

The background of the lower half of the page is a photograph of a wind farm and power lines, overlaid with a semi-transparent blue filter. On the left, several large white wind turbines are visible, their blades extending outwards. On the right, a tall metal lattice tower for power lines stands prominently, with other similar towers receding into the distance. The overall scene is set in an open, hilly landscape under a clear sky.

**Independent Market Operator**

**Final Rule Change Report:  
Adjustment of Relevant Level for  
Intermittent Generation Capacity**

**Ref: RC\_2010\_24**

**Date: 1 April 2011**

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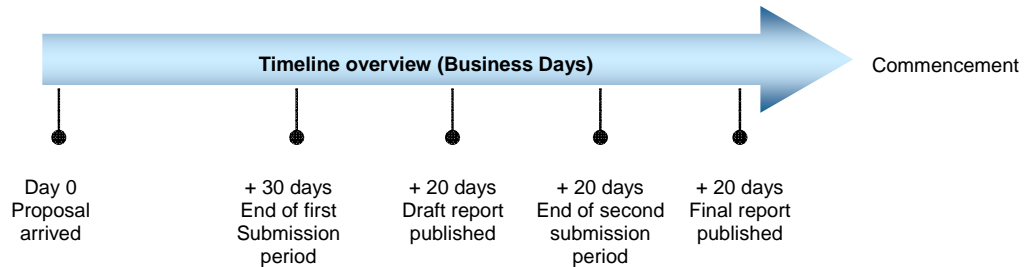
### Independent Market Operator

Level 3, Governor Stirling Tower  
 197 St George's Terrace, Perth WA 6000  
 PO Box 7096, Cloisters Square, Perth WA 6850  
 Tel. (08) 9254 4300 Fax. (08) 9254 4399  
 Email: [imo@imowa.com.au](mailto:imo@imowa.com.au) Website: [www.imowa.com.au](http://www.imowa.com.au)

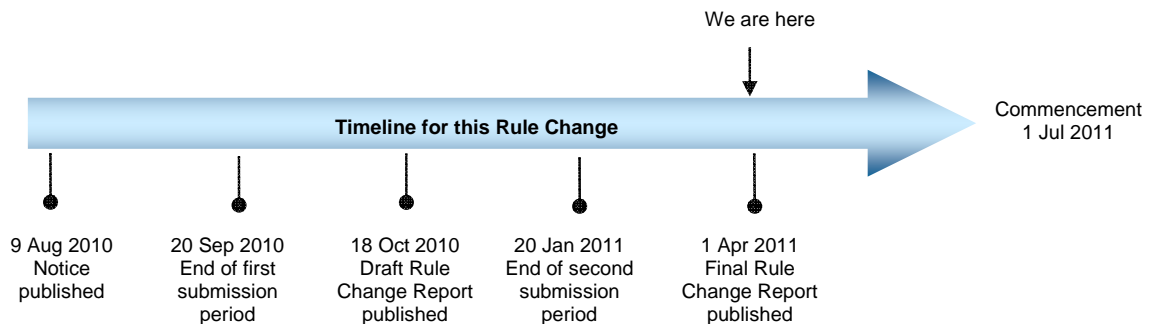
## 1. INTRODUCTION

On 3 August 2011 Alinta submitted a Rule Change Proposal regarding amendments to clause 4.11.3A 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 second submission period and the timeframes for preparing the 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 notice, 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\\_24](http://www.imowa.com.au/RC_2010_24)

## 2. THE RULE CHANGE PROPOSAL

### 2.1 Submission Details

<b>Name:</b>	Corey Dykstra
<b>Phone:</b>	9486 3749
<b>Fax:</b>	9221 9128
<b>Email:</b>	corey.dykstra@alinta.net.au
<b>Organisation:</b>	Alinta Sales Pty Ltd
<b>Address:</b>	Level 9, 12-14 The Esplanade, PERTH WA 6000
<b>Date submitted:</b>	3 August 2010
<b>Urgency:</b>	2-medium
<b>Change Proposal title:</b>	Adjustment of Relevant Level for Intermittent Generation Capacity
<b>Market Rule affected:</b>	4.11.3A

### 2.2 Summary Details of the Proposal

Alinta's Rule Change Proposal sought to amend the Relevant Level calculation (clause 4.11.1(d)) to incorporate an estimate of the amount of electricity that was reduced due to Dispatch Instructions from System Management, Planned Outages or Consequential Outages for the purposes of assigning Certified Reserve Capacity for a Non-Scheduled Generator.

Alinta considered that the current methodology for determining the Relevant Level does not capture the capacity contribution that the Facility can make. Alinta noted that the Relevant Level, and the Certified Reserve Capacity assigned to a Facility that is an Intermittent Generator, will be lower than would have been the case in the absence of the Dispatch Instruction, Planned Outage or Consequential Outage.

Full details of Alinta's proposal are presented in Appendix 1 of this report.

### 2.3 The Proposal and the Wholesale Market Objectives

Alinta submitted that the quantity of Certified Reserve Capacity assigned to a Facility that is a Scheduled Generator is not affected by Dispatch Instructions from System Management, Planned Outages or Consequential Outages. Consequently, a Market Participant with a Facility that is an Intermittent Generator is discriminated against. Further, because the effect of Dispatch Instructions, Planned Outages or Consequential Outages is to unambiguously decrease the quantity of Certified Reserve Capacity assigned, a Facility that is an Intermittent Generator is financially disadvantaged by the current Market Rules.

As a result, Alinta considered that the proposed amendments to clause 4.11.3A are necessary to support Market Objective (c), by avoiding discrimination 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.

Alinta also considered that the amendments to clause 4.11.3A are consistent with Market Objectives (a), (b) and (d), and are not inconsistent with Market Objective (e).

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

The amendments to the Market Rules originally proposed by Alinta 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 that Market Participants should be given an opportunity to provide submissions as part of the rule change process.

## **3. FIRST SUBMISSION PERIOD**

The first submission period for this Rule Change Proposal was between 10 August 2010 and 20 September 2010.

### **3.1 Submissions received**

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

In summary, all of the submissions received generally supported the intention of the proposed amendments, albeit subject to further clarifications of the proposed Amending Rules and expansion of the drafting to capture the scenario where an Intermittent Generator within Verve Energy's portfolio may be dispatched down by System Management.

LGP however noted that there is a counter-argument to the proposal in that Intermittent Generators are perceived to already receive generous capacity allocations and the increases to certification levels likely to arise from the proposal would only be minor and did not warrant the complexity. Likewise, Perth Energy noted that the proposed solution would require someone to undertake an estimation of the output of the Facility that would have otherwise eventuated and that this person has not been identified by Alinta. Both Perth Energy and LGP suggested a simpler option of excluding impacted Trading Intervals from the calculation of the Relevant Demand.

