



**Independent Market Operator**

**Final Rule Change Report:  
Required Level and Reserve  
Capacity Security**

**Ref: RC\_2010\_12**

**Date: 22 July 2011**

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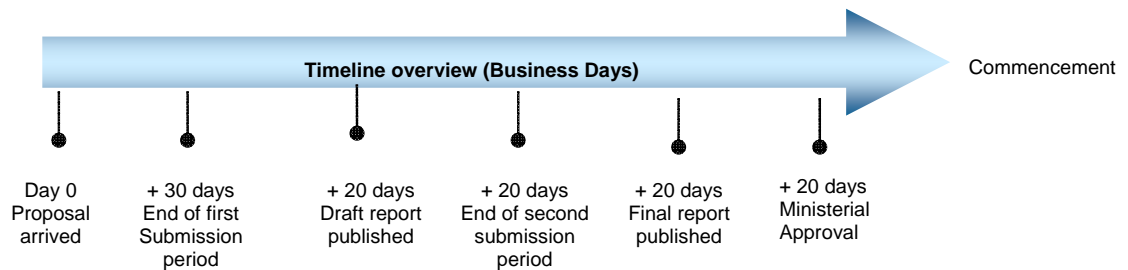
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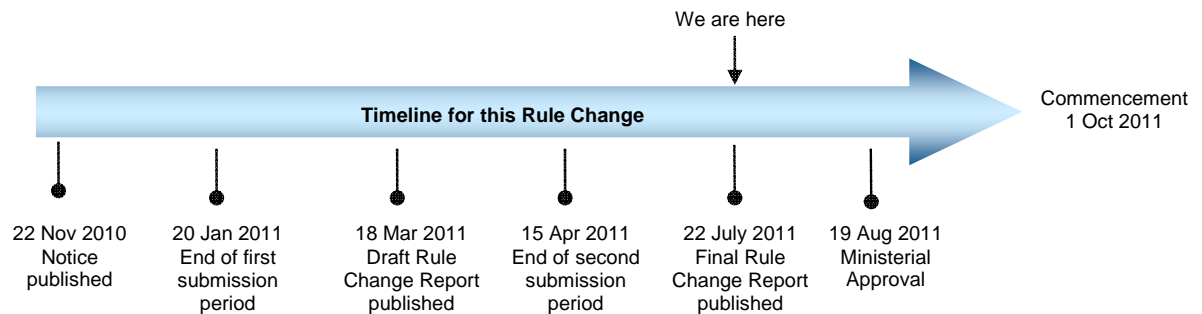
## 1. INTRODUCTION

On 17 November 2010, the Independent Market Operator (IMO) submitted a Rule Change Proposal regarding amendments to 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 of the Wholesale Electricity Market Rules (Market Rules).

The proposal was processed using the Standard Rule Change Process, described in section 2.7 of the Market Rules. The standard process adheres to the following timelines:



In accordance with clause 2.5.10 of the Market Rules the IMO decided to extend the end date for the first submission period and the timeframes for preparing the Draft Rule Change Report and Final Rule Change Report. Further details of the extensions are available on the IMO website. The key dates in processing this Rule Change Proposal, as amended in the extension notices, are:



The IMO's final decision is to accept the Rule Change Proposal in a modified form. The detailed reasons for the IMO's decision are set out in section 7 of this report.

In making its final decision on the Rule Change Proposal, the IMO has taken into account:

- the Wholesale Market Objectives;
- the practicality and cost of implementing the proposal;
- the views of the Market Advisory Committee (MAC); and
- the submissions received.

All documents related to this Rule Change Proposal can be found on the IMO website: [http://www.imowa.com.au/RC\\_2010\\_12](http://www.imowa.com.au/RC_2010_12)

## 2. THE RULE CHANGE PROPOSAL

### 2.1 Submission Details

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<b>Date submitted:</b>	17 November 2010
<b>Urgency:</b>	Standard Rule Change Process
<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.

### 2.2 Summary Details of the Proposal

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% 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% (but not 100%) of its RCOQ within the Reserve Capacity Year. In this case the requirement 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 IRCR level.

The IMO noted in its rule change proposal that after a comprehensive review of the administration of Reserve Capacity Security (RCS) several issues with the process have been identified, particularly as new and diverse facilities have begun commissioning and participating in the Wholesale Electricity Market (WEM). To enact the outcomes from the IMO's review, proposed solutions to each of the issues were developed in conjunction with the MAC. An overview of the issues is provided here:

**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.

**Issue 2: Treatment of Intermittent Facilities**

Intermittent Facilities have an RCOQ level of zero at all times and it is currently impossible for them to meet the requirements of clause 4.13.11A.

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

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.

**Issue 4: Treatment of upgraded Facilities**

It is currently unclear how the IMO would assess the part of a Facility that has performed at its Required Level (either 100 percent or 90 percent) where the upgrade is not independent of the rest of the plant.

**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 affected by the Rule Change Proposal "Early Certified Reserve Capacity" (ECRC) (RC\_2009\_10) were implemented via new clause 4.28C.

Following the 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 to 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.
- 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.
- A mandate is required to ensure that in the case where 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.
- 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. The clause is silent as to the treatment of non-cash Reserve Capacity Security.

***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) are also proposed by the IMO along with amendments to the structure of the clauses to follow a more logical sequence, particularly around the return of security.

A brief overview of IMO's proposed solutions to each issue is presented below:

Issue identified in Rule Change Proposal	Proposed Solution
Treatment of Facilities once the first Reserve Capacity Cycle has lapsed (Issue 1)	<p>Updates to clarify that:</p> <ul style="list-style-type: none"> <li>• RCS is to be either returned to the Market Participant or forfeited within the first Reserve Capacity Cycle. No further RCS obligation will apply to that Certified Reserve Capacity (CRC) thereafter, unless the Facility is upgraded at a later date; and</li> <li>• Replacement RCS is only required if the obligation to provide security extends beyond the period of the validity of the current security.</li> </ul>
Treatment of Intermittent Facilities (Issue 2)	<p>Development of the Required Level concept to ensure consistent treatment of all generation types. The Required Level concept is based on the 5 percent Probability of Exceedance of the three year expected generation output for the Facility (MW). Alternatively a Market Participant may provide the IMO a report prepared by one of the IMO's accredited experts that the Facility has been built to the specifications upon which its certification was based. The concept was supported by Senergy Econnect and McLennan, Magasnik and Associated (MMA), the independent experts appointed by the IMO to provide advice.</p> <p>The Required Level concept will also be used for the purposes of the Reserve Capacity testing and Reserve Capacity refunds.</p>
Timing for return of RCS (Issue 3)	<p>Updates to allow for the return of RCS when a Facility can operate at its Required Level and is considered by the IMO to be in Commercial Operation, regardless of whether this occurs before or after a Reserve Capacity Obligation Quantity (RCOQ) "greater than zero" applies.</p>
Treatment of upgraded Facilities (Issue 4);	<p>Updates to clarify that for the purposes of returning RCS held for upgraded Facilities, the entire facility must pass the relevant test (either the 100 percent or 90 percent test)</p>
Treatment of Early Certification of Capacity (Issue 5)	<p>Updates to ensure consistency of treatment of all capacity. Early Certified Reserve Capacity (ECRC) to be subject to the same requirements as capacity that enters the system via the normal process from the time and date specified in clause 4.1.14(a). A number of minor and typographical changes are also proposed to improve the integrity of the Market Rules.</p>
Clarification of rules surrounding return of non-cash RCS (Issue 6)	<p>Updates to treat security provided as a non-cash deposit in the same manner as security provided as a cash deposit.</p>
Correction of a number of minor and typographical amendments (Issue 7)	<p>A number of minor and typographical changes are also proposed to improve the integrity of the Market Rules.</p>

The full details of the Rule Change Proposal are available in Appendix 1 of this report.

### **2.3 The Proposal and the Wholesale Market Objectives**

In its proposal, the IMO considered that the amendments addressing each of the identified issues would have the following impacts on the Market Objectives:

Issue	Wholesale Market Objective Assessment
Treatment of Facilities once the first Reserve Capacity Cycle has lapsed (Issue 1)	Better (b) and consistent with (a), (c), (d) and (e)
Treatment of Intermittent Facilities (Issue 2)	Better (c) and consistent with (a), (b), (d) and (e)
Timing for return of RCS (Issue 3)	Better (b) and consistent with (a), (c), (d) and (e)
Treatment of upgraded Facilities (Issue 4);	Better (c) and consistent with (a), (b), (d) and (e)
Treatment of Early Certification of Capacity (Issue 5)	Better (c) and consistent with (a), (b), (d) and (e)
Clarification of rules surrounding return of non-cash RCS (Issue 6)	Consistent with (a), (b), (c), (d) and (e)
Correction of a number of minor and typographical amendments (Issue 7)	Consistent with (a), (b), (c), (d) and (e)

Further details of the IMO's assessment of each of the solutions to the identified issues against the Wholesale Market Objectives are provided in the Rule Change Notice.

### **2.4 The Amending Rules Proposed by the IMO**

The amendments to the Market Rules proposed by the IMO in its Rule Change Proposal are presented in Appendix 2 of this report.

### **2.5 The IMO's Initial Assessment of the Proposal**

The IMO decided to proceed with the proposal on the basis of its preliminary assessment, which indicated that the proposal was consistent with the Wholesale Market Objectives.

## **3. FIRST SUBMISSION PERIOD**

The first submission period for this Rule Change Proposal was between 23 November 2010 and 20 January 2011. The timeframe for the first submission period was extended in accordance with the IMO's extension notice published on 22 November 2010.

### **3.1 Submissions received**

The IMO received submissions from Alinta, Griffin Energy, Landfill Gas & Power (LGP), Perth Energy and Synergy during the first submission period. The main points raised in the submissions are summarised below. A copy of the full text of all submissions is available on the IMO website. Additional detail along with the IMO's response is contained in Appendix 3.



In summary, the submissions received from LGP, Perth Energy and Synergy all supported the proposed amendments, albeit suggesting a number of minor changes to the proposed Amending Rules. Alinta also supported the apparent intent of the proposal but notes a number of concerns around:

- the proposed method for identifying the Required Level of a Curtailable Load or Demand Side Programme (Clause 4.11.3B);
- the return of a Facility's RCS following the provision of a report to the IMO under clause 4.13.10C that specifies that at least 90 percent of the Facility has been built (Clause 4.13.10(b)); and
- the allocation of any surplus forfeited RCS to Market Customers in proportion to their monthly Individual Reserve Capacity Requirements (IRCRs).

Alinta also noted that it would appear that the proposed amendments, in conjunction with those proposed under the Rule Change Proposal: Partial Commissioning of Intermittent Generators (RC\_2010\_22) would result in Intermittent Facilities not being exposed to any refunds. Alinta also notes an inconsistency between the deleted text in clause 4.1.27 and the November 2010 version of the Market Rules.

Griffin Energy agreed with the majority of proposed solutions to the issues surrounding the administration of RCS proposed by the IMO (Issues 1, 4, 6 and 7). However, Griffin Energy considered that the proposed treatment of Intermittent Generators is complicated and messy (Issue 2). In Griffin Energy's opinion this highlights the inadequacy of aiming to treat all forms of capacity in a similar manner, when some forms of capacity are clearly different to others (a weakness Griffin Energy considered is also prevalent with respect to Demand Side Management (DSM)). Griffin Energy suggested that it would be easier for the IMO to manage the credibility of its list of accredited experts than to manage the complexities which the introduction of the concept of a Required Level and the determination of whether a facility is in Commercial Operation would imply.

Griffin Energy stated, with regard to the changes proposed under RC\_2010\_22, that the failure to provide (a proportion of) capacity in a wind farm's first year of operation should result in (a proportionate amount of) the facility's capacity payments being refunded, rather than introducing complicated mechanisms to allow the facility to be held accountable on the same basis as a Scheduled Generator. Griffin Energy noted that while this is different to how a Scheduled Generator is treated, this is necessarily so, as the technologies are fundamentally different.

A summary of the assessment by the submitting parties as to whether the proposal would better the Wholesale Market Objectives is presented below:

Submitter	Wholesale Market Objective
Alinta	Considers that once the issues with the proposed changes identified in Alinta's submission have been resolved it is likely that the amendments would be consistent with the Wholesale Market Objectives (and in any event are unlikely to be inconsistent with the Wholesale Market Objectives).
Griffin Energy	Do not adversely impact on objectives, however is concerned at the level of complexity being introduced and suggests that simpler approaches specific to differing technologies are justified. While this may mean adopting new approaches as new technologies are brought into the market, this would be preferable to adopting a one-size-fits-all approach which ends up

Submitter	Wholesale Market Objective
	producing poor incentives across the board.
LGP	Agrees with the IMO's assessment
Perth Energy	Better facilitates (b) and (c).
Synergy	Better addresses (b) and (c).

### **3.2 The IMO's Response to Submissions Received During the First Submission Period**

The IMO's response to each of the issues identified during the first submission period is presented in Appendix 3 of this report.

### **3.3 Public Forums and Workshops**

No public forums or workshops were held in relation to this Rule Change Proposal.

