Discussion Paper: Certified of Reserve Capacity (PRC\_2010\_14).

4.10.3. An application for certification of Reserve Capacity that includes a nomination to use the methodology described in clause 4.11.2(b) for an Intermittent Generator Facility that is yet to enter service must include a report prepared by an expert accredited by the IMO, in accordance with the Reserve Capacity Procedure, where this report is to be used to assign the Certified Reserve Capacity for that Facility in accordance with clause 4.11.1(e) and to determine the Required Level for that Facility in accordance with clause 4.11.3B. The report must include:

- (a) an estimate of what the expert considers the Certified Reserve Capacity of the Facility would have been for the purposes of clause 4.11.2(b) had the history of performance been available;
- (b) a value, expressed in MW as a sent out value, which equals the 5 percent probability of exceedance of expected generation output for the Facility for all the Trading Intervals that occurred within the last three years up to, and including, the last Hot Season, where this value is to be used in the calculation of the Required Level in clause 4.11.3B;
- (c) a proposed alternative value to that specified in clause 4.10.3(b), expressed in MW as a sent out value, to apply for the purposes of the Required Level, if applicable; and
- (d) the reasons for any proposed alternative value provided under clause 4.10.3(c).

The proposed amendment to clause 4.11.1 (e) will remove the specification of what the estimate from the expert accredited by the IMO will be based on. These details will be provided in the proposed amended clause 4.10.3. The IMO considers that this is a more appropriate place to specify the requirements for the report provided by expert on the Facility nominating to use the methodology under clause 4.11.2(b).

4.11.1. 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 to which the application relates:

...

- (e) the IMO must assign Certified Reserve Capacity to an Intermittent Generator that is yet to ~~commence operation~~ enter service based on:-



- i. ~~the Certified Reserve Capacity estimate contained in any report provided by the applicant in accordance with clause 4.10.3, where:~~
  - 1. ~~the report was produced by an expert accredited by the IMO in accordance with clause 4.11.6;~~ ~~and~~
  - 2. ~~the estimate reflects what the expert considers the Certified Reserve Capacity of the Facility would have been for the purposes of clause 4.11.2(b) had a history of performance been available.~~

...

The proposed new clause will specify that the IMO will accept or reject an alternative value for a Facility certified under clause 4.11.2(b) to be used in determining its Required Level.

4.11.2A. Where an applicant nominates under clause 4.10.3(c) to have the IMO use an alternative value to that specified in clause 4.10.3(b) the IMO:

- (a) may reject the proposed alternative value if the IMO does not consider the reasons provided in accordance with clause 4.10.3(d) provide sufficient evidence that an alternative value is required;
- (b) if it has not rejected the proposed alternative value under paragraph (a), the IMO must use the alternate value in the calculation of the Required Level under clause 4.11.3B.

The proposed new clause 4.11.3B outlines how the IMO will calculate the Required Level for each Facility. The Required Level will form the basis for the return of Reserve Capacity Security, Reserve Capacity Testing and determination of when an Intermittent Facility will be required to make Reserve Capacity refunds. The proposed new clause will also clarify that upgrades for existing Facilities will be tested as a whole for the purposes of the return of Reserve Capacity Security.

4.11.3B The Required Level (which for an upgraded Facility is calculated for the Facility as a whole):

- (a) For Facilities assigned Certified Reserve Capacity under clause 4.11.1(a), is calculated using the Metered Schedule and temperature dependence information submitted to the IMO under clause 4.10.1(e)i. and converted to a sent out basis to 41 °C;
- (b) For Facilities assigned Certified Reserve Capacity under clause 4.11.2(b), either:
  - (i) the value, expressed in MW as a sent out value, that equals the 5 percent probability of exceedance of expected generation

output for the Facility, submitted to the IMO in the report described in clause 4.10.3(b); or

(ii) the proposed alternative value, expressed in MW as a sent out value, provided in the report described in clause 4.10.3(c), where the IMO has accepted the proposed alternative value under clause 4.11.2A; and

(c) For Curtailable Loads and Demand Side Programmes, is calculated using the Facility's Relevant Demand minus the Capacity Credits assigned to that Facility.

The proposed amendments to clause 4.13.1, in conjunction with the proposed new clauses 4.13.1A and 4.13.1B, will clarify that Reserve Capacity Security will only be required for the first Reserve Capacity Cycle.

4.13.1. Where the IMO assigns Certified Reserve Capacity to a Facility ~~(which for the purposes of this clause 4.13 includes part of a Facility and a Demand Side Programme)~~ that is ~~yet to be commissioned yet to enter service~~, the relevant Market Participant must ensure that the IMO holds the benefit of a Reserve Capacity Security in an amount ~~not less than the amount~~ determined under clause 4.13.2(a) by the date and time specified in clause 4.1.13. ~~for the Reserve Capacity Cycle to which the Certified Reserve Capacity relates.~~

The proposed new clause 4.13.1A clarifies that an existing Facility undergoing significant maintenance or an upgrade must provide security for the part of the Facility either being upgraded or under going significant maintenance. This is irrespective of whether the Facility has previously provided security for the Facility.

4.13.1A For the purposes of this clause 4.13, where an existing Facility is undergoing significant maintenance or being upgraded the requirement to provide Reserve Capacity Security only applies to the part of the Facility either undergoing significant maintenance or being upgraded.