In its submission Griffin Energy noted that there may be some conjecture around the exclusion of Trading Intervals where a Planned Outage occurred.

The assessment by submitting parties as to whether the proposal would better the Wholesale Market Objectives is summarised below:

<b>Submitter</b>	<b>Wholesale Market Objective Assessment</b>
Griffin Energy	Betters (c)
LGP	Betters (c)
Perth Energy	Betters (c) and (d)
Verve Energy	Consistent

### **3.2 The IMO's response to submissions received during the first submission period**

The IMO's response to submissions received 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 first public submission period, the IMO made some additional changes to the proposed Amending Rules to reflect the exclusion of Planned Outages and Consequential Outages and to use an estimate of the reduction in output due to a Dispatch Instruction in the calculation of the Relevant Level. The IMO also made some updates to include an estimate of the curtailment of Verve Energy Intermittent Generators in the calculation. A summary of the additional amendments is contained in Appendix 4 of this report.

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

The IMO's draft assessment, against clauses 2.4.2 and 2.4.3 of 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**

Based on the matters set out in the Draft Rule Change Report, the IMO's draft decision, in accordance with clause 2.7.7(f), was to accept the Rule Change Proposal as amended following the first submission period, subject to any future outcomes relating to the valuation methodology for Intermittent Generators.

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

- will allow the Market Rules to better address Wholesale Market Objective (c);
- are consistent with the remaining Wholesale Market Objectives; and
- have the general support of submissions received during the first submission period.

The IMO also noted that the proposed concept had the support of the MAC.

Additional detail outlining the analysis behind the IMO's reasons was presented in the Draft Rule Change Report.

## **6. SECOND SUBMISSION PERIOD**

Following the publication of the Draft Rule Change Report on the IMO website, the second submission period was between 19 October 2010 and 20 January 2011.

### **6.1 Submissions received**

During the second submission period the IMO received submissions from LGP and System Management. The full submissions are available on the IMO website.

In summary, both submissions supported the intent of the proposed amendments, albeit with System Management raising a concern around the requirement to provide information on a daily basis to the IMO regarding the curtailment of Verve Energy facilities. System Management also notes a historical agreement between the IMO and System Management to the effect that Dispatch Instructions for Non-Verve Energy Intermittent Generators are not provided to the IMO. System Management suggests that the proposed Amending Rules should be updated to reflect this agreement.

## **6.2 The IMO's response to submissions received during the second submission period**

During the second submission period System Management raised two issues relating to the proposed process for providing the IMO with information on curtailed Facilities to be taken into account in the Relevant Level calculation for a Facility. An overview of these issues and the IMO's response is presented below.

### Timing of provision of information to the IMO

In its submission System Management expresses a concern that the daily provision of information on the curtailment of Verve Energy Facilities would impose an unnecessary additional compliance burden. System Management notes that the information relating to the curtailment of Non-Scheduled Generators owned by Verve Energy would only be used annually during the Certified Reserve Capacity process. As such provision of this information of a daily basis (rather than aggregated annually) would serve no purpose and result in the IMO and System Management incurring additional IT systems costs. Alternatively, System Management propose that the obligations for provision of this information should be incorporated into Chapter 4 of the Market Rules and involve System Management only providing the necessary information to the IMO within ten Business Days after a request is issued by the IMO. System Management suggests that this change would also need to be reflected in the Relevant Level calculation (clause 4.11.3A(cB)).

The IMO agrees that the requirement to provide information on the curtailment of Verve Energy Facilities and the subsequent estimated reductions in the output of a Facility should be only provided to the IMO annually following a request. The IMO however disagrees that the most appropriate place to include these requirements would be in Chapter 4 of the Market Rules. The IMO has proposed a number of changes to Chapter 7 to reflect this amended process for provision of information. For further details refer to Appendix 5 of this report.

### Provision of information on Dispatch Instructions for Non-Verve Energy Intermittent Generators

System Management notes in its submission that Dispatch Instructions for Non-Verve Energy Intermittent Generator loads, as contemplated by clause 7.13.1(c), are not sent to the IMO due to a historical agreement between System Management and the IMO. As a result the implementation of clause 4.11.3A(a)(i) (as presented in the Draft Rule Change Report) serves problematic. System Management suggests a proposed update to this clause to reflect this historical agreement.

Subsequent to making its submission System Management has retracted this comment regarding the existence of a historical agreement to not provide this information. The IMO confirms that information on any Dispatch Instructions issued for Non-Verve Energy Intermittent Generators is currently provided to the IMO by System Management. As such the IMO does not propose any further amendments to the proposed Amending Rules.

## **6.3 Additional amendments to the Amending Rules**

Following the closure of the second submission period, the IMO made some additional changes to the proposed Amending Rules. The additional amendments are contained 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 West interconnected system	Yes
(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 Market Rules if amended would not only be consistent with the Wholesale Market Objectives but also allow the Market Rules to better address Wholesale Market Objective (c):

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



Inconsistent with objective

-

Removal of Planned Outages and Consequential Outages from the calculation and the use of an estimate of output where curtailment is requested by System Management (for both IPPs and Verve Energy) when determining the Relevant Level, will ensure that an Intermittent Generator is assigned Certified Reserve Capacity based on a more accurate estimate of its output and availability during the previous three years.

The IMO considers that by including estimates of output for both IPPs and Verve Energy, equal treatment of Market Participants will be ensured for certification purposes. In particular, the IMO notes that while currently an IPP can account for any potential reduction in its certification level in its Pay as Bid price, Verve Energy, as the Balancer, is paid at MCAP and is unable to incorporate any potential reduction in certification into its pricing structure for curtailment by System Management. The IMO considers that this is a current discrimination against Verve Energy's Intermittent Generators which will be corrected by the proposed amendments.

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

### **Cost:**

Given that the amendments in this Rule Change Proposal may be superseded by the outcome of the Renewable Energy Generation Working Group (REGWG) Work Package 2<sup>1</sup> (Reserve Capacity and Reliability Requirements) work no changes will be made to the Wholesale Electricity Market Systems operated by the IMO. (The cost of these changes was originally estimated to be \$50,000). The IMO will alternatively develop and have audited a spreadsheet to determine the relevant quantities to apply for certification purposes. The costs associated with this alternative implementation option are estimated to be \$5,000 for the audit.

System Management notes in its submission that, should it be required to provide the required curtailment information each day, there would be significant IT interface modifications required. However the adoption of its proposed amendments to only require annual provision of the information would simply require updates to its internal processes. As presented in Appendix 5 the IMO has amended the requirements for the provision of this information to being annually and as such the costs to be incurred by System Management will only be those associated with updating its internal procedures.