### **3.4 Additional Amendments to the Amending Rules**

Following the closure of the first consultation period, the IMO made additional changes to the proposed Amending Rules to:

- enact the advice received following external legal review of the proposal;
- reflect the suggestions received in submissions received during the first consultation period, where appropriate; and
- improve the integrity of the proposed Amending Rules.

These additional amendments are presented in Appendix 4 of this report.

## **4. THE IMO'S DRAFT ASSESSMENT**

The IMO's draft assessment against the proposed amendments to the Market Rules and analysis of the Rule Change Proposal can be viewed in the Draft Rule Change Report (available on the IMO's website).

## **5. THE IMO'S DRAFT DECISION**

The IMO's draft decision was to accept the Rule Change Proposal as amended following the first submission period.

The IMO made its decision on the basis that the Amending Rules:

- will allow the Market Rules to better address Wholesale Market Objectives (b) and (c);
- are consistent with the remaining Wholesale Market Objectives;
- had the general support of the MAC;
- enact the advice received following external legal review of the proposal; and
- have the support of the majority of submissions received during the first submission period.

## 6. SECOND SUBMISSION PERIOD

Following the publication of the Draft Rule Change Report on the IMO website, the second submission period was between 21 March 2011 and 15 April 2011.

### 6.1 Submissions received

The IMO received submissions from Alinta and Synergy during the second submission period. The main points raised are summarised below. A copy of the full text of all submissions is available on the IMO website. Additional detail along with the IMO's response is contained in section 6.2 of this paper.

Both Alinta and Synergy raised an issue around the ability for an Intermittent Generator to only have to operate at its Required Level, scaled to 90 percent of its Capacity Credits, by the end of the relevant Capacity Year in order to have its RCS returned. In particular, Alinta noted that the requirement to make Reserve Capacity refunds and the ability for the IMO to reduce Capacity Credits following a Reserve Capacity test create strong incentives for a Scheduled Generator to be built in accordance with the basis on which it was assigned Capacity Credits. Given that Intermittent Generators have a Reserve Capacity Obligation Quantity of zero, are not exposed to refunds and are not tested by the IMO, there are reduced incentives to build an Intermittent Generator in accordance with the basis on which it was assigned Capacity Credits.

Both parties consider that simply requiring an expert report stating the Intermittent Generator can produce output equivalent to its Required Level, scaled to 90 percent of its Capacity Credits, in order to have its Reserve Capacity Security returned creates a risk to the market that the full value of capacity may not be installed. The IMO notes that neither party recommends an amendment to the normal operational 90 percent test level, but rather just to the requirements of the expert report. The recommendations to minimise this perceived risk submitted by both parties are as follows:

- Alinta: the details of any expert report, as provided under clause 4.13.10(a)(ii), must state that the Facility can operate in accordance with the basis on which it applied for, and was granted, Certified Reserve Capacity; and
- Synergy: the requirements for an Intermittent Generator to be deemed to be in "Commercial Operation" be amended to include a requirement for it to be "in Commercial Operation consistent with the basis on which it was assigned Certified Reserve Capacity".

#### Assessment against the Wholesale Market Objectives

Alinta considers that the IMO cannot be generally satisfied that the amendments proposed by RC\_2010\_12 to clause 4.13.10(a) (ii) of the Market Rules are consistent with the Wholesale Market Objectives (a), (b) and (c). If the issue identified by Alinta is resolved, it is likely that the amendments would be consistent with the Wholesale Market Objectives, and in any event are unlikely to be inconsistent with the Wholesale Market Objectives.

Synergy believes the Rule Change Proposal as a whole will allow the Market Rules to better address Market Objectives (b) and (c).

### 6.2 The IMO's Response to Submissions Received during the Second Submission Period

The IMO's response to each of the issues identified during the second submission period is presented in the table over the page.

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
Risk to market of Intermittent Generators not being installed consistent with the basis they were assigned CRC	Alinta	<p>It is the exposure to capacity refunds and lower capacity payment if its Capacity Credits are reduced that creates an extremely strong financial incentive for Scheduled Generators to be built in accordance with the basis on which they applied for, and were granted, Certified Reserve Capacity and were assigned Capacity Credits ... while the proposed clause 4.13.10(a)(i) would enable any facility to apply for the return of security within 10 Business Days of the end of the Capacity Year where they operate at a level which is at least 90 percent of its Required Level, the circumstances applying to Scheduled Generators suggests it is highly unlikely that these facilities would utilise this clause for the return of their security.</p> <p>In contrast to Scheduled Generators, Intermittent Generators have an RCOQ of zero. Consequently they are not exposed to capacity refunds and because they are not tested by the IMO, these facilities are also not exposed to potentially having their Capacity Credits reduced in the same manner as Scheduled Generators if the Facility is not built in accordance with the basis on which it applied for, and was granted, Certified Reserve Capacity and was assigned Capacity Credits. As a result there is no immediate financial incentive for these facilities to be built in accordance with the basis on which they applied for, and were granted, Certified Reserve Capacity and were subsequently assigned Capacity Credits.</p>	<p>The IMO agrees that there may be an unintentional risk created to the market as a result of the differing incentives to complete construction of an Intermittent Generator in accordance with the basis under which it was provided CRC. The IMO however considers that this risk may have been overstated as an Intermittent Generator will pay a partial level of refunds until such time as they produce at their Required Level, scaled to 100 percent of Capacity Credits, or provide an expert report stating their ability to produce at this level. The IMO notes that full refunds will apply for new Intermittent Generators until the IMO deems them to be in Commercial Operation. For further details refer to the Rule Change Proposal: Partial Commissioning for Intermittent Generators (RC_2010_22) available on the following webpage: <a href="http://www.imowa.com.au/RC_2010_22">http://www.imowa.com.au/RC_2010_22</a></p> <p>The IMO notes that Intermittent Generators are not currently required to undertake any form of Reserve Capacity Testing. This is a wider issue outside the scope of this Rule Change Proposal.</p>
Risk to market of Intermittent Generators not being installed consistent with the basis they	Alinta	Consistent with its submission on RC_2010_14, Alinta strongly opposes any amendment of the Market Rules that transfers commercial, technical, construction and commissioning risk from developers proposing new facilities to the market generally, and Market Customers specifically.	<p>Refer above regarding the IMO's contention that the risk to the market in this situation has been overstated.</p> <p>Additionally, the IMO notes Alinta's position and agrees that developers are the most appropriate party to manage these risks.</p>

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
were assigned CRC			
Return of RCS where an Intermittent Generator meets 90 percent of its Required Level	Alinta	If the proposed new clause 4.13.10(a)(ii) were implemented as set out in the Draft Rule Change Report, the developer of an Intermittent Generator would only need to operate at 90 percent of its Required Level in order to have its Reserve Capacity Security returned. If a Facility could only operate at this level it implies that the facility may not be capable of delivering the level of capacity to the market for which it applied for, and was granted, Certified Reserve Capacity and was subsequently assigned Capacity Credits.	<p>The intent of RC_2010_12 was to introduce the "Required Level" concept, to be applied equally to all Facilities in a number of areas of the Market Rules (including with regard to the ability to provide an expert report for an Intermittent Generator). The amendment suggested by Alinta would constitute a conceptual shift away from this requirement, by imposing a more onerous requirement on Intermittent Generators where an expert report is provided.<sup>1</sup> This would differ from the treatment of a Facility assigned CRC under clause 4.11.1(a) (typically a Scheduled Generator) or a Demand Side Programme, which would only be required to operate at its Required Level, scaled to 90 percent of its Capacity Credits, in order to have its RCS returned. An expert report is intended to act as an alternative to operational performance for Intermittent Generation, to reduce the risk that the wind does not blow and thereby restricts a fully installed wind farm's ability to have its RCS returned. Given that the reports have been recommended by the MAC as a valid alternative to actual performance by an Intermittent Generator, then a requirement to confirm a different level of performance does not appear to be justified. The IMO therefore does not consider this is an appropriate option (as reflected in the Draft Rule Change Report).</p> <p>The IMO also notes that should Alinta's recommendation be adopted it would not be possible for the accredited expert's report to take into account any original advice from the expert that a different output level should be used to set the Facility's Required Level (as was originally provided when the IMO)<sup>2</sup>. This is also inconsistent with the original intent of allowing a report from an accredited expert for facilities assigned Capacity Credits under clause 4.11.2(b).</p>

<sup>1</sup> Note that under Alinta's proposed amendments the actual performance level for these Facilities for return of RCS (as reflected in Metered Schedules) would remain at the Required Level, scaled to 90 percent of Capacity Credits.

<sup>2</sup> For clarity the IMO notes that an expert report can be provided at the time of setting the Required Level for the Facility (i.e. where the 5% PoE is inappropriate for a Facility to achieve) and a separate (and unconnected) expert report can be provided as an alternative to physically achieving a level of output (i.e. which states what level of output could be achieved by the Facility). This is consistent with the advice of the MAC.

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
Return of RCS where an Intermittent Generator meets 90 percent of its Required Level	Alinta	<p>While Alinta does not oppose the proposed new clause 4.13.10(a)(i), consistent with the direction given by the MAC, Alinta considers that the proposed amended clause 4.13.10(a)(ii) should be amended as previously proposed:</p> <p>“... provides the IMO with a report under clause 4.13.10C, which specifies that <del>at least 90 percent of the Facility has been built 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;</del> and “</p>	Refer above.
Return of RCS where an Intermittent Generator meets 90 percent of its Required Level	Alinta	The potential effect of the proposed new clause 4.10.1(a)(ii) as outlined in the Draft Rule Change Report is to enable Market Participants to come to a commercial decision on whether it remains attractive to deliver the amount of Capacity Credits originally notified to the IMO and accepted by it under clause 4.20, or some lesser amount.	Refer above.
Return of RCS where an Intermittent Generator meets 90 percent of its Required Level	Synergy	<p>Although using 90% of the Required Level for an Intermittent Generator appears consistent compared to the other forms of generation capacity, and Intermittent Generator, such as a wind farm, can be unitised on a much smaller scale than conventional generation – e.g. An 80 MW wind farm can be composed of 80 separate 1 MW towers and turbines, Therefore there is a possibility though unlikely to occur, that such an Intermittent Generator could build only 90% of its unit structure yet pass the clause 4.13.10 requirement for the return of its RCS. Synergy proposes a simple change to clause 4.13.10(b) as follows which may provide sufficient reassurance to the market that this risk is covered off:</p> <p>“... (b) is considered by the IMO to be in Commercial</p>	The requirements for a Facility to be deemed to be in Commercial Operation are outlined in proposed new clause 4.13.10B. The IMO notes that the proposed amendments to allow for partial commissioning of Intermittent Generators for the purposes of capacity refunds rely on the IMO having determined a Facility is in Commercial Operation where it has not yet met its Required Level, scaled to 100 percent of its Capacity Credits. To apply a different definition of Commercial Operation to the 90 percent test for the return of RCS (as proposed by Synergy) to that applied in other areas of the Market Rules (such as capacity refunds) would be inconsistent with the original intent of streamlining, where appropriate, the concepts applied in the Market Rules. As such the IMO has not adopted this recommendation.

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
		Operation <u>consistent with the basis on which it was assigned Certified Reserve Capacity.</u> "	
Return of RCS where an Intermittent Generator meets 90 percent of its Required Level	Alinta	<p>To the extent that failure by a Market Participant to deliver the full quantum of Capacity Credits notified to the IMO then results in the aggregate quantum of Capacity Credits falling below the Reserve Capacity Requirement, the Market Participant responsible for this outcome would not be exposed to the potential costs that would result from the IMO needing to acquire Supplementary Reserve Capacity.</p> <p>This is because any net payments that might be made by the IMO for Supplementary Capacity Contracts come out of the Shared Reserve Capacity Cost, which would be shared amongst Market Customers.</p>	The IMO notes Alinta's comments but considers that this issue is outside the scope of this Rule Change Proposal.
Return of RCS where an Intermittent Generator meets 90 percent of its Required Level	Alinta	<p>As the IMO is aware, RC_2008_34 was to amend the Market Rules to specifically target the cost of Supplementary Capacity Contracts at individual Market Participants where those participants were directly responsible for the requirement for procure Supplementary Reserve Capacity.</p> <p>While advising the IMO to not proceed with RC_2008_34, its consultant also recommended the issue be referred back to the Supplementary Reserve Capacity Working Group to consider the issues more broadly. While a proper examination of these issues remains outstanding, Alinta has previously signalled it considers this should occur sooner rather than later.</p>	The IMO notes Alinta's comments but considers that this issue is outside the scope of this Rule Change Proposal.

### 6.3 Additional Amendments to the Amending Rules

Following the closure of the second consultation period, the IMO made additional changes to the proposed Amending Rules to:

- improve the integrity of the proposed Amending Rules;
- clarify the adjustment of the Required Level for a Facility to its level of Capacity Credits;
- clarify the timing for the return and forfeiture of Reserve Capacity Security at the end of a Capacity Year given the Interval Meter Deadline;
- ensure consistency with the amendments implemented by the Final Rule Change Reports for:
  - Removal of Network Control Services Expression of Interest and Tender Process from the Market Rules (RC\_2010\_11);
  - Curtailable Loads and Demand Side Programmes (RC\_2010\_29); and
  - Certification of Reserve Capacity (RC\_2010\_14).