The proposed new clause 4.13.1B clarifies that Reserve Capacity Security will only be required for the first Reserve Capacity Cycle that a Facility will receive Capacity Credits for unless the facility is upgraded.

4.13.1B The obligation under clause 4.13.1 to provide Reserve Capacity Security does not apply where the Market Participant has provided Reserve Capacity Security in relation to the same Facility for a previous Reserve Capacity Cycle, unless the Facility is an existing Facility undergoing significant maintenance or being upgraded.

The proposed new clause 4.13.1C will clarify that an upgrade to an existing facility constitutes a Facility for the purposes of clause 4.13.



4.13.1C For the purposes of this clause 4.13, a Facility includes part of a Facility, any upgrade or significant maintenance to an existing Facility, and a Demand Side Programme, unless otherwise stated.

The proposed amendment to clause 4.13.2 clarifies that the amount of Reserve Capacity Security to be held by a Market Participant will be calculated by the IMO following a request by a Market Participant after the outcomes of the Auction and Bilateral Trade Declaration process. The amended value under clause 4.13.2(b) will be compared to that originally determined under clause 4.13.2(a) to determine whether any excess security needs to be returned to a Market Participant under clause 4.13.2B, when requested by a Market Participant. This will take into account the situation where a Facility offers Certified Reserve Capacity into both the Auction and Bilateral Trade Declaration but the Facility is only assigned Capacity Credits through one of these mechanisms (i.e. the Market Participants offer does not clear in the Auction).

4.13.2. ~~The amount of~~ For the purposes of clause 4.13.1, the amount of Reserve Capacity Security is:

- (a) at the time and date referred to in clause 4.1.13, twenty-five percent of the Maximum Reserve Capacity Price included in the most recently issued Request for Expressions of Interest at the time the Certified Reserve Capacity is assigned, expressed in \$/MW per year, multiplied by an amount equal to:
  - (~~ai.~~) the Certified Reserve Capacity assigned to the Facility; less
  - (~~bii.~~) the total of any Certified Reserve Capacity amount specified in accordance with clause 4.14.1(d) or referred to in clause 4.14.7(c)(ii);

and
- (b) at the time and date referred to in clause 4.1.21, twenty-five percent of the Maximum Reserve Capacity Price included in the most recently issued Request for Expressions of Interest, expressed in \$/MW per year, multiplied by an amount equal to the total number of Capacity Credits provided by the Facility under clause 4.20.1(a).

The proposed new clause 4.13.2A will require a Market Participant who considers they hold more Reserve Capacity Security than needed following the outcomes of the Auction and Bilateral Trade Declaration process to apply to the IMO for a recalculation of the amount of security.

4.13.2A A Market Participant may apply to the IMO for a recalculation of the amount of Reserve Capacity Security required to be held for a Facility using the formula in clause 4.13.2(b) after the time and date referred to in clause 4.1.21.

The proposed new clause 4.13.2B will clarify that following a request by a Market Participant under clause 4.13.2A if the IMO's recalculation indicates that an excess amount of Reserve



Capacity Security is held for a Facility, then the IMO will return any excess Reserve Capacity Security to the Market Participant.

Note that a Facility which provides no Capacity Credits at the time and date specified in clause 4.1.21 will be able to apply to a recalculation of its required amount of Reserve Capacity Security in accordance with this clause.

4.13.2B Within 10 Business Days receipt of a request from a Market Participant under clause 4.13.2A the IMO must recalculate the amount of Reserve Capacity Security required to be held by a Facility using the formula in clause 4.13.2(b). If the amount recalculated by the IMO under clause 4.13.2 (b) is less than that originally calculated under clause 4.13.2 (a) then the IMO must:

- (a) notify a Market Participant that has provided a Reserve Capacity Security for a Facility of the result of the calculation; and
- (b) once the Market Participant has provided any replacement Reserve Capacity Security in accordance with clause 4.13.3A, return any excess Reserve Capacity Security.

The proposed amendment to clause 4.13.3 clarifies that replacement security will only be required if the obligation to provide security extends beyond the period of validity of the current security.

The IMO will include details around the requirement for the replacement Reserve Capacity Security to be in place at least 10 Business Days before the existing Reserve Capacity Security is due to terminate in the Market Procedure for Reserve Capacity Security.

4.13.3. Where a Market Participant's existing Reserve Capacity Security is due to ~~expire or~~ terminate and after that termination the Market Participant will continue to have an obligation to ensure the IMO holds the benefit of a Reserve Capacity Security under clause 4.13.1, then that Market Participant must ensure that the IMO holds the benefit of a replacement Reserve Capacity Security in an amount not less than the level required under clause 4.13.2 that will become effective at the expiry of the existing Reserve Capacity Security . The replacement Reserve Capacity Security must:

- (a) be in an amount not less than the level required under clause 4.13.2; and
- (b) become effective before the termination of the existing Reserve Capacity Security.

The proposed new clause 4.13.3A clarifies that where following a request by a Market Participant the IMO determines that excess security is currently held for a facility, the Market Participant must ensure that the IMO hold the benefit of the necessary amount of replacement security.

The proposed new clause applies to security which would otherwise remain current and valid, if not held in excess by the IMO.