### **Practicality:**

The IMO has not identified any issues with the practicality of implementing the proposed changes. However, potential further amendments to the certification methodology may result from either the:

- Rule Change Proposal: Calculation of the Capacity Value of Intermittent Generation – Methodology 1 (IMO) (RC\_2010\_25); or
- Rule Change Proposal: Calculation of the Capacity Value of Intermittent Generation – Methodology 2 (Griffin Energy) (RC\_2010\_37).

The IMO notes that the conceptual changes that will result from RC\_2010\_24 will be taken into account in any future certification methodology that is adopted for Intermittent Generators (where possible).

<sup>1</sup> The IMO notes that any such outcomes are unlikely to be implemented until at least the 2012 Capacity Year.

### **7.3 Views expressed in submissions**

The IMO received four submissions during the first submission period that generally supported the proposed amendments, albeit highlighting a number of issues and suggesting further amendments.

During the second submission period the IMO received two submissions which generally supported the proposed amendments, albeit with a number of suggested amendments surrounding the provision of information received from System Management. The IMO response to these suggestions is provided in section 6.2 of this report.

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

The proposal was discussed at the 13 October 2010 MAC meeting.

During the meeting, it was noted that the IMO had received a Rule Change Proposal titled Adjustment of Relevant Level for Intermittent Generators (RC\_2010\_24) which seeks to adjust the calculation of the Relevant Level for Intermittent Generators. It was also noted that RC\_2010\_24 includes some overlap with the potential outcomes of the Work Package 2 work that had been undertaken by the REGWG. An overview of the discussion at the MAC is presented in Appendix 6 of this proposal.

#### **7.4.1 Discussion at the REGWG**

The proposal was also discussed at the 2 September 2010 meeting of the REGWG, a working group constituted under the auspices of the MAC to consider, among other things, the issues related to intermittent renewable energy generation in the Wholesale Electricity Market.

During the REGWG meeting, the IMO noted the overlap between the proposal and the work being undertaken for Work Package 2. In particular, it was noted that the proposed amendments would impact on all of the methodologies identified. An overview of the discussion at the REGWG is presented in Appendix 7 of this proposal.

## **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 6.3 and specified in 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 Objective (c);
- are consistent with the remaining Wholesale Market Objectives; and
- have the general support of the submissions received in the first and second submission periods.

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 July 2011**.

### 9.2 Amending Rules

The IMO's final decision is to amend the Market Rules. The following clauses are amended (~~deleted wording~~, new wording):

- 4.11.3A. The Relevant Level in respect of a Facility at a point in time is determined by the IMO following these steps:
- (a) take all the Trading Intervals that fell within the last three years up to, and including, the last Hot Season, excluding any Trading Intervals where the Facility either:
    - i. was owned, controlled or operated by a Market Participant other than the Electricity Generation Corporation and:
      1. was affected by a Planned Outage or Consequential Outage as notified under clause 7.13.1A; or
      2. was issued a Dispatch Instruction from System Management as notified under clause 7.13.1(c); or
    - ii. was owned, controlled or operated by the Electricity Generation Corporation and:
      1. was affected by a Planned Outage or Consequential Outage as notified under clause 7.13.1A; or
      2. was issued an instruction from System Management to deviate from the Dispatch Plan or change its commitment or output as notified under clause 7.13.1C;
  - (b) determine the amount of electricity (in MWh) sent out by the Facility in accordance with ~~meter data submissions~~ Meter Data Submissions received by the IMO in accordance with clause 8.4 ~~during these~~ for all Trading Intervals occurring during the period referred to in step (a);
  - (c) ~~if the Generator Facility~~ if the Facility has not entered service, or if it entered service during or after the period referred to in step (a), estimate in accordance with the Reserve Capacity Procedure the amount of electricity (in MWh) that would have been sent out by the ~~f~~Facility, had it been in service, for all Trading Intervals occurring during the period referred to in step (a) which are prior to it entering service;
  - ~~(cA)~~ if, during the period described in step (a), the Facility's output was reduced in order to comply with a Dispatch Instruction from System Management, issued in accordance with clause 7.7, use:
    - i. the estimated decrease (in MWh) in the output of each Facility, by Trading Interval, as a result of System Management

Dispatch Instructions, provided by System Management in accordance with clause 7.13.1(eB); and

- ii. the amount of electricity (in MWh) sent out for the Facility determined from Metered Data Submissions received by the IMO in accordance with clause 8.4 for all the Trading Intervals that were excluded under step (a)(i)(2),

to estimate the amount of electricity (in MWh) that would have been sent out by the Facility, had it not complied with the Dispatch Instruction for all the Trading Intervals that were excluded under step (a)(i)(2);

(cB) if, during the period described in step (a), the Facility's output was reduced in order to comply with an instruction from System Management under clause 7.6A.3(a) to deviate from the Dispatch Plan or change its commitment or output, use:

- i. the estimated decrease (in MWh) in the output of each Facility, by Trading Interval, as a result of an instruction from System Management in accordance with clause 7.6A.3(a), where this information has been either:
  - 1. provided by System Management in accordance with clause 7.13.1C(b) for the Trading Intervals that were excluded under step (a)(ii)(2), where actual data for the site of the Facility has been provided to System Management under clause 7.7.5B; or
  - 2. determined by the IMO in accordance with the Reserve Capacity Procedure for all the Trading Intervals that were excluded under step (a)(ii)(2), where actual data for the site of the Facility has not been made available to System Management under clause 7.7.5B; and
- ii. the amount of electricity (in MWh) sent out for the Facility determined from Meter Data Submissions received by the IMO in accordance with clause 8.4 for all the Trading Intervals that were excluded under step (a)(ii)(2),

to estimate the amount of electricity (in MWh) that would have been sent out by the Facility had it not complied with System Management's instruction for all the Trading Intervals that were excluded under step (a)(ii)(2); and

(d) set the Relevant Level as double the sum of the quantities determined in steps (b), ~~and~~ (c), (cA) and (cB) divided by the total number of Trading Intervals identified in steps (a), (cA) and (cB) 52,560.

7.13.1C System Management must, within 10 Business Days of receipt of a request from the IMO, provide the IMO with the following information:

- (a) a schedule of all instructions provided to the Electricity Generation Corporation's Non-Scheduled Generators to deviate from the Dispatch

Plan or change their commitment or output in accordance with clause 7.6A.3(a) for each Trading Interval during the time period specified by the IMO in its request; and

(b) where the Electricity Generation Corporation has made actual wind data available in accordance with clause 7.7.5B, the estimated decrease, in MWh, in the output of each Electricity Generation Corporation Non-Scheduled Generator as a result of an instruction from System Management to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a), as determined in accordance with clause 7.7.5E, for each Trading Interval during the time period specified by the IMO in its request, where this is to be used in the calculation of the Relevant Level described in clause 4.11.3A.