These additional amendments are presented in Appendix 5 of this report.

## 7. THE IMO'S FINAL ASSESSMENT

In preparing its Final Rule Change Report, the IMO must assess the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3 of the Market Rules. Clause 2.4.2 outlines that the IMO “*must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives*”.

Additionally, clause 2.4.3 states, when deciding whether to make Amending Rules, the IMO must have regard to the following:

- any applicable policy direction from the Minister regarding the development of the market;
- the practicality and cost of implementing the proposal;
- the views expressed in submissions and by the MAC; and
- any technical studies that the IMO considers necessary to assist in assessing the Rule Change Proposal.

The IMO notes that there has not been any applicable policy direction from the Minister in respect of this Rule Change nor has it commissioned a technical review in respect of this Rule Change Proposal.

The IMO's assessment is outlined in the following sections.

### 7.1 Market Objectives

The IMO considers that the Market Rules as a whole, if amended, will be consistent with the Wholesale Market Objectives.

Wholesale Market Objective	Consistent with objective
(a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South	Yes



Wholesale Market Objective	Consistent with objective
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	Yes
(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	Yes
(d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system	Yes
(e) to encourage the taking of measures to manage the amount of electricity used and when it is used	Yes

Further, the IMO considers that the proposed amendments would not only be consistent with the Wholesale Market Objectives but would also allow the Market Rules overall to better address Wholesale Market Objectives (b) and (c). The IMO's assessment of the impacts of the proposed solutions to each of the identified issues 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 would allow the Market Rules to better address Wholesale Market Objective (b):

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

By removing the current ambiguity around whether RCS 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, therefore promoting market objective (b).

The IMO considers the proposed amendments to implement the IMO's solution to Issue 1 are consistent with the other Wholesale Market Objectives.

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

The IMO considers the changes proposed to the treatment of Intermittent Facilities would allow the Market Rules to better address Wholesale Market Objective (c).

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

The introduction of a Required Level to be met by a Facility for the purposes of the return of RCS, Reserve Capacity Testing and capacity refunds will allow the Market Rules to better address Wholesale Market Objective (c), by ensuring equitable treatment of conventional and non-conventional technologies. This will remove a current potential discrimination against Intermittent Generation.

The IMO considers the proposed amendments to implement the concept of a Required Level and the IMO's other proposed changes to address Issue 2 are consistent with the other Wholesale Market Objectives.

**Issue 3: When should Facilities be entitled to have their RCS returned**

The IMO considers the changes proposed to the timelines for when Facilities should be entitled to have their RCS returned would allow the Market Rules to better address Wholesale Market Objective (b).

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

The proposed amendments will potentially result in RCS being returned to a Market Participant by the IMO earlier where a Facility meets the necessary requirements. These monies could then be used by Market Participants as working capital, thereby promoting the efficient entry of new competitors.

The IMO considers the amendments proposed to address Issue 3 are consistent with the other Wholesale Market Objectives.

**Issue 4: Treatment of upgraded Facilities**

The IMO considers the changes proposed to the treatment of upgraded Facilities would allow the Market Rules to better address Wholesale Market Objective (c):

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

The proposed changes would ensure equitable treatment of new Facilities and upgraded Facilities for the purposes of the provision and return of RCS. This will guarantee a level playing field for both new and existing Facilities. The IMO considers that the removal of this potential current discrimination under the Market Rules will promote Wholesale Market Objective (c).

The IMO considers the amendments proposed to address Issue 4 are consistent with the other Wholesale Market Objectives.

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

The IMO considers the amendments proposed to address Issue 5 are consistent with the Wholesale Market Objectives. The IMO notes that the proposed changes will ensure that ECRC is treated as far as is possible in the same way as capacity that follows the normal path for certification.

**Issue 6: Clarification of rules surrounding return of non-cash RCS**

The IMO considers that the proposed amendments to clarify the treatment of non-cash RCS are consistent with the Wholesale Market Objectives.

**Issue 7: Typographical Amendments**

The IMO considers the proposed minor and typographical amendments are consistent with the Wholesale Market Objectives.

## **7.2 Practicality and cost of implementation**

### **Cost:**

The proposed amendments will require changes to the Wholesale Electricity Market Systems operated by the IMO. The costs of these changes are closely linked with the costs of the changes contemplated by RC\_2010\_22:

The IMO notes that as it has decided to progress both RC\_2010\_12 and RC\_2010\_22 the costs of the changes will be (assuming 50/50 split of “shared” development/testing costs):

- RC\_2010\_12: Approximately \$38,000
- RC\_2010\_22: Approximately \$70,000

The proposed changes will not require any updates to the systems operated by System Management. In addition there have been no identified changes to other Rule Participants’ costs.

The IMO also notes that updates will be required to the RCS Market Procedure to outline the process for the provision and return of RCS. The IMO considers that these costs fall within the day to day operation of the IMO and therefore will not incur additional personnel costs.

### **Practicality:**

The IMO has not identified any issues with the practicality of implementing the proposed changes.

## **7.3 Views expressed in submissions**

The IMO received five submissions during the first submission period. Three of the submissions supported the Rule Change Proposal, albeit suggesting a number of amendments for consideration by the IMO. Alinta also supported the apparent intent of the proposal, but noted a number of wider concerns around the detail of the proposal. These concerns are outlined in further detail in section 3.1 and Appendix 3 of this report. Alinta also raised an issue with proposed amendments, in conjunction with those proposed under RC\_2010\_22, resulting in Intermittent Generators not being exposed to any refunds.

Griffin Energy agrees with most of the solutions proposed by the IMO to the issues surrounding the administration of RCS (Issues 1, 4, 6 and 7). However, Griffin Energy considers that the treatment of Intermittent Generators is complicated and messy (Issues 2, 3 and 5). Griffin Energy suggests that it would be easier for the IMO to manage the credibility of its list of accredited experts than to manage the complexities which the introduction of the concept of a Required Level and determining whether a facility is in Commercial Operation would imply. The IMO’s response to submissions received during the first submission period is presented in Appendix 3 of this report.

During the second submission period IMO received two submissions that generally supported the Rule Change Proposal, albeit noting the potential risks to the market associated with returning the Reserve Capacity Security where an expert report states an Intermittent Generator is capable of meeting its Required Level, scaled to 90 percent

of its Capacity Credits. Further details of this issue along with the IMO's response are presented in section 6 of this report.

#### **7.4 Views expressed by the Market Advisory Committee**

The MAC discussed the proposal at the 12 May 2010, 11 August 2010 and 8 September 2010 MAC meetings. An overview of the MAC discussions is presented in Appendix 6. Further details are available in the MAC meeting minutes available on the IMO website: <http://www.imowa.com.au/market-advisory-committee>

In general, the MAC supported the IMO's progression of the Rule Change Proposal. During discussions, a number of concerns regarding the introduction of the Required Level concept were raised. In accordance with the advice of the MAC an amendment to the Required Level concept was incorporated to allow a report from an independent expert to be provided that states the facility can produce at a level equivalent to the 90 percent test to enable the return of RCS at the end of the relevant Capacity Year.

## **8. THE IMO'S FINAL DECISION**

Based on the matters set out in this report, the IMO's final decision, in accordance with clause 2.7.8 (e), is to accept the Rule Change Proposal as modified by the amendments outlined in sections 3.4 and 4.3 and Appendices 4 and 5 of this report.

### **8.1 Reasons for the Decision**

The IMO has made its decision on the basis that the Amending Rules:

- will allow the Market Rules to better address Wholesale Market Objectives (b) and (c);
- are consistent with the remaining Wholesale Market Objectives;
- had the general support of the MAC;
- enact the advice received following external legal review of the proposal; and
- had the support of the majority of submissions received during both the first and second submission period.

Additional detail outlining the analysis behind the IMO's decision is outlined in section 7 of this Final Rule Change Report.

## **9. AMENDING RULES**

### **9.1 Commencement**

The amendments to the Market Rules resulting from this Rule Change Proposal will commence at **8.00am** on **1 October 2011**.

### **9.2 Amending Rules**

The following clauses are amended (~~deleted text~~, added text):

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) [Blank]
- (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.

4.1.21. ~~Not later than~~ A Market Participant may apply to the IMO under clause 4.13.2A for a recalculation of the amount of Reserve Capacity Security required to be held by the IMO for a Facility in accordance with clause 4.13.2(b) after 5 PM of the last Business Day falling on or before 24 September 23 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.<sup>3</sup>~~

4.1.27. ~~The IMO must in accordance with clause 4.13.10A notify a Market Participant that has requested the IMO to release a Reserve Capacity Security for a Facility, which the Market Participant considers to be in commercial operation and capable of meeting its Reserve Capacity Obligations, of its determination as to whether that Reserve Capacity Security is no longer required, and return any cash deposit that is no longer required, within 10 Business Days after receiving the Market Participant's request [Blank]~~

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);

<sup>3</sup> The IMO notes that clauses 4.1.21, 4.9.9 and 4.10.3 reflect the proposed Amending Rules resulting from RC\_2010\_14.

- (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) upon the request of the applicant, of 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 for which a Market Participant nominated to use the methodology described in clause 4.11.2(b) in its application for certification, as determined in accordance with clause 4.11.2A, if applicable.~~

4.10.3. An application for certification of Reserve Capacity ~~for an Intermittent Generator that includes a nomination to use the methodology described in clause 4.11.2(b) for a Facility that is yet to enter service, or has not operated for the full period of performance assessment under 4.11.2(b), must include a report prepared by an expert accredited by the IMO in accordance with clause 4.11.6. The IMO will use the report to assign Certified Reserve Capacity for the Facility and to determine the Required Level for that Facility.~~ 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 in the opinion of the expert the value provided under clause 4.10.3(b) would not be a reasonable representation of the Facility's 5 percent probability of exceedance of expected generation output during its first year of operation;~~
- ~~(d) the reasons for any proposed alternative value provided under clause 4.10.3(c); and~~
- ~~(e) an estimates of the expected electricity sent out by the Facility for the full period of performance assessment under clause 4.11.2(b).~~

The applicant may provide the same report until the Facility has been in operation for the full period of performance assessment under clause 4.11.2(b).

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 it does not consider the reasons provided in accordance with clause 4.10.3(d) provide sufficient evidence that an alternative value is required; and

(b) must use the alternative value in the calculation of the Required Level if it does not reject the proposed alternative value under clause 4.11.2A (a).

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 by the IMO using the Capacity Credits assigned to the Facility and temperature dependence information submitted to the IMO under clause 4.10.1(e)(i) or provided in Standing Data (where available) and converted to a sent out basis to 41°C;

(b) for Facilities assigned Certified Reserve Capacity under clause 4.11.2(b), is 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 Demand Side Programmes, is calculated by the IMO using the Facility's Relevant Demand minus the Capacity Credits assigned to the Facility.

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 (or re-enter service after significant maintenance or having been upgraded), 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.

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 applies only to the part of the Facility either undergoing significant maintenance or being 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.

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, unless otherwise stated.

4.13.2. ~~The amount of~~ For the purposes of clause 4.13-4 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:

~~(a.i.)~~ 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 at the time the Certified Reserve Capacity is assigned, expressed in \$/MW per year, multiplied by an amount equal to the total number of Capacity Credits assigned to the Facility under clause 4.20.5A.

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.

4.13.2B Within 10 Business Days after 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 the Market Participant of the result of the calculation;

(b) offer the Market Participant the opportunity to replace the Reserve Capacity Security in accordance with clause 4.13.2C, and

(c) if the Market Participant provides a replacement Reserve Capacity Security in accordance with clause 4.13.2C, return any excess Reserve Capacity Security.

4.13.2C Where under clause 4.13.2B the IMO notifies a Market Participant that excess Reserve Capacity Security is currently held, then a Market Participant may replace the existing Reserve Capacity Security with a replacement Reserve Capacity Security. The replacement Reserve Capacity Security must:

(a) be in an amount not less than the amount required under clause 4.13.2(b); and



(b) become effective before the IMO returns any excess 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, ~~at least 10 Business Days before the time when the existing Reserve Capacity Security will expire or terminate~~, 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 an amount not less than the amount required under clause 4.13.2; and

(b) become effective before the termination of the existing Reserve Capacity Security.

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.

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 4.13.11A~~B~~;
- (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.

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:

- (a) either:
  - i. operates the Facility at a level which is at least equivalent to its Required Level, adjusted to 90 percent of the level of Capacity Credits specified in clause 4.20.5A, in at least two Trading Intervals before the end of the relevant Capacity Year; or
  - ii. provides the IMO with a report under clause 4.13.10C, which specifies that the Facility can operate at a level which is at least

equivalent to its Required Level, adjusted to 90 percent of the level of Capacity Credits specified in clause 4.20.5A; and

(b) is considered by the IMO to be in Commercial Operation, then the IMO will return the Reserve Capacity Security to the Market Participant as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of the Year 4 of the relevant Reserve Capacity Cycle.

~~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 Chapter 4 of these Market Rules.