4.13.3A Where under clause 4.13.2B the IMO determines that excess Reserve Capacity Security is currently held for a Market Participant, then that Market Participant must ensure that the IMO holds the benefit of a replacement Reserve Capacity Security. The replacement Reserve Capacity Security must:

- (a) be in an amount not less than the level required under clause 4.13.2(b);  
and
- (b) become effective before the IMO returns any excess Reserve Capacity Security.

The proposed amendments to clause 4.13.5 will update the reference to clause 4.13.11, the requirement for the Market Participant to payment compensation to the market if it fails to operate its facility to the 90 percent test level.

4.13.5. The Reserve Capacity Security for a Market Participant must be:

- (a) an obligation in writing that:
  - i. is from a Reserve Capacity Security provider, who must be an entity which meets the Acceptable Credit Criteria and which itself is not a Market Participant;
  - ii. is a guarantee or bank undertaking in a form prescribed by the IMO;
  - iii. is duly executed by the Reserve Capacity Security provider and delivered unconditionally to the IMO;
  - iv. constitutes valid and binding unsubordinated obligations to the Reserve Capacity Security provider to pay to the IMO amounts in accordance with its terms which relate to the obligations of the relevant Market Participant under the Market Rules to pay compensation under clause 4.13.11A; and
  - v. permits drawings or claims by the IMO to a stated amount; or
- (b) if the IMO in its discretion considers it an acceptable alternative in the circumstances to the obligation under clause 4.13.5(a), a cash deposit (“**Security Deposit**”) made with the IMO (on terms acceptable to the IMO in its discretion) by or on behalf of the Market Participant.

The proposed amendments to clause 4.13.8 will update the reference to clause 4.13.11A. The proposed amendments will also increase the scope of the heads of power for the Market Procedure for Reserve Capacity Security to cover the entire process associated with the determination, provision and return of security. The IMO considers that this will allow for more operational details of the process such as the return of security to be specified in the Market Procedure thereby further enhancing the transparency of the process.

The IMO notes that any amendments to the Reserve Capacity Security Market Procedure will be developed in conjunction with the IMO Procedure Change and Development Working Group during the public consultation period for this Rule Change Proposal.

4.13.8. The IMO must develop a Market Procedure dealing with:

- (a) determining Reserve Capacity Security;
  - (b) assessing persons against the Acceptable Credit Criteria;
  - (c) Reserve Capacity Security arrangements, including:
    - i. the form of acceptable guarantees and bank undertakings;
    - ii. where and how it will hold cash deposits and how the costs and fees of holding cash deposits will be met;
    - iii. the application of monies drawn from Reserve Capacity Security in respect of amounts payable by the relevant Market Participant to the IMO under clause 4.13.11~~AB~~;
  - (d) other matters relating to clauses 4.13.3 to 4.13.7,
- and Market Participants and the IMO must comply with that Market Procedure.

The IMO proposed amended clause 4.13.10 will allow a Market Participant to receive its security back after the end of the relevant Capacity Year, provided that the Facility has operated the whole of the Facility (including for an upgrade of an existing Facility) in at least two Trading Intervals to at least 90 percent of the Required Level during the relevant Capacity Year and is considered by the IMO to be in Commercial Operation. This was previously covered under clause 4.13.11.

The IMO proposes to scale the Required Level for the purposes of Reserve Capacity Security under to the level of Capacity Credits originally assigned to the Facility. This will ensure that the Facilities obligations are measured against the Capacity Credits assigned to it for the Capacity Year. This will ensure that if the Capacity Credits for the Facility are reduced by the IMO (e.g. following a test) these will not be taken into account in determining whether Reserve Capacity Security can be returned.

Alternatively, a Market Participant who does not consider its Facility certified under clause 4.11.2(b) will be able to meet the 90 percent requirement prior to the end of the relevant Capacity Year, may provide a report prepared by one of the IMO's accredited experts that specifies the Facility has been built to the specifications its certification was based on. In this case the security will also be returned to a Market Participant following the end of the Capacity Year.

The IMO notes that the return of security where a Facility has met the 90 percent requirement will be amended from the current 20 Business Day timeframe to 10 Business Days after the end of the relevant Capacity Year. This will ensure consistency with the requirements of clause 4.13.14.

4.13.10 A Market Participant is no longer required to ensure that the IMO holds the benefit of a Reserve Capacity Security after:

- (a) ~~in the case of a Reserve Capacity Security relating to a Facility that provides no Capacity Credits (as notified by the relevant Market Participant under clause 4.20) the time and date specified in clause 4.1.21;~~
- (b) ~~in the case of a new Facility that satisfies 100% of its Reserve Capacity Obligation Quantity for the Facility (as determined under clause 4.12.4 and before any adjustment made under clause 4.12.6) in at least one Trading Interval when the Reserve Capacity Obligation Quantity exceeds 0 MW occurring between the date from which Reserve Capacity Obligations apply in accordance with clause 4.1.26 and the day from which Reserve Capacity Obligations cease to apply in accordance with clause 4.1.30 in respect of the Reserve Capacity Cycle, the later of:
 
  - i. ~~the date from which Reserve Capacity Obligations apply in accordance with clause 4.1.26 in respect of the Reserve Capacity Cycle;~~
  - ii. ~~the first day on which a new Facility first satisfies its Reserve Capacity Obligations under clause 4.12.1(a) or (b) (as applicable) in respect of the Reserve Capacity Cycle.~~~~
- (c) ~~in the case of a new Facility to which none of (a), (b), or clause 4.13.11A relate, the day from which Reserve Capacity Obligations cease to apply in accordance with clause 4.1.30 in respect of the Reserve Capacity Cycle.~~