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

7.7.5E. Where the Electricity Generation Corporation has made information available to System Management in accordance with clause 7.7.5B and the Power System Operation Procedure, System Management must estimate for each Trading Interval the decrease, in MWh, in the output of each Electricity Generation Corporation Non-Scheduled Generator as a result of an instruction from System Management to deviate from the Dispatch Plan or change its commitment or output in accordance with clause 7.6A.3(a).

## APPENDIX 1: FULL DETAILS OF THE PROPOSAL

In its proposal Alinta noted that Market Rule 4.11.1(d) requires that the IMO assign Certified Reserve Capacity for a Non-Scheduled Generator based on its “Relevant Level”, which is to be determined in accordance with Market Rule 4.11.3A.

The methodology set out in Market Rule 4.11.3A is as follows.

- (a) Take all the Trading Intervals that fell within the last three years up to, and including, the last Hot Season.
- (b) Determine the amount of electricity (in MWh) sent out by the Facility in accordance with metered data submissions received by the IMO in accordance with clause 8.4 during these Trading Intervals.
- (c) If the Generator has not entered service, or if it entered service during the period referred to in step (a), estimate the amount of electricity (in MWh) that would have been sent out by the facility, had it been in service, for all Trading Intervals occurring during the period referred to in (a) which are prior to it entering service.
- (d) Set the Relevant Level as double the sum of the quantities determined in (b) and (c) divided by 52,560.

To the extent that a Market Participant receives (downward) dispatch instructions from System Management under Market Rule 7.7.1 in respect of a Facility that is an Intermittent Generator, and the Market Participant confirms its ability to comply with the Dispatch Instruction, the amount of electricity sent out by the Facility, as measured by meter data submissions received by the IMO, will be lower than would have been the case in the absence of the Dispatch Instruction.

Further, to the extent that a Facility that is an Intermittent Generator has a Planned or Consequential outage, the amount of electricity sent out by the Facility, as measured by meter data submissions received by the IMO, will be lower than would have been the case in the absence of the Planned or Consequential outage.

As a result, the Relevant Level, and the Certified Reserve Capacity assigned to a Facility that is an Intermittent Generator, will be lower than would have been the case in the absence of the Dispatch Instruction, Planned Outage or Consequential Outage.

To the extent that the Certified Reserve Capacity assigned to a Facility that is an Intermittent Generator is reduced due to Dispatch Instructions from System Management, Planned Outages or Consequential Outages, the assigned Certified Reserve Capacity is not consistent with the capacity contribution that the Facility can make and the Market Participant is disadvantaged financially.

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

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

4.11.3A. The Relevant Level in respect of a Facility at a point in time is determined by the IMO following these steps:

- (a) take all the Trading Intervals that fell within the last three years up to, and including, the last Hot Season;
- (b) determine the amount of electricity (in MWh) sent out by the Facility in accordance with metered data submissions received by the IMO in accordance with clause 8.4 during these Trading Intervals;
- (c) If the Generator has not entered service, or if it entered service during the period referred to in step (a), estimate the amount of electricity (in MWh) that would have been sent out by the facility, had it been in service, for all Trading Intervals occurring during the period referred to in (a) which are prior to it entering service;
- (cA) If evidence is provided by the Market Generator that during the period described in step (a), the amount of electricity (in MWh) sent out by the Facility was reduced because the Facility complied with a Dispatch Instruction from System Management, or because of a Planned Outage or a Consequential Outage, estimate the amount of electricity (in MWh) that would have been sent out by the facility, had it not complied with the Dispatch Instruction or been affected by a Planned Outage or a Consequential Outage.
- d. set the Relevant Level as double the sum of the quantities determined in (b), ~~and~~ (c) and (cA) divided by 52,560.

...

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

Clause/Issue	Submitter	Comment/Change Requested	IMO's response
4.11.3A	Griffin Energy	The current methodology of setting the relevant level for Intermittent Generators is compromised by not taking into account the instances where capacity is constrained that otherwise would have been available.	The proposed amendments, subject to the further refinements identified during the first consultation period, will ensure that an Intermittent Generator is assigned Certified Reserve Capacity based on a more accurate estimate of its output and availability during the last three years.
4.11.3A	LGP	There is a counter-argument to the rule change to the effect that Intermittent Generators are perceived to already receive generous capacity allocations and that the increases arising from the proposed changes would only be minor and do not warrant the complexity. Moreover, the rules are in any case likely to be changed in response to the ongoing market design work. While LGP does not disagree with this, it considers that the proposed changes are in harmony with the existing rule change context.	<p>The Renewable Energy Generation Working Group (REGWG) was tasked with investigating a range of issues associated with renewable energy generators. A work programme was established and includes reviewing whether certification of capacity based on an average output of a Facility is a reasonable approximation of the capacity value of Intermittent Generators (Work Package 2: Reserve Capacity and Reliability Requirements). Work undertaken to date in identifying appropriate options for certifying the capacity of Intermittent Generators, has specifically considered how to accurately reflect the value of that capacity to the market.</p> <p>Given that there is a level of overlap between the amendments proposed by Alinta and this wider body of work, this Rule Change Proposal (RC_2010_24) was provided to the REGWG for discussion at the 2 September 2010 meeting. In particular, the IMO noted the potential impacts of the proposed amendments on each of the methodologies for certifying capacity for these facilities identified by MMA as part of Work Package 2. The REGWG did not raise any significant concerns with the proposed amendments, however noted that clause 4.11.3A would likely be further amended by any proposals stemming from the REGWG. Further details of the discussion at the REGWG are provided in section 5.3 of this report.</p>
Impact of Planned Outages	Griffin Energy	While the circumstances surrounding downward dispatch and Consequential Outage seem clear, there may be some conjecture over the circumstance where capacity is constrained due to a Planned Outage. The basis to the methodology set out in clause 4.11.3A is to determine the average capacity factor expected of the facility. This would usually include Planned Outages. However, the fact remains	While the IMO notes that a Planned Outage reflects a restriction on the availability of capacity from a Facility, the IMO agrees with Griffin Energy that it is reasonable to exclude Planned Outages from the calculation. This is because System Management has the ability to request a Market Generator to cancel its Planned Outage where there may be system reliability issues (clause 3.20). As such the IMO considers that the capacity that would have been available had a Planned Outage not occurred should be taken into account in calculating the Relevant Level for a facility assigned Certified



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Clause/Issue	Submitter	Comment/Change Requested	IMO's response
		<p>(and Griffin has direct experience of this), that if a Planned Outage is to occur during periods when demand unexpectedly approaches the available supply, then the Intermittent Generator may be request to cancel the Planned Outage in order to make its capacity available to the market. While in most cases this will not occur, the ability for it to do so suggests that the capacity available during planned outages should also be considered when setting the Relevant Level.</p>	<p>Reserve Capacity under clause 4.11.2(b). As such the IMO proposes to remove Planned Outages from the calculation of the Relevant Level.</p> <p>The IMO notes that currently a Facility assigned Certified Reserve Capacity in accordance with clause 4.11.2(b) that has a large number of Planned Outages will have this taken into account when making certification decisions in subsequent years. This is in accordance with clause 4.11.1A (h) which applies equally to Facilities certified under both clause 4.11.1(a) and 4.11.2(b).</p>
<p>Curtailment of Verve Energy Intermittent Generators</p>	<p>Verve Energy</p>	<p>Verve Energy supports the proposed amendments subject to the drafting being expanded to capture the scenario where an Intermittent Generator within Verve Energy's portfolio may be dispatched down by System Management without a Dispatch Instruction as defined in the Market Rules.</p>	<p>Prior to preparing the Draft Rule Change Report, the IMO met with both System Management and Verve Energy to determine an appropriate estimation methodology for incidences where Verve Energy's Intermittent Generators are curtailed by System Management (under clause 7.6A.3). Given that Verve Energy's facilities are most likely to be curtailed due to its position as the Balancer, it was agreed that it would be appropriate to estimate the output that the Facility would have otherwise produced.</p> <p>The following estimation methodology was agreed by all parties:</p> <ul style="list-style-type: none"> <li>Where System Management has been provided with wind farm data by Verve Energy, in accordance with clause 7.7.5B, System Management will, for each impacted Trading Interval, estimate the decrease in output (MWh) of the Facility as a result of System Managements request for curtailment. System Management would provide these estimates to the IMO for use along with the Facilities actual metered output as an estimate of the output that could have otherwise been expected for the facility to be incorporated into the Relevant Level calculation; and</li> <li>Where System Management has not had wind farm data provided to it by Verve Energy in accordance with clause 7.7.5B, System Management would notify the IMO of the Trading Intervals where it had requested the Facility to curtail its output. The IMO would determine an estimate of the decrease in the output (MWh) of the Facility. This would be used along with the actual metered output of the Facility to estimate</li> </ul>

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Clause/Issue	Submitter	Comment/Change Requested	IMO's response
			<p>the output that would have otherwise been expected to be incorporated into the Relevant Level calculation.</p> <p>The proposed Amending Rules have been amended to incorporate these further agreed changes. Refer to Appendix 3 of this paper for further details.</p>
Estimation	Perth Energy	Perth Energy notes that proposed solution necessitates that someone undertake an estimation of the output of the Facility that would have eventuated in the absence of having its output restricted either by a Dispatch Instruction or being on a Consequential or Planned Outage. The proposed drafting to implement the change does not identify which entity should perform this estimation.	<p>During the first consultation period, Alinta's proposal was presented to the REGWG for discussion. During the meeting, System Management raised a possible issue with the proposal potentially providing a Market Participant with an opportunity to overstate its Facility's output. In particular, System Management considered that the proposal would provide an alternative method of undertaking a Planned Outage during periods when a Facility would expect to perform poorly e.g. non-summer peak times.</p> <p>As a consequence, discussions were held between the IMO, Alinta and System Management to determine further refinements to Alinta's original proposal. It was agreed to:</p> <ul style="list-style-type: none"> <li>• use of an estimate of the decrease in output for a Facility that received Dispatch Instructions (based on metered output and System Managements estimated decrease in output provided in accordance with clause 7.13.1(eB)); and</li> <li>• remove Planned Outages and Consequential Outages,</li> </ul> <p>in the calculation of the Relevant Level<sup>2</sup>.</p> <p>The IMO considers that an estimate of the output for a Facility which has received Dispatch Instructions should be included in the determination of the Relevant Level as it is likely that an Intermittent Generator will be curtailed precisely when output is very high. This would mean that they would be assigned a lower level of Capacity Credits that does not reflect the true</p>

<sup>2</sup> Note that Alinta originally proposed that an estimate of the amount of electricity that would have been sent out by the Facility had it not complied with the Dispatch Instruction or been affected by a Planned Outage or Consequential Outage should be used in the calculation of the Facility's Relevant Level.

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Clause/Issue	Submitter	Comment/Change Requested	IMO's response
			ability of the Facility to deliver capacity to the market.
Estimation	Griffin Energy	The additional administrative burden in identifying levels (of downward dispatch, planned or consequential outages), that should be included in the calculation of reserved capacity under 4.11.3A, as well as estimating the likely output if the plant were available should, where practicable, be placed on the Market Generator.	Refer to above response.  If a Market Participant were to estimate the energy that would have been sent out by the Facility in the absence of a Dispatch Instruction, there would be an incentive for a Market Participant to overstate its output. The IMO considers that it is more appropriate that the IMO and System Management determine the estimates as outlined above. The IMO additionally notes that there is already a requirement for System Management to estimate the reduction in output for an IPP as a result of a Dispatch Instruction.
Estimation	Perth Energy	It may be simpler to amend the Market Rules to exclude the contribution of intervals where the Facility was affected by a Dispatch Instruction, Consequential or Planned Outage from the calculation of the Relevant Level.	Refer to above response.
Estimation	LGP	The specific proposal is complex in requiring an "estimate (of) the amount of electricity in (MWh) that would have been sent out by the facility had it not complied with the Dispatch Instruction or been affected by a Planned Outage or Consequential Outage". LGP perceives that the process for arriving at the estimate would need to be carefully prescribed, perhaps to the extent of meriting an Operating Procedure.	Details of the methodology used by System Management for estimating the output of an Intermittent Generator that reduces its output is currently provided in the Power System Operation Procedure (PSOP): Dispatch (section 17.1). Further updates to this PSOP to clarify the process for estimating Verve Energy's reduction following a request for curtailment, when wind data is available, will be required. Likewise, the Market Procedure for Certification of Reserve Capacity will need to be updated to include details of how the IMO will estimate Verve Energy's reduction.  To ensure that Market Participants are not exposed to any regulatory uncertainty, the updates to both the PSOP and Market Procedure will be prepared by the IMO and System Management in conjunction with the relevant Working Groups. The updates will be developed prior to the commencement of the Amending Rules.
Estimation	LGP	LGP suggests a simpler means of applying the correction be found and propose as a possibility that the affected intervals imply not be counted in the	Refer to above response.  The IMO considers that excluding periods where a Planned Outage or

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Clause/Issue	Submitter	Comment/Change Requested	IMO's response
		assessment of the Relevant Demand in the event of the actual Metered Quantities being less than the Relevant Demand.	Consequential Outage occur and using an estimate of output for periods where curtailment was requested by System Management (for both IPP's and Verve Energy) will simplify the methodology originally proposed by Alinta.
Incidence of a leap year	Perth Energy	The reference to 52,560 (trading intervals) in clause 4.113A(d) does not accurately accommodate the event of a leap year.	The IMO agrees and has amended the proposed Amending Rules to refer to the number of Trading Intervals that occurred in the last three years, excluding when a Planned Outage or Consequential Outage occurred. Refer to section 4.4 for further details.
Incidence of a leap year	Verve Energy	Verve Energy suggest a further amendment to subclause (d) to account for the impact of a leap year occurring in the three years used to determine the average output for the Intermittent Generator.	Refer to above response.

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

The IMO made some amendments to the Amending Rules following its assessment of the first submission period responses. These changes were as follows (~~deleted text~~, added text):

The proposed amended clause allows the IMO to exclude a period where a Facility was undertaking a Planned Outage or Consequential Outage and use an estimate of the amount of curtailment following a request by System Management (either to an IPP or Verve Energy) in the calculation of the Relevant Level.

Incidences where a Facility was issued a Dispatch Instruction or requested to deviate from its Dispatch Plan (Verve Energy facilities), will be initially excluded under step (a) and then the estimate included under step (cA) and (cB), as applicable. This will mean that in calculating the three year average, the IMO will not have to replace the data for each specific Trading Interval with the estimated value but rather simply take it into account at the aggregate level. This will ensure that the calculation is not overly complex. Note that the extent that a Facility reduces its output to a greater level than requested this will be identified in the Facility's metered output for the Trading Interval and so taken into account in the calculation.

Note that only Verve Energy (the Electricity Generation Corporation) has a Dispatch Plan or is issued other instructions under clause 7.6A.3(a).

4.11.3A. The Relevant Level in respect of a Facility at a point in time is determined by the IMO following these steps:

- (a) take all the Trading Intervals that fell within the last three years up to, and including, the last Hot Season, excluding any Trading Intervals where the Facility either:
  - i. was owned, controlled or operated by a Market Participant other than the Electricity Generation Corporation and:
    - 1. was affected by a Planned Outage or Consequential Outage as notified under clause 7.13.1A; or
    - 2. was issued a Dispatch Instruction from System Management as notified under clause 7.13.1(c); or
  - ii. was owned, controlled or operated by the Electricity Generation Corporation and:
    - 1. was affected by a Planned Outage or Consequential Outage as notified under clause 7.13.1A; or
    - 2. was issued an instruction from System Management to deviate from its Dispatch Plan or change its commitment or output as notified under clause 7.13.1(cC);

- (b) determine the amount of electricity (in MWh) sent out by the Facility in accordance with ~~metered data submissions~~ Meter Data Submissions received by the IMO in accordance with clause 8.4 during these Trading Intervals;
- (c) ~~if the Generator Facility~~ if the Facility has not entered service, or if it entered service during the period referred to in step (a), estimate in accordance with the Reserve Capacity Procedure the amount of electricity (in MWh) that would have been sent out by the ~~f~~Facility, had it been in service, for all Trading Intervals occurring during the period referred to in step (a) which are prior to it entering service;
- (cA) ~~if evidence is provided by the Market Generator that during the period described in step (a) the Facility's output was reduced in order to comply with a Dispatch Instruction from System Management, issued in accordance with clause 7.7, amount of electricity (in MWh) sent out by the Facility was reduced because the Facility complied with a Dispatch Instruction from System Management, or because of a Planned Outage or a Consequential Outage, use:~~
- i. the estimated decrease (in MWh) in the output of each Facility, by Trading Interval, as a result of System Management Dispatch Instructions, provided by System Management in accordance with clause 7.13.1(eB); and
  - ii. the amount of electricity (in MWh) sent out for the Facility in accordance with the Meter Data Submissions received by the IMO in accordance with clause 8.4 for all the Trading Intervals that were excluded under step (a)(ii.).
- to estimate the amount of electricity (in MWh) that would have been sent out by the ~~f~~Facility, had it not complied with the Dispatch Instruction for all the Trading Intervals that were excluded under step (a)(ii.). or been affected by a Planned Outage or a Consequential Outage.
- (cB) if during the period described in step (a) the Facility's output was reduced in order to comply with an instruction from System Management under clause 7.6A.3(a) to deviate from its Dispatch Plan or change its commitment or output, use:
- i. the estimated decrease (in MWh) in the output of each Facility, by Trading Interval, as a result of an instruction from System Management in accordance with clause 7.6A.3(a), where this information has been either:
    - a. provided by System Management in accordance with clause 7.13.1(eD) for the relevant Trading Intervals that were excluded under step (a), where actual data for the site of the Facility has been provided to System Management under clause 7.7.5B; or

- b. determined by the IMO in accordance with the Reserve Capacity Procedure for all the relevant Trading Intervals that were excluded under step (a), where actual data for the site of the Facility has not been made available to System Management under clause 7.7.5B; and
- ii. the amount of electricity (in MWh) sent out for the Facility in accordance with the Meter Data Submissions received by the IMO in accordance with clause 8.4 for all the Trading Intervals that were excluded under step (a)(iii.),  
to estimate the amount of electricity (in MWh) that would have been sent out by the Facility had it not complied with System Management's instruction for all the relevant Trading Intervals that were excluded under step (a)(iii.); and
- (d) set the Relevant Level as double the sum of the quantities determined in steps (b), (c), and (cA) and (cB) divided by the sum of the Trading Intervals identified in step (a), (cA) and (cB) 52,560.

The proposed amendment will clarify that if Verve Energy provides wind farm data etc, then this will be used to support the calculation of the reduction of output for the Facility as a result of a request by System Management to curtail its Facility

- 7.7.5B. A Market Participant may provide System Management with information specified in the Power System Operation Procedure to support the calculation of the quantity described in clauses 7.7.5A(a) and 7.7.5E.

The proposed new clause requires System Management to estimate the decrease in the output of the wind farm that results from System Management requesting the Facility to deviate from its Dispatch Plan or change its commitment or output.

- 7.7.5E. Where the Electricity Generation Corporation has made actual wind data available in accordance with clause 7.7.5B and the Power System Operation Procedure, System Management must estimate the decrease, in MWh, in the output of each Electricity Generation Corporation Facility as a result of a instruction from System Management to deviate from its Dispatch Plan or change its commitment or output in accordance with clause 7.6A.3(a).

The proposed amendments require System Management to provide the IMO with a schedule of all instructions it issues to Verve Energy Non-Scheduled Generators to curtail their output and the estimated decrease in output.

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

...

- (c) a schedule of all of the Dispatch Instructions other than instructions with respect to Registered Facilities to which clauses 3.21A.14 or 4.25.10 apply, that System Management issued for each Trading Interval in the Trading Day by Market Participant and Facility, including the information specified in clause 7.7.3, or as agreed between the IMO and System Management;
- (cA) a schedule of the MWh output of each generating system monitored by System Management's SCADA system for each Trading Interval of the Trading Day;
- (cB) the maximum daily ambient temperature at the site of each generating system monitored by System Management's SCADA system for the Trading Day;
- (cC) a schedule of all instructions provided to the Electricity Generation Corporations Non-Scheduled Generators to deviate from its Dispatch Plan or change its commitment of output in accordance with clause 7.6A.3 for each Trading Interval of the Trading Day;
- ...
- (eB) the estimated decrease, in MWh, in the output of each Non-Scheduled Generator, by Trading Interval, as a result of System Management Dispatch Instructions, as determined in accordance with clause 7.7.5A, where this is to be used in settlement as the quantity described in clause 6.17.6(c)(i)-;
- (eC) the required decrease, in MWh, in the consumption of each Curtailable Load, by Trading Interval, as a result of System Management Dispatch Instructions, where this is to be used in settlement as the quantity described in clause 6.17.6(d)(i)- ;
- (eD) the estimated decrease, in MWh, in the output of each Electricity Generation Corporation Non-Scheduled Generator as a result of a instruction from System Management to deviate from its Dispatch Plan or change its commitment or output in accordance with clause 7.6A.3(a), as determined in accordance with clause 7.7.5E, where this is to be used in the calculation of the Relevant Level described in clause 4.11.3A;

...



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

The proposed amendments to clause 4.11.3A will update the clause reference under which System Management will provide the IMO with details of the Trading Intervals where a Verve Energy owned Intermittent Generator was curtailed.

The IMO also proposed a number of minor clause reference updates to reflect the correctly reference Trading Intervals excluded under sub-clause (a)(i), for IPPs, and subclause (a) (ii), for Verve Energy , and to improve the language used in the proposed Amending Rules.

- 4.11.3A. The Relevant Level in respect of a Facility at a point in time is determined by the IMO following these steps:
- (a) take all the Trading Intervals that fell within the last three years up to, and including, the last Hot Season, excluding any Trading Intervals where the Facility either:
    - i. was owned, controlled or operated by a Market Participant other than the Electricity Generation Corporation and:
      - 1. was affected by a Planned Outage or Consequential Outage as notified under clause 7.13.1A; or
      - 2. was issued a Dispatch Instruction from System Management as notified under clause 7.13.1(c); or
    - ii. was owned, controlled or operated by the Electricity Generation Corporation and:
      - 1. was affected by a Planned Outage or Consequential Outage as notified under clause 7.13.1A; or
      - 2. was issued an instruction from System Management to deviate from ~~it's the~~ Dispatch Plan or change its commitment or output as notified under clause ~~7.13.1(c)~~7.13.1C;
  - (b) determine the amount of electricity (in MWh) sent out by the Facility in accordance with Meter Data Submissions received by the IMO in accordance with clause 8.4 ~~during these~~ for all Trading Intervals occurring during the period referred to in step (a);
  - (c) if the Facility has not entered service, or if it entered service during or after the period referred to in step (a), estimate in accordance with the Reserve Capacity Procedure the amount of electricity (in MWh) that would have been sent out by the Facility, had it been in service, for all Trading Intervals occurring during the period referred to in step (a) which are prior to it entering service;

- (cA) if, during the period described in step (a), the Facility's output was reduced in order to comply with a Dispatch Instruction from System Management, issued in accordance with clause 7.7, use:
- i. the estimated decrease (in MWh) in the output of each Facility, by Trading Interval, as a result of System Management Dispatch Instructions, provided by System Management in accordance with clause 7.13.1(eB); and
  - ii. the amount of electricity (in MWh) sent out for the Facility ~~in accordance with the~~ determined from Meter Data Submissions received by the IMO in accordance with clause 8.4 for all the Trading Intervals that were excluded under step (a)(ii)(2),  
to estimate the amount of electricity (in MWh) that would have been sent out by the Facility, had it not complied with the Dispatch Instruction for all the Trading Intervals that were excluded under step (a)(ii)(2);

- (cB) if during the period described in step (a) the Facility's output was reduced in order to comply with an instruction from System Management under clause 7.6A.3(a) to deviate from ~~its~~ the Dispatch Plan or change its commitment or output, use:
- i. the estimated decrease (in MWh) in the output of each Facility, by Trading Interval, as a result of an instruction from System Management in accordance with clause 7.6A.3(a), where this information has been either:
    1. provided by System Management in accordance with clause ~~7.13.1(eD)~~ 7.13.1C(b) for the ~~relevant~~ Trading Intervals that were excluded under step (a)(ii)(2), where actual data for the site of the Facility has been provided to System Management under clause 7.7.5B; or
    2. determined by the IMO in accordance with the Reserve Capacity Procedure for all the ~~relevant~~ Trading Intervals that were excluded under step (a)(ii)(2), where actual data for the site of the Facility has not been made available to System Management under clause 7.7.5B; and
  - ii. the amount of electricity (in MWh) sent out for the Facility ~~in accordance with the~~ determined from Meter Data Submissions received by the IMO in accordance with clause 8.4 for all the Trading Intervals that were excluded under step (a)(iii)(2),  
to estimate the amount of electricity (in MWh) that would have been sent out by the Facility had it not complied with System

Management's instruction for all the ~~relevant~~ Trading Intervals that were excluded under step (a)(iii)(2); and

- (d) set the Relevant Level as double the sum of the quantities determined in steps (b), (c), (cA) and (cB) divided by the sum-total number of the Trading Intervals identified in step (a), (cA) and (cB).

The proposed amendments to clause 7.13.1 and will remove the requirement for System Management to provide the IMO with curtailment information for Verve Energy Non-Scheduled Generators each Trading Day. This information will instead be provided annually to the IMO following a request under new clause 7.13.1C.

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

...

- (c) a schedule of all of the Dispatch Instructions other than instructions with respect to Registered Facilities to which clauses 3.21A.14 or 4.25.10 apply, that System Management issued for each Trading Interval in the Trading Day by Market Participant and Facility, including the information specified in clause 7.7.3, or as agreed between the IMO and System Management;
- (cA) a schedule of the MWh output of each generating system monitored by System Management's SCADA system for each Trading Interval of the Trading Day;
- (cB) the maximum daily ambient temperature at the site of each generating system monitored by System Management's SCADA system for the Trading Day;
- ~~(cC) a schedule of all instructions provided to the Electricity Generation Corporation's Non-Scheduled Generators to deviate from its Dispatch Plan or change its commitment of output in accordance with clause 7.6A.3 for each Trading Interval of the Trading Day;~~

...

- (eB) the estimated decrease, in MWh, in the output of each Non-Scheduled Generator, by Trading Interval, as a result of System Management Dispatch Instructions, as determined in accordance with clause 7.7.5A, where this is to be used in settlement as the quantity described in clause 6.17.6(c)(i);
- (eC) the required decrease, in MWh, in the consumption of each Curtailable Load, by Trading Interval, as a result of System Management Dispatch Instructions, where this is to be used in settlement as the quantity described in clause 6.17.6(d)(i);

~~(eD) the estimated decrease, in MWh, in the output of each Electricity Generation Corporation Non-Scheduled Generator as a result of an instruction from System Management to deviate from its Dispatch Plan or change its commitment or output in accordance with clause 7.6A.3(a), as determined in accordance with clause 7.7.5E, where this is to be used in the calculation of the Relevant Level described in clause 4.11.3A;~~

...

7.13.1C System Management must, within 10 Business Days of receipt of a request from the IMO, provide the IMO with the following information:

(b) a schedule of all instructions provided to the Electricity Generation Corporation's Non-Scheduled Generators to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a) for each Trading Interval during the time period specified by the IMO in its request; and

(b) where the Electricity Generation Corporation has made actual wind data available in accordance with clause 7.7.5B, the estimated decrease, in MWh, in the output of each Electricity Generation Corporation Non-Scheduled Generator as a result of an instruction from System Management to deviate from the Dispatch Plan or change their commitment or output in accordance with clause 7.6A.3(a), as determined in accordance with clause 7.7.5E, for each Trading Interval during the time period specified by the IMO in its request, where this is to be used in the calculation of the Relevant Level described in clause 4.11.3A.

The proposed amendments to clause 7.7.5E will improve the integrity of the Amending Rules by using similar language to describe the wind data as 7.7.5A. The proposed amendments will also clarify that the estimates will be required for each Trading Interval for a Verve Energy Non-Scheduled Generator.

7.7.5E. Where the Electricity Generation Corporation has made ~~actual wind data~~ information available to System Management in accordance with clause 7.7.5B and the Power System Operation Procedure, System Management must estimate for each Trading Interval the decrease, in MWh, in the output of each Electricity Generation Corporation ~~Facility~~ Non-Scheduled Generator as a result of an instruction from System Management to deviate from ~~its~~ the Dispatch Plan or change its commitment or output in accordance with clause 7.6A.3(a).

## APPENDIX 6: DISCUSSION OF RC\_2010\_24 BY THE MARKET ADVISORY COMMITTEE

The following points were raised regarding RC\_2010\_24 during the 13 October MAC meeting:

- Any Amending Rules to the calculation of the Relevant Level resulting from RC\_2010\_24 would provisionally commence on 1 April 2011 and would be likely superseded by any Amending Rules that may result from any future Rule Change Proposal regarding the valuation methodology for Intermittent Generators (Work Package 2). It was noted that the IMO intends to shortly progress with its proposal for a valuation methodology.
- RC\_2010\_24 had been discussed at the REGWG meeting on 2 September 2010. During the meeting the Working Group noted the impacts of Alinta's changes on any methodology adopted to determine the Capacity Credit allocation levels for Intermittent Generators. No REGWG members raised any issues, though it was noted that any methodology should also take into account curtailment of Verve Energy wind farms.
- The IMO's assessment of RC\_2010\_24 indicates that it is consistent with the Wholesale Market Objectives and was supported by all submissions received during the first consultation period, albeit with some minor suggested amendments. The MAC had not discussed the proposed changes previously and as such the IMO requested the MAC consider the system costs of implementation of the proposed changes (\$50,000) given the likely replacement by any Work Package 2 Rule Change Proposal.
- The Chair noted that the IMO does not object with the principles being implemented by the Rule Change Proposal. The Chair questioned whether the IMO could consider progressing with an implementation date for any Amending Rules from either RC\_2010\_24 or any future Rule Change Proposal regarding the valuation methodology for Intermittent Generators (Work Package 2), so that the Market does not have to bear the costs of potentially two system changes within quick succession of each other.
- One member noted that there was no agreement at the REGWG regarding a methodology to put forward for Work Package 2. Any Amending Rules resulting from RC\_2010\_24 would need to commence for the 2011 certification process.
- The Chair noted that the IMO would be comfortable to reflect the amendments proposed by Alinta in any future Rule Change Proposal it progresses regarding the valuation methodology for Intermittent Generators, if the MAC considered this a reasonable outcome. However, the Chair noted that if any future Rule Change Proposal regarding the valuation methodology for Intermittent Generators (Work Package 2) was not accepted that this would mean that Alinta's proposed changes would then not be made. It was noted that Alinta was not represented at the MAC for this discussion.
- The MAC advised that it would be appropriate that the Final Decision on RC\_2010\_24 be extended until the latest possible time where, if the REGWG Work Package 2 Rule Change Proposal is not likely to be approved and operational in time for the Relevant Level calculation, this proposal (RC\_2010\_24) could progress and the system changes be completed in time for the 2011 Relevant Level calculation.

## APPENDIX 7: DISCUSSION OF RC\_2010\_24 BY THE RENEWABLE ENERGY GENERATION WORKING GROUP

The following points were raised regarding RC\_2010\_24 during the 11 September REGWG meeting:

- The Chair noted the progression of the Rule Change Proposal would need to be taken into account in whichever methodology is adopted.
- Mr Corey Dykstra mentioned that the issue is impacting on Intermittent Generators applying for Certified Reserve Capacity and needs to be addressed. Mr Kyle Jackson questioned whether the timing of Alinta's proposal will effect the progression of Work Package 2. The Chair clarified that no impact was expected.
- Mr Brendan Clarke questioned the reason for the removal of Planned Outages from the calculation. In particular, Mr Clarke expressed concern that it may create an incentive for a greater number of Planned Outages to occur at non-peak times. The Chair clarified that the current calculation uses an averaging approach and so there is no incentive either way. It was agreed that Alinta, System Management and the IMO would discuss the potential impacts on the incentives for Market Participants to conduct Planned Outages under RC\_2010\_24 offline.
- Ms Wendy Ng considered that the Rule Change Proposal seemed reasonable but suggested a minor amendment to account for Verve Energy not being issued Dispatch Instructions.