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:

- (a) must have regard to the following, if applicable:
  - i. whether the Facility has completed an approved Commissioning Test under clause 3.21A and subsequently produced energy for at least two Trading Intervals; and
  - ii. any formal advice received from the Market Participant that it has completed an approved Commissioning Test under clause 3.21A and is commercially operational; and
- (b) may have regard to any additional information the IMO considers relevant.

4.13.10C. For a Facility certified under clause 4.11.2(b), a Market Participant may provide the IMO with a report, in accordance with the Reserve Capacity Procedure, prepared by an independent expert accredited by the IMO, before the end of the relevant Capacity Year. The report must specify the independent expert's best estimate of the level to which the Facility can operate, expressed in MW as a sent out value, at the time the report is prepared.

~~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 that provides a Reserve Capacity Security in respect of a Facility fails to operate that Facility in accordance with clause 4.13.10 before the end of the relevant Capacity Year 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 as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Reserve Capacity Cycle.

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.~~

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]~~

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.

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

(a) has operated at a level equivalent to its Required Level, adjusted to 100 percent of the level of Capacity Credits specified in clause 4.20.5A, 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.

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, notify the provider that the IMO relinquishes any rights to draw on the Reserve Capacity Security.

4.20.1. If the IMO holds a Reserve Capacity Auction in any year, each Market Participant that has a Reserve Capacity Offer scheduled under clause 4.19.4 must, by the date and time specified in clause 4.1.20, notify the IMO of:

(a) the total number of Capacity Credits that it will provide from each of its Facilities during the Capacity Year commencing on 1 October of Year 3 of the Reserve Capacity Cycle. The information provided must be consistent with the requirements of paragraph (c) and (e); and

(b) the number of those Capacity Credits the Market Participant anticipates will be acquired by the IMO. The information provided must be consistent with the requirements of paragraph (d) and (e);

(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;

...<sup>4</sup>

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, during the term the Reserve Capacity Obligations apply, operate at ~~its maximum Reserve Capacity Obligation Quantity~~ a level equivalent to its Required Level, adjusted 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) 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 Demand Side Programme, during the term the Reserve Capacity Obligations apply, and during the period specified in clause 4.10.1(f)(vi), decrease its consumption to operate at ~~a level equivalent to its maximum Reserve Capacity Obligation Quantity~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once during the period between 1 October to 31 March.<sup>5</sup>

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

<sup>4</sup> The IMO notes that clause 4.20.1 has been updated to reflect the Amending Rules resulting from RC\_2010\_14.

<sup>5</sup> The IMO notes that clauses 4.25.1, 4.25.2 and 4.25.3B reflected the final Amending Rules resulting from RC\_2010\_29 that will commence on 1 October 2011.

- (a) in the case of a generation system:
  - i. ~~observing the Facility operate at the required level~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once as part of normal market operations ~~in Metered Schedules specific to the Facility as determined from Meter Data Submissions;~~ or
  - ii. requiring System Management, in accordance with clause 4.25.7, to test the Facility's ability to operate at ~~the required level~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, 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~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, 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~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, 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~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, for not less than one Trading Interval and the Facility successfully passing that test.

4.25.3B. If a Demand Side Programme fails a Reserve Capacity test under clause 4.25.2(b)(ii) and is issued a Dispatch Instruction by System Management to decrease its consumption ~~by a quantity equivalent to its maximum Reserve Capacity Obligation Quantity~~ to a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, for not less than one Trading Interval 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.

4.25.4B 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 4.13.40A~~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.

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<sup>6</sup>.

**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:				
For an Intermittent <del>Facility Generator</del> that has <del>been commissioned</del> :				
(a) either:				
i. <u>operated at a level equivalent to its Required Level, adjusted to 100 percent of the level of Capacity Credits currently held, in at least two Trading Intervals; or</u>				
ii. <u>provided the IMO with a report under clause 4.13.10C, where this report specifies that the Facility can operate at a level equivalent to its Required Level, adjusted to 100 percent of the level of Capacity Credits currently held; and</u>				

<sup>6</sup> The IMO notes that the proposed amendments resulting from RC\_2010\_22 have been reflected in clause 4.26.1.



(b) is, following a request to the IMO by a Market Participant, considered by the IMO to be in Commercial Operation:

Y equals 0.

~~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 Trading 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.~~

4.26.1A. The IMO must calculate the Reserve Capacity Deficit refund for each Facility (“**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 Reserve Capacity Deficit in Trading Interval t,

where the 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 Generator which is ~~deemed to have not been commissioned~~ not considered by the IMO to have been in Commercial Operation, for the purposes of clause 4.26.1, the number of Capacity Credits associated with the relevant Intermittent Generator Facility; or
- ivA. if the Facility is an Intermittent Generator which is considered by the IMO to have been in Commercial Operation, but for which Y does not equal zero in the Refund Table in clause 4.26.1, the minimum of:

1.  $RL - (2 \times Max_2)$ ; or

2.  $RL - A$

where:

RL is the Required Level, adjusted to 100 percent of the level of Capacity Credits currently held;

Max<sub>2</sub> is the second highest value of the output for the Facility (MWh) achieved during a Trading Interval

during the relevant Trading Month, as measured in Meter Data Submissions received by the IMO in accordance with clause 8.4, that has been achieved since the date the IMO determined the Facility to be in Commercial Operation, where this value must be set equal to or greater than the Max<sub>2</sub> applied by the IMO for the previous Trading Month; and

A \_\_\_\_\_ is the level of output (in MW) detailed in the most recent report provided by the Market Participant for the Facility under clause 4.13.10C,

where this value will be applied for the purposes of this clause for the relevant Trading Month; 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; or
- vii. if the Facility is a Demand Side Programme:  
$$\max(0, \text{RCOQ} - \max(0, (\text{RD} - \text{MinLoad})))$$

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 Reserve Capacity Deficit Refunds applicable to the Facility in previous Trading Months falling in the same Capacity Year.<sup>7</sup>

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.

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 provide 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.

4.28C.12. The Reserve Capacity Security provided by the Market Participant under clause 4.28C.8 must, by Prior to the time and date specified in clause 4.1.13 (a), in yYear 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 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 by the time and date specified in clause 4.1.13(a); 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.

<sup>7</sup> The IMO notes that clauses 4.26.1A reflected the final Amending Rules resulting from RC\_2010\_29 that will commence on 1 October 2011.

the difference paid to the IMO or refunded to the Market Participant as applicable.

4.28C.12A From the time and date specified in clause 4.1.13 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:** 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 as determined in clause 4.11.3B.

**Relevant Level:** Has the meaning provided in clause 4.11.3A.

## APPENDIX 1: FULL DETAILS OF THE PROPOSAL

### Background

The IMO notes, in its proposal, that when a Market Participant has committed to the development of a new Facility, or a Facility upgrade, the 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

The IMO notes that 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 notes in its proposal that it 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, is proposed by the IMO in its proposal to be 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 proposed to be amended in the IMO's proposal 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**

The IMO contends that 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.

The IMO notes in its proposal 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 be 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 the IMO's Rule Change 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 the IMO's Rule Change 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 is proposed to be amended by the IMO 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.

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 IMO proposes to amend the Market Rules 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.

The IMO notes in its proposal that following the 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***

The IMO proposes to introduce new clause 4.13.14 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) are also proposed by the IMO in its proposal along with amendments to the structure of these clauses to follow a more logical sequence, particularly around the return of security.

## APPENDIX 2: PROPOSED AMENDING RULES IN THE RULE CHANGE PROPOSAL

The IMO proposed the following amendments to the Market Rules in its Rule Change Proposal (~~deleted text~~, added text):

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:
  - (a*i*.) the Certified Reserve Capacity assigned to the Facility; less
  - (b*ii*.) 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.~~
- ~~(a) — 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 will 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 4.13.14 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**

<b>Dates</b>	<b>1 April to 1 October</b>	<b>1 October to 1 December</b>	<b>1 December to 1 February</b>	<b>1 February to 1 April</b>
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 <del>has</del> :	
<ul style="list-style-type: none"> <li>(a) <u>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</u></li> <li>(b) <u>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</u></li> <li>(c) <u>is following a request to the IMO by a Market Participant, considered by the IMO to be in Commercial Operation <del>been commissioned</del></u>;</li> </ul>	
<u>Y equals 0</u>	
For all other facilities, including Intermittent Facilities that <u>following a request to the IMO by a Market Participant are not considered by the IMO to be in Commercial Operation</u> <del>have not been commissioned</del> : 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.	
<del>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.</del>	

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 4.13.14, 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 y~~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



### **APPENDIX 3: THE IMO'S RESPONSE TO SUBMISSIONS RECEIVED DURING THE FIRST SUBMISSION PERIOD.**

The IMO's response to each of the issues identified during the first submission period is presented in the table over the page. Please note that in the following table "Appendix 3" refers to Appendix 3 of the Draft Rule Change Report, which is also available as Appendix 4 of this Final Rule Change Report.

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
4.1.27	Alinta	The wording of this clause presented in the Rule Change Proposal (as proposed to be deleted) differs from that in the November version of the Market Rules available from the IMO website.	The IMO notes that this has been modified in the proposed Amending Rules presented section 7 of this report. The IMO notes that the original intent to remove this clause and make it blank remains unchanged, and as such is not presented in Appendix 3 of this Draft Rule Change Report.
4.10.3(c)	Perth Energy	The drafting should be updated to reflect the following change "... 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 <u>in the opinion of the expert the value set out in (b) would not be a reasonable representation of the Required Level applicable</u> ; and..."	The IMO has incorporated this into the proposed Amending Rules presented in Appendix 3.
Treatment of Intermittent Generators	Griffin Energy	The treatment of Intermittent Generators is complicated and messy, highlighting the inadequacy of aiming to treat all forms of capacity in a similar manner, when some forms of capacity are clearly different to others (this weakness is also prevalent with respect to DSM).	<p>The IMO agrees that in some circumstances treating technology types differently may be warranted in order to better reflect the unique characteristics of the different technologies types. The IMO however considers that the introduction of the common concept of a Required Level to be met will standardise the approach used for the assessment of Reserve Capacity throughout the Market Rules. Similarly LGP considers that the proposed changes "... <i>extend and clarify general matters and remove discrimination against Intermittent Generators.</i>"</p> <p>The IMO considers it preferable to create generic terms to be used throughout the Market Rules which will capture all potential situations to which a concept relates. This will ensure that separate sections of the Market Rules do not need to be developed for the purposes of specific projects and that concepts are consistently applied throughout the Market Rules.</p> <p>The Required Level concept will provide a similar standard that Facilities will be required to achieve for the purposes of RCS and Reserve Capacity Testing, while still accounting for the differences among Scheduled Generators, Intermittent Generators and Demand Side Programmes. The IMO considers that this treatment is warranted for the purposes of the return of RCS and Reserve Capacity Testing, as the WEM does not distinguish between Capacity Credits provided by different facility types. As such all technologies should be required to meet a similar standard level of output. The IMO also notes that this rationale forms the basis for the changes to</p>

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
			capacity refunds for Intermittent Generators as proposed under RC_2010_22.
Treatment of Intermittent Generators	Griffin Energy	Griffin Energy considers that all new Intermittent Generator proponents should merely be required to provide evidence from an IMO accredited expert that the facility is complete as per the original specifications (or to identify any deviations from this). This is consistent with how it estimates its capacity factor before first being awarded Capacity Credits. Griffin Energy considers that it would be easier for the IMO to manage the credibility of its accredited experts than to manage the complexities the proposed changes seem to imply.	<p>The IMO considers that adopting a process of only requiring Market Participants to provide a report from an accredited expert to indicate the extent to which the Facility is capable of meeting its capacity obligations would place a potential financial burden on new entrants and existing Market Participants to obtain the report. The IMO notes that under the proposed new clause 4.13.10C Market Participants would be able to provide an expert report where they do not consider their Facility's output would be reflective of its actual ability to meet 90 percent of its Required Level. This will provide an option for a Market Participant to incur the costs of getting a report where they consider that there would be significant benefit in doing so (particularly with respect to capacity refunds – as proposed under RC_2010_22).</p> <p>The IMO considers that the proposed changes to implement the concept of a Required Level to be met will allow for a natural test of the Facility's ability to meet its capacity obligations. For a Market Participant which has installed its Facility to the specifications on which certification was originally based there would be no additional costs to prove to the IMO that the Facility can meet its obligations and should receive its RCS back. Additionally the assessment of all Facilities' performances against their Required Levels would ensure that all Facilities would be held to an equivalent standard for the purposes of the return of RCS and Reserve Capacity Testing.</p>
Required Level (relates to clause 4.11.3B)	Griffin Energy	Griffin Energy prefers a simpler methodology based around the report of an accredited expert, rather than introducing concepts such as Required Level and Commercial Operation.	<p>Refer to the above response.</p> <p>The IMO reiterates that the Required Level concept will be able to be used in other parts of the Market Rules (capacity refunds and tests), standardising the approach used in the assessment of Reserve Capacity throughout the Market Rules. Further, in developing the Required Level methodology the IMO received advice from two independent experts on the plausibility of the proposed approach which was subsequently taken into account.</p>
Required Level (relates to clause 4.11.3B)	Griffin Energy	The proposed 5 percent POE methodology may seem reasonable in theory but it poses too many risks in practice to an Intermittent Generator. For instance, it is almost certain that in the first year of operation a wind farm will have a small quantity of its turbines out on a continual basis. Additionally there is always the risk that the wind resource does not meet	<p>The IMO notes that any potential variability in wind resource, including that potentially experienced across a whole year, would be taken into account under clause 4.10.3 in the report prepared by an accredited expert with regards to both:</p> <p>the estimate of what the CRC would have been for the Facility had the history of performance been available (to be used to calculate the CRC);</p>