If a Market Participant that provides Reserve Capacity Security in respect of a Facility either:

- (a) operates the Facility at a level which is at least 90 percent of its Required Level, scaled to the level of Capacity Credits specified in clause 4.20.1(a), in at least two Trading Intervals before the end of the relevant Capacity Year;
- (b) provides the IMO with a report under clause 4.13.10C, which specifies that at least 90 percent of the Facility has been built; and
- (c) is considered by the IMO to be in Commercial Operation,

then the IMO will return the Reserve Capacity Security to the Market Participant within 10 Business Days after the end of the relevant Capacity Year.

The proposed amended clause 4.13.10A will specify the requirement for a Market Participant to request the IMO to determine whether it is in Commercial Operation for the purposes of the Reserve Capacity Mechanism.



The current specifications relating to the return of security under clause 4.13.10A are proposed to be removed and will be incorporated into new clause 4.13.14. The IMO considers that this will ensure that the integrity of the Market Rules is maintained.

4.13.10A ~~Where a Market Participant considers that clause 4.13.10 applies to it in relation to a Facility, the Market Participant may request the IMO to release the relevant Reserve Capacity Security. Within 10 Business Days after receiving such a request the IMO must:~~

- ~~(a) — determine whether the need to maintain the Reserve Capacity Security has ceased;~~
- ~~(b) — notify the Market Participant of its determination; and~~
- ~~(c) — if the Reserve Capacity Security is a cash deposit that is no longer required to be held, refund the cash deposit (plus interest earned).~~

A Market Participant may request the IMO to determine that a Facility is in Commercial Operation for the purposes of the Chapter 4 of these Market Rules.

The proposed new clause 4.13.10B will provide details of how the IMO will determine that a facility is in Commercial Operation following a request from a Market Participant. The IMO notes that new Facilities that commission under a Resource Plan will be able to provide the IMO with any supporting documentation for consideration.

Further details of the information required to be provided by Market Participants to allow the IMO to make its determination will be specified in the Reserve Capacity Market Procedure.

4.13.10B On receipt of a request made under clause 4.13.10A the IMO must determine, within 20 Business Days, whether the Facility is in Commercial Operation. In making each such determination the IMO must, if applicable, have regard to:

- (a) whether the Facility has completed an approved Commissioning Test under clause 3.21A and subsequently produced energy for at least two Trading Intervals; and
- (b) any formal advice received from the Market Participant that it has completed an approved Commissioning Test under clause 3.21A and is commercially operational.

The IMO may also have regard to any additional information the IMO considers relevant.

The proposed new clause 4.13.10C will allow a Market Participant to provide the IMO with a report from an independent expert outlining that the Facility has been installed as was originally proposed to be built during certification (as used in the report provided under clause 4.10.3). Alternatively the report can specify that a equivalent percentage of the Facility



has been installed. Note that a Market Participant may provide multiply updates of the report as necessary

This report will be taken into account by the IMO when returning a Facility's security under clause 4.13.10 and in determining whether partial refunds should apply for the facility (refer to the Rule Change Proposal: Partial Commissioning for Intermittent Generators (RC\_2010\_22) for further details).

4.13.10C For a Facility certified under clause 4.11.2(b), a Market Participant may provide the IMO with a report prepared by an independent expert accredited by the IMO in accordance with the Reserve Capacity Procedure before the end of the relevant Capacity Year which specifies the equivalent percentage of the Facility described in the report provided under clause 4.10.3 that has been built.

The proposed amendment to clause 4.13.11 will remove the current requirements relating to the 90 percent test for the return of security which will be included in the amended clause 4.13.10. The amended clause 4.13.11 will clarify that a Market Participant who fails to meet the 90 percent test level will be required to pay within 20 Business Days of the end of the relevant Capacity Year the IMO the amount of its security as compensation to the market. This requirement is currently provided under clause 4.13.11A. The IMO does not propose any material amendments to this requirement.

The IMO considers that the restructuring of these clauses will maintain the integrity of the Market Rules.

~~4.13.11 If a Market Participant that provides a Reserve Capacity Security in respect of a Facility under this clause 4.13 operates the Facility:~~

~~(a) at a level (expressed in MWh) that is at least 90% of one-half of the Reserve Capacity Obligation Quantity for the Facility (as determined under clause 4.12.4 and before any adjustment made under clause 4.12.6, expressed in MW) in at least one Trading Interval when the Reserve Capacity Obligation Quantity exceeds 0 MW; and~~

~~(b) the Trading Interval falls between the date from which Reserve Capacity Obligations apply in accordance with clause 4.1.26 and the day from which Reserve Capacity Obligations cease to apply in accordance with clause 4.1.30 in respect of the Reserve Capacity Cycle,~~

~~then, unless the IMO has already returned the Reserve Capacity Security to the Market Participant under clause 4.13.10A, the IMO will return the Reserve Capacity Security to the Market Participant within 20 Business Days after the end of the relevant Capacity Year.~~



If a Market Participant fails to operate a Facility in accordance with clause 4.13.10 then the Market Participant must pay to the IMO, as compensation to the market, an amount equal to the Reserve Capacity Security amount for that Facility within 20 Business Days after the end of the relevant Capacity Year.

The proposed amendment to clause 4.13.11A will remove the current reference to the requirement to paid compensation to the market if a Market Participant fails to operate a facility to at least the 90 percent test level (this is covered under amended clause 4.13.11). The amended clause will specify how the payment obligations under clause 4.13.11 will apply (these are currently provided under clause 4.13.11B). The IMO does not propose any material amendments to this requirement.

The IMO considers that the restructuring of these clauses will maintain the integrity of the Market Rules.

~~4.13.11A If a Market Participant fails to operate a Facility in accordance with clause 4.13.11, then the Market Participant must pay to the IMO, as compensation to the market, an amount equal to the Reserve Capacity Security amount for that Facility. The payment obligation under clause 4.13.11 may be satisfied by the IMO drawing upon the Reserve Capacity Security for the Facility, and applying the amount claimed (after meeting the IMO's costs associated with doing so) so as to:~~

- ~~(a) firstly, offset the cost of funding Supplementary Capacity Contracts for any capacity shortage stemming entirely or in part from the Facility not being available; and~~
- ~~(b) secondly, once all costs to which paragraph (a) refers are covered, make a rebate payment to Market Customers in proportion to their Individual Reserve Capacity Requirements during the Trading Month in accordance with Chapter 9.~~

The proposed amendment to clause 4.13.11B will remove the current details specified in this clause. These will be provided in the proposed amended clause 4.13.11A.

~~4.13.11B The payment obligation under clause 4.13.11A may be satisfied by the IMO drawing upon the Reserve Capacity Security for the Facility, and applying the amount claimed (after meeting the IMO's costs associated with doing so) so as to:~~

- ~~(a) firstly, offset the cost of funding Supplementary Capacity Contracts for any capacity shortage stemming entirely or in part from the Facility not being available; and~~
- ~~(b) secondly, once all costs to which paragraph (a) refers are covered, make a rebate payment to Market Customers in proportion to their Individual Reserve Capacity Requirements during the Trading Month in accordance with Chapter 9. [Blank]~~

The proposed amendment to clause 4.13.12 will update the reference from clause 4.13.11 to 4.13. The IMO notes that there is no need to update this clause to refer to a non-cash deposit. This is because in the case where a Market Participant fails to meet 90 percent of its Required Level and currently holds a non-cash deposit, the non-cash deposit (e.g. bank undertaking) will still continue to operate according to its terms.

4.13.12. If the Reserve Capacity Security drawn upon under clause 4.13.11 is a cash deposit, then the Market Participant forfeits the amount of the cash deposit.

The proposed new clause 4.13.13 will allow for the return of security once the Required Level of output has been met regardless of whether this occurs before or after an RCOQ of greater than zero applies. This will allow for Facilities which have commissioned early to receive their security back on the day where they meet the IMO's Required Level for two Trading Intervals and are considered by the IMO to be in Commercial Operation. For example if a Facility is commissioned and meets its Required Level before 30 November for Reserve Capacity Cycles up to an including 2009 or 1 October for the 2010 Reserve Capacity Cycle and are determined by the IMO to be in Commercial Operation onwards they will be entitled to have their security returned.

The IMO proposes to scale the Required Level for the purposes of Reserve Capacity Security under sub-clause (b) to the level of Capacity Credits originally assigned to the Facility. This will ensure that the Facilities obligations are measured against the Capacity Credits assigned to it for the Capacity Year. This will ensure that if the Capacity Credits for the Facility are reduced by the IMO (e.g. following a test) these will not be taken into account in determining whether Reserve Capacity Security can be returned.

4.13.13 A Market Participant may apply to the IMO for the release of any Reserve Capacity Security held, earlier than the end of the relevant Capacity Year, if the Reserve Capacity Security relates to a Facility that:

- (a) has operated at 100 percent of its Required Level, scaled to the level of Capacity Credits specified in clause 4.20.1(a), in at least two Trading Intervals prior to the end of the relevant Capacity Year; and
- (b) is considered by the IMO to be in Commercial Operation.

The proposed new clause 4.13.14 clarifies that non-cash Reserve Capacity Security will be treated in the same manner as Reserve Capacity Security provided via a cash deposit. The IMO notes that this new clause will provide the same details as currently contained under clause 4.13.10A, albeit with a typographical change from "refund the cash deposit" to "return the cash deposit".

The IMO also proposes to specify the process for returning Reserve Capacity Security following the outcomes of the 100 percent requirement (clause 4.13.13) and for early certified facilities the IMO's recalculation under clause 4.28C.12 (b).

4.13.14 Where the IMO receives an application made under clause 4.13.13 or clause 4.28C.12 it must, within 10 Business Days:



- (a) determine whether the need to maintain the Reserve Capacity Security has ceased;
- (b) notify the Market Participant of its determination;
- (c) if the Reserve Capacity Security is a cash deposit that is no longer required to be held, return the cash deposit (plus interest earned); and
- (d) if the Reserve Capacity Security is a non-cash deposit and is no longer required to be held, use reasonable endeavours to relinquish any rights to draw on the Reserve Capacity Security.

The proposed amendment to clause 4.20.1 will clarify that when notifying the IMO of the total number of Capacity Credits provided by all the Market Participant's Facilities Capacity Credits assigned by the IMO under clause 4.28C.10 will also be included. This will ensure that when the IMO scales the Required Level to the level of Capacity Credits assigned to a Facility that ECRC will also be included.

- 4.20.1. Each Market Participant must, by the date and time specified in clause 4.1.20, notify the IMO of:
- (a) the total number of Capacity Credits each Facility will provide during the Capacity Year commencing on 1 October of Year 3 of the Reserve Capacity Cycle; and
  - (b) the number of those Capacity Credits the Market Participant anticipates the IMO has acquired as a result of the Reserve Capacity Auction subject to paragraph (c);
  - (c) the total number of Capacity Credits provided by all the Market Participant's Facilities must be consistent with the sum of:
    - i. the quantity of Certified Reserve Capacity held by the Market Participant which the IMO has notified the Market Participant it can trade bilaterally under clause 4.14.9;
    - ii. the quantity of Certified Reserve Capacity held by the Market Participant scheduled by the IMO in the Reserve Capacity Auction, as published in accordance with clause 4.19.5(b);
    - iii. the quantity of Certified Reserve Capacity held by the Market Participant which remains the subject of pre-existing Long Term Special Price Arrangements and which the Market Participant does not intend to trade bilaterally; ~~and~~
    - iv. the quantity of Certified Reserve Capacity held by the Market Participant for Facilities subject to Network Control Service Contracts; and



- v. the quantity of Capacity Credits held by the Market Participant which was assigned under clause 4.28C.10.

...

The proposed amendment to clause 4.25.1 is to refer to the Required Level established under clause 4.10.13B in place of the maximum Reserve Capacity Obligation Quantity.

The IMO proposes to scale the Required Level to the level of Capacity Credits. This will ensure that for the purposes of Reserve Capacity Testing the level of Capacity Credits as amended by the IMO following any previous tests will be taken into account.

- 4.25.1. The IMO must take steps to verify, in accordance with clause 4.25.2, that each Facility providing Capacity Credits:
- (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~~ Required Level, scaled to the level of Capacity Credits currently held, 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.
  - (c) in the case of a Curtailable Load can, during the term the Reserve Capacity Obligations apply, operate at its maximum Reserve Capacity Obligation Quantity at least once during the period between 1 October to 31 March.

The proposed amendment to clause 4.25.2 is to refer to the Required Level established under clause 4.10.13B. This clause provides clarification around how the IMO determines the Required Level previously referenced in this clause. This is currently only contained in the Market Procedure for Reserve Capacity Testing.

- 4.25.2. The verification referred to in clause 4.25.1 can be achieved:



- (a) by the IMO observing the Facility operate at the Required Level, scaled to the level of Capacity Credits currently held, at least once as part of normal market operations in Metered Schedules specific to the Facility; or
- (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, scaled to the level of Capacity Credits currently held, 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, scaled to the level of Capacity Credits currently held, for not less than one Trading Interval and the Facility successfully passing that test.

The proposed amendment to clause 4.25A.3 is to refer to the Required Level for the purposes of determining whether a Verification Test has been successful.

4.25A.3. The Verification Test is failed if a reduction in demand equal to at least 10% percent of the Required Level scaled to the level of Capacity Credits currently held ~~Capacity Credits~~ is not identified from the Curtailable Load meter data.

The proposed amendment to clause 4.25.4B is to reference the requirements of the IMO following a request from a Market Participant to release its security. These requirements are proposed to be removed from clause 4.13.10A and included in new clause 4.13.14.

- 4.25.4B In order for an application under clause 4.25.4A to be assessed by the IMO, it must:
- (a) be in writing;
  - (b) relate to a Facility for which the IMO has notified the Market Participant, in accordance with clause 4.13.10A~~14~~ of its determination that the need to maintain the Reserve Capacity Security for that Facility has ceased;
  - (c) detail the reasons for the reduction in the number of Capacity Credits; and
  - (d) indicate whether the application relates only to the current Reserve Capacity Year or includes subsequent Capacity Years.

The proposed amendment to clause 4.26.1 is to refer to the Required Level established under clause 4.10.13B or alternatively the receipt of a report by an independent expert that the facility has been built in accordance with the information provided to the IMO during



certification, in place of Intermittent Generators being deemed commissioned by the IMO. The IMO proposes to insert the same scaling factor to Capacity Credits assigned at the beginning of the Capacity Year as used for the purposes of the return of Reserve Capacity Security.

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 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 assuming the IMO acquires all of the Capacity Credits held by the Market Participant 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:

For an Intermittent Facility that has:

- (a) has operated at 100 percent of its Required Level, scaled to the level of Capacity Credits specified in clause 4.20.1(a), in at least two Trading Intervals; or
- (b) has provided the IMO with a report under clause 4.13.10C, where this report specifies that 100 percent of the Facility certified under clause 4.11.2(b) has been built; and
- (c) is following a request to the IMO by a Market Participant, considered by the IMO to be in Commercial Operation been commissioned;

Y equals 0



For all other facilities, including Intermittent Facilities that following a request to the IMO by a Market Participant are not considered by the IMO to be in Commercial Operation ~~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.

~~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.~~

The proposed amendment to clause 4.26.1A will update the reference in subclause 4.26.1A(a)(iv) to not have been deemed in Commercial Operation rather than commissioned. This is consistent with the proposed amendments to clause 4.1.21.

4.26.1A. The IMO must calculate the Forced Outage refund for each Facility (“**Facility Forced Outage Refund**”) 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 in Trading Interval t,

where the Forced Outage Shortfall 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 in Commercial Operation, 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

- (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 applicable to the Facility in previous Trading Months falling in the same Capacity Year.

The proposed amendment to clause 4.27.10A will update the reference to new clause 4.13.14, where the IMO informs a Market Participant that the need to maintain security has ceased.

4.27.10A. Market Participants holding Capacity Credits for Facilities that are yet to commence operation must file a report on progress with the IMO at least once every month between the commencement of the calendar year in which the date referred to in clause 4.10.1(c)(iii)(7) falls and the date the IMO has notified the Market Participant, in accordance with clause 4.13.1410A, of its determination, that the need to maintain the Reserve Capacity Security for the Facility has ceased.

The proposed amendment to clause 4.28.4 will update the references to the amended clause 4.13.11A from clause 4.13.11. This will correct a current inconsistency with the reference to the 90 percent test rather than the payment obligations.

- 4.28.4. For each Trading Month, the IMO must calculate a Shared Reserve Capacity Cost being the sum of:
- (a) the cost defined under clause 4.28.1(b); and
  - (aA) the net payments to be made by the IMO under Supplementary Capacity Contracts less any amount drawn under a Reserve Capacity Security by the IMO and distributed in accordance with clause 4.13.11A(a); less
  - (b) the Capacity Cost Refunds for that Trading Month; less
  - (bA) the Intermittent Load Refunds for that Trading Month; less
  - (c) any amount drawn under a Reserve Capacity Security by the IMO and distributed in accordance with clause 4.13.11A(b)



and the IMO must allocate this total cost to Market Customers in proportion to each Market Customer's Individual Reserve Capacity Requirement.

The proposed amendment to clause 4.28C.8 and new clause 4.28C.8A will clearly define the implications of not complying with clause 4.28C.8. This will also ensure consistency in treatment between capacity that enters the market via the early certification route and that which enters the market during the standard route.

4.28C.8. Within 30 Business Days of the applicant receiving notification by the IMO of the amount of Early Certified Reserve Capacity assigned to the Facility the applicant must ensure that the IMO holds the benefit of a provided Reserve Capacity Security equal to the amount specified in clause 4.28C.9., ~~else the Early Certified Reserve Capacity assigned to the Facility will lapse.~~

4.28C.8A If a Market Participant does not comply with clause 4.28C.8 in full by the time specified in clause 4.28C.8, the Early Certified Reserve Capacity assigned to that Facility will lapse.

The proposed amendment to clause 4.28C.12 will clarify that in the case when the calculation of clause 4.28C.12 results in a reduction in Reserve Capacity Security, any excess held by the IMO must be returned within 10 Business Days (in accordance with clause 4.13.14). The proposed amendment also clarifies that it is the IMO's responsibility to perform the re-calculation.

4.28C.12. ~~The Reserve Capacity Security provided by the Market Participant under clause 4.28C.8 must, b~~By the time and date specified in clause 4.1.13 (a), in Year 1 of the first Reserve Capacity Cycle specified in clause 4.10.1(b), in which the Facility will commence operation enter service the IMO must be recalculated the amount of Reserve Capacity Security to be provided by each Market Participant under clause 4.28C.8 in accordance with clause 4.28C.9, and;

- (a) If an additional amount of Reserve Capacity Security is required, the Market Participant must ensure that the IMO holds the benefit of the additional Reserve Capacity Security; and
- (b) If a reduced amount of Reserve Capacity Security is required, the Market Participant may request the IMO to return any additional Reserve Capacity Security, in accordance with clause 4.13.14, provided that at all times the IMO holds a Reserve Capacity Security to the level determined in accordance with this clause 4.28C.12.

~~the difference paid to the IMO or refunded to the Market Participant as applicable,~~

The proposed new clause 4.28C.12A will ensure consistent treatment of Facilities which enter the market via the early certification route with regard to the provision and return of Reserve Capacity Security in accordance with clause 4.13.



4.28C.12A From the time and date specified in clause 4.1.13(a) in Year 1 of the first Reserve Capacity Cycle in which the Facility will enter service, all of the provisions of clause 4.13 apply equally to the Reserve Capacity Security of Facilities with Early Certified Reserve Capacity.

## Glossary

**Commercial Operation:** The status determined by the IMO under clause 4.13.10B that a Facility is operating in the Wholesale Electricity Market.

**Reserve Capacity Security:** Is the reserve capacity security to be provided for a Facility as calculated and re-calculated under clause 4.13 and clause 4.28C. Has the meaning given in clause 4.13.1.

**Required Level:** The level of output (expressed in MW) required to be met by a Facility or Demand Side Programme as determined in clause 4.11.3B.

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## 4. Describe how the proposed Market Rule change would allow the Market Rules to better address the Wholesale Market Objectives:

The IMO's assessment of the impact of each of the discrete proposed changes is presented below:

### ***Issue 1: Treatment of Facilities once the first Reserve Capacity Cycle has lapsed***

The IMO considers the changes proposed to the treatment of Facilities once the first Reserve Capacity Cycle has lapsed to have the following impact on the Market Objectives:

<b>Impact</b>	<b>Market Objectives</b>
Allow the Market Rules to better address the objective.	b
Consistent with objective.	a, c, d, e
Inconsistent with objective.	

The IMO considers the proposed changes would allow the Market Rules to better address Market Objective (b). In particular by removing the current ambiguity around whether Reserve Capacity Security may need to be provided beyond the initial Capacity Cycle, a potential perceived barrier to entry will be removed. This will encourage greater competition in the WEM.

The IMO considers the proposed amendments are consistent with the other market objectives.

### ***Issue 2: Treatment of Intermittent Facilities***



The IMO considers the changes proposed to the treatment of Intermittent Facilities will have the following impact on the Market Objectives:

Impact	Market Objectives
Allow the Market Rules to better address the objective.	c
Consistent with objective.	a, b, d, e
Inconsistent with objective.	

The IMO considers the proposed change to introduce a Required Level to be met by a Facility for the purposes of the return of Reserve Capacity Security, Reserve Capacity Testing and capacity refunds will allow the Market Rules to better address Market Objective (c) by ensuring equivalent treatment of conventional and non-conventional technologies. In making this change a current potential discrimination against Intermittent Generation will be removed.

The IMO considers the proposed amendments are consistent with the other market objectives.

***Issue 3: When should Facilities be entitled to have their Reserve Capacity Security returned***

The IMO considers the changes proposed to the timelines for when Facilities should be entitled to have their Reserve Capacity Security returned to have the following impact on the Market Objectives:

Impact	Market Objectives
Allow the Market Rules to better address the objective.	b
Consistent with objective.	a, c d, e
Inconsistent with objective.	

The IMO considers the proposed changes would allow the Market Rules to better address Market Objective (b) by facilitating the efficient entry of new competitors by allowing Reserve Capacity Security to be released earlier. This is expected to have a positive effect by releasing potential working capital earlier.

The IMO considers the proposed amendments are consistent with the other market objectives.

***Issue 4: Treatment of upgraded Facilities***

The IMO considers the changes proposed to the treatment of upgraded Facilities to have the following impact on the Market Objectives:

Impact	Market Objectives
Allow the Market Rules to better address the objective.	c

Consistent with objective.	a, b, d, e
Inconsistent with objective.	

The IMO considers the proposed changes would allow the Market Rules to better address Market Objective (c) by ensuring equitable treatment of new Facilities and upgraded Facilities, a level playing field will be provided and a potential current discrimination under the Market Rules removed.

The IMO considers the proposed amendments are consistent with the other market objectives.

**Issue 5: Treatment of Early Certification of Capacity**

The IMO considers the changes proposed to the treatment of Early Certification of Capacity to have the following impact on the Market Objectives:

Impact	Market Objectives
Allow the Market Rules to better address the objective.	c
Consistent with objective.	a, b, d, e
Inconsistent with objective.	

The IMO considers the proposed changes would allow the Market Rules to better address Market Objective (c).by ensuring that ECRC is treated as far as is possible, in the same way as capacity that follows the normal path for certification.

The IMO considers the proposed amendments are consistent with the other market objectives.

**Issue 6: Clarification of rules surrounding return of non-cash Reserve Capacity Security**

The IMO considers the changes proposed to the treatment of non-cash Reserve Capacity Security will be consistent with the Market Objectives.

**Issue 7: Typographical Amendments**

The IMO considers the minor changes proposed to clause 4.1.21 will be consistent with the Market Objectives. :

**5. Provide any identifiable costs and benefits of the change:**

**Costs:**

- The IMO will have IT costs associated with this proposal. These costs will be quantified during the first submission period.



**Benefits:**

- Equivalent treatment of conventional and non-conventional generation types;
- Clarification of the requirements for the return of Reserve Capacity Security (at both the 100 percent and 90 percent level);
- Clarification that capacity which enters via the early certification route will be treated equally to that which enters via the standard route;
- Clarification that if an existing facility undertakes a upgrade the Facility as a whole will be tested;
- Introduction of the concept of a Required Level for the purposes of the return of Reserve Capacity Security, Reserve Capacity Testing and determining the capacity refunds to apply for an Intermittent Generator. The IMO considers that the introduction of a single concept will ensure clarity and consistency throughout the Market Rules; and
- Clarification of the rules surrounding the provision of a non-cash deposit as a Reserve Capacity Security.



## **Appendix 1: Updates to the Reserve Capacity Security Market Procedure**

The IMO proposes to amend the Market Procedure: Reserve Capacity Security to provide details of:

- How a Market Participant may apply to the IMO to be considered “in Commercial Operation”, including details of types of supporting evidence that may be provided. Details of the basis under which the IMO will make a decision a Facility is in Commercial Operation are provided in new clause 4.13.10C;
- How the IMO will determine whether an alternative value to the 5 percent probability of exceedance is determined.
- How the IMO determines the expected generation output of a Facility;
- The requirement for replacement security to be in place at least 10 Business Days before the existing capacity is due to terminate; and
- How the IMO will scale the level of Capacity Credits in accordance with the proposed amended clause 4.13.10 and new clause 4.13.13.

The IMO will develop in conjunction with the IMO Procedure Change and Development Working Group the specific proposed amendments to the Market Procedure during the first submission period. This will ensure that interested parties submitting on the Rule Change Proposal will be provided with transparency of the proposed changes to the Market Procedure.