



Market Advisory Committee

Agenda

Meeting No.	45
Location:	IMO Board Room Level 3, Governor Stirling Tower, 197 St Georges Terrace, Perth
Date:	Wednesday 14 December 2011
Time:	2.00pm – 4.00pm

Item	Subject	Responsible	Time
1.	WELCOME	Chair	2 min
2.	MEETING APOLOGIES / ATTENDANCE	Chair	2 min
3.	MINUTES FROM MEETING 43	Chair	10 min
4.	ACTIONS ARISING	Chair	10 min
5.	MARKET RULES		
	a) Market Rule Change	IMO	2 min
	b) PRC_2011_09: Prudential Requirements	IMO	20 min
	c) PRC_2011_14: Calculation of Availability Class Quantity Correction	SM	20 min
6.	MARKET PROCEDURES		
	a) Overview	IMO	2 min
7.	WORKING GROUPS		
	a) Overview and membership updates	IMO	2 min
	b) RDIWG Update (verbal)	IMO	10 min
	c) RCM Review Working Groups	IMO	10 min
8.	DUAL FUEL INCENTIVES	IMO	30 min

Item	Subject	Responsible	Time
9.	TRANSITIONAL ARRANGEMENTS POLICY	IMO	10 min
10.	2011 YEAR IN REVIEW	IMO	5 min
11.	GENERAL BUSINESS		
12.	NEXT MEETING: 8 February 2012 (2.00 – 5.00pm)		

Independent Market Operator
Market Advisory Committee

Minutes

Meeting No.	43
Location	IMO Board Room Level 3, Governor Stirling Tower, 197 St Georges Terrace, Perth
Date	Wednesday 5 October 2011
Time	3.00pm – 4.50pm

Attendees	Class	Comment
Allan Dawson	Chair	
Suzanne Frame	Compulsory - IMO	
Stephen MacLean	Compulsory – Customer	
Phil Kelloway	Compulsory – System Management	Proxy
Andrew Everett	Compulsory – Generator	
Steve Gould	Discretionary – Customer	
Corey Dykstra	Discretionary – Customer	
Michael Zammit	Discretionary – Customer	
Peter Huxtable	Discretionary – Contestable Customer Representative	
Andrew Sutherland	Discretionary – Generator	
Shane Cremin	Discretionary – Generator	
Ben Tan	Discretionary – Generator	
Paul Biggs	Small Use Customer Representative	
Wana Yang	Observer – ERA	
Paul Hynch	Minister's appointee	Proxy
Apologies	Class	Comment
Ken Brown	Compulsory – System Management	
Peter Mattner	Compulsory – Network Operator	
Nerea Ugarte	Minister's appointee	
Also in attendance	From	Comment
Sanja Pavlovic	IMO (Contractor)	Minutes
Mike Thomas	The Lantau Group (TLG)	Presenter
Jeff Renaud	EnerNOC	Observer
Stacey Oldfield	IMO	Observer
Jenny Laidlaw	IMO	Observer
Fiona Edmonds	IMO	Observer
Sam Beagley	IMO	Observer
Rebecca Denton	IMO	Observer
Greg Ruthven	IMO	Observer

Item	Subject	Action
1.	<p>WELCOME</p> <p>The Chair opened the meeting at 3.00 pm and welcomed members to the 43rd meeting of the Market Advisory Committee (MAC). The Chair introduced two new IMO staff members, Sam Beagley (Analyst, Market Development) and Rebecca Denton (Graduate Analyst).</p>	
2.	<p>MEETING APOLOGIES / ATTENDANCE</p> <p>Apologies were received from:</p> <ul style="list-style-type: none"> Ken Brown Peter Mattner Nerea Ugarte <p>The following other attendees were noted:</p> <ul style="list-style-type: none"> Phil Kelloway (Proxy for Ken Brown) Paul Hynch (Proxy for Nerea Ugarte) Mike Thomas (Presenter) Jeff Renaud (Observer) Jenny Laidlaw (Observer) Rebecca Denton (Observer) Fiona Edmonds (Observer) Greg Ruthven (Observer) Stacey Oldfield (Observer) Sam Beagley (Observer) 	
3.	<p>MINUTES OF PREVIOUS MEETING</p> <p>The minutes of MAC Meeting No. 42, held on 13 September 2011, were circulated prior to the meeting.</p> <p>The following amendments were agreed.</p> <p>Page 4: Section 6a: Market Rule Change Overview</p> <ul style="list-style-type: none"> “Ms Wana Yang noted that the ERA did not wish there to be any further delays with the progression of the Rule Change Proposal: Reassessment of Allowable Revenue during a Review Period (RC_2011_02) <u>and offered to work with the IMO to resolve any outstanding issues.</u> The Chair noted Ms Yang's concerns and acknowledged that there had been some personnel changes in the IMO resulting in extension notices needing to be issued.” <p>Page 4: Section 6b: Balancing and LFAS Arrangements – Process to date and next steps</p> <ul style="list-style-type: none"> “Ms Yang queried whether the MAC's endorsement of PRC_2011_10 is required. The Chair advised that MAC operates in an advisory capacity and the decision to proceed or not is for the IMO (or any other submitting party) <u>is not for the MAC</u> to make. The recommendation ...” <p>Page 6: Section 6d: PRC_2011_10: Competitive Balancing and Load Following Market</p> <ul style="list-style-type: none"> “... the IMO is currently preparing a revised list of confidential information. Mr Kelloway noted that <u>queried whether a process or</u> 	

	<p>procedure to govern the confidentiality arrangements so that any proposed changes are put to a working group or the MAC for assessment is <u>should be</u> incorporated."</p> <p>Subject to the above amendments, the minutes were accepted as a true and accurate record of Meeting No. 42.</p> <p><i>Action Point: The IMO to update the minutes of Meeting No. 42 to reflect the points raised by the MAC and publish on the website as final.</i></p>	IMO
4.	<p>ACTIONS ARISING</p> <p>Most actions arising were completed prior to the meeting. The following exceptions were noted.</p> <ul style="list-style-type: none"> • Item 33: In progress. • Items 27 and 45: Mr Greg Ruthven noted that the IMO met with System Management during the development of the 2011 Statement of Opportunities (SOO). It was agreed that the calculations under clause 4.5.12 needed to consider the requirement to have generation reserves available for Ancillary Services and to meet the various reserve standards. This had been built into the methodology for this year's SOO. The discussions also highlighted that the Market Rules currently prevented the consideration of some of the limitations on scheduling Demand Side Management (DSM), and this was also flagged in the SOO. A follow up meeting has been arranged for later in October to aid the development of any Rule Change Proposals that may be required to address this concern. 	
5a.	<p>MARKET RULE CHANGE OVERVIEW</p> <p>Ms Suzanne Frame noted that RC_2011_10: Competitive Balancing and Load Following Market was formally submitted into the rule change process in September 2011. The first submission period will conclude on 7 November 2011.</p> <p>Ms Frame also noted that the timeframe for the Draft Rule Change Report for the Rule Change Proposal: Reassessment of Allowable Revenue during a Review Period (RC_2011_02) had been extended to 14 December 2011. The Chair explained that on reviewing the proposed amendments he had noted some potential flaws and highlighted these to the Economic Regulation Authority (ERA).</p> <p>Ms Wana Yang expressed the ERA's disappointment that the timelines for the proposal had been further extended, noting that the first submission period had ended in May 2011. The Chair apologised for the delay but again noted that he had found the proposal as drafted to be materially flawed. The Chair had communicated his concerns in detail to the ERA, which had not disputed the validity of the issues raised. The proposed amendments could not be implemented as drafted.</p> <p>Ms Yang requested a detailed plan of how the IMO will make sure the Draft Rule Change Report is published by the 14 December 2011. Ms Yang noted the delay in processing this proposal in comparison to the</p>	

	<p>shorter timeline for the more comprehensive proposal such as RC_2011_10.</p> <p>Mr Stephen MacLean noted that other MAC members were unaware of the details of the Chair's concerns. The Chair explained that currently the ERA approves the Allowable Revenue for the IMO and System Management for a three year period. The drafting of the proposal incorrectly implied that the ERA's Allowable Revenue approval was one year at a time, and could be interpreted as approval of capital items included in the detail of the Allowable Revenue supporting documentation as being approved on a line item by line basis. The Chair advised that he has personally sent an email to the ERA detailing the relevant concerns.</p> <p>Mr MacLean questioned the need to delay the Draft Rule Change Report, suggesting that it could be published with a note explaining that the issue had been identified and perhaps proposing a solution. The Chair replied that the IMO would be proposing a solution, but wished to agree this with the ERA first as it had submitted the original proposal. Mr MacLean and Ms Yang suggested publishing the Draft Rule Change Report without the revised drafting. Mr Corey Dykstra disagreed, noting that in principle if material issues arise with a proposal it is better that they be clarified before the Draft Rule Change Report is published. Mr Shane Cremin considered that the issue was not just for the ERA to consider, and that the Draft Rule Change Report should be issued with the revised wording for consideration by all Market Participants.</p> <p><i>Action Point: The IMO to provide the ERA with a plan detailing how the IMO intends to meet the 14 December 2011 timeframe for the Draft Rule Change Report for the Rule Change Proposal: Reassessment of Allowable Revenue during a Review Period (RC_2011_02).</i></p>	IMO
6a.	<p>MARKET PROCEDURE CHANGE OVERVIEW</p> <p>Ms Frame noted that the Procedure Change Report for the Procedure Change Proposal: Changes to Market Procedure for Reserve Capacity Testing (PC_2011_05) had been published and the amended Market Procedure commenced on 1 October 2011.</p> <p>Ms Frame noted that the submission period for the Procedure Change Proposal: 5 Yearly Review of the Methodology and Process for Determining the Maximum Reserve Capacity Price (PC_2011_06) closed on 4 October 2011. Ten submissions were received and the IMO is currently preparing the Procedure Change Report.</p> <p>Mr Phil Kelloway noted that the overview of the Procedure Change Proposal: Supplementary Reserve Capacity (PC_2010_08) referred to a process to be followed by the IMO and System Management. Mr Kelloway questioned System Management's role in this process. Mr Ruthven replied that he believed System Management had a role in relation to communications requirements, but would confirm this before the next MAC meeting.</p> <p><i>Action Point: The IMO to confirm the details of System Management's role in the Market Procedure: Supplementary Reserve Capacity and</i></p>	IMO

	<i>report back to the next MAC meeting.</i>	
7a.	<p>WORKING GROUP OVERVIEW AND MEMBERSHIP UPDATES</p> <p>The MAC noted the Working Group overview.</p> <p>In response to a question from Mr Dykstra, the Chair confirmed that the Maximum Reserve Capacity Price Working Group (MRCPWG) had now closed.</p> <p>The Chair requested approval from the MAC for the appointment of Ms Frame as the Chair of the IMO Procedure Change and Development Working Group and as the representative for the IMO on the System Management Procedure Change and Development Working Group. The MAC agreed to the proposed appointments.</p> <p><i>Action Point: The IMO to add Ms Suzanne Frame to the membership details contained in the Terms of Reference for both the IMO and System Management Procedure Change and Development Working Groups and update the website accordingly.</i></p>	IMO
7b.	<p>RDIWG UPDATE (VERBAL UPDATE)</p> <p>The Chair noted that the proposed amendments to support the new balancing and Load Following Ancillary Services (LFAS) markets have been submitted into the formal rule change process.</p> <p>The Chair also advised that Dr Brendan Ring from Energy Market Reform had completed his report on the Market Power Review. The report was submitted to the IMO Board on 4 October 2011. If the IMO Board agrees the report will be circulated to RDIWG and MAC members within a week. Dr Ring has been contracted to come to Perth to explain the report to members if necessary and to work through the recommendations with the ERA. The Chair noted that the report recommended a number of rule changes which have been incorporated into RC_2011_10.</p> <p>Draft new and amended Market Procedures relating to the new balancing and LFAS markets are expected to be completed by the end of October 2011. There will be three workshops to walk through the proposed Market Procedures, commencing on 25 October 2011. These workshops are open to the industry.</p> <p>Mr Dykstra queried whether invitations for the workshops had been sent out. The Chair replied that he would check and ensure that invitations were issued by the end of the week.</p> <p>The Chair noted that the transitional arrangements had been circulated to and discussed by the RDIWG. Transitional arrangements were proposed to apply from April 2012 to 5 December 2012, when System Management's systems will be fully implemented. Two restrictions on the full balancing design are proposed to apply during the transition period:</p> <ul style="list-style-type: none"> • extending the gate closure window from two hours to six hours; • restricting the number of offer tranches available to IPP generators from ten to four. 	

	<p>Both these restrictions will be reviewed if System Management is not experiencing any problems during the transition phase.</p> <p>The Chair advised that the market trials paper has now been published on the IMO's website. It details the three stage transition process.</p> <p>The Chair urged members to provide the IMO with their submissions on RC_2011_10 as soon as possible.</p> <p><i>Action Point: The IMO to ensure that invitations to the workshops relating to proposed new and amended Market Procedures affected by the new balancing and Load Following Ancillary Services markets are distributed by 7 October 2011.</i></p>	IMO
8.	<p>REVIEW OF RCM: ISSUES AND RECOMMENDATIONS REPORT BY THE LANTAU GROUP</p> <p>The Chair noted that late in 2010 the IMO Board asked IMO management to provide it with some analysis regarding the Reserve Capacity Mechanism (RCM) and its performance to date. The IMO Board then commissioned The Lantau Group (TLG) to carry out a review of the RCM. The Chairman of the IMO Board has now provided TLG's report to the MAC with the aim of soliciting advice on the various recommendations and issues raised in the report. It is the expectation of the IMO Board that the MAC or a subsidiary working group will undertake a work programme to look at these issues.</p> <p>The Chair introduced Mr Mike Thomas from TLG, noting that to ensure continuity Mr Thomas had been engaged by the IMO to be available to any future working group constituted under the auspices of the MAC to further consider the recommendations of TLG's report.</p> <p>Mr Thomas provided MAC members with an overview of the contents of TLG's report. A copy of the report is available in the papers published for this meeting on the IMO website. The following points were discussed/noted.</p> <ul style="list-style-type: none"> • Mr Cremin questioned TLG's concern that implementing a dynamic refund mechanism without changing the Reserve Capacity Price (RCP) could produce adverse results. Mr Cremin considered that this view was based on an assumption that the status quo was optimal. Mr Cremin suggested that this assumption might not be correct and that a change might produce a better outcome. Mr Thomas replied he had considered this differently. The economic value of excess capacity at the moment is nearly zero, and continuing to pay the current RCP while reducing capacity refunds is clearly not efficient. Mr Thomas agreed that the current situation was not optimal, but did not consider that a dynamic refund mechanism should be considered in isolation. • Mr Thomas noted the impact of the Global Financial Crisis (GFC) on demand levels and the amount of excess capacity in the market. Mr Thomas submitted that it was important not to compound the existing problem of excess capacity. Mr Michael Zammit queried whether Mr Thomas was referring to an impact on peak demand or average demand, considering that only average demand was affected by the 	

	<p>GFC. Mr Thomas replied that he expected the delay of large loads due to the GFC would have had an impact on peak demand. The Chair agreed with Mr Thomas, noting a number of large mining loads that had failed to eventuate and that would have contributed significantly to peak demand. Mr Zammit responded that these loads were still under consideration and that the capacity cushion would need to be accommodating in case they determined to enter the market. Mr Huxtable noted that the market had not experienced a “perfect storm” situation (e.g. four consecutive days of extreme demand) in the last few years. Mr Thomas noted that the speed of growth of peak demand was a unique feature of the WEM.</p> <ul style="list-style-type: none"> • Mr Thomas noted the graph on page 5 of the TLG report, which shows the growth in uncontracted Capacity Credits. This had signalled to TLG the strong probability that the RCP exceeds the commercial value of the capacity in the open market. Within one year there had been an increase in uncontracted Capacity Credits from approximately 20% to 50%. • Mr Dykstra questioned why the IMO should offer to pay a floor price for capacity in the market if there is an obligation on Market Customers to secure Capacity Credits to meet their assigned obligations. The Chair considered that this was a good question, and asked those MAC members involved in the start of the market if they were aware of the reasoning behind this arrangement. The Chair suggested that the arrangement may have been implemented only to accommodate minor variations between available and required capacity from year to year. • The Chair noted that when he first joined the IMO in 2008 it had been seeking Supplementary Reserve Capacity. • Mr Zammit questioned whether TLG had considered any other reasons for the increase in uncontracted Capacity Credits. Mr Zammit suggested one possibility was that retailers were not concerned about the price as they passed through capacity costs to their customers, and so found it easier to purchase Capacity Credits from the IMO than from one or more Market Generators. Mr MacLean noted that this theory was not applicable to Synergy. • Mr Andrew Sutherland considered that the graph indicated that the surplus capacity was either much cheaper than the RCP suggested or else was funded by equity. • Mr Thomas directed MAC members to page 8 of the report, which shows TLG’s estimates of the value of incremental reserve capacity with and without DSM. Mr Thomas considered that, regardless of the reasons the results clearly indicate that the RCP is too high. • Mr Cremin noted that there is excess capacity on the supply side as well as on the demand side, and that the excess capacity indicated on page 5 of the report was mainly DSM and peaking generation rather than energy producing capacity. Mr Cremin submitted that price adjustments for excess capacity had been outweighed in recent years by increases in the Maximum Reserve Capacity Price (MRCP). Mr Thomas responded that the RCP needs to be valued more dynamically to reflect actual conditions in the market. 	
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	<ul style="list-style-type: none"> • Mr Dykstra agreed with Mr Thomas that the excess capacity was the result of the market responding to price, noting that in the last Reserve Capacity Cycle further capacity had entered the market despite the existing surplus. Mr Dykstra questioned why the market was paying new providers coming into the market for capacity that was not required, and whether this question had been considered by TLG. Mr Thomas responded that TLG had considered this question in its review. • Mr Zammit queried whether the current excess of capacity might resolve itself naturally as the proposed new major mining loads came on line. Mr Cremin responded that these loads would require an energy contract and that the energy suppliers were less interested in the RCP. Mr Sutherland agreed with Mr Cremin, suggesting that these loads would lead to the entry of new energy plant into the market. • There was some discussion about the reasons for the increase in uncontracted Capacity Credits. Mr MacLean considered that if a retailer considered the RCP to be too high it would be unlikely to enter into contracts that might lock this price in. Mr Dykstra noted that by selling Capacity Credits to the IMO providers avoided exposure to credit risk. • Mr Thomas discussed the various options considered by TLG to reduce the amount of unwanted capacity entering the market, and why it had decided on using price. Mr Cremin noted that new capacity entering the market must be assigned Certified Reserve Capacity by the IMO if the generator declares its intention to trade that capacity bilaterally. Mr Cremin questioned whether the requirement should be strengthened to ensure that the capacity was in fact traded bilaterally. • Mr Thomas noted that TLG had not been about to find a quantity based mechanism that was rigorous and accurate enough to be workable, and so had recommended addressing the problem through price. Mr Dykstra considered that there is already a priority order for certifying capacity in the Market Rules, and suggested that this could be used as the basis for a quantity limit. There was some discussion about the current priority order for capacity certification. • Mr Dykstra suggested that even with the proposed price disincentives there is still likely to be further entry of DSM capacity. Mr Jeff Renaud considered that there is a natural structural limit on the penetration of DSM in the market regardless of the pricing. Based on other markets Mr Renaud expected a limit of about 10% of peak capacity, which the market is currently approaching. Mr Cremin noted that a large new mining load might also choose to provide a large additional quantity of DSM capacity, effectively doubling the capacity requirement. • Ms Yang noted that no new 160 MW generators had entered the market since its commencement, and questioned whether consideration of a 160 MW generator for the MRCP was still relevant. Mr Thomas considered that a 160 MW generator was a suitable industry standard for use in these calculations. Mr Dykstra noted that the use of a 160 MW generator had been separately reviewed and approved by the MRCP Working Group. The Chair noted that the MRCP was a theoretical construct indicating the marginal price of 	
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	<p>new capacity entering the market. Mr Cremin noted that the NewGen facilities indicated that the choice was not purely theoretical.</p> <ul style="list-style-type: none"> • There was some discussion about the treatment of DSM in the market. Mr MacLean queried why DSM could not receive a small up front administrative payment and a higher dispatch payment. Mr Thomas considered that the implementation of TLG's recommendations might result in the exit of some DSM capacity from the market. Mr Renaud considered that it was important to ensure that there was enough DSM capacity to meet the extreme peaks. Mr Sutherland noted that DSM does not have the same fixed costs as generation, and that he was unsure how DSM should be compensated. Mr Dykstra supported the concept of a low availability payment and a high dispatch payment. Mr Huxtable suggested that this payment structure might also be applicable to peaking generation. • There was some discussion around whether the market does or should treat the different types of capacity equally. The Chair noted that the review had identified that while the availability requirements for DSM were currently too low, the fuel requirements for peaking units were currently too high. Mr Dykstra considered that the current fuel requirements were the result of the recent Rule Change Proposal: Certification of Reserve Capacity (RC_2010_14), and suggested that the relevant capacity related quantities should be harmonised before addressing the issue of price. • Mr MacLean suggested the formation of a working group as soon as possible to address the issues raised in TLG's report. The Chair agreed and proposed to develop the Terms of Reference and membership criteria for the new working group in time for the November 2011 MAC meeting, with the aim of holding the first meeting of the working group before Christmas. The IMO would ask Mr Thomas to attend this meeting, which would probably be a half day workshop, and to prepare some material for that meeting. • Mr MacLean suggested initially holding two half day workshops over two days, and requested that the first meeting be held before 29 November 2011 or after 19 December 2011 due to his leave arrangements. • MAC supported the suggestion of commencing the working group with two half day workshops to be held on consecutive days. • The Chair noted Mr MacLean's interest and advised that he would attempt to arrange the first meeting for a time when Mr MacLean was available. <p><i>Action Point: The IMO to develop the Terms of Reference and membership structure for a new working group to address the issues raised in The Lantau Group's paper: Review of RCM: Issues and Recommendations.</i></p>	IMO
9.	<p>GENERAL BUSINESS</p> <p>No General Business was raised.</p>	

10	<p>NEXT MEETING</p> <p>The Chair noted that Meeting No. 44 will be held on Wednesday 16 November 2011 (3.00pm – 5.00pm), one week later than the original date of 9 November 2011.</p>	
<p>CLOSED: The Chair declared the meeting closed at 4.50 pm.</p>		



Agenda item 4: 2011 MAC Action Points

Legend:

Shaded	Shaded action points are actions that have been completed since the last MAC meeting.
Unshaded	Unshaded action points are still being progressed.
Missing	Action items missing in sequence have been completed from previous meetings and subsequently removed from log.

#	Year	Action	Responsibility	Meeting arising	Status/Progress
33	2011	The IMO to consider the suggested amendments to the Pre Rule Change Discussion Paper: Ancillary Services Payment Equations (PRC_2010_27) provided by Mr Stephen MacLean, and update the proposal as appropriate.	IMO	June	In progress.
50	2011	The IMO to update the minutes of Meeting No. 42 to reflect the points raised by the MAC and publish on the website as final.	IMO	Oct	Complete
51	2011	The IMO to provide the ERA with a plan detailing how the IMO intends to meet the 14 December 2011 timeframe for the Draft Rule Change Report for the Rule Change Proposal: Reassessment of	IMO	Oct	Revised drafting has been presented to the ERA and the Draft Rule Change Report is due to be published on 14 December

#	Year	Action	Responsibility	Meeting arising	Status/Progress
		Allowable Revenue during a Review Period (RC_2011_02).			2011.
52	2011	The IMO to confirm the details of System Management's role in the Market Procedure: Supplementary Reserve Capacity and report back to the next MAC meeting.	IMO/SM	Oct	Completed. The IMO confirms that the heads of power for the Market Procedure: Supplementary Reserve Capacity covers System Management (Clause 4.24.18).
53	2011	The IMO to add Ms Suzanne Frame to the membership details contained in the Terms of Reference for both the IMO and System Management Procedure Change and Development Working Groups and update the website accordingly.	IMO	Oct	Completed
54	2011	The IMO to ensure that invitations to the workshops relating to proposed new and amended Market Procedures affected by the new balancing and Load Following Ancillary Services markets are distributed by 7 October 2011.	IMO	Oct	Completed
55	2011	The IMO to develop the Terms of Reference and membership structure for a new working group to address the issues raised in The Lantau Group's paper: Review of RCM: Issues and Recommendations.	IMO	Oct	Completed. Terms of Reference will be presented to December MAC.



Agenda Item 5a: Overview of Market Rule Changes

Below is a summary of the status of Market Rule Changes that are either currently being progressed by the IMO or have been registered by the IMO as potential Rule Changes to be progressed in the future.

Rule changes: Formally submitted (see appendix 1)	7 December 2011
Fast track with Consultation Period open	0
Standard Rule Changes with 1st Submission Period Open	0
Fast Track Rule Changes with Consultation Period Closed (final report being prepared)	0
Standard Rule Changes with 1st Submission Period Closed (draft report being prepared)	3
Standard Rule Changes with 2nd Submission Period Open	1
Standard Rule Changes with 2nd Submission Period Closed (final report being prepared)	0
Standard Rule Changes awaiting final report*	2
Rule Changes - Awaiting Minister's Approval and/or Commencement	4
Total Rule Changes Currently in Progress	10

* Please note that the IMO provided interested parties with a further consultation period for RC_2010_25 & RC_2010_37. This period is now closed and the Final Rule Change Report is due to be published on 20 December 2011.

Potential changes logged by the IMO- Not yet formally submitted	October	November
High Priority (to be formally submitted in the next 3/6 months)	0	0
Medium Priority (may be submitted in the next 6/12 months)	29	31 (+2/-0)
Low Priority (may be submitted in the next 12/18 months)	24	25 (+1/-0)
Potential Rule Changes (H, M and L)	53	56

Minor and typographical (submitted in three batches per year)	20	20 (+0/-0)
Total Potential Rule Changes	73	76

The changes in the rule change and issues log from October to November have arisen from:

Priority	Issue
High	N/a
Medium	<p>In:</p> <ul style="list-style-type: none"> In the current rules there is no clause that states the IMO may reject a Procedure Change Proposal that the IMO has submitted. The only reference is to when the IMO rejects a Procedure Change Proposal by System Management. This issue arose due to PC_2010_03 being rejected and withdrawn by the IMO. MR 2.15.3 details what the Monitoring Protocol must specify. Part (b) states a process for SM to demonstrate compliance with the MRs and MPs and Audit where IMO requires evidence for the action in MR2.14.6. SM and IMO agree that this is an unworkable requirement, as it is not possible to determine in advance how SM could demonstrate compliance. Further, MR2.14.6 already gives the IMO the power to collect evidence to demonstrate compliance in any particular case or to carry out an audit at any time. As such it is suggested that this clause be deleted on the grounds that it is unnecessary. <p>Out:</p> <ul style="list-style-type: none"> No issues have been progressed this month.
Low	<p>In:</p> <ul style="list-style-type: none"> Currently consequential outages are logged only in instances where a facility is unable to output for reasons outside of its control (e.g. a forced outage of a transmission network). The IMO considers the current restricted definition of a consequential outage fails to take into account other circumstances outside of its control (e.g. Consideration of amending the definition of a Consequential Outage in clause 3.21.2 to include an outage resulting from a Planned Outage of a transmission asset or other outages outside the control of the Market Participant). <p>Out:</p> <ul style="list-style-type: none"> No issues have been progressed this month.

APPENDIX 1: FORMALLY SUBMITTED RULE CHANGES (Current as of 7 December 2011)**Standard Rule Change with First Submission Period Closed**

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2010_08	15/04/2010	Removal of DDAP uplift when less than facility minimum generation	Griffin Energy	Publish Draft Rule Change Report	19/04/2012
RC_2010_28	01/03/2011	Capacity Credit Cancellation	IMO	Publish Draft Rule Change Report	14/12/2011
RC_2011_02	10/03/2011	Reassessment of Allowable Revenue during a Review Period	ERA	Publish Draft Rule Change Report	14/12/2011

Standard Rule Change with Second Submission Period Open

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2011_10	23/09/2011	Competitive Balancing and Load Following Market	IMO	Submissions close	19/01/2012

Standard Rule Change awaiting for Final Rule Change Report

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2010_25	29/11/2010	Calculation of the Capacity Value of Intermittent Generation - Methodology 1 (IMO)	IMO	Publish Final Report	20/12/2011
RC_2010_37	30/11/2010	Calculation of the Capacity Value of Intermittent Generation - Methodology 2 (Griffin Energy)	Griffin Energy	Publish Final Report	20/12/2011

Fast Track Rule Change with Final Rule Change Report Published

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2011_12	24/10/2011	Extensions to Procedure Change Process Timelines	IMO	Awaiting Approval Ministerial	20/12/2011
RC_2011_13	24/10/2011	Heads of Power for MRCP Market Procedure	IMO	Awaiting Approval Ministerial	20/12/2011

Standard Rule Change with Final Rule Change Report Published

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2010_14	06/12/2010	Certification of Reserve Capacity	IMO	Commencement	01/01/2012
RC_2010_31	18/03/2011	De-registration of Rule Participants who no longer meet registration requirements	IMO	Commencement	TBA



Agenda Item 5b: Prudential Requirements (PRC_2011_09)

1. BACKGROUND

The Market Advisory Committee (MAC) was presented with an issues paper titled 'Prudential Requirements' (IP_2011_01) during the June 2011 MAC Meeting¹. The purpose of the issues paper was to identify, for the benefit of the market, the issues identified since market start with regards to the Prudential Requirements Market Rules and Market Procedure: Prudential Requirements. During the MAC meeting no issues were raised by MAC members in relation to IP_2011_01.

Subsequently, the Pre Rule Change Proposal: Prudential Requirements (PRC_2011_09) has been developed to address the content of the issue paper. The approach adopted in PRC_2011_09 is to remove some of the current prescription in the Market Rules into the Market Procedure. A copy of the proposed revised Market Procedure is therefore provided as Appendix 3 of this paper for noting by MAC members.

The IMO notes that the proposed amendments to the Market Procedure: Prudential Requirements:

- Include the Amending Rules resulting from the Rule Change Proposals: Acceptable Credit Criteria (RC_2010_36) and List of Entities meeting the Acceptable Credit Criteria RC_2011_04);
- Include the proposed Amending Rules from PRC_2011_09;
- Include more prescription regarding the calculation of Anticipated Maximum Exposure and the Outstanding Amount ; and
- Reflect the IMO's new format for Market Procedures.

The IMO has provided the proposed amended Market Procedure to allow MAC members to review PRC_2011_09 in conjunction with the greater details of the process which have been provided in the Market Procedure. The IMO however notes its intention to provide the proposed amended Market Procedure for Prudential Requirements to the IMO Procedure Change and Development Working Group (who have been delegated this function by the MAC under clause 2.3.17(a)) prior to submitting any proposed amendments to the Market Rules or Market Procedure into the formal process.

2. RECOMMENDATIONS

The IMO recommends that the MAC:

- **Discuss** the amendments to the Pre Rule Change Proposal (PRC_2011_09);
- **Discuss** the amendments to the Market Procedure: Prudential requirements; and
- **Note** the IMO's intended process for review of the Market Procedure: Prudential Requirements by the IMO Procedure Change and Development Working Group.

¹ A copy of the issues paper is available on the following webpage: http://www.imowa.com.au/MAC_39

Wholesale Electricity Market Pre-rule change discussion paper

Pre-rule change discussion paper No:
Received date:

[PRC_2011_09]
[14 December 2011]

Change requested by

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Date submitted:	14 December 2011
Urgency:	Medium
Change Proposal title:	Prudential Requirements
Market Rule(s) affected:	Cl. 2.37.4, 2.37.9, 2.40.1, 2.40.2, , 2.41.2, 2.41.3, , 2.42.1, 2.42.2, 2.42.3, 2.42.7,, 2.43.1

Introduction

Market Rule 2.5.1 of the Wholesale Electricity Market Rules provides that any person (including the IMO) may make a Rule Change Proposal by completing a Rule Change Proposal Form that must be submitted to the Independent Market Operator.

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

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

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

The Independent Market Operator will assess the proposal and, within 5 Business Days of receiving this Rule Change Proposal form, will notify you whether the Rule Change Proposal will be further progressed.

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

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

Details of the proposed Market Rule Change

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

Background

The IMO manages the Prudential Requirements of Market Participants as set out in Chapter 2 of the Market Rules and the related Market Procedure: Prudential Requirements. In its current form, the Market Rules encompass Credit Limits, Credit Support, Trading Limits, Outstanding Amounts, Trading Margin, Margin Calls and the prudential requirements of Market Participants.

Prudential security for Market Participants is intended to provide secure trading within the Wholesale Electricity Market (WEM) and remove credit risk from the trading energy price. Conceptually the prudential process is designed to ensure that, if a Market Participant defaults by failing to settle its Short Term Electricity Market (STEM) or Non-STEM invoice amounts on a due date, the IMO will hold sufficient prudential security from the Market Participant so that the IMO would be able to settle a participant's exposure without short-paying the market.

Currently the IMO must determine and monitor each Market Participant's Credit Limit and Trading Margin in order to determine if a participant's exposure risk is greater than the security provided. If exposure is greater than the security held the IMO may make a Margin Call on a Participant in order to reduce the Credit Risk created.

In conjunction with identifying and proposing changes to the current methodology of determining prudential security for Market Participants, the IMO will also look to align the Market Rules to be principles-based as opposed to being overly prescriptive. This new approach will result in the eventual amendment of the Market Procedure for Prudential Requirements. Over time it is the IMO's intent to move any prescriptive detail from the Market Rules into the applicable Market Procedure.

Market Participant Credit Limit (Issue 1)

Pursuant to clause 2.37 the process for determining, revising and reviewing the Credit Limit for each Market Participant is partly principles-based and partly prescriptive. This leads in some instances to the IMO needing to make qualitative decisions that affect Market Participants and the levels of security required to comply with the clause.

The Market Rules do not explicitly recognise a need to have different mechanisms for establishing a Credit Limit for a new entrant and reviewing Credit Limits for existing Market Participants. A distinction should be made clear in the rules to allow for different methods of calculating Credit Limits for Participants in different circumstances.

The IMO believes clause 2.37.4 does not provide enough clarity to Market Participants regarding additional Credit Limit requirements. For example:

- Clause 2.37.4 requires the IMO to determine a Credit Limit that is equal to the maximum net amount that the participant is expected to owe the IMO over any 70 day period where this amount is not expected to be exceeded more than once in a 48 month period. The clause continues to provide a number of other factors the IMO must “take into account”. If the IMO has determined a dollar amount 70-day liability which is the Credit Limit, it is not clear what the IMO is to do in practice when it takes into account the other factors.
- Clause 2.37.4 (d) requires the IMO to take into account the length of the settlement cycle and the processes set out in clauses 9.23, 9.24 (default) and 2.32 (suspension and deregistration). This implies the IMO may be required to adjust Credit Limits to include financial cover to allow for the period from Market Participant default to de-registration. In practice, the IMO would seek to rely on alternative mechanisms such as the supplier of last resort.
- Clause 2.37.4 (j) refers to any past breaches of the Market Rules. It is not clear how the IMO could reasonably translate a participant’s prior breaches into a dollar value to be used to adjust a Credit Limit.

Calculation of Outstanding Amount, Typical Accrual and Margin Calls (Issue 2)

The Typical Accrual and Outstanding Amount are mechanisms by which the amount of a Margin Call can be arrived at in the event a participant’s Trading Margin has fallen to zero or less **[MR2.42.1]**.

The IMO considers the current methodology used to calculate a Market Participant’s Outstanding Amount **[MR 2.40.1]** is not effective as it relies too heavily on historical data. An example of this is the liability arising from Capacity Cost Refunds. Forced Outage data can be available to the IMO up to fifteen days after the event **[MR3.21.7]** making it hard for the IMO to calculate Capacity Cost Refunds and assess the level of security needed from participants. This could result in Margin Calls being too high or too low to cover the risk.

The Outstanding Amount calculation must also incorporate an expected future value for transactions not yet made. Currently this is based on a Typical Accrual defined in clause 2.42.2 as:

“the amount that the IMO determines would have been the Outstanding Amount of the Market Participant at that time if the prices and quantities applying to the amounts payable by the Market Participant were equal to the average prices and quantities as applied in the most recent determination of the Market Participant’s Credit Limit.”

However, in practice, there are no “average prices and quantities” used when calculating the anticipated Non-STEM liability component of a participant’s Credit Limit. The IMO believes this affects the validity of the Outstanding Amount which ultimately affects when and for how much Margin Calls may be issued and which in turn could affect their integrity and efficacy.

The Market Evolution Program (MEP) will introduce a new competitive balancing market which will change the dynamics of balancing liabilities in the WEM. As a result the Market Rules and Market Procedures around monitoring, Typical Accrual and Margin Call processes need to be better defined to enable the IMO to properly manage changes to liabilities resulting from any changes to the balancing market.

Expected Value Transaction Guidelines (Issue 3)

The notion of an expected value of a transaction [MR 2.37.9] is relevant only in that a participant is required not to submit [MR 2.41.2], and the IMO may reject [MR 2.41.3], any trading submission that would reduce its Trading Margin to zero based on the expected value of that transaction.

The notion of an expected value of a transaction is confusing and unnecessary. A clearer, simpler and more practicable restriction is simply to link the submission or its rejection to whether it would result in the Trading Margin reaching zero based on reasonable assumptions held by the participant or IMO at the time.

Proposal

Market Participant Credit Limit (Issue 1)

The proposed amendments by the IMO allow for the different treatment of new participants and existing participants when calculating Credit Limits. This is because clause 2.37.4 will differentiate between the forecast liability of a participant based on reasonable expectations and forecast liability based on historical data.

The IMO suggests the removal of sub clauses (a) – (j) as they are impossible to apply in practice and the intended principles (e.g. volatility, metered consumption, bilaterals) are adequately captured by the use of historical data as the starting point for calculating Credit Limits.

Detailed processes relating to calculating a participant’s Credit Limit can be found in the Market Procedure: Prudential Requirements (Appendix 3).

Calculation of Outstanding Amount and Margin Calls (Issue 2)

The IMO proposes that the Outstanding Amount calculation described in clause 2.40.1 be simplified to provide the IMO and Market Participants with greater understanding and clarity of what is incorporated into the Outstanding Amount. The new proposed Market Rule will also include a Net Forecast Liability for participants that will eliminate the need for establishing guidelines for assessing expected value of transactions as stated in clause 2.37.9 and 2.43.1(e).

An important feature of this new methodology is the daily calculation of the Outstanding Amount as this reduces the current risks described above when using historical data. Having

a daily figure for each participant will give the IMO a better indication of when Margin Calls need to be issued and reduce the risk to other participants in the market.

A new clause 2.42.2 simplifies and clarifies the relationship between what a participant owes (Outstanding Amount) and what the IMO can demand in the event the Trading Margin falls to zero or less and a Margin Call is made.

A worked example of how this new Outstanding Amount is calculated can be found in Appendix 1 and Appendix 2 of this proposal.

Due to the new proposed principles-based rules due to commence in 2012 as a result of the Competitive Balancing and Load Following Market Rule Change Proposal (RC_2011_10)¹, the IMO recommends that the prescriptive content of this calculation be included in the Market Procedure: Prudential Requirements (Appendix 3).

Expected Value Transaction Guidelines (Issue 3)

The proposed amendments delete the concept of an expected value of a transaction and link the submission or its rejection to whether it would result in the Trading Margin reaching zero based on reasonable assumptions held by the participant or IMO at the time.

2. Explain the reason for the degree of urgency:

The IMO has determined that PRC_2011_09 is of medium urgency and proposes that this Rule Change Proposal be progressed through the Standard Rule Change Process.

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

2.37.4. The Credit Limit for each Market Participant must:

- a) Reflect the IMO's reasonable expectations of the Market Participant's forecast liability arising from STEM and Non-STEM activities, including balancing;
- b) Be based on historical data when available, or where historical data is not available on the IMO's reasonable assumptions about the forecast liability arising from STEM and Non-STEM activities, including balancing;
- c) Where the Credit Limit is based on historical data, be equal to the sum of the Market Participant's highest 70 consecutive day Non-STEM liability and

¹ A copy of the Rule Change Proposal can be found on the following web page:
http://www.imowa.com.au/RC_2011_10

its highest 15 consecutive day STEM liability (plus GST) calculated on the invoices issued by the IMO to the Market Participant in the twenty four months preceding the date that the Credit Limit is determined.

is the dollar amount determined by the IMO as being equal to the maximum net amount that the Market Participant is expected to owe the IMO over any 70 day period where this amount is not expected to be exceeded more than once in a 48 month period. When determining the Credit Limit for a Market Participant the IMO must take into account:

- (a) ~~the average level and volatility of the MCAP and the STEM Clearing Price for the previous 48 months, or such shorter time period as data is available for;~~
- (b) ~~the metered quantity data for the Market Participant, or an estimate of their expected generation and consumption where no meter data is available;~~
- (c) ~~the correlation between the metered amounts of electricity and MCAP;~~
- (d) ~~the length of the settlement cycle and the process set out in clauses 9.23, 9.24 and 2.32;~~
- (e) ~~a reduction in the Credit Limit reflecting applicable bilateral contract purchase quantities, where these quantities are the historical bilateral contract submissions, or an estimate of the Market Participant's expected bilateral contract levels where no historical bilateral contract submission data is available;~~
- (f) ~~the historical STEM sales and purchases, or an estimate of the Market Participant's expected STEM sales and purchases where no historical STEM sale and purchase data is available;~~
- (g) ~~the expected level of ancillary service payments;~~
- (h) ~~the statistical distribution of the accrued amounts that may be owed to the IMO;~~
- (i) ~~the degree of confidence that the Credit Limit will be large enough to meet large defaults; and~~
- (j) ~~any past breach of the Regulations or these Market Rules by, the Market Participant or a related entity of the Market Participant.~~

2.37.9. ~~The IMO must develop guidelines in the Market Procedure referred to in clause 2.43 for determining the expected value of a transaction. The guidelines must be consistent with the methodology that the IMO uses to determine Credit Limits for Market Participants.~~

2.40.1. The Outstanding Amount for a Market Participant ~~at any time~~ on a daily basis equals:

(a) [Blank]

(b) the sum of:

I. outstanding invoices ;

II. net current liability ; and

III. net forecast liability.

for the period up to and including the next Non-STEM Settlement Statement Date determined by the IMO.

~~(b) — the total amount calculated as follows:~~

~~i. — the aggregate of the amounts payable by the Market Participant to the IMO under these Market Rules, including amounts for all past periods for which no Settlement Statement has yet been issued, and whether or not the payment date has yet been reached; less~~

~~ii. — the aggregate of the amounts payable by the IMO to the Market Participant under these Market Rules, including amounts for all past periods for which no Settlement Statement has yet been issued, and whether or not the payment date has yet been reached.~~

2.40.2. The amounts to be used for the purposes of making the calculation under clause 2.40.1(b) will be the actual amounts for which Settlement Statements have been issued by the IMO and the IMO's reasonable estimate of other amounts as described in the Market Procedure referred to in clause 2.43.1.

2.41.2. A Market Participant must not make any submission to the IMO where the transaction contemplated by the submission could result in the Trading Margin of the Market Participant being ~~exceeded~~ equal to or less than zero, ~~were the transaction to be valued according to the expected value guidelines referred to in clause 2.37.9~~ based on the Market Participant's reasonable assumptions about its net current and forecast liability to the IMO.

2.41.3. The IMO may reject any submission from a Market Participant where in the IMO's opinion the transaction contemplated by the submission could result in the Trading Margin of the Market Participant being ~~exceeded~~ equal to or less than zero, ~~were the transaction to be valued according to the expected value guidelines referred to in clause 2.37.9~~ based on the IMO's reasonable assumptions about the Market Participant's net current and forecast liability to the IMO.

- 2.42.1. If, at any time, a Market Participant's Trading Margin ~~drops~~ is zero or less or below, then the IMO may issue a Margin Call Notice to the Market Participant, specifying the amount of the Margin Call.
- ~~2.42.2. The Typical Accrual for a Market Participant at any time is the amount that the IMO determines would have been the Outstanding Amount of the Market Participant at that time if the prices and quantities applying to amounts payable by the Market Participant were equal to the average prices and quantities as applied in the most recent determination of the Market Participant's Credit Limit.~~
- ~~2.42.3. The amount of the Margin Call must be equal to the Market Participant's Outstanding Amount less the Market Participant's Typical Accrual.~~
- 2.42.2 The IMO must calculate the amount of the Margin Call the IMO reasonably expects is necessary to cover any potential shortfall between the Market Participant's current Credit Support and its net current and forecast liability to the IMO for the period up to and including the next Non-STEM Settlement Statement Date determined by the IMO.
- 2.42.7. Where the IMO issues a Margin Call Notice, it must review the Credit Limit of the relevant Market Participant within 30 business days of the date that the Margin Call Notice is issued, and ~~increase the Credit Limit in line with the amount of the Margin Call.~~
- 2.43.1. The IMO must develop a Market Procedure ~~dealing with~~ setting out how the IMO will:
- (a) ~~determine ing~~ Credit Limits;
 - (b) ~~assessing~~ persons against the Acceptable Credit Criteria;
 - (c) deal with Credit Support arrangements, including:
 - i. the form of acceptable guarantees and bank letters of credit;
 - 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 Credit Support in respect of amounts owed by the relevant Market Participant to IMO;
 - (d) ~~calculate ion of~~ Trading Margins;
 - (e) ~~guidelines for assessing the expected value of transactions~~ calculate net current and forecast liabilities;
 - (f) ~~issuing of~~ Margin Calls; and
 - (g) other matters relating to clauses 2.37 to 2.42,

and Market Participants and the IMO must comply with that Market Procedure.

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

PRC_2011_XX_09 would allow the Market Rules to impact the theWholesale Market Objectives, as described below.

Impact	Market Objectives
Allow the Market Rules to better address the objective	d
Consistent with objective	a, b, c, e
Inconsistent 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;
- (b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors;
- (c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;
- (d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and
- (e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

The IMO believes the proposed changes to the Prudential Obligations in respect of theMarket Participants would allow the Market Rules to better address key Wholesale Market Objective (d) as follows:

- greater transparency of a Market Participant's Outstanding Amount will promote a more economically efficient market due to increased accuracy when making Margin Calls;
- daily calculation of the Outstanding Amount will place the IMO and Market Participants in a better position to calculate the amount of security needed to ensure the market remains economically efficient and secure; and
- to add a net forecast liability into the Credit Limit assessment and Outstanding Amount calculation will better reflect a participant's current and future exposure

and will also support the efficient entry of new entrants without exposing existing participants to undue risk.

The IMO believes the proposal is consistent with the remaining Wholesale Market Objectives.

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

Cost

The move to more real-time monitoring will require the configuration of a credit risk monitoring module within the settlement system and its integration with WEMS. A formal costing for these IT changes has not been obtained by the IMO.

It is not anticipated this change will result in any additional IT expenses to Market Participants.

Benefits

The proposed changes allow for more accurate and current monitoring of actual liabilities, which will reduce the credit risk to the market overall and may lead to lower Credit Support requirements for some participants.

The proposed changes will also allow a more responsive and credible Margin Call process.

APPENDIX 1: Current Inputs for Outstanding Amount and Proposed Changes

Old Input	Description	Proposed Changes
Invoice not paid	Sum of all invoices which have n'o been paid.	No change.
Non-STEM settled not invoiced	Where settlement has occurred but not invoiced yet.	Removed since the values that would appear are too low to affect the margin.
STEM Trade Imbalance	Current STEM exposure based on invoiced transactions.	Calculated after the STEM auction occurs, not after invoicing.
Non-STEM Trade Imbalance	Current Non-STEM exposure based on invoiced transactions.	Making it more dynamic by combining values from the last invoices and using real time values
Actual Net Exposure	The sum of the above three.	No change
STEM Forecast Exposure	Future STEM exposure based on invoiced transactions.	Calculated now after the STEM auction occurs, not after invoicing.
Non-STEM Forecast Exposure	Future Non-STEM exposure based on invoiced transactions.	Using the new values to calculate the future exposure.



New Input	Description	Justification
AS	Ancillary services charge or payment from the last Non-STEM invoice.	Settlement segment that appears in the invoices.
RS	Reconciliation segment charge or payment from the last Non-STEM invoice.	Settlement segment that appears in the invoices
MF	Market Fees charge from the last Non-STEM invoice.	Settlement segment that appears in the invoices.
DI	Number of trade days in the last invoiced trading month.	To work out a daily value for the above segments as they are monthly values.
DF	Number of days until the next invoice is published.	In order to calculate the forecast exposure.
DP	Number of days since last invoice.	In order to calculate the current exposure.
BS	Net value of trades in the balancing market.	Balancing market exposure.
FF	Forced outage quantity.	Refunds are paid for forced outages.
REF	Refund rate as per clause 4.26	In order to calculate the amount paid through refunds.
CC	Total Capacity Credits held and not traded bilaterally	To determine the exposure against payments for Capacity Credits.
RCP	Reserve Capacity Price per MW for the current capacity year.	Amount received for each Capacity Credit.
Σ_DP_STEM	Sum of past STEM transactions.	To determine a Market Participant's Net Current Liability.
Σ_DP_BS	Sum of past Balancing transactions.	Total Balancing exposure
Σ_DP_FF x REF	Sum of Forced Outage refunds for days past in the cycle.	Actual Forced Outage Refunds to be paid
DF STEM	Forecast of STEM transactions for the days left in the cycle.	Total forecast STEM exposure



$$\begin{aligned}
 & \text{OUTSTANDING INVOICES} \\
 & + \\
 & \text{NET CURRENT LIABILITY} \\
 & ((CC \times RCP)/365) \times DP + ((AS + RS + MF)/DI \times DP) + (\Sigma_DP_STEM) + \\
 & (\Sigma_DP_BS) + (\Sigma_DP_FF \times REF) \\
 & + \\
 & \text{NET FORECAST LIABILITY} \\
 & ((CC \times RCP)/365) \times DF + ((AS + RS + MF)/DI \times DF) + (ave \Sigma_ (30 \\
 & DP_STEM + \Sigma_ (30 DP_BS) \times DF \\
 & = \\
 & \text{MARKET PARTICIPANT OUTSTANDING AMOUNT (DAILY)}
 \end{aligned}$$

APPENDIX 2: New Methodology for Outstanding Amount – Worked Example

INPUT	AMOUNT
CC	20.00
RCP	144,228.00
AS	- 203,112.00
RS	3,040.00
MF	- 113,000.00
DI	31.00
DP	60.00
DF	12.00
\sum_DP_STEM	120,000.00
\sum_DP_BS	- 13,004.00
$\sum_DP_FF \times REF$	- 400.00
DF STEM	12.00
outstanding invoices	20,000.00

Proposed Rule Change

2.40.1. The Outstanding Amount for a Market Participant ~~at any time~~ on a daily basis equals:

- (a) [Blank]
- (b) the sum of:
 - i. outstanding invoices;
 - ii. net current liability; and
 - iii. net forecast liability

for the period up to and including the next Non-STEM Settlement Statement Date.

outstanding invoices  **20,000.00**

net current liability  **- 24,978.26**

$$((CC \times RCP)/365) \times DP + ((AS + RS + MF)/DI \times DP) + (\sum_DP_STEM) + (\sum_DP_BS) + (\sum_DP_FF \times REF)$$

$$\begin{array}{ccccccc} \text{|||} & & \text{|||} & & \text{|||} & & \text{|||} \\ 474,371.50 & - 605,945.76 & 120,000.00 & - 13,004.00 & - 400.00 & & \end{array}$$

net forecast liability  **1,257,637.15**

$$((CC \times RCP)/365) \times DF + ((AS + RS + MF)/DI \times DF) + (\text{ave } \sum_DP_STEM + \sum_DP_BS) \times DF$$

$$\begin{array}{ccccccc} \text{|||} & & \text{|||} & & \text{|||} & & \text{|||} \\ 94,874.30 & - 121,189.15 & 1,283,952.00 & & & & \underline{\underline{1,252,658.89}} \end{array}$$



MARKET PROCEDURE: Prudential Requirements

VERSION **34**

ELECTRICITY INDUSTRY ACT 2004

ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY MARKET) REGULATIONS 2004

WHOLESALE ELECTRICITY MARKET RULES

COMMENCEMENT:

This Market Procedure took effect from 8:00am (WST) on the same date as the Wholesale Electricity Market Rules.

VERSION HISTORY

VERSION	EFFECTIVE DATE	NOTES
1	12 September 2006	Market Procedure for Prudential Requirements
2	15 October 2008	Amendments to Market Procedure resulting from PC_2008_08
3	14 July 2011 Xx	Amendments to Market Procedure resulting from PA redevelopmentPC_2011_04 Xx
4	TBA	Amendments to Market Procedure resulting from PC_2011_04

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1 PRUDENTIAL REQUIREMENTS PROCEDURE

1.1 Relationship with the Market Rules

1.1.1 This Prudential Requirements Market Procedure (Procedure) should be read in conjunction with sections 2.37 to 2.43 of the Wholesale Electricity Market (WEM) Rules (Market Rules).

1.1.2 Reference to particular Market Rules within the Procedure in bold and square brackets **[MR XX]** are current as of 18 April 2011. These references are included for convenience only, and are not part of this Procedure.

1.2 Purpose

1.2.1 The Procedure outlines the process by which the IMO will operate in managing liabilities that arise in the Settlement process.

1.2.2 This Procedure outlines:

- a) how the IMO will determine Credit Limits;
- b) how the IMO will assess persons against the Acceptable Credit Criteria; and
- c) the arrangement for Credit Support, including:
 - i. the form of acceptable guarantees and bank letters of credit;
 - ii. where ~~and~~ are how the IMO will hold cash deposits and the costs and fees of holding cash deposits will be met;
 - iii. the application of monies drawn from Credit Support in respect of amounts owed by the relevant Market Participant to the IMO;
- d) how Trading Margins are to be calculated;
- e) guidelines for assessing the expected value of transactions;
- f) how Margin Calls will be issued; and
- g) other matters relating to clauses 2.37 to 2.42 of the Market Rules.

1.3 Application

1.3.1 This Procedure applies to:

- a) Market Participants;
- b) The IMO.

1.4 Associated Market Procedures

1.4.1 There ~~are~~ no IMO Market Procedures ~~are~~ associated with this Procedure:

- ~~Reserve Capacity Security;~~
- ~~a) —~~
- ~~Settlement;~~

1.5 Interpretation

1.5.1 In this Procedure the conventions specified in clauses 1.3- 1.5 of the Market Rules apply. The terms used in this Market Procedure have the same meaning as in the Market Rules. The following additional clarifications are noted for the purposes of this Procedure:

- a) “Due Date” is the due date for Credit Support notified by the IMO in accordance with step 2.7.1 of this Procedure.

2 PROCEDURE STEPS

This section outlines the procedure steps associated with each of the processes outlined in section 1.2.2.

2.1 Procedure Steps for determining Credit Limits

2.1.1 The IMO is required to determine a Credit Limit for each Market Participant.

2.1.2 The IMO is to review each Market Participant’s Credit Limit at least once a year and may revise a Market Participant’s Credit Limit at any time. Reasons that the IMO may review a Market Participant’s Credit Limit more frequently than once a year include, but are not limited to:

- a) Market Participant request;
- b) issuance of a Margin Call Notice;
- c) significant changes in metered consumption quantities; and
- d) significant changes in quantities of electricity purchased bilaterally.

2.1.3 The Market Rules do not prescribe the formula to determine the Credit Limit for a Market Participant, instead they outline the underlying principles and factors to be taken into account. This procedure outlines the general principles the IMO utilises in determining the Credit Limit as prescribed under clause 2.37.4 of the Market Rules. Clause 2.37.4 also outlines what the IMO must take into consideration when determining the Credit Limit. The underlying principles and guidelines include:

- (a) Reflect the IMO's reasonable expectations of the Market Participant's forecast liability arising from STEM and Non-STEM activities, including balancing;
- (b) Be based on historical data where available, otherwise on reasonable assumptions about forecast liabilities arising from STEM and Non-STEM activities, including balancing;
- (c) Where the Credit Limit is based on historical data, be equal to the sum of the Market Participant's highest 70 consecutive day Non-STEM liability and its highest 15 consecutive day STEM liability (plus GST) as invoiced to the Market Participant in the twelve / twenty four months preceding the date of determination.

2.1.4 The IMO will provide notification to each Market Participant of its Credit Limit, and any revised Credit Limit, including details of the basis for making the determination.

~~Network Operators~~

~~2.1.5 The IMO is required to determine a Credit Limit for each Network Operator that is required to fund a Network Control Service Contract.~~

~~2.1.6 The Credit Limit is determined as the maximum possible amount payable over a 70-day period under the Network Control Service Contract.~~

~~2.1.7 The IMO is required to review a Network Operator's Credit Limit at the commencement and termination of a Network Control Service Contract.~~

~~2.1.8 The IMO will provide any Network Operator to which this procedure relates written notification of their Credit Limit, and any revised Credit Limit, including details of the basis for making the determination.~~

~~2.2 Market Participant Obligations~~

2.1.5 The Wholesale Electricity Market System ("WEMS") provides a screen for Market Participants to enter prudential support details online as part of the Rule Participant registration process. For a description of the fields for completing prudential support details on WEMS, refer to the Market Participant Registration Software User Guide ("User Guide") available on the Market Web Site¹. The fields to be completed in the Prudential Support Display are described in section 3.7 of the User Manual including an illustration of the Prudential Support Display screen on the WEMS.

¹ <http://www.imowa.com.au/f144,1373523/MIMarketParticipantRegistrationUserGuide.pdf>

2.1.6 -A Market Participant must give notice to the IMO in the event that it considers that:

- (a) its metered consumption quantities in a Trading Month will significantly exceed the amount used in the calculation of its Credit Limit; or
- (b) its quantity of electricity purchased bilaterally in a Trading Month will be significantly lower than used in the calculation of its Credit Limit.

The notification is to be made in writing, by email to operations@imowa.com.au ~~imo@imowa.com.au~~, as soon as practicable, and no later than one Business Day after the Market Participant makes the determination.

Determination of Credit Limits for existing Market Participants

2.1.7 The IMO is required to outline how it will determine Credit Limits. The method for setting the Credit Limit will normally be based on a Market Participant's Anticipated Maximum Exposure (AME) to the Market over 70 consecutive days. The IMO's method for determining this is as follows:

- (a) For each settled Trading Month (Non-STEM) the IMO calculates the Trading Day exposure for each participant to the market. This Trading Day exposure consists of the balancing settlement for the Trading Day and each day's share of Ancillary Service payments, Market Fees, Reconciliation Settlement and Reserve Capacity payments.
- (b) Using each day's Trading Day exposure, the IMO calculates the total running 70 day exposure, for all consecutive 70-day periods up to the last day of the last settled Trading Month.
- (c) The highest running 70 day total, plus GST, determines a Participant's 70 day exposure to Non-STEM.
- (d) For Participants participating in STEM, the IMO determines the maximum consecutive 15 day exposure for the participant to STEM (with the addition of GST).
- (e) The determined maximum Non-STEM exposure over 70 consecutive days is added to the maximum 15 day exposure to the STEM. This total makes up the AME and sets the Credit Limit for the Participant.

2.1.8 Whilst the AME will usually be used to set Credit Limits, there are instances where it will not. These instances include, but are not limited to:

- (a) A new Participant without prior history in the Market;

- (b) dramatic changes in circumstances, such as significant increase in customer numbers, acquisition of plant or other operational changes;
- (c) dramatic changes in commercial behaviour, such as abrupt cessation in bilateral contracting and instead purchasing all energy on the STEM.

2.1.9 The approach adopted for calculating the Credit Limit will necessitate modelling assumptions. The reasonableness of the IMO's modelling assumptions will be monitored and periodically tested to ensure the adopted methodology continues to estimate a Credit Limit that meets the requirements of the Market Rules.

2.1.10 The Wholesale Electricity Market [Participant Interface](#) System (WEMS [MPI](#)) contains a Report (named [Prudential SecurityPRM Indicator](#)) in which Participants can monitor their AME, as well as their ~~Available Exposure or~~ Trading Margin (see step 2.1.24 of this Procedure).

Determination of Credit Limits for a new Market Participant

2.1.11 Before a Market Participant has participated in the Market, the IMO will determine an initial Credit Limit based on the assumptions listed in step 2.1. When the IMO has one full month of settled data in Non-STEM, it may use this settled data, extrapolated to 70 days, plus any consecutive 15 days of STEM exposure to determine a new Credit Limit.

2.1.12 After three Non-STEM settlements for the Market Participant, the IMO may determine a Credit Limit using the method described in steps 2.1.7 – 2.1.10.

Determination of initial Credit Limit for a new Market Generator

2.1.13 Prior to having actual values from which to determine the Credit Limit, the IMO may set an initial Credit Limit based on the following data, to be provided by the Participant during Registration and/or upon request from the IMO:

- (a) The Generation capacity of its facilities;
- (b) The certified capacity of its facilities;
- (c) The amount of energy it has bi-laterally contracted; and
- (d) The amount of Capacity Credits bilaterally traded.

2.1.14 Based on this data, the IMO may determine:

- (a) The maximum cost of the energy assumed to be bought in balancing over 70 days
- (b) The maximum amount of Market Fees and Ancillary Service Payments over 70 days
- (c) The maximum amount of Reserve Capacity Refunds over 70 days

2.1.15 The determination in step 2.1.14 forms the basis for the IMO's determination of the initial Credit Limit for the new Market Generator.

2.1.16 A Market Generator with a Facility under construction, who has not yet provided Credit Support to the IMO, will have to provide Credit Support amounting to at least the initial Credit Limit before the end of the Commissioning Trial.

2.1.17 In order to cover the Market Generator's exposure to the market for energy consumed during the Commissioning Trials, it must provide Credit Support covering at least 10% of the initial Credit Limit before commissioning commences. The Participant also needs to complete all Prudential and Financial registration requirements prior to the commencement of its Commissioning Trials (see the Market Procedure for Participant Registration).

Determination of initial Credit Limit for a new Market Customer

2.1.18 Prior to having actual values from which to determine the Credit Limit, the IMO may set an initial Credit Limit based on the following data, to be provided by the Participant upon request from the IMO:

- (a) The amount of energy contracted to sell;
- (b) The amount of Capacity Credits assigned under bi-lateral contracts; and
- (c) The amount of energy to be purchased under bi-lateral contracts.

2.1.19 Based on this data, the IMO may determine:

- (a) The maximum cost of energy to be bought in the balancing market over 70 days; and
- (b) The maximum amount of capacity credits to be bought from the IMO over 70 days.

2.1.20 This determination forms the basis for the IMO's setting of the initial Credit Limit for the new Market Customer.

2.2 Procedure Steps for Credit Support Arrangements

- 2.2.1 Pursuant to clause 2.38.1 of the Market Rules, a Market Participant ~~or Network Operator~~ must ensure that the IMO holds the benefit of Credit Support if they do not meet the Acceptable Credit Criteria outlined in Market Rules 2.38.6.
- 2.2.2 The amount of Credit Support is to be no less than the Credit Limit determined for the Market Participant ~~or Network Operator~~, by the IMO.
- 2.2.3 If a Market Participant ~~or Network Operator~~ has provided Credit Support which is due to expire on a given date, it must, no less than ten days prior to the expiration or termination of existing Credit Support, provide replacement Credit Support in an amount not less than their determined Credit Limit. The replacement Credit Support must become effective at the expiry of the existing Credit Support.
- 2.2.4 A Market Participant ~~or Network Operator~~ must provide replacement Credit Support, or increase their current Credit Support, to an amount not less than their determined Credit Limit in the following circumstances:
 - (a) where the IMO has increased the Credit Limit;
 - b) where existing Credit Support is no longer current or valid (e.g. credit support provider no longer meets Acceptable Credit Criteria);
 - (c) where some, or all, of the Credit Support has been drawn on by the IMO;
 - (d) when the Market Participant ~~or Network Operator~~ wishes to change the type of Credit Support provided, for example from a Security Deposit to a Bank Undertaking.

The Market Participant ~~or Network Operator~~ must ensure that the IMO holds the benefit of the replacement Credit Support within one Business Day of receiving notice from the IMO.

2.3 Procedure steps to be followed by Market Participants to confirm an entity meets the Acceptable Credit Criteria

- 2.3.1 A Market Participant ~~or Network Operator~~ that meets the Acceptable Credit Criteria does not have to provide Credit Support to the IMO.
- 2.3.2 Where a Market Participant does not meet the Acceptable Credit Criteria and elects to provide a Credit Support other than as a cash deposit, and the entity providing the Credit Support is not included on the list of entities that meet the Acceptable Credit Criteria maintained by the IMO on its website, a Market Participant must arrange for completion of an Acceptable Credit Criteria Form, outlining that ~~an~~ the entity meets the Acceptable Credit Criteria outlined in clause 2.38.6, ~~by from~~ either:

(a) the Market Participant's external solicitors; or

(b) the entity's external solicitors.

A copy of the Acceptable Credit Criteria Form is available on the following Market Web Site: http://www.imowa.com.au/10_5_1_market_forms.htm

A copy of the current list of entities that meet the Acceptable Credit Criteria is available on the following Market Web Site: http://www.imowa.com.au/prudential_information

2.3.3 Market Participants arranging for Credit Support to be provided by an entity that is included on the IMO's list of entities that meet the Acceptable Credit Criteria, published on the Market Web Site, are not required to submit an Acceptable Credit Criteria Form.

2.3.4 In arranging for the completion of the Acceptable Credit Criteria Form under step 2.3.2, ~~the Market Participant or Network Operator~~ is responsible for arranging ~~for a firm of solicitors~~ ~~firm of solicitors~~ to undertake all necessary investigations to enable a partner of the firm to sign the Acceptable Credit Criteria Form. This may be the solicitors for the Market Participant or the solicitors for the entity providing the security.

2.3.5 A completed Acceptable Credit Criteria Form is one that:

- (a) has an affirmative response to each of the six statements;
- (b) has been completed with the full details of the entity to which it applies; and
- (c) has been signed by a partner in an external reputable firm of solicitors which is acceptable to the IMO.

~~3.2.4 The IMO may in its absolute discretion determine whether a firm of solicitors meets the requirements of Step 3(c).~~

2.3.6 Before submitting an Acceptable Credit Criteria Form, the Market Participant ~~or Network Operator~~ may submit a request to the IMO to confirm whether a particular firm of solicitors meets the requirements of step 2.3.5 (c).

2.3.7 If the IMO requests the Market Participant ~~or Network Operator~~ to provide any supporting documents to support the statements in the Acceptable Credit Criteria Form, the Market Participant ~~or Network Operator~~ must provide all relevant documents within one Business Day or any other time agreed with the IMO.

2.3.8 Market Participants must submit a completed Acceptable Credit Criteria Form to the IMO either by person or electronically to the following email address: imo@imowa.com.au

2.4 Procedure steps to be followed where a Market Participant ~~or Network Operator~~ is required to ensure that the IMO holds the benefit of Credit Support.

2.4.1 If a Market Participant ~~or Network Operator~~ is required to provide Credit Support under clause 2.38 of the Market Rules, the Market Participant ~~or Network Operator~~ must provide the Credit Support by the Due Date notified by the IMO.

2.4.2 The Market Participant ~~or Network Operator~~ can provide the Credit Support by way of:

- (a) Guarantee or Undertaking, in accordance with the procedures detailed in Section 2.5 of this Market Procedure; or
- (b) Security Deposit, in accordance with the procedures detailed in Section 2.6 of this Market Procedure. **[MR 2.38.4].**

2.5 Procedure steps to be followed by ~~the~~ Market Participants ~~and Network Operators~~ for Guarantees or Undertakings

2.5.1 The Market Participant ~~or Network Operator~~ must download a copy of the following documents from the Market Web Site:

- (a) Proforma Guarantee or Undertaking, as applicable; and
- (b) Acceptable Credit Criteria Form (this is not required if the Bank or Treasury Corporation is on the list of acceptable credit providers, as published on the IMO Market Web Site).

2.5.2 The Market Participant ~~or Network Operator~~ must by the Due Date notified by the IMO, submit to the IMO:

- (a) a completed Guarantee or Undertaking for an amount not less than the Credit Limit determined for the ~~Market Participant~~ Market Participant; and ~~or Network Operator, as the case may be;~~ and
- (b) a completed Acceptable Credit Criteria Form for the credit support provider (if applicable).

2.5.3 A completed Guarantee or Undertaking is one that:

- (a) is in the form approved by the IMO from time to time; and

(b) has been executed by a Treasury Corporation, Guarantee, or a Bank, Undertaking, that meets the Acceptable Credit Criteria.

2.5.4 The Guarantee or Undertaking must be consistent with the most recent proforma version available on the IMO website and only modified to the extent contemplated in the proforma version. The IMO does not allow any variations from the proforma.

2.5.5 The approved form of Guarantee and the approved form of Undertaking each require that the Treasury Corporation or Bank issuing the Guarantee or Undertaking must provide funds up to the amount of the Credit Support within 90 minutes of the IMO making a call on the Credit Support.

2.5.6 At the time of providing a Guarantee or Undertaking to the IMO, the Market Participant ~~or Network Operator~~ must also provide to the IMO:

(a) Contact details of no less than two individuals at the Bank or Treasury Corporation whom the IMO can contact in regard to making a call on the Credit Support.

(b) Any special procedure the Bank or Treasury Corporation requires the IMO to follow when calling on the Credit Support.

2.5.7 The Market Participant ~~or Network Operator~~ must ensure that the Bank or Treasury Corporation agrees with the IMO on a process that will enable the IMO to access funds within 90 minutes. Failure by the Bank or Treasury Corporation to do so will constitute a breach of clause 2.38.4(a)43.1 of the Market Rules by the Market Participant ~~or Network Operator~~.

2.5.8 When providing a Guarantee or Undertaking to the IMO, the Market Participant ~~or Network Operator~~ should agree on a place of delivery with the IMO and hand over the document to the IMO in person. For additional security, two people from the Market Participant ~~or Network Operator~~ and two people from the IMO should be present during the transaction.

2.5.9 If the Market Participant ~~or Network Operator~~ is not able to hand over the document in person, it should be provided to the IMO by Courier or ~~Registered~~Recommended Mail, requiring a signature of receipt.

2.5.10 The IMO will provide a written receipt to the Market Participant ~~or Network Operator~~ upon receipt of the Guarantee or Undertaking.

2.5.11 If the Market Participant ~~or Network Operator~~ provides a Guarantee or Undertaking to the IMO and the IMO determines that the Guarantee or Undertaking is not compliant with the Market Rules or this Market Procedure, then the Market

Participant must submit Credit Support that is compliant with the Market Rules and this Market Procedure on or before the Due Date, or as agreed upon with the IMO.

2.5.12 If the Market Participant ~~or Network Operator~~ has not received notification of compliance of the Credit Support within two Business Days of submitting all documentation, it is the obligation of the Market Participant to contact the IMO directly to request and receive confirmation whether the Credit Support is compliant.

2.6 Procedure steps to be followed by ~~the Market Participants and Network Operators~~ for Security Deposits

2.6.1 The Market Participant ~~or Network Operator~~ must download a copy of the following documents from the Market Web Site:

- (a) Proforma Security Deposit Deed; and
- (b) Security Deposit Instructions.

2.6.2 By the Due Date notified by the IMO, the Market Participant ~~or Network Operator~~ must:

- (a) submit two signed originals of a completed Security Deposit Deed to the IMO; ~~and~~
- (b) provide, in cleared funds, the amount of Credit Support for an amount not less than the Credit Limit determined for the Market Participant ~~or Network Operator~~ to the IMO in accordance with the Security Deposit Instructions.

It is to be noted that a failure by the Market Participant ~~or Network Operator~~ to provide both the completed Deed and the cleared funds by the Due Date specified by the IMO is a non compliance with clause 2.38.1 of the Market Rules and a suspension event under clause 9.23.1 of the Market Rules.

Should the Market Participant ~~or Network Operator~~ require time beyond the Due Date to provide the Deed to the IMO, it must request this from the IMO in writing. The IMO is not obliged to agree to any such request.

2.6.3 A completed Security Deposit Deed is one that:

- (a) is in the form approved by the IMO from time to time; and
- (b) has been executed by or on behalf of the Market Participant ~~or Network Operator~~.

- 2.6.4 If the Market Participant ~~or Network Operator~~ submits the Credit Support to the IMO under step 2.6.2 and the IMO determines that the Credit Support is not compliant with the Market Rules or this Market Procedure, then the Market Participant may submit further Credit Support that is compliant with the Market Rules and this Market Procedure on or before the Due Date.
- 2.6.5 If the Market Participant or ~~Network Operator~~ has not received notification of compliance of the Credit Support within two Business Days of submitting all documentation, it is the obligation of the Market Participant to contact the IMO directly to request and receive confirmation whether the Credit Support is compliant.
- 2.6.6 If the IMO notifies the Market Participant ~~or Network Operator~~ that the Security Deposit Deed meets the requirements of the Market Rules and this Market Procedure then the Market Participant ~~or Network Operator~~ must provide, in cleared funds, the amount of Credit Support to the IMO in accordance with the Security Deposit Instructions by the Due Date. The IMO will sign the two originals of the Deed and return one signed original to the Market Participant ~~or Network Operator~~.
- 2.6.7 If the IMO notifies the Market Participant ~~or Network Operator~~ that the Security Deposit Deed does not meet the requirements of the Market Rules and this Market Procedure then the Market Participant ~~or Network Operator~~ must, by the Due Date:
- (a) submit a Security Deposit Deed that meets the requirements of the Market Rules and this Market Procedure and provide, in cleared funds, the amount of Credit Support to the IMO in accordance with the Security Deposit Instructions; or
 - (b) provide another form of Credit Support under this Market Procedure.
- 2.6.8 The Security Deposit Deed contains a clause which specifies:

"The Depositor shall, within 14 days after the date of execution of this Deed, comply with section 263 of the Corporations Act 2001 (Cth) in relation to the security created by the Depositor under this Deed."

This clause requires the Market Participant ~~or Network Operator~~ to register with ASIC a charge for the Security Deposit which nominates the IMO as the chargee. Further details can be found on the ASIC website; however the participant may wish to seek advice as to the process of lodgement. Please note that the IMO is not a corporation, and this should be indicated on the appropriate form.

Once the Security Deposit Deed is registered, the Market Participant ~~or Network operator~~ must provide evidence of registration to the IMO within 14 days of the date the Security Deposit Deed was signed by the IMO and returned back to the Market Participant ~~or Network Operator~~. A failure to provide the IMO with a copy of the

registered charge within 14 days constitutes a breach of clause 2.38.4(a)43.1 of the Market Rules.

2.7 Procedure steps to be followed by the IMO for Credit Support

2.7.1 The Market Participant must download a copy of the following documents from the Market Web Site (http://www.imowa.com.au/10_5_1_market_forms.htm):

(a) Bank undertaking for Credit Support

2.7.2 By the Due Date notified by the IMO, the Market Participant must:

(a) Submit one signed original of a completed Bank Undertaking to the IMO

Should the Market Participant require time beyond the Due Date to provide the Deed to the IMO, it must request this from the IMO in writing. The IMO is not obliged to agree to any such request.

2.7.3 A completed Bank Undertaking is one that:

(a) is in the form approved by the IMO from time to time; and

(b) has been executed by or on behalf of the Market Participant.

2.7.4 If the Market Participant submits the Bank Undertaking to the IMO under step 3.6.2 and the IMO determines that the Credit Support is not compliant with the Market Rules or this Market Procedure, then the Market Participant may submit a further Bank Undertaking that is compliant with the Market Rules and this Market Procedure on or before the Due Date.

2.7.5 If the IMO notifies the Market Participant that the Bank Undertaking meets the requirements of the Market Rules and this Market Procedure then the IMO will place the completed Bank Undertaking in a bank safe box.

2.87 Procedure steps to be followed by the IMO for Credit Support

2.78.1 At the same time as the IMO notifies the Market Participant ~~or Network Operator~~ of the Credit Limit determined under clauses 2.37.1 or 2.37.6 of the Market Rules, the IMO must notify the Market Participant ~~or Network Operator~~ whether it is required to provide Credit Support and the due date ("Due Date") for any Credit Support required.

2.78.2 On receiving a submission from a Market Participant ~~or Network Operator~~ for Credit Support, the IMO must review the Credit Support arrangement and determine

whether it is compliant with the Market Rules and this Market Procedure (including but not limited to whether it meets the Acceptable Credit Criteria requirements).

2.78.3 Within five Business Days of receiving all documentation for Credit Support arrangements, IMO must notify the Market Participant ~~or Network Operator~~ that the Credit Support is either:

- (a) compliant with the Market Rules and this Market Procedure; or
- (b) not compliant with the Market Rules or this Market Procedure, in which case the IMO must provide reasons as to why the Credit Support is not compliant.

2.78.4 If the Market Participant ~~or Network Operator~~ submits its Credit Support documentation to the IMO and the IMO determines that the Credit Support is not compliant with the Market Rules or this Market Procedure, then the IMO must notify the Market Participant ~~or Network Operator~~ on the first Business Day following the Business Day on which the Market Participant submitted the Credit Support documentation and must provide reasons as to why the Credit Support is not compliant.

2.78.5 In the case of a Guarantee or Undertaking, at the same time as the IMO issues confirmation to the Market Participant ~~or Network Operator~~ that the Guarantee or Undertaking meets the requirements of the Market Rules, the IMO must notify the entity that executed the Guarantee or Undertaking that Credit Support has been provided in accordance with clause 2.38 of the Market Rules.

2.78.6 In the case of a Security Deposit Deed, at the same time as the IMO issues confirmation to the Market Participant ~~or Network Operator~~ that the Security Deposit Deed meets the requirements of the Market Rules and this Market Procedure, the IMO must execute the completed Security Deposit Deed.

2.89 Procedure steps to be followed by the IMO to assess compliance under the Acceptable Credit Criteria rules and to establish the list of entities that meet the Acceptable Credit ~~Providers~~CrtieriaCriteria

2.89.1 Within one Business Day of receiving an Acceptable Credit Criteria Form from a Market Participant ~~or Network Operator~~, the IMO must assess the compliance and completeness of the Acceptable Credit Criteria Form in accordance with this Market Procedure.

~~3.8.2 A completed Acceptable Credit Criteria Form is one that:~~

- ~~(a) has an affirmative response to each of the statements;~~
- ~~(b) has been completed with the full details of the entity to which it applies; and~~

~~(c) has been signed by a reputable firm of solicitors which is acceptable to the IMO.~~

2.89.2 The IMO may, in its absolute discretion, determine whether a firm of solicitors meets the requirements of step 2.3.5(c).

2.89.3 If the IMO receives a request to confirm whether a particular firm of solicitors meets the reputable firm of solicitors requirements under the Acceptable Credit Criteria, the IMO must notify the Market Participant on the Business Day following the Business Day on which the IMO received the request, whether that firm of solicitors meets the requirements of step 2.3.5(c).

2.89.4 If the IMO is satisfied that the Acceptable Credit Criteria Form has been submitted and completed in accordance with these Market Procedures, then the IMO must deem that the entity to which the Acceptable Credit Criteria Form applies meets the Acceptable Credit Criteria under clause 2.38.6 of the ~~Market Rules~~ Market Rules for a period of 12 months.

2.89.5 At any time after the IMO receives a completed Acceptable Credit Criteria Form, the IMO may request the Market Participant ~~or Network Operator~~ to provide documents to support the responses to the statements in the Acceptable Credit Criteria Form, and the Market Participant ~~or Network Operator~~ must provide all relevant documents within one Business Day or any other time agreed with the IMO.

2.89.6 Where the IMO deems an entity to meet the Acceptable Credit Criteria under step 2.8.4 the entity will be included on the list of entities that meet the Acceptable Credit Criteria available on the Market Web Site for a period of 12 months from the date the IMO deems the entity to meet the Acceptable Credit Criteria. [MR2.38.7]

2.89.7 The list of entities that meet the Acceptable Credit Criteria must include the name of the entity, the entities Australian Business Number, address and the date that the IMO deemed the entity to meet the Acceptable Credit Criteria.

2.89.8 The IMO must undertake ~~periodic~~ ~~monthly~~ monitoring activities to determine whether the entities included on the list of entities that meet the Acceptable Credit Criteria continue to have appropriate credit ratings and may at any time remove an entity from the list where ~~“where the IMO no longer considers the entity to meet”~~ ~~is this wording more appropriate?~~ the Acceptable Credit Criteria. [MR2.38.8 & 2.38.9]

2.89.9 Where the IMO removes an entity from the list of entities that meet the Acceptable Credit Criteria it must inform all Market Participants via email of the removal of the entity within 1 Business Day.

2.910 Procedure Steps for the holding of Security Deposits and Associated Costs

- 2.109.1 The IMO invests any security deposit payments on behalf of the relevant Market Participant ~~or Network Operator~~. The IMO maintains individual trust accounts for security deposits separate from IMO operating funds.
- 2.109.2 Interest earned on the balance of the security deposit is credited to the relevant Market ~~Participant or Network Operator~~ Participant on a monthly basis.
- 2.109.3 Any costs and fees associated with holding a security deposit is deducted from the balance of the security deposit as such costs and fees accrue on a pro rata basis.

2.101 Procedure Steps for the application of Monies Drawn Down

- 2.101.1 The IMO may draw upon the Credit Support it holds the benefit of:
 - (a) in relation to a Security Deposit, to apply it to satisfy amounts owing by the relevant Market Participant ~~or Network Operator~~; or
 - (b) in relation to Guarantees and Bank Undertakings, to exercise the IMO's rights under the Credit Support, including by drawing or claiming an amount under it to satisfy amounts owing by the relevant Market Participant ~~or Network Operator~~.
- 2.101.2 Monies drawn from Credit Support or Bank Undertaking may be applied in respect of the following:
 - (a) in the event of a suspension event, as provided in clause 9.23.1 of the Market Rules, for the amount which the IMO determines is actually or contingently owing by the Market Participant ~~or Network Operator~~ to the IMO under the Market Rules [MR 9.23.4];
 - (b) in the event that a Market Participant ~~or Network Operator~~ fails to make a payment under the Market Rules to the IMO before it is due, for an amount to meet the payment [MR 9.24.1]; and
 - (c) in the event that insolvency laws requires the IMO to pay or repay an amount paid by a Market Participant, for the amount of the required payment. [MR 9.24.2]

2.112 Procedure Steps for the Calculation of Trading Margins

- 2.112.1 ———A Market Participant's Trading Margin is the amount that its Trading Limit exceeds its Outstanding Amount.

2.12.2 The IMO may notify a Market Participant at any time of the level of their Trading Margin. **[MR 2.41.4]**

~~2.112.23~~ ————— The Trading Limit is 87 percent of the total amount of the Market Participant's Credit Support that can be drawn, claimed or applied. **[MR 2.39]**

~~2.112.34~~ ————— The Outstanding Amount for a Market Participant on a daily basis daily is the sum of: ~~at any given time is the greater of zero or:~~

(a) outstanding invoices; ~~all amounts payable by the Market Participant under the Market Rules to the IMO; less~~

(b) net current liability; and ~~all amounts payable by the IMO under the Market Rules to the Market Participant~~

(c) net forecast liability. **[MR 2.40.1]**

In making this calculation, the IMO is to use actual amounts for which Settlement Statements have been issued and a reasonable estimation of any other amounts.

~~2.112.45~~ A daily Prudential Risk Indicator Report (titled Prudential Security ~~PRM Indicator~~) is available published to Rule Participants in the WEMS.

~~2.112.56~~ A Market Participant may make voluntary payments to the IMO in consideration for reducing the Market Participant's Outstanding Amount ~~outstandings~~ below trading limits.

Submissions to the IMO in relation to contemplated transactions

~~2.112.67~~ ————— A Market Participant must not make a submission to the IMO in relation to any transaction that could result in the Market Participant's Trading Margin being equal to or less than zero ~~exceeded~~.

~~2.112.78~~ ————— The IMO has the discretion to reject any submission from a Market Participant if, in the IMO's opinion, the transaction could result in the Market Participant's Trading Margin being equal to or less than zero ~~exceeded~~.

~~2.11.8~~ ~~For the purpose of determining if a transaction could result in the Market Participant's Trading Margin being exceeded, the transaction is to be valued according to the expected value guidelines outlined in step 2.12 of this procedure and contemplated by clause 2.37.9 of the Market Rules.~~

2.123 Procedure steps to be followed by the IMO and Market Participants when issuing a Margin Call Notice

The IMO's obligations

- 2.123.1 Any time a Market Participant's Trading Margin ~~falls to zero or below~~ is equal to or less than zero, the IMO may, but is not required to, issue a Margin Call Notice. The Trading Margin falls below zero when a Market Participant's Outstanding Amounts exceeds the Market Participant's Trading Limit.
- 2.123.2 The Margin Call Notice is to specify a Margin Call amount and provide a deadline of one Business Day for the Market Participant to provide the Margin Call amount.
- 2.123.3 The Margin Call amount is ~~a Market Participant's Outstanding Amount (see step 2.11.3) less the Market Participant's Typical Accrual~~ an amount calculated by the IMO, which the IMO reasonably expects is necessary to cover any potential exposure.
- ~~2.12.4 The Typical Accrual, at any time, is what the IMO determines would have been a Market Participant's Outstanding Amount, at that time, if the following were to apply:~~
 - ~~(a) The prices and quantities applying to amounts payable by the Market Participant equalled the average prices and quantities as applied to the Market Participant's current Credit Limit.~~
- 2.123.54 The IMO may, but is not required to, cancel a Margin Call Notice at any time. The IMO reserves the right to issue a further Margin Call Notice for the same reasons that gave rise to the cancelled Notice.
- 2.123.65 The IMO is required to review the Credit Limit of a Market Participant in the event the IMO issues a Margin Call Notice. ~~The Credit Limit must be adjusted in line with the amount of the Margin Call.~~ The IMO will review the Credit Limit within 30 Business Days of the Margin Call Notice.

Market Participants Obligations

- 2.123.76 A Market Participant is required to respond to a Margin Call Notice by 11.00 am the following Business Day.
- 2.123.87 In accordance with Market Rule 2.42.4, a Market Participant must respond to a Margin Call Notice by either:
 - (a) providing a Security Deposit, in cleared funds, to the IMO in the amount of the Margin Call. The security deposit can be made by, or on behalf of, the Market Participant; or
 - (b) providing additional Credit Support in the amount of the Margin Call.

2.134 Procedure steps for Default events

2.134.1 Failure to comply with a Margin Call Notice within the specified timeline gives rise to a suspension event for the Market Participant, in accordance with the default provisions in clause 9.23 of the Market Rules. Other events that will trigger the issue of a Cure Notice are listed in clause 9.23.1 of the Market Rules.

2.134.2 The IMO, as soon as practicable, may issue a Cure Notice requiring rectification within a 24 hours of the Cure Notice being issued. In addition, if applicable to the event causing the default situation, the IMO will draw on the Market Participant's Credit Support, if it has not already done so already. (Market Rule 9.23.4)

2.134.3 The IMO may extend the deadline for rectification, but this is restricted to a maximum of five days for breaching a Prudential Requirement. To provide an extension, the IMO must consider that:

- (a) the Market Participant is able to fully comply with the Cure Notice before the end of the extended deadline; and
- (b) the Market Participant was not capable of doing so within the 24 hour timeframe following the issuance of the Cure Notice.

2.134.4 In the event that a Market Participant fails to comply with a Cure Notice, whether within the original or extended deadline, the IMO has the power to issue a Suspension Order. (Market Rule 9.23.7) Clause 2.32 of the Market Rules, in relation to Suspension and Deregistration, begins to apply. It provides that:

- (a) the IMO must issue a Suspension Notice to the Market Participant, and provide copies to all Rule Participants;
- (b) the Suspension Notice may contain directions to be complied with by the Market Participant to give effect to the Suspension Notice;
- (c) the Market Participant is required to comply with the Suspension Notice, including:
 - (i) only trading to the extent specified in the Suspension Notice, including ceasing trade if so provided; and
 - (ii) continue meeting any existing Reserve Capacity Obligations specified in the Suspension Notice;
- (d) the IMO has the power to do any, or all, of the following:

- (i) cancel or reject any Submissions from, or on behalf of, the Market Participant;
- (ii) withhold payments owed to the Market Participant.

2.134.5 In addition, the IMO is able to require a Network Operator to disconnect one or more Facilities to give effect to the Suspension Notice. It should be noted, however, that this does not take into account the Retailer of Last Resort scheme, which will operate separately.

2.134.6 If the Market Participant remedies its breach the IMO will withdraw a Suspension Notice and inform all Rule Participants of the withdrawal.

2.134.7 Where a Market Participant has been suspended for 90 days the IMO may apply to the Energy Review Board for de-registration.

2.154 Procedure Steps for amendments to Proforma Documents

2.145.1 The IMO may, in its absolute discretion, from time to time approve and make available on the Market Web Site:

- (a) updates and amendments to the any forms set out in this procedure to be made available on the IMO website; or
- (b) additional documents in connection with this Market Procedure; or
- (c) both of the above.

2.145.2 If the IMO updates and amends a document or approves an additional document prior to a Market Participant's provision of Credit Support under this procedure, the updated or amended document or additional document will apply to the IMO's consideration of the compliance of the Credit Support.

2.145.3 An update or amendment to a document does not affect the status or terms of existing Credit Support arrangements.

2.145.4 The IMO must notify relevant Market Participants when it approves updates or amendments to documents or approves an additional document under this Procedure.

3 Credit Limit Calculations[SP1]

This Section sets out:

- (a) The IMO's methodology for calculating the Credit Limit for Market Participants; and
- (b) The guidelines for determining the expected value of a transaction as contemplated by clause 2.37.9 of the Market Rules.

3.1 Anticipated Maximum Exposure

3.1.1 Section **Error! Reference source not found.**1.7 describes how the IMO sets the Credit Limit based on a Market Participant's Anticipated Maximum Exposure (AME) to the Market over 70 consecutive days as follows:

- (a) For each settled Trading Month (Non-STEM) the IMO calculates the Trading Day exposure for each participant to the market. This Trading Day exposure consists of the balancing settlement for the Trading Day and each day's share of Ancillary Service payments, Market Fees, Reconciliation Settlement and Reserve Capacity payments.

- (b) Using each day's Trading Day exposure, the IMO calculates the total running 70 day exposure, for all consecutive 70-day periods up to the last day of the last settled Trading Month.
- (c) The highest running 70 day total, plus GST, determines a Participants 70 day exposure to Non-STEM.
- (d) For Participants participating in STEM, the IMO determines the maximum consecutive 15 day exposure for the participant to STEM (with the addition of GST).
- (e) The determined maximum Non-STEM exposure over 70 consecutive days is added to the maximum 15 day exposure to the STEM. This total makes up the AME and sets the Credit Limit for the Participant.

3.1.2 In this sub-section, we provide the formula used to calculate the AME (or Credit Limit), as well as further details on how the Outstanding Amount is calculated.

3.2 Anticipated Maximum Exposure[SP2][bd3]

3.2.1 Let:

- (a) m denote the end of Trading Month m;
- (b) Running_Exp_i denote the total Non STEM running 70 day exposure as at day i plus the total STEM running 15 day exposure as at day i; and
- (c) Let AME denote a Participant's Anticipated Maximum Exposure.

3.2.2 The Anticipated Maximum Exposure for a Participant for month M, AME_M, is calculated as:

$$AME_M = \text{Max} \left(\begin{matrix} \text{Running_Exp}_{m-70}, \text{Running_Exp}_{m-69}, \dots, \\ \text{Running_Exp}_{m-1}, \text{Running_Exp}_m \end{matrix} \right) + GST.$$

3.3 Outstanding Amount

The Outstanding Amount calculated on a daily basis is the sum of:

- 3.3.1 outstanding invoices is the value of invoice amounts which have been published to the market and the settlement day is yet to occur.
- 3.3.4 net current liability

$$\left(\frac{CC \times RCP}{365} \right) \times DP + \left(\frac{AS+RS+MF}{DI} \times DP \right) + (\sum_{DP} STEM) + (\sum_{DP} BS) + (\sum_{DP} FF \times REF)$$

Where:

AS = Ancillary Services charge or payment from the last Non STEM invoice
RS = Reconciliation segment charge or payment from the last Non STEM invoice
MF = Market Fees charge from the last Non STEM invoice
DI = Number of Trading Days in the last invoiced Trading Month
DP = Number of days since last invoice
BS= Net value of trades in the balancing market
FF= Forced Outage quantity
REF= Refund rate as per clause 4.26
CC = Total Capacity Credits held not traded bilaterally
RCP = Reserve Capacity Price per MW for the current capacity year

3.3.5 net future liability

$$- \left(\frac{CC \times RCP}{365} \right) \times DF + \left(\frac{AS+RS+MF}{DI} \times DF \right) + (avg \sum_{30 DP} STEM + \sum_{30 DP} BS) \times DF$$

Where:

AS = Ancillary Services charge or payment from the last Non STEM invoice
RS = Reconciliation segment charge or payment from the last Non STEM invoice
MF = Market Fees charge from the last Non STEM invoice
DI = Number of Trading days in the last invoiced Trading Month
DF = Number of days until the next invoice is published
DP = Number of days since last invoice
BS= Net value of trades in the balancing market
FF = Forced Outage quantity
REF= Refund rate as per clause 4.26
CC = Total Capacity Credits held not traded bilaterally
RCP = Reserve Capacity Price per MW for the current capacity year

3.3.6 This procedure assumes negative values denote monies owed to the IMO and positive values denote monies owed by the IMO. This is the opposite of what is published on settlements invoices.

Wholesale Electricity Market Pre Rule Change Proposal

Submitted by

Name:	Brendan Clarke
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Email:	Brendan.Clarke@westernpower.com.au
Organisation:	System Management
Address:	
Date submitted:	22 November 2011
Urgency:	3 - High
Change Proposal title:	Calculation of Availability Class Quantity Correction
Market Rule(s) affected:	Clause 4.5.12(b)

Introduction

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

Independent Market Operator

Attn: Suzanne Frame, Manager Market Development
PO Box 7096
Cloisters Square, Perth, WA 6850

Fax: (08) 9254 4399

Email: marketadmin@imowa.com.au

The paper should explain how it will enable the Market Rules to better contribute to the achievement of the wholesale electricity market objectives. The objectives of the market are:

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

Details of the proposed Market Rule Change

1) Outline the issue concerning the existing Market Rules that is to be addressed by the proposed Market Rule change:

Issue: The Market Rules calculate the quantity of capacity requirement inconsistently with the availability duration of those classes leading to increased risk to system reliability compared to the risk if calculated consistently..

In the Market Rules the provisions relating to the Reserve Capacity Mechanism require the reserve requirement to be calculated for each class of capacity. That is how much of the reserve requirement can be met by facilities, either DSP or Generation, whose availability is also defined.

Appendix 3 of the Market Rules defines how many hours per capacity year the facility owner must make its facility to be able to be dispatched as follows:

“The following table indicates the required availability of capacity offered for each Availability Class:

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

“

For example to comply with the Class 4 obligation a facility owner can offer to make its facility for 24 hours in a capacity year.

Market Rule 4.5.12(b) defines what part of the forecast load can be served by each availability class.

“(c) the capacity associated with each Availability Class where:

- i. the capacity quantity associated with Availability Class 4 is the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under paragraph (b) and the quantity specified under paragraph (a) as being required for more than 48 hours per year;
- ii. the capacity quantity associated with Availability Class 3 is:
 1. the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under paragraph (b) and the quantity specified under paragraph (a) as being required for more than 72 hours per year; less
 2. the capacity quantity associated with Availability Class 4;
- iii. the capacity quantity associated with Availability Class 2 is:
 1. the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under paragraph (b) and the quantity specified under paragraph (a) as being required for more than 96 hours per year; less
 2. the total capacity quantity associated with Availability Class 3 or Availability Class 4;
- iv. the capacity quantity associated with Availability Class 1 is:
 1. the Reserve Capacity Target for the Capacity Year; less

2. the total capacity quantity associated with Availability Class 2, Availability Class 3 or Availability Class 4;”

Essentially the portion of the load that is forecast to be required for less than 48 hours per year is considered as Class 4, between 48 and 72 as Class 3 , between 72 and 96 hours as Class 2, with the remainder as Class 1

The IMO then procures capacity with these time duration constraints. The key issue is the duration of the facility availability does not match that of the load availability in the same Class.

For example in Class 4 the load may exist of up to 48 hours yet its facility may be available for only 24 hours, hence there are some loads that are unable to be served for up to 24 hours (being 48 hour load duration less 24 hour facility duration).

Similar situations exist for the remaining classes.

2) Explain the reason for the degree of urgency:

System Management submits that the Rule Change Proposal be progressed with an urgency of high.

The change is urgent as it needs to be in place prior to the calculation of the availability classes to be published in the next Statement of Opportunities.

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

(c) the capacity associated with each Availability Class where:

- i. the capacity quantity associated with Availability Class 4 is the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under paragraph (b) and the quantity specified under paragraph (a) as being required for more than ~~48~~ 24 hours per year;
- ii. the capacity quantity associated with Availability Class 3 is:
 1. the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under paragraph (b) and the quantity specified under paragraph (a) as being required for more than ~~72~~ 48 hours per year; less
 2. the capacity quantity associated with Availability Class 4;

iii. the capacity quantity associated with Availability Class 2 is:

1. the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under paragraph (b) and the quantity specified under paragraph (a) as being required for more than ~~96~~ 72 hours per year; less
2. the total capacity quantity associated with Availability Class 3 or Availability Class 4;

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

This proposed Rule Change would better address objective (a) of the Market Objectives. The change as submitted would promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West Interconnected System. It does this by ensuring the facility availability is equal to or greater than the load it is meant to serve.

5) Provide any identifiable costs and benefits of the change:

Benefits:

- The changes allow the appropriate matching of facilities providing capacity and their associated loads.

Costs:

- No costs have been anticipated by System Management other than the administrative costs to change the rules.
-



Agenda Item 6a: Overview of Recent and Upcoming IMO and System Management Procedure Change Proposals

Legend:

Shaded	Shaded rows indicate procedure changes that have been completed since the last MAC meeting.
Unshaded	Unshaded rows are procedure changes still being progressed.

Change ID	Title	Brief overview of changes	Status	Next Step(s)	Date
IMO Procedure Change Proposals					
PC_2010_03	Monitoring Protocol	The proposed updates are to: <ul style="list-style-type: none"> • Allow the IMO to disclose the identity of System Management as a participant that notifies us of alleged breaches; and • Update to conform to recently adopted style changes. 	• Final Report being prepared	• The IMO published a Withdrawal Notice on 24 November 2011.	24/11/2011
PC_2010_08	Supplementary Reserve Capacity (SRC)	The proposed new Market Procedure describes the process that the IMO and System Management will follow in: <ul style="list-style-type: none"> • acquiring Eligible Services, • entering into SRC Contracts; • determining the maximum contract value per hour of availability for any contract; and • Details the information that is required to be exchanged. 	• Final Report being prepared	• Final Report to be published	TBA

Change ID	Title	Brief overview of changes	Status	Next Step(s)	Date
		This Market Procedure needs to be published (as required by the Market Rules) and will be revised following any rule changes (if applicable).			
PC_2011_04	Prudential Requirements	<p>The proposed updates are to:</p> <ul style="list-style-type: none"> • Reflect the IMO's new format arising from its Market Procedures project; • Include some minor and typographical amendments to improve the integrity of the Market Procedure; • Include amendments required as a result of the Pre Rule Change Proposal: Prudential Requirements (PRC_2011_09) and <ul style="list-style-type: none"> ◦ RC_2010_36 Acceptable Credit Criteria; and ◦ RC_2011_04 List of entities meeting Acceptable Credit Criteria 	<ul style="list-style-type: none"> • The amended Market Procedure: Prudential Requirements will be presented alongside the Pre Rule Change Proposal: Prudential Requirements (PRC_2011_09) at the December MAC. 	<ul style="list-style-type: none"> • To be advised contingent on discussion of the MAC at the December meeting. 	14 December 2011
PC_2011_05	Reserve Capacity Testing	<p>The proposed updates are to:</p> <ul style="list-style-type: none"> • Reflect the Amending Rules resulting from RC_2010_09; • Reflect the Required Level concept resulting from RC_2010_12; • Remove the references to the Verification Tests undertaken by DSPs for consistency with the Heads of Power of the Market Procedure provided under clause 4.24.14 of the Market Rules; and • Require a DSP provider to notify in advance the IMO and SM that the Facility will be verifying its performance by 	<ul style="list-style-type: none"> • The IMO published the Final Report on 23 September 2011 	<ul style="list-style-type: none"> • Amended Market Procedure commenced. 	1 October 2011

Change ID	Title	Brief overview of changes	Status	Next Step(s)	Date
		<p>observation during a specific Trading Interval.</p> <ul style="list-style-type: none"> Some minor and typographical errors 			
PC_2011_06	5 Yearly Review of the Methodology and Process for Determining the Maximum Reserve Capacity Price	<p>The proposed updates are to:</p> <ul style="list-style-type: none"> Include a provision for an inlet air cooling system in the definition of the model power station, step 1.5, Change the Fixed Fuel Cost to include an allowance to initially fill the fuel tank with sufficient distillate for 14 hours of operation, Include in step 1.11.2 (a) where the minimum land size available in any specific location is greater than 3ha, for the purpose of calculating the land cost for that specific location, the minimum available land size at that location shall be used, the effective compensation period for the total investment costs for the generic power station cost, which was previously 2 years, is to be changed to 6 months, escalation of values in respect of power station, transmission, switchyard and Operating and Maintenance (O&M) costs to April of Year 3 is to be performed by the consultant(s) developing the cost estimates. 	<ul style="list-style-type: none"> The IMO published the Final Report on 21 October 2011 	<ul style="list-style-type: none"> Amended Market Procedure commenced. 	24/10/2011
PC_2011_07	Change to Market Procedure for Procedure Administration	The proposed updates are to allow the IMO and System Management to progress amendments to the Market Rules and Market Procedures in tandem.	<ul style="list-style-type: none"> Submissions closed on Monday 5 December 2011 	<ul style="list-style-type: none"> The IMO to publish the Final Procedure Change Report. 	TBA

Change ID	Title	Brief overview of changes	Status	Next Step(s)	Date
		<p>The proposed amendments are:</p> <ul style="list-style-type: none"> remove the express statement that Market Procedures are to be progressed as soon as practicable after the Amending Rules commence; and include a step to clarify that the commencement of the new or amended Market Procedure will be conditional on the related Amending Rules taking effect. 			
TBA	Undertaking the LT PASA and conducting a review of the Planning Criterion	<p>The proposed updates are to:</p> <ul style="list-style-type: none"> Reflect the IMO's new format arising from its Market Procedures project; Include some minor and typographical amendments to improve the integrity of the Market Procedure, including re-ordering some sections; and Include both reviews required under clause 4.5.15 of the Market Rules (Planning Criterion and forecasting processes). 	<ul style="list-style-type: none"> Updating procedure as a result of 2 February 2011 working group meeting. 	<ul style="list-style-type: none"> Updated procedure to be presented back to working group for further discussion. 	TBA
TBA	Reserve Capacity Security	<p>The proposed updates are to:</p> <ul style="list-style-type: none"> Reflect the IMO's new format arising from its Market Procedure project; Reflect the broader heads of power for the Market Procedure; and Ensure consistency with the proposed Amending Rules under the following Rule Change Proposals that the IMO is currently progressing: <ul style="list-style-type: none"> Reserve Capacity Security (RC_2010_12); Certification of Reserve Capacity 	<ul style="list-style-type: none"> Presented at the 28 March 2011 working group meeting. 	<ul style="list-style-type: none"> Updated procedure to be sent to Working Group for out of session comment. 	TBA

Change ID	Title	Brief overview of changes	Status	Next Step(s)	Date
		(RC_2010_14); ○ Capacity Credit Cancellation (RC_2010_28); and ○ Acceptable Credit Criteria (RC_2010_36).			
System Management Procedure Change Proposals					
PPCL0020	Operational Data Points	The proposed updates are to: <ul style="list-style-type: none"> Reflect System Management's requirements under Table 2 for "Wind Data at nacelle height" and Solar Data", in the Operational Data Points for Generating Plant Power System Operation Procedure, to enable System management to procedure more accurate Load Forecasts for a Trading Day as per Market Rule 7.22(a). Some minor and typographical errors 	<ul style="list-style-type: none"> Out for consultation 	<ul style="list-style-type: none"> Submissions close 	09/12/2011



Agenda Item 7a: Working Group Overview

1. WORKING GROUP OVERVIEW

Working Group (WG)	Status	Date commenced	Date concluded	Latest meeting date	Next scheduled meeting date
Reserve Capacity 2007 WG	Closed	Feb 07	May 07	-	-
NTDL WG	Closed	Oct 07	Nov 07	-	-
Energy Limits WG	Closed	Dec 07	Jan 08	-	-
DSM WG	Closed	Jan 08	May 08	-	-
SRC WG	Closed	Jun 08	Sept 08	-	-
Reserve Capacity 2008/09 WG	Closed	Dec 08	Jan 09	-	-
Renewable Energy Generation WG	Closed	Mar 08	Nov 10	-	-
Maximum Reserve Capacity Price WG	Closed	May 10	Jun 11	-	-
System Management Procedures WG	Active	Jul 07	Ongoing	28/10/2010	12/12/2011
IMO Procedures WG	Active	Dec 07	Ongoing	26/05/2011	TBA
Rules Development Implementation WG	Active	Aug 10	Ongoing	27/09/2011	14/12/2011
Reserve Capacity Mechanism WG	Not Active	TBC	-	-	-

Agenda Item 7c: Reserve Capacity Mechanism Working Group – Proposed Structure (Draft)

1. PROPOSED STRUCTURE

The IMO proposes the following structure for the Reserve Capacity Mechanism Working Group:

- IMO Chair;
- one System Management representative;
- one IMO representative;
- three Market Generator representatives (including 1 Verve Energy representative);
- three Market Customer representatives (including 1 Synergy representative);
- one Demand Side Management representative;
- one New Investor representative; and
- two Observer members (Economic Regulation Authority and Office of Energy).

This membership will be supported by the IMO and supplemented by consultants (as required).

2. RECOMMENDATIONS

It is recommended that the MAC:

- **Discuss** the proposed Working Group structure; and
- **Note** that the IMO will call for nominations following the December 2011 MAC meeting.



Draft Terms of Reference: Reserve Capacity Mechanism Working Group

1. BACKGROUND

The Reserve Capacity Mechanism Working Group (RCMWG) has been established, in accordance with Clause 2.3.17 of the Wholesale Market Rules and the associated Section 9 of the Constitution of the Market Advisory Committee (MAC). Consistent with these authorised functions and powers, the overarching function of *any* Working Group established under the MAC is to assist the MAC in providing advice to the Independent Market Operator (the IMO) and System Management in matters relating to Wholesale Electricity Market (WEM) Rule and Procedure Change Proposals, WEM operation and South West interconnected system (SWIS) operational matters, and the evolution of the Market Rules more generally.

2. SCOPE

The RCMWG's Scope of Work includes consideration, assessment and development of changes to the Market Rules associated with the issues raised, and recommendations made, by The Lantau Group in its report *Review of RCM: Issues and Recommendations*. This issues list is attached as Appendix 1 to this document.

3. TERMS OF REFERENCE

The RCMWG is to:

- Prioritise the issues highlighted in the report by The Lantau Group into an appropriate number of development work streams;
- Agree a work plan and timeline for consideration of each of the work streams; and
- Develop an integrated suite of solutions, including drafted Concept Papers and Rule Change Proposals to be presented to the MAC by way of presentation/s and supporting discussion paper/s.

The Rule Change Proposal(s) must include an assessment prior to any recommendations being put forward to the MAC, including:

- Consideration of the implications of any changes on improving the delivery of the Market Objectives;
- Detailed feedback as to the implications to the operation of the existing WEM processes and physical outcomes; and
- Consideration of the financial costs and benefits of implementation.

Consistent with Section 9.5 of the MAC Constitution, all matters which are identified as falling outside the Scope and Terms of Reference of this RCMWG must be referred back to the MAC for consideration.



4. OBJECTIVES AND PRINCIPLES

The RCMWG must provide advice and report the extent to which its advice meets or is consistent with the Wholesale Market Objectives and the general principles reflected in the current Market Rules.

The Market Objectives are as outlined in Section 122 of the Electricity Industry Act 2004 and Clause 1.2.1 of the Market Rules.

5. MEMBERSHIP

The RCMWG consists of a Chair and members appointed by the IMO from nominees, being representatives of Rule Participants and other interested stakeholders: In addition, staff, representatives and consultants of the IMO work with and support the group. Replacement and or new nominees can be submitted to the MAC for consideration at any time.

6. TENURES

The Chair and members are appointed by the IMO and remain in tenure until the appointment is duly revoked by the IMO or the RCMWG is disestablished.

A member of the RCMWG may resign by giving notice to the IMO in writing; this notice of resignation can include an appropriate replacement from the member's entity, for approval by the IMO.

7. RESPONSIBILITY OF THE CHAIR

The Chair provides guidance to the group to ensure that the outputs are appropriate and that they support the RCMWG's role of providing advice to the MAC. The Chair works closely with the MAC, the IMO and the Working Group to achieve this.

In carrying out the above role, the Chair must ensure the documented output reflects a balanced representation of the group views.

8. RESPONSIBILITY OF MEMBERS

Members have been selected for their particular expertise and accordingly:

- Members are to make themselves available for meetings;
- Members have a duty to prepare for meetings;
- If sending alternates, members have a duty to ensure their alternates are sufficiently briefed and prepared for meetings;
- Members, or their alternates, are to consider the interests of all stakeholders currently operating within the WEM;



- Members, or their alternates, do not represent their own organisations (although the range of commercial and technical experience inevitably adds diversity to the group's capabilities); and
- Any views expressed by members, or their alternates, are not to be taken as being those of their employer or nominating organisation.

9. KEY TASKS AND MILESTONES – THE WORK PLAN

The Chair works with both the IMO and RCMWG to develop the Work Plan, setting out the key tasks and milestones within the Terms of Reference.

The Chair has responsibility for the implementation of the approved Work Plan, efficient meetings of the RCMWG and reporting to the MAC on achievement of agreed milestones.

10. NATURE OF DELIVERABLES

The RCMWG delivers reports, advice and comments on the tasks within the scope of the Terms of Reference and as agreed and set out in the Work Plan. Such deliverables may be varied from time to time by direct request from the Chair of the MAC.

In some circumstances, the MAC may decide that comments, rather than advice, are required from the group. These circumstances may arise due to:

- Issue complexity and contentiousness;
- Parallel industry-wide consultation; and
- Time frames.

The documented output in those circumstances would note the various issues raised by the group and advise on them.

11. REPORTING ARRANGEMENTS

Routine reporting will be via RCMWG reports to the MAC. Consistent with section 9.4 of the MAC Constitution, the RCMWG must report back to the MAC at each MAC meeting. The Chair will also personally report to the MAC at agreed key milestones.

12. ADMINISTRATION

The RCMWG activities are to be as transparent as practical. The Chair must ensure that key decisions and action points from meetings are recorded.

Appendix 1: Issues/Recommendations to be considered

The issues to be addressed by the RCMWG are:

1. The consistent capacity surpluses secured in the WEM;
2. The pricing of capacity in oversupply conditions;
3. The additional costs imposed on the market as a result of surplus capacity;
4. The role of Demand Side Management in the RCM;
5. The fuel requirements imposed on generation capacity providers;
6. The allocation of capacity costs to Market Customers; and
7. The alignment of the Reserve Capacity refund regime and the Reserve Capacity Mechanism.

In relation to these issues, The Lantau Group has recommended:

- Amendment of the formula for calculating the Reserve Capacity Price;
- Implementation of a dynamic Reserve Capacity refund regime, in which the value of refunds is linked to system conditions;
- Increasing the minimum availability requirement for Demand Side Programmes;
- Refinement of the fuel supply requirement;
- Refinement of the method for determining Individual Reserve Capacity Requirements; and
- Periodic review of the Reserve Capacity Mechanism.

Enquiries: Allan Dawson
Telephone: 9254 4333

Anne Hill
A/Coordinator of Energy
Office of Energy
Level 9 Governor Stirling Tower
197 St Georges Tce
PERTH WA 6000

Dear Anne

**IMO RESPONSE TO PRICEWATERHOUSE COOPERS REPORT "REVIEW OF
OPTIONS FOR IMPLEMENTING ELECTRICITY AND GAS MARKET
CONTINGENCY ARRANGEMENTS"**

Thank you for providing the IMO with the opportunity to review the above report from Pricewaterhouse Coopers (PwC) in advance of its public release.

As you are aware the IMO Board and management have been conscience since the Varanus Island explosion of the risks imposed on the Wholesale Electricity Market of a major disruption to gas supplies. The IMO is well placed to evaluate the recommendations in this report.

We again refer to our verbal advice provided at the joint meeting between the IMO and Office of Energy on 11 November 2010 that discussed the PwC recommendations. The IMO strongly recommends the adoption of a backup fuel ancillary service rather than the fragmented reserve capacity approach recommended by PwC in their report.

We firmly believe that a transparent and competitive ancillary service procurement process conducted by the IMO would provide an efficient mechanism to incentivise the provision of backup dual fuel generation for the South West Interconnected System (SWIS).

Our initial thinking on a high level design for the procurement of this ancillary service would see facilities with qualifying dual fuel facilities bidding to provide the service through an annual competitive tender process. This approach would deliver competitive outcomes with transparent pricing. The cost of this competitively procured ancillary service could then be distributed to all electricity users on a MWh basis.

We would like to highlight a material error in the PwC report that incorrectly suggested that the Reserve Capacity Mechanism already differentiates between capacity types when setting capacity requirements for market customers. Its recommendation to impose new obligations on electricity retailers is then described

as "a further differentiation of capacity types into the reserve capacity mechanism". This assertion is incorrect and materially impacts the veracity of the PwC recommendation.

The current Market Rules only distinguish between intermittent and non-intermittent generators in the method for allocating Capacity Credits to those facilities, not in the setting of capacity requirements for market customers. Once assigned, Capacity Credits are a homogeneous product. There is no differentiation by technology or availability.

The introduction of a split between capacity types would materially change the Reserve Capacity Mechanism and would change the nature of the capacity market. The IMO strongly opposes this recommendation and any fragmentation of the Reserve Capacity Mechanism.

Further, the IMO contends that the imposition of obligations on retailers to procure the necessary quantity of backup capacity would not provide sufficient transparency on price. The opaque and confidential nature of bilateral contracts within the Wholesale Electricity Market would make the establishment of the total costs difficult, if not impossible.

This adoption of the PwC recommendations would result in policy makers being unable to evaluate the cost and benefits of the provision of backup dual fuel generation for the SWIS.

We are also concerned that the recommended market for dual fuel capacity credits would initially be thin with few suppliers and may run the risk of market power influencing prices. This market power risk would prove difficult to manage if retailers were required to procure this service through bilateral contacts as recommended by PwC.

The IMO supports, in principle, the introduction of incentives to invest in dual fuel generation to mitigate the impact of a major disruption to gas supplies only if this is conducted in a transparent manner through competitive structures.

If you wish to discuss this advice please call me on 9254 4333 or 0412 787 375.

Yours sincerely



ALLAN DAWSON
CHIEF EXECUTIVE OFFICER

11 January 2011



Our ref: SEM/0519

Enquiries: Michael Kerr

Telephone: 9420 5601

12 October 2011



Alan Dawson
Chief Executive Officer
Independent Market Operator
PO Box 7096 Cloisters Square
PERTH WA 6850

Dear Alan

**IMO RESPONSE TO PRICEWATERHOUSE COOPERS REPORT "REVIEW OF
OPTIONS FOR IMPLEMENTING ELECTRICITY AND GAS MARKET CONTINGENCY
ARRANGEMENTS"**

Thank you for your letter of 11 January 2011, regarding your response to the Pricewaterhouse Coopers (PwC) Report 'Review of options for implementing electricity and gas market contingency arrangements'. I apologise for the delay in formally responding to your letter.

Following the completion of the Gas Supply and Emergency Management Committee (GSEMC) Report, the Office of Energy assigned staffing resources to establish its next steps in implementing the mitigation measures recommended. Whilst to date this has focussed on the GBB/GSOO arrangements, a member of staff has recently been assigned to progressing gas contingency measures, including finalising outcomes from the PwC Report and noting that the market has progressed several solutions in the interim.

The Office of Energy supports the GSEMC recommendation to introduce incentives to invest in dual-fuel generation. Furthermore, the Office of Energy endorses a market-based approach in identifying a solution, whilst reserving the right to provide Ministerial Direction as required. The Office of Energy supports the IMO's suggestions as outlined in your letter of 11 January 2011 regarding the adoption of a backup fuel ancillary service in response to the PwC Report.

Our next steps, now we have the staffing re-established, will be to distribute the PwC report more widely and then to develop implementation plans with the benefit of any further stakeholder input. Thank you for your ongoing assistance in these matters.

Yours sincerely



MICHAEL KERR
A/COORDINATOR OF ENERGY

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Transition arrangements – guidelines

Kieran Murray

May 2011



About Sapere Research Group Limited

Sapere Research Group is one of the largest expert consulting firms in Australasia and a leader in provision of independent economic, forensic accounting and public policy services. Sapere provides independent expert testimony, strategic advisory services, data analytics and other advice to Australasia's private sector corporate clients, major law firms, government agencies, and regulatory bodies.

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Executive Summary

There are relatively few circumstances in which the argument for transition arrangements relating to the implementation of a new Rule will be justified.

Where transition costs are high then it may be beneficial to have a stepped implementation of the new Rule for all participants in order to allow them to alter their behaviour or make new investments. Such a transition path should be assessed as part of the Rule design.

The second circumstance when transition arrangements are likely to be justified is where the Rule is intended to alter future behaviour, and there is some exogenous feature of participants that means the effect of the Rule change on their business differs. The most obvious circumstance in which this will apply is where participants have invested in some long-lived, specialised asset (such as an electricity generator), the value of which will be materially affected by the Rule change. In this case the timing of the participant's entry to the market drives the effect of the Rule on their business, and the earlier investment decision cannot be changed by and is not the target of the new Rule. Indeed not implementing a transition in such circumstances could undermine new investment by increasing the costs of investment and damaging investor confidence.

Guidelines

Rule changes are advanced because they are expected to promote the objectives of the WEM. The presumption therefore should be against transition arrangements, because a transition would delay the expected benefits from the Rule change.

Transition arrangements might be justified, in economic terms, when *the expected cost to a participant from applying the Rule change to that participant materially exceeds the benefit to the WESM objectives expected from applying the Rule change to the participant, after allowing for the cost of any transition arrangement.*

Guidelines for applying this economic test are:

- If the Rule change is intended to alter existing behaviour the argument for transition arrangements is weak unless there are high transition costs. Transition costs should be considered as part of the overall assessment of the Rule change and the benefit of a stepped implementation for all participants considered in that process.

- If the Rule change is intended to alter future behaviour and affects all participants, or all participants in a given class, in a similar manner then the argument for transition arrangements is weak as this change is likely to be reflected in market prices.
- If the Rule change is required to implement a change in Government policy then the argument for transition arrangements is weak as the effects on existing participants and investments should have been taken into account by policy makers.
- If the Rule change is intended to alter future investment behaviour *and* will have a *material* impact on the value of existing, long-lived, specialised assets, taking into account the maintenance costs and remaining economic life of the asset, there is a stronger argument for transition arrangements.
- When designing transition arrangements, consideration should be given to costs arising from the arrangements, including administrative costs and unintended distortions arising from imperfect information. In some cases these costs may be higher than the benefits associated with implementing transition arrangements, i.e. the economic test is not met and there should be no transition arrangements.
- The longevity of any transition arrangements will depend on the rate at which adjustment costs decline and/or benefits increase.

Diagram of guidelines

The following diagram is intended to assist in applying the guidelines and analysing a particular situation. The diagram is intended only as an aid and should not be applied rigorously as there may be exceptional circumstances for which it does not allow.