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
		its long term forecasts. Griffin Energy notes that variability is inherent with Intermittent Generators not only interval to interval, but across a whole year.	<p>and</p> <p>the value that equals the 5 percent POE of expected generation output for the Facility over the last three years or the alternative value specified by the expert (to be used to determine the Required Level).</p> <p>Further, any risks to an Intermittent Generator of being unable to meet its Required Level have been further mitigated by the ability to provide an expert report, outlining the percentage of the Facility's Required Level that it can operate at under clause 4.13.10C. This would apply for the purposes of the return of RCS (clause 4.13.10) and the determination of Capacity Refunds (clause 4.26.1A).</p> <p>The advice of two independent experts, Magasanik, McLennan and Associated (MMA) and Senergy Econnect, was sought by the IMO in developing the concept of a Required Level. Both experts supported the IMO's proposed concept, with MMA stating that it "... provides a practical approach to determine the extent that a Facility is commissioned for the purpose of the Refund Table, and to determine the return of its RCS."</p>
4.11.3B	Alinta	Alinta is concerned that the method for determining the Required Level for a Curtailable Load or Demand Side Programme risks misrepresenting the amount of capacity actually provided where actual pre-dispatch consumption is lower than the Relevant Demand.	The IMO considers that this is a wider issue, associated with the use of a Relevant Demand value that has been determined using a static baseline. While this issue is outside the scope of RC_2010_12, the IMO notes that Enernoc presented a discussion paper to the MAC during the February 2011 meeting, proposing the introduction of profile baselines for Relevant Demand calculations. A copy of the discussion paper is available: <a href="http://www.imowa.com.au/MAC_35">http://www.imowa.com.au/MAC_35</a>
4.11.3B	Alinta	The Market Rules effectively assume a Curtailable Load or Demand Side Programme is operating at its Relevant Demand before a Dispatch Instruction from System Management would appear to create a potential misalignment between the objective of System Management in issuing a Dispatch Instruction (i.e. to achieve a specific system load reduction) and the (financial) incentive faced by a Market Participant that registered the Curtailable Load or Demand Side Programme (i.e. to minimise the actual load reduction). As a result it would appear that the proposed clause 4.11.3B would also lead to System Management being uncertain as to the	Refer to above response.

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
		effectiveness of issuing a Dispatch Instruction to Curtailable Loads or Demand Side Programmes to achieve a specific targeted load reduction	
4.11.3B(a)	Synergy	The drafting should be updated to reflect the following change: "...temperature dependence information submitted to the IMO under clause 4.10.1(e) and converted ..."	The IMO has incorporated the minor amendment into the proposed Amending Rules presented in Appendix 3.
4.13.3(a)	Synergy	The drafting should be updated to reflect the following change: "... be in an amount not less..."	The IMO has incorporated the grammatical amendment into the proposed Amending Rules presented in Appendix 3.
4.13.10(a)	Synergy	The drafting should be updated to reflect the following change: "... before the end of the relevant Capacity Year; <u>or</u> ..."	The IMO agrees that the proposed Amending Rules should be updated to clarify that the requirement for a Facility to have its RCS returned at the end of Year 3 relates to the Facility either meeting the 90 percent test (sub-clause 4.13.10(a)) <u>or</u> providing an expert report (sub-clause 4.13.10(b)):  The IMO has incorporated the identified minor amendment into the proposed Amending Rules presented in Appendix 3.
4.13.10(a)	Perth Energy	Insert the word "or" immediately after the semicolon separating clauses 4.13.10(a) and 4.13.10(b).	Refer to the above response.
4.13.10(a)	Alinta	Omits the word "or" at the end of the sub-clause.	Refer to the above response.
4.13.10 (b)	Alinta	The requirement to provide a report under clause 4.13.10C, which specifies that at least 90 percent of the Facility has been built, is not consistent with the direction given by the MAC.	The IMO agrees that this is not consistent with the discussion held at the MAC. The IMO considers that the further proposed amendments presented in Appendix 3 will ensure that the proposed Amending Rules will ensure consistency with the discussion at the MAC.
4.13.10 (b)	Alinta	The drafting should, consistent with the direction given by the MAC, be further amended as follows:  "provides the IMO with a report under clause 4.13.10C, which specifies that <del>at least 90 percent of the Facility has been built 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;</del> and..."	The IMO has amended the proposed Amending Rules, presented in Appendix 3, to require the report to outline that the Facility is capable of operating at 90 percent of its Required Level.  The IMO considers that linking the expert report to the percentage of a Facility's Required Level, rather than to its capability to operate in accordance with the basis that it was granted CRC, will ensure that any advice from the IMO's accredited expert that a different output level should apply for the purposes of proving that a Facility can meet its capacity obligations will be taken into account.  Additionally, the IMO notes that Alinta's suggested amendments would be moving away from the requirement for the Facility to achieve 90 percent of its Required Level – that is by requiring the Facility to essentially be capable

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
			of operating at 100 percent of the basis on which it was granted CRC. This would be inconsistent with the treatment of other generation types which would only be required to meet 90 percent of their Required Levels.
4.13.10 (b)	Alinta	<p>It is not necessarily the case that building 90 percent of a Facility equates to that Facility being technically capable of delivering 90 percent of the Required Level, scaled to the level of Capacity Credits specified in clause 4.20.1(a).</p> <p>Alinta considers it undesirable to permit an RCS to be returned when a Market Participant only builds 90 percent of the Facility that was originally proposed when the Market Participant applied for, and was granted, Certified Reserve Capacity for the Facility. It would appear that to do so would potentially increase at the margin the risk that Market Customers might be exposed to the cost of Supplementary Reserve Capacity.</p>	The IMO agrees and has modified the proposed Amending Rules to reflect the requirement for the report to outline that the Facility is capable of producing 90 percent of its Required Level. The IMO considers that this will account for any extreme circumstance such as where a Facility may not be able to output any energy as the last 10 percent of the Facility that has not been built is the transformer.
4.13.10C	Synergy	The drafting should be updated to reflect the following change: "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. <u>The report must specify which specifies the....</u> "	The IMO has incorporated the identified minor and grammatical amendments, along with a clarification that the report is provided in accordance with the Reserve Capacity Procedure, into the proposed Amending Rules presented in Appendix 3.
4.26.1	Alinta	<p>The refund quantity to apply when an Intermittent Generator has not operated at 100 percent of its Required Level (Criteria 1) or provided the IMO with a report certifying that 100 percent of the Facility has been built (Criteria 2) is not defined in the proposed Amending Rules.</p> <p>The amendments contemplated by RC_2010_22 would result in a partially commissioned Intermittent Generator not being exposed to any refunds. This is because the refund quantity would be based on the Facility's Reserve Capacity Obligation Quantity</p>	<p>The IMO agrees that the quantity to be used in determining the capacity refund to apply in situations where a Facility does not meet either Criteria 1 or 2 but is in Commercial Operation needs to be defined in the proposed Amending Rules. The IMO's specific response to this identified issue is, however, presented in the Draft Rule Change Report for RC_2010_22.</p> <p>The changes made to the Amending Rules in RC_2010_22 are replicated in Appendix 3 of this proposal to ensure that all submitting parties have an opportunity to consider the changes proposed by both RC_2010_12 and RC_2010_22 during the second consultation period, given the overlaps between the two proposals.</p>

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
		<p>(which for an Intermittent Generator is equal to zero).</p> <p>Alinta suggests amending clause 4.26.1A(a) to insert a new clause that would define how the quantity of the MW shortfall for the Intermittent Generator in any Trading Interval, relative to the quantity of Capacity Credits associated with that Facility, should be calculated where the Facility is in Commercial Operation but has not meet either criteria 1 or 2.</p>	
4.26.1	Alinta	<p>Considers that the IMO's proposed changes would be inconsistent with Market Objectives (a), (b), (c) and (d) because they provide a financial benefit for Intermittent Generators that are determined to be in Commercial Operation but that fail to provide the full quantity of Capacity Credits associated with the Facility.</p>	<p>The IMO agrees that by not defining the quantity to be used in determining the applicable capacity refund where a Facility does not meet either Criteria 1 or 2 but is considered by the IMO to be in Commercial Operation, the proposed changes would provide a perverse financial incentive which would be inconsistent with the Wholesale Market Objectives. However, as noted previously the IMO has responded specifically to this issue in the Draft Rule Change Report for RC_2010_22.</p>
Capacity Refunds for Intermittent Generators (relates to clause 4.26.1)	Griffin Energy	<p>An Intermittent Generator is only offered around 35-40 percent of its actual capacity value, even though it will be very likely to generate vastly more MWh and operate more often at its installed capacity than most liquid peakers or DSM Facilities in any given year. Griffin Energy suggests that as a result of this capacity refunds are already somewhat implied in the commercial sense.</p>	<p>The IMO agrees that in subsequent years, an Intermittent Generator's non-availability during the year will be taken into account when assigning Capacity Credits. The changes proposed under RC_2010_22 will however remove the current 100 percent capacity refund requirement for an Intermittent Generator that has not meet its Required Level (or provided an expert report to the same effect), thereby significantly reducing the current penalties for these Facilities (full refunds and reduced CC's for the next three years).</p> <p>The IMO considers that to remove the requirement for a new Intermittent Generator to make any capacity refunds prior to meeting 100 percent of its Required Level would fail to take into account the underlying intent of the capacity refund mechanism. That is, the incentives to make capacity available particularly during the Hot Season, where through the Refund Table (clause 4.26.1) that market values the capacity more, would be removed.</p> <p>The IMO considers that the proposed amendments under RC_2010_22 will improve this current mechanism. However, the ability to ensure that that an Intermittent Generator is not penalised twice for the failure to provide all of its capacity is limited by the current methodology used to assign Capacity Credits. As such the IMO considers that this wider issue is outside the scope</p>

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
Capacity Refunds for Intermittent Generators (relates to clause 4.26.1)	Griffin Energy	Failure to provide (a proportion of) capacity in the wind farm's first year of operation should result in (a proportionate amount of) the facility's capacity payments being refunded, rather than introducing complicated mechanisms to allow the facility to be held accountable on the same basis as a Scheduled Generator. Griffin Energy notes that while this is different to how a Scheduled Generator is treated, this is necessarily so, as the technologies are fundamentally different.	of both RC_2010_12 and RC_2010_22.  The IMO notes that simply requiring a Facility to make refunds on the proportion of its capacity it failed to make available during the wind farm's first year of operation would fail to reflect the importance of making capacity available particularly during the Hot Season (as indicated by the sculptured nature of the Refund Table).  For further details of the IMO's response to Griffin Energy's alternative methodology please refer to the IMO's Draft Rule Change Report for RC_2010_22.
Rebate payment to Market Customers	Alinta	Basing rebate payments to Market Customers in proportion to their IRCRs in a single Trading Month ignores potential changes in the load of individual Market Customers through a Capacity Year, and therefore ignores the contribution Market Customers have made to the cost of capacity throughout the year.  Alinta considers that a more equitable approach to distributing any surplus RCS would be to make the rebate payment to Market Customers in proportion to their IRCRs during the previous 12 Trading Months.	The IMO acknowledges that there is an issue with using the Market Customers monthly IRCR value for the purposes of allocating the funds, as this potentially results in distortions in the share of SRCC allocated. However, the IMO notes that the risk of an SRC event occurring would last for up to three Reserve Capacity Cycles following the failure of a Facility to enter the market and meet its capacity obligations. This would need to be taken into account in any revised approach to the distribution of RCS.  The IMO notes that further consideration of IRCR mechanism has been included in the wider review of the Reserve Capacity Mechanism currently being undertaken by the IMO. The IMO considers that the issue raised by Alinta should be addressed as part of this review and not RC_2010_12



## APPENDIX 4: ADDITIONAL AMENDMENTS MADE BY THE IMO FOLLOWING THE FIRST SUBMISSION PERIOD

The IMO has made some amendments to the Amending Rules following the first submission period. These changes are as follows (~~deleted text~~, added text):

The proposed minor and typographical amendments will improve the integrity of clause 4.9.9.

- 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 4.13.2 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);
  - (e) of 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 for which a Market Participant applied to be certified nominated to use the methodology described in ~~under~~ clause 4.11.2(b) in its application for certification (~~if applicable~~), as determined in accordance with clause 4.11.2A, if applicable.

The proposed amendment will improve the integrity of clause 4.10.3(c) by further clarifying that the proposed alternative value could be provided where the expert does not consider that the 5 percent probability of exceedance of expected generation output for the Facility during the last three years would be appropriate.

The IMO also proposes some typographical amendments to improve the integrity of the proposed Amending Rules and to clarify that the report is provided in accordance with the Reserve Capacity Procedure and not the independent experts accreditation.

- 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 a Facility that is yet to enter service must include a report, in accordance with the Reserve Capacity Procedure, prepared by an expert accredited by the IMO, ~~in accordance with the Reserve Capacity Procedure~~. The IMO will use the ~~where this report is to be used~~ to assign the Certified Reserve Capacity for ~~that the~~ Facility in accordance with clause 4.11.1(e) and to determine the Required Level for ~~that the~~ 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 in the opinion of the expert the value provided under clause 4.10.3(b) would not be a reasonable representation of the Facility's 5 percent probability of exceedance of expected generation output during its first year of operation applicable; and
- (d) the reasons for any proposed alternative value provided under clause 4.10.3(c).

The proposed amendment will clarify that the IMO must apply the outlined principles when assigning CRC to a Facility which has also previously operated in the market but which has undertaken significant maintenance or an upgrade and so will be technically "re-entering service".

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 enter or re-enter service based on the Certified Reserve Capacity estimate contained in any report provided by the applicant in accordance with clause 4.10.3, where the report was produced by an expert accredited by the IMO in accordance with clause 4.11.6.

...

The proposed typographical updates to clause 4.11.2A will improve the overall integrity of the proposed new clause.

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~~ it does not consider the reasons provided in accordance with clause 4.10.3(d) provide sufficient evidence that an alternative value is required; and
- (b) must use the alternative value in the calculation of the Required Level if it has ~~does 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 updates to clause 4.11.3B will clarify that the IMO will calculate the Required Level for Facilities assigned CRC under clause 4.11.3B(a) and for Curtailable Loads and Demand Side Programmes. The IMO also proposes a number of typographical amendments to improve the integrity of the proposed Amending Rules.

The IMO also has incorporated changes to sub-clause (a) to clarify that the IMO will use any updated temperature dependence information provided as Standing Data to determine the Required Level for a Facility assigned CRC under clause 4.11.1(a).

- 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 by the IMO using the Metered Schedule and temperature dependence information submitted to the IMO under clause 4.10.1(e)(i) or provided in Standing Data (where available) - and converted to a sent out basis to 41°C;
  - (b) For Facilities assigned Certified Reserve Capacity under clause 4.11.2(b), is 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 by the IMO using the Facility's Relevant Demand minus the Capacity Credits assigned to ~~that~~ the Facility.

The proposed amendment to clause 4.13.1 will clarify that the obligation also relates to a Facility that has previously operated in the market but will be re-entering the market following significant maintenance or upgrade and would have security obligations by virtue of clause 4.13.1B.

- 4.13.1. Where the IMO assigns Certified Reserve Capacity to a Facility that is yet to enter service (or re-enter service after significant maintenance or having been upgraded), the relevant Market Participant must ensure that the IMO holds the benefit of a Reserve Capacity Security in an amount determined under clause 4.13.2(a) by the date and time specified in clause 4.1.13.

The proposed amendment to clause 4.13.1A will clarify that the obligation to provide a RCS applies only to the part of the Facility being upgraded or undergoing significant maintenance. The IMO considers that this will improve the integrity of the proposed Amending Rules.

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 only to the part of the Facility either undergoing significant maintenance or being upgraded.

The proposed amendment to clause 4.13.2B will be amended to improve the integrity of the language used in the clause and allow for the option for a Market Participant to provide a replacement RCS.

4.13.2B Within 10 Business Days after 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 the Market Participant ~~that has provided a Reserve Capacity Security for a Facility~~ of the result of the calculation;
- ~~(b)~~ offer the Market Participant the opportunity to replace the Reserve Capacity Security in accordance with clause 4.13.2C; and
- ~~(bc)~~ once if the Market Participant provides has provided any replacement a replacement Reserve Capacity Security in accordance with clause ~~4.13.3A~~4.13.2C, return any excess Reserve Capacity Security.

4.13.2. For the purposes of clause 4.13 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:
  - ~~(i.)~~ the Certified Reserve Capacity assigned to the Facility; less
  - ~~(ii.)~~ 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 4.13.2C will replicate the previous requirements in clause 4.13.3A. The IMO considers that this improvement to the ordering of the clauses in section 4.13 of the Market Rules will improve their integrity.

Further the proposed changes will allow Market Participants with an option to provide a replacement RCS. The IMO considers that this option to provide a replacement RCS will taken into account incidences where the current RCS might only be a few dollars greater than that required under the replacement RCS – which case the Market Participant may decide to not replace the RCS.

4.13.2C Where under clause 4.13.2B the IMO notifies a Market Participant that excess Reserve Capacity Security is currently held, then a Market Participant may replace the existing Reserve Capacity Security with a replacement Reserve Capacity Security. The replacement Reserve Capacity Security must:

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

The proposed amendment to sub-clause 4.13.3(a) to refer to the amount of security required under clause 4.13.2. The IMO considers that this will improve the consistency of the language used throughout section 4.13. The IMO also proposes a grammatical amendment to this sub-clause to improve its overall integrity.

4.13.3 Where a Market Participant's existing Reserve Capacity Security is due to 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. The replacement Reserve Capacity Security must:

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

The proposed removal of clause 4.13.3A is consistent with the IMO's proposed inclusion of these requirements, albeit amended to make the provision of a replacement RCS optional, in new clause 4.13.2C.

~~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 amendment to the structure of clause 4.13.10 will improve the clarity of the requirements to either operate the facility at at least 90 percent of its Required Level or provide an expert report stating that the Facility can operate at at least 90 percent of its Required Level and be considered by the IMO to be in Commercial Operation. The IMO considers that the amendments will improve the integrity of the Amending Rules.

The IMO also proposes to amend clause 4.13.10 to specify that the report provided under clause 4.13.10C would need to specify that the Facility was capable of meeting 90 percent of its Required Level rather than simply 90 percent of the Facility having been built. This will ensure that in an extreme situation where the last 10 percent of the Facility which was not built is required to allow the Facility to export to the WEM (for example a transformer is not built).

The IMO also proposed to amend the reference to "...scaled to the level of Capacity Credits..." to state "...adjusted to the level of Capacity Credits...". The IMO considers that this will better reflect the mathematical adjustment process that will be used to adjust the Facility's Required Level to the amount of Capacity Credits originally assigned to the Facility. The IMO notes that this adjustment process reflects the ability of a Market Participant to choose a more conservative level of Capacity Credits than originally applied for under clause 4.20.1(a).

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

(a) either:

i. operates the Facility at a level which is at least 90 percent of its Required Level, ~~scaled~~ adjusted 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; or

~~(b)~~ ii. provides the IMO with a report under clause 4.13.10C, which specifies that the Facility can operate at at least 90 percent of its Required Level, adjusted to the level of Capacity Credits specified in clause 4.20.1(a) of the Facility has been built; and

~~(c)~~ (b) 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 amendment to clause 4.13.10A will improve the integrity of the Market Rules.

4.13.10A. 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 amendment to clause 4.13.10B will restructure the proposed Amending Rules to improve their integrity.

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) must have regard to the following, if applicable:

i. ~~must~~ 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)~~ ii. any formal advice received from the Market Participant that it has completed an approved Commissioning Test under clause 3.21A and is commercially operational; and

(b) ~~The IMO may also~~ have regard to any additional information the IMO considers relevant.

The proposed amendment to clause 4.13.10C will clarify that the report will specify the percentage of its Required Level that the Facility can operate at the time that the report is prepared. The IMO also proposes a number of minor grammatical amendments to improve the integrity of clause 4.13.10C and to clarify that the report is provided in accordance with the Reserve Capacity Procedure and not the independent experts accreditation.

4.13.10C. For a Facility certified under clause 4.11.2(b), a Market Participant may provide the IMO with a report, in accordance with the Reserve Capacity Procedure, prepared by an independent expert accredited by the IMO ~~in accordance with the Reserve Capacity Procedure~~ before the end of the relevant Capacity Year. The report must specify the percentage of its Required Level, adjusted to the level of Capacity Credits specified in clause 4.20.1(a), at which the Facility can operate at the time that the report is prepared. ~~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 better clarify that the requirements to meet the 90 percent test (via either observation or a report from an expert) must be met before the end of the relevant Capacity Year. The IMO considers that the proposed amendments will improve the integrity of the Amending Rules.

4.13.11. If a Market Participant that provides a Reserve Capacity Security in respect of a Facility fails to operate a that Facility in accordance with clause 4.13.10 before the end of relevant Capacity Year 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 4.13.13 will clarify that a Market Participant may apply to the IMO for the release of a RCS relating to that Facility which is held by the IMO. The proposed changes will also improve the integrity of the proposed Amending Rules.

The IMO also proposes to amend the reference to "...scaled to the level of Capacity Credits..." to state "...adjusted to the level of Capacity Credits...". The IMO considers that this will better reflect the mathematical adjustment process that will be used to adjust the Facility's Required Level to the amount of Capacity Credits originally assigned to the Facility.

4.13.13. A Market Participant may apply to the IMO for the release of any Reserve Capacity Security held by the IMO, at any time prior to ~~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 adjusted 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 amendment to clause 4.13.14 will better reflect the obligation on the IMO to return a non-cash deposit.

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 notify the provider that the IMO relinquishes any rights to draw on the Reserve Capacity Security.

The proposed amendment to clause 4.25.1 will amend the reference to "...scaled to the level of Capacity Credits..." to state "...adjusted to the level of Capacity Credits...". The IMO considers that this will better reflect the mathematical adjustment process that will be used to adjust the Facility's Required Level to the amount of Capacity Credits originally assigned to the Facility.

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 Required Level, ~~scaled~~ adjusted 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 will amend the reference to "...scaled to the level of Capacity Credits..." to state "...adjusted to the level of Capacity Credits...". The IMO considers that this will better reflect the mathematical adjustment process that will be used to adjust the Facility's Required Level to the amount of Capacity Credits originally assigned to the Facility.

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~~ adjusted 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~~ adjusted 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~~ adjusted 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 will amend the reference to "...scaled to the level of Capacity Credits..." to state "...adjusted to the level of Capacity Credits...". The IMO considers that this will better reflect the mathematical adjustment process that will be used to adjust the Facility's Required Level to the amount of Capacity Credits originally assigned to the Facility.

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

The proposed amendment to clause 4.26.1 is consistent with the updates to the structure of clause 4.13.10 and will ensure that the requirements to meet the 100 percent test (either via Facility output levels or the provision of an expert report). The IMO notes that the Amending Rules in RC\_2010\_22 will also be updated to reflect this revised structure.

The IMO also proposes to amend clause 4.26.1 to specify that the report provided under clause 4.13.10C would need to specify that the Facility was capable of meeting 100 percent of its Required Level rather than simply 100 percent of the Facility having been built. The IMO notes that this is consistent with the proposed amendments to clause 4.13.10.

The IMO also proposes to amend the reference to "...scaled to the level of Capacity Credits..." to state "...adjusted to the level of Capacity Credits...". The IMO considers that this will better reflect the mathematical adjustment process that will be used to adjust the Facility's Required Level to the amount of Capacity Credits originally assigned to the Facility.

The IMO notes that it has also reflected its further proposed changes to amend the reference to an "Intermittent Facility" to an "Intermittent Generator" contained in the Draft Rule Change Report for RC\_2010\_22.

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~~Generator that has:

(a) ~~has either:~~

i. operated at 100 percent of its Required Level, ~~scaled-adjusted~~ to the level of Capacity Credits specified in clause 4.20.1(a), in at least two Trading Intervals; or

~~(b)~~ ii. ~~has provided the IMO with a report under clause 4.13.10C, where this report specifies that the Facility can operate at 100 percent of its Required Level the Facility certified under clause 4.11.2(b) has been built;~~ and

~~(c)~~ (b) is following a request to the IMO by a Market Participant, considered by the IMO to be in Commercial Operation:

Y equals 0

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

The proposed amendments to clause 4.28C.12. will clarify the timelines associated with the requirements to provide additional RCS. That is the IMO must calculate the requirements prior to the time and date specified in clause 4.1.13(a) and the Market Participant must have provided any additional required RCS by the time and date specified in clause 4.1.13(a).

The IMO also proposes to remove the unnecessary reference to clause 4.28C.8 as the timelines in this clause would have already occurred prior to any recalculation occurring under clause 4.28C.12.

4.28C.12. ~~By~~ Prior to 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 enter service the IMO must recalculate 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 by the time and date specified in clause 4.1.13(a); 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 proposed new definition of Relevant Level in the Glossary will provide clarification of the definition of this term. The IMO notes that the proposed amendment will need to take into account any potential restructuring of the Amending Rules surrounding the calculation of the Relevant Level resulting from either of the Rule Change Proposals surrounding the calculation of the capacity value of Intermittent Generation (RC\_2010\_25 and RC\_2010\_37). Further details of the proposed amendments under both of these Rule Change Proposals are available on the following webpage: [http://www.imowa.com.au/under\\_development](http://www.imowa.com.au/under_development)

Additionally the IMO has proposed a typographical amendment to the definition of Reserve Capacity Security to improve its integrity.

## **Glossary**

**Relevant Level:** Has the meaning provided in clause 4.11.3A.

**Reserve Capacity Security:** ~~Is the~~ The reserve capacity security to be provided for a Facility as calculated and re-calculated under clause 4.13 and clause 4.28C.

## APPENDIX 5: ADDITIONAL AMENDMENTS MADE BY THE IMO FOLLOWING THE SECOND SUBMISSION PERIOD

The IMO has made some amendments to the Amending Rules following the second submission period. These changes are as follows (~~deleted text~~, added text):

The IMO notes the proposed amendments to clause 4.1.21 use those resulting from RC\_2010\_14 as the base and incorporate the amendments proposed in the Draft Rule Change Report for RC\_2010\_12. The proposed amendments have been presented in this manner to ensure transparency.

The IMO notes that it has also included revised requirements to specify that a Market Participant may apply to the IMO after the time and date specified for a recalculation of the required amount of RCS for a Facility. The IMO notes that the previous drafting was circular in its requirements for a Market Participant to apply after this time and date (clause 4.13.2A) but for the IMO to have calculated prior to this time and date (and within 10 Business Days under clause 4.13.2B).

- 4.1.21. ~~Not later than~~ A Market Participant may apply to the IMO under clause 4.13.2A for a recalculation of the amount of Reserve Capacity Security required to be held by the IMO for a Facility in accordance with clause 4.13.2(b) after 5 PM of the last Business Day falling on or before 24 September 23 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.<sup>8</sup>~~

The IMO notes the proposed amendments to clause 4.9.9 use those resulting from RC\_2010\_14 as the base and incorporate the amendments proposed in the Draft Rule Change Report for RC\_2010\_12. The proposed amendments have been presented in this manner to ensure transparency.

- 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 4.13.42 or clause 4.9.5(c) (as applicable);

<sup>8</sup> The IMO notes that clauses 4.1.21, 4.9.9 and 4.10.3 reflect the proposed Amending Rules resulting from RC\_2010\_14.

- (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) upon the request of the applicant, of 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 for which a Market Participant nominated to use the methodology described in clause 4.11.2(b) in its application for certification, as determined in accordance with clause 4.11.2A, if applicable.~~

The IMO notes the proposed amendments to clause 4.10.3 use those resulting from RC\_2010\_14 as the base and incorporate the amendments proposed in the Draft Rule Change Report for RC\_2010\_12. The proposed amendments have been presented in this manner to ensure transparency.

The IMO has removed superfluous links to the Reserve Capacity Procedure and clause under which CRC is assigned to a Facility as were originally proposed in the Draft Rule Change Report.

- 4.10.3. An application for certification of Reserve Capacity ~~for an Intermittent Generator that includes a nomination to use the methodology described in clause 4.11.2(b) for a Facility~~ that is yet to enter service, or has not operated for the full period of performance assessment under 4.11.2(b), must include a report prepared by an expert accredited by the IMO in accordance with clause 4.11.6. The IMO will use the report to assign Certified Reserve Capacity for the Facility and to determine the Required Level for that Facility. 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 in the opinion of the expert the value provided under clause 4.10.3(b) would not be a reasonable representation of the Facility's 5 percent probability of exceedance of expected generation output during its first year of operation;~~
  - ~~(d) the reasons for any proposed alternative value provided under clause 4.10.3(c); and~~
  - ~~(e) an estimates of the expected electricity sent out by the Facility for the full period of performance assessment under clause 4.11.2(b).~~

The applicant may provide the same report until the Facility has been in operation for the full period of performance assessment under clause 4.11.2(b).

The IMO notes that it no longer proposes to change clause 4.11.1 under RC\_2010\_12 noting that this clause has been updated by RC\_2010\_14. As such the IMO has not shown the changes to this clause resulting since the draft report for RC\_2010\_12.

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 for which an application for Certified Reserve Capacity has been submitted in accordance with section 4.10:

...

(e) [Blank]

...

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 it does not consider the reasons provided in accordance with clause 4.10.3(d) provide sufficient evidence that an alternative value is required; and
- (b) must use the alternative value in the calculation of the Required Level if it does not reject the proposed alternative value under ~~paragraph~~ clause 4.11.2A (a).

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 by the IMO using the ~~Metered Schedule Capacity Credits assigned to the Facility~~ and temperature dependence information submitted to the IMO under clause 4.10.1(e)(i) or provided in Standing Data (where available) and converted to a sent out basis to 41°C;
- (b) for Facilities assigned Certified Reserve Capacity under clause 4.11.2(b), is 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 by the IMO using the Facility's Relevant Demand minus the Capacity Credits assigned to the Facility.

- 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.
- 4.13.2. For the purposes of clause 4.13- 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 at the time the Certified Reserve Capacity is assigned, expressed in \$/MW per year, multiplied by an amount equal to the total number of Capacity Credits ~~provided by~~ assigned to the Facility under clause ~~4.20.1(a)~~ 4.20.5A.

The IMO notes that it has incorporated an amendment to clarify the timing for the return of Reserve Capacity Security given the delay in the provision of Meter Data Submissions through to the IMO. To require the return within 10 Business Days of the end of the relevant Capacity Year would not allow for an assessment of the Facility's performance during the last month given that this information would not be available until the first Business Day of the second month following the month in which the Trading Month commenced (i.e. 1 November). This would mean a facility which had achieved the 90% test would potentially risk getting its security back due to delays in the timing of meter data provision.

- 4.13.10 If a Market Participant that provides Reserve Capacity Security in respect of a Facility:
- (a) either:
    - i. operates the Facility at a level which is at least ~~90 percent of~~ equivalent to its Required Level, adjusted to 90 percent of the level of Capacity Credits specified in clause ~~4.20.1(a)~~ 4.20.5A, in at least two Trading Intervals before the end of the relevant Capacity Year; or
    - ii. provides the IMO with a report under clause 4.13.10C, which specifies that the Facility can operate at a level which is at least equivalent to its Required Level, adjusted to 90 percent of its Required Level, adjusted to ~~of~~ the level of Capacity Credits specified in clause ~~4.20.1(a)~~ 4.20.5A; and
  - (b) 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~~ as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Reserve Capacity Cycle.

- 4.13.10C For a Facility certified under clause 4.11.2(b), a Market Participant may provide the IMO with a report, in accordance with the Reserve Capacity Procedure, prepared by an independent expert accredited by the IMO, before the end of the relevant Capacity Year. The report must specify independent expert's best estimate of the level to which the Facility can operate, expressed in MW as a sent out value, at the time the report is prepared. ~~The report must specify the percentage of its Required Level, adjusted to the level of Capacity Credits specified in clause 4.20.1(a), at which the Facility can operate at the time that the report is prepared.~~
- 4.13.13 A Market Participant may apply to the IMO for the release of any Reserve Capacity Security held by the IMO, at any time prior to the end of the relevant Capacity Year, if the Reserve Capacity Security relates to a Facility that:
- (a) has operated at a level equivalent to 100 percent ~~of its Required Level, adjusted to 100 percent~~ of the level of Capacity Credits specified in clause ~~4.20.1(a)~~ 4.20.5A, 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 IMO notes that it has incorporated an amendment to clarify the timing for the forfeiture of Reserve Capacity Security given the delay in the provision of Meter Data Submissions through to the IMO. To require the return within 10 Business Days of the end of the relevant Capacity Year would not allow for an assessment of the Facility's performance during the last month given that this information would not be available until the first Business Day of the second month following the month in which the Trading Month commenced (i.e. 1 November). This would mean a facility which had achieved the 90% test would potentially risk getting its security back due to delays in the timing of meter data provision.

- 4.13.11 If a Market Participant that provides a Reserve Capacity Security in respect of a Facility fails to operate that Facility in accordance with clause 4.13.10 before the end of the relevant Capacity Year 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 as soon as practicable~~ after the end of the relevant Capacity Year and in any event by 30 November of the Year 4 of the relevant Reserve Capacity Cycle.

The IMO notes the proposed amendments to clause 4.20.1 use those resulting from RC\_2010\_14 as the base and incorporate the amendments proposed in the Draft Rule Change Report for RC\_2010\_12. The proposed amendments have been presented in this manner to ensure transparency.

- 4.20.1. If the IMO holds a Reserve Capacity Auction in any year, each Market Participant that has a Reserve Capacity Offer scheduled under clause 4.19.4 must, by the date and time specified in clause 4.1.20, notify the IMO of:
- (a) the total number of Capacity Credits that it will provide from each of its Facilities during the Capacity Year commencing on 1 October of Year 3 of the Reserve Capacity Cycle. The information provided must be consistent with the requirements of paragraph (c) and (e); and



- (b) the number of those Capacity Credits the Market Participant anticipates will be acquired by the IMO. The information provided must be consistent with the requirements of paragraph (d) and (e);
- (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 IMO notes the proposed amendments to clause 4.25.1 have been updated to reflect changes resulting from RC\_2010\_29.

- 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, during the term the Reserve Capacity Obligations apply, operate at ~~its maximum Reserve Capacity Obligation Quantity~~ a level equivalent to its Required Level, adjusted 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) 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 Demand Side Programme, during the term the Reserve Capacity Obligations apply, and during the period specified in clause 4.10.1(f)(vi), decrease its consumption to operate at ~~a level equivalent to its maximum Reserve Capacity Obligation Quantity~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once during the period between 1 October to 31 March.

The IMO notes the proposed amendments to clause 4.25.2 use those resulting from RC\_2010\_29 as the base and incorporate the amendments proposed in the Draft Rule Change Report for RC\_2010\_12. The proposed amendments have been presented in this manner to ensure transparency.

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

- (a) in the case of a generation system:
- i. observing the Facility operate at ~~the required level~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, at least once as part of normal market operations in ~~Metered Schedules specific to the Facility as determined from Meter Data Submissions;~~ or
  - ii. requiring System Management, in accordance with clause 4.25.7, to test the Facility's ability to operate at ~~the required level~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, 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~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, 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~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, 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~~ a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, for not less than one Trading Interval and the Facility successfully passing that test.

The IMO notes the proposed amendments to clause 4.25.3B use the changes resulting from RC\_2010\_29 as the base and incorporate the requirement for a DSP to operate at its Required Level for the purposes of Reserve Capacity testing.

4.25.3B. If a Demand Side Programme fails a Reserve Capacity test under clause 4.25.2(b)(ii) and is issued a Dispatch Instruction by System Management to decrease its consumption by a quantity equivalent to its maximum Reserve Capacity Obligation Quantity to a level equivalent to its Required Level, adjusted to the level of Capacity Credits currently held, for not less than one Trading Interval 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.

The IMO notes that it no longer proposes to change clause 4.25A.3 under RC\_2010\_12. The proposed amendments resulting from RC\_2010\_29 implement the required test level during a verification test.

4.25A.3. A Demand Side Programme will be deemed to have failed the Verification Test 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 identified from the Demand Side Programme Load associated with that Demand Side Programme.

The IMO notes the proposed amendments to clause 4.26.1 and 4.26.1A have been updated to reflect changes resulting from RC\_2010\_29.

The IMO notes that the changes to clauses 4.26.1 and 4.26.1A also reflect in tracked changes those amendments incorporated in RC\_2010\_22 following the second submission period.

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**

<b>Dates</b>	<b>1 April to 1 October</b>	<b>1 October to 1 December</b>	<b>1 December to 1 February</b>	<b>1 February to 1 April</b>
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)			

	<p>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).</p>
<p>Where:</p> <p>For an Intermittent Generator that has:</p> <p>(a) either:</p> <p>i. operated at <u>a level equivalent to 100 percent</u> of its Required Level, adjusted to <u>100 percent</u> of the level of Capacity Credits specified in clause <del>4.20.1(a)</del><u>4.20.5A</u>, in at least two Trading Intervals; or</p> <p>ii. provided the IMO with a report under clause 4.13.10C, where this report specifies that the Facility can operate at <u>a level equivalent to 100 percent</u> of its Required Level, <u>adjusted to 100 percent</u> of the level of Capacity Credits specified in clause <u>4.20.5A</u>; and</p> <p>(b) is, following a request to the IMO by a Market Participant, considered by the IMO to be in Commercial Operation:</p> <p>Y equals 0.</p> <p><del>For all other facilities, including Intermittent Generators that following a request to the IMO by a Market Participant are not considered by the IMO to be in Commercial Operation:</del> 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 Trading Month.</p>	

4.26.1A. The IMO must calculate the Reserve Capacity Deficit refund for each Facility (“**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 Reserve Capacity Deficit in Trading Interval t,

where the 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 Generator which is not considered by the IMO to have been in Commercial Operation for the purposes of clause 4.26.1, the number of Capacity Credits specified in clause ~~4.20.1(a)~~ 4.20.5A associated with the relevant Intermittent Facility; or
- ivA. if the Facility is an Intermittent Generator which is considered by the

IMO to have been in Commercial Operation, but for which Y does not equal zero in the Refund Table in clause 4.26.1, the ~~maximum~~ minimum of:

1.  $RL - (2 \times Max_2)$ ; or
2.  $RL \times (1-A)$

~~Where~~ where:

RL is the Required Level, adjusted to 100 percent of the level of Capacity Credits specified in clause ~~4.20.1(a)~~ 4.20.5A;

Max<sub>2</sub> is the second highest value of the output for the Facility (MWh) achieved during a Trading Interval during the relevant Trading Month, as measured in Metered Data Submissions received by the IMO in accordance with clause 8.4, that has been achieved since the date the IMO determined the Facility to be in Commercial Operation, where this value must be set equal to or greater than the Max<sub>2</sub> applied by the IMO for the previous Trading Month; and

A is the percentage level of output (in MW) detailed in the most recent report provided by the Market Participant for the Facility under clause 4.13.10C,

where this value will be applied for the purposes of this clause for the relevant Trading Month; 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; or
- vii. if the Facility is a Demand Side Programme:  
 $\max(0, RCOQ - \max(0, (RD - \text{MinLoad})))$

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 Reserve Capacity Deficit Refunds applicable to the Facility in previous Trading Months falling in the same Capacity Year.

The IMO notes that it no longer proposes to change clause 4.27.10A under RC\_2010\_12 noting that this clause has been updated by RC\_2010\_14. As such the IMO has not shown the changes to this clause resulting since the draft report for RC\_2010\_12

4.27.10A. [Blank]

4.28C.12. Prior to 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 enter service, the IMO must recalculate the amount of Reserve Capacity Security to be provided by each Market Participant 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 by the time and date specified in clause 4.1.13(a); 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.

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.

The IMO notes that the updates to the definition of Required Level reflect that a DSP will be a Facility type in accordance with the amendments resulting from RC\_2010\_29

## **Glossary**

**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.

## APPENDIX 6: DISCUSSION AT THE MARKET ADVISORY COMMITTEE

The MAC discussed the proposal at the 12 May 2010, 11 August 2010 and 8 September 2010 MAC meetings. An overview of the MAC discussions is presented in below. Further details are available in the MAC meeting minutes available on the IMO website: <http://www.imowa.com.au/market-advisory-committee>

### *May 2010 meeting*

During the meeting the IMO presented its Concept Paper, noting that the paper had been developed following from a comprehensive internal process review.

The following additional points were raised:

- Discussion Point 1: Market Participants should be required to provide adequate RCS for each Reserve Capacity Cycle from the 2011 Reserve Capacity Cycle onward (2013/14 Reserve Capacity Year).
  - Mr Stephen MacLean suggested that the IMO propose a rule change to reflect the IMO's current operational practice. The MAC supported this proposal.
  - Mr Shane Cremin noted that the amount of RCS required is large, but the MAC also needs to consider the risks involved, particularly regarding Supplementary Reserve Capacity. In order to reduce the risk of future defaults, Mr Cremin queried whether the IMO was able to strengthen the requirements to awarding CRC in regard to a Facility's committed status. Mr Forward noted that any issues are difficult to detect until the third year.
  - Mr Corey Dykstra questioned whether any participants would be subject to additional RCS requirements. Mr Forward noted that this would not be the case given the MAC's agreement to proceed with a rule change to remove the requirement for additional RCS.
- Discussion Point 2: All Facilities should be entitled to receive their RCS back when they can prove to the IMO that they can perform to the level at which their certification was based.
  - The MAC agreed that all Facilities should be treated equally and that all Facilities (conventional and non-conventional) should be entitled to get their RCS back when they prove to the IMO that they can meet their obligations.
- Discussion Point 3: Should a Facility be entitled to have its full RCS returned if it has reduced Reserve Capacity Obligations as a result of failing a test.
  - The MAC agreed that a Facility should not be entitled to have its full RCS back if it has reduced its obligation as a result of failing a test.
- Discussion Point 4: Should RCS be released before RCOQs apply when a Facility has entered the market early.
  - Mr Ken Brown did not consider that one Trading Interval is sufficient time for a Facility to prove that it can meet its obligations if it has entered the market early. Additionally, both Mr Dykstra and Mr Cremin noted that the Facilities entering early already get the benefits from doing so.
  - Mr Derek McKay stated that there was no benefit in holding RCS that is no longer required and so the return of RCS should not be delayed provided the testing requirements are adequate.
  - The MAC agreed that Market Participants should be able to get their RCS released before their RCOQs apply if they enter the market early, subject to agreement as to the appropriate test level.



- Discussion Point 5: How should Facility upgrades be treated for the purposes of RCS.
  - Mr Cremin considered that if a Facility is upgraded then it should be treated as a single new Facility for the purposes of determining the required output level.
  - The MAC agreed that with regard to Facility upgrades, the whole Facility (as upgraded) should be tested for the purposes of RCS.
- Discussion Point 6: Should the IMO be able to cancel Capacity Credits rather than drawing down on RCS in the case of a default or failure to build the Facility.
  - The MAC noted that this issue is currently under consideration by the IMO.

#### August 2010 meeting

During the meeting the IMO presented its Pre Rule Change Discussion Paper, implementing the recommendations agreed by the MAC at the May 2010 meeting. Ms Fiona Edmonds noted that the proposal would introduce the concept of a Required Level for both conventional and non-conventional generation technologies. Ms Edmonds noted that in determining the Required Level to be met by Intermittent Generators the IMO had sought the views of its panel of experts and met with key stakeholders.

The following points were raised.

- Mr Stephen MacLean queried the use of the term “95 percentile”, questioning whether the measurement was actually the “5 percentile”. Mr Forward proposed that the term “95 percentile” be replaced with “5% POE”. Mr MacLean agreed, though questioning whether the panel of independent experts had all understood the IMO’s intended meaning of the term “95 percentile”. Mr Ben Williams considered that this had been the case. The Chair advised that the IMO would confirm that the experts had a common understanding of the meaning of the term.
- Mr MacLean questioned whether the Required Level would always be achievable or whether a wind generator could conceivably not reach this level during the year. Mr Williams responded that the IMO had undertaken some modelling using available wind farm data and those generators had always been able to exceed their Required Level at least twice in any year.
- Mr Williams clarified that for wind farms the Required Level would be the 95 percentile of the estimated 3 year production output duration curve, not 95 percent of the nameplate capacity.
- Mr Dykstra questioned whether the proposal would allow for the return of RCS prior to the end of the Capacity Year for an Intermittent Generator. Mr Forward confirmed that this would be the case, noting that this was agreed at the May 2010 MAC meeting.
- Mr Dykstra queried why a generator should have to meet the 95 percentile level, asking why a developer that installs an Intermittent Generator should have to take risks on security. The Chair responded that a normal generator is expected to demonstrate that it can meet its capacity obligations. Mr Dykstra agreed but noted a Scheduled Generator has control over its output. The Chair considered that the proposal represented a concession to generators, allowing the early return of their RCS, but that generator would still need to demonstrate its capability.
- Mr Dykstra questioned whether the 95 percentile test could be used to facilitate an early return of RCS to Intermittent Generators while still retaining the current provisions for the return of RCS at the end of the Capacity Year. Mr Forward and Mr Williams explained that the proposal brought the treatment of an Intermittent Generator into alignment with that of a Scheduled Generator.
- Mr Cremin suggested an alternative approach, whereby the RCS for an Intermittent Generator would be returned once an independent engineer that confirmed that the

equipment was installed. Mr Forward noted that it would be possible for the equipment to be installed but not working and considered that the IMO needed a way to check the operation of the Facility, not just the installation.

- Mr Forward noted that the IMO was attempting to standardise the approach used in the assessment of Reserve Capacity throughout the Market Rules by introducing the common concept of a Required Level. Mr John Rhodes referred to Point 8 of the expert report provided by MMA, suggesting the IMO was proposing to use different methodologies for certification (average output) and Required Level determination for Intermittent Generators (peak output).
- Mr Cremin considered that he would not like to see the 95 percentile approach applied to DSM. Ms Edmonds confirmed that this was not the case, with a separate methodology proposed for Curtailable Loads and Demand Side Programmes.
- Mr MacLean questioned whether the proposed Glossary definition of Commercial Operation should refer to the Reserve Capacity Market Procedure, on the basis that a higher level document should not contain a definition that is contained in a lower level document. The Chair advised that this issue would be addressed.
- Mr Peter Huxtable noted that proposed introduction of Civil Penalties for failures to provide RCS as required by clauses 4.13.3 and 4.13.4. Mr Huxtable questioned whether a Market Participant would be able to identify a change to their bank's Acceptable Credit Criteria status in time to avoid incurring a Civil Penalty. Mr Williams responded that the onus on the Market Participant to provide appropriate security was a wider issue in the Market Rules.
- Dr Steve Gould queried the return of RCS that is not in the form of a cash deposit. Mr Williams committed to ensure that the return of this type of RCS was covered in the proposed amendments.
- Mr MacLean noted that the IMO's proposal allowed Intermittent Generator to recover their RCS earlier, but considered that the problem was that people did not understand the details. Mr Forward agreed for the IMO to provide more detail around the proposal at the next MAC meeting.

### September 2010 meeting

During the meeting the IMO presented further detail of how the IMO proposed to calculate the Required Level for Intermittent Generators.

The following points were raised:

- Mr MacLean queried the meaning of the term "expected peak output". Mr Williams replied that the Required Level value was based on all intervals, not just Peak Trading Intervals.
- Mr Dykstra questioned in what sort of situations the IMO envisaged that the 5 percent POE value would not be considered appropriate and that therefore an expert report could be provided. Ms Edmonds and Mr Williams replied that they expected this would occur when an expert's report provided by the Market Participant proposed an alternative approach and gave reasons why the standard approach was inappropriate for that Facility.
- Mr Dykstra suggested that a reference to the Market Procedure for RCS should be mentioned in the proposed amendments, e.g. "not appropriate as determined according to the RCS Procedure". Mr Cremin questioned whether it was reasonable that a report from a member of the IMO's panel of experts, submitted by a Market Participant, should not be accepted by the IMO.
- Mr MacLean questioned the need to create a new term for "Required Level" in the Market Rules, suggesting that it might be possible to simply refer to a test level. Ms

Edmonds responded that the term had been created to allow the Required Level to be used in several places within the Market Rules. This would standardise the approach used in the assessment of Reserve Capacity throughout the Market Rules by introducing a common concept.

- Mr Dykstra considered that the proposed method for testing Intermittent Generators (based on peak output) was not quite consistent with the method used for certification (based on average output). Mr Williams responded that the certification of Intermittent Generators was based on averages, which took into account the need to operate at peak some percentage of the time. Mr Williams submitted that the failure of an Intermittent Generator to meet the proposed Required Level would probably indicate that its Reserve Capacity had been set too high. Mr MacLean considered that Market Participants should make sure that they can meet the three year profile presented for certification.
- Mr Dykstra suggested that the testing of Intermittent Generators could use the same statistical basis as that used for certification. Mr Dykstra noted that the certification process required the creation of a model to determine capacity. Mr Dykstra suggested that actual data could be run through the same model to assess whether the Facility is achieving its expected output.
- Mr Cremin suggested using an independent expert's report as a trigger for the return of RCS for an Intermittent Generator. The report would need to confirm that the Facility was installed and working to the specifications on which its certification was based. Mr Forward considered that there could be problems with this approach if a generator did not build its Facility exactly to the specifications provided for certification. Mr Cremin agreed that industry experts could occasionally provide unexpected results.
- Mr Dykstra considered that the IMO's proposal created a new risk for Market Participants. Currently the security for an Intermittent Generator would be returned if the Facility had been installed, but under the proposal there was a risk that a Market Participant would get nothing back.
- The Chair queried what would happen if there was an extremely bad year and an Intermittent Generator did not reach 90 percent of its Required Level. Mr Williams noted that the Market Participant would lose their security. The Chair questioned whether the risk was simply that the wind did not blow. Mr Cremin replied that the problem could also arise through bad luck, for example if the generator did not happen to have all its turbines running on the windiest days.
- Mr Cremin and Mr Dykstra both expressed concern that there was still risk of the security not being returned, agreeing that this would be a disincentive for potential investors. Mr Forward noted that this was also a risk for a Scheduled Generator.
- The Chair suggested that the proposed amendments could allow for an independent expert's report that confirmed that the Facility was installed and working to the specifications on which its certification was based to ensure the return of the security. Mr Forward queried whether the Market Customer representatives in the MAC were happy with this approach. Mr MacLean considered that Market Customers would be no better or worse off under the proposal. Dr Steve Gould suggested that this was not a substantial issue considering that the probability of an SRC situation arising from a wind farm failure was remote. Mr MacLean agreed with Dr Gould's suggestion.
- The Chair noted that Market Customers bear the risk of any non-delivery of capacity, and so if they were happy with the risk then an independent expert's report could be used. Mr Forward queried whether the report was to be provided as soon as the Facility was installed. Mr Dykstra suggested that a participant might seek a report about a month before the end of the Capacity Year, if it had not already satisfied the Relevant Level criteria. Mr Forward questioned why the report should not be provided up front if it was to be used as a backstop. Mr Cremin responded that the IMO should have a good idea of whether a new Facility was operating as expected.

- The Chair noted the concerns of MAC members that uncertainty about the return of RCS for an Intermittent Generator posed a risk to investment funding. The Chair agreed with Dr Gould that the risk of an installed Intermittent Generator failing and causing an SRC event is low.
- The Chair asked if the MAC was agreeable to the proposed amendments, if they were modified to include the use of an independent expert's report as a criterion for the return of RCS for an Intermittent Generator (in addition to the Required Level). The MAC endorsed this proposal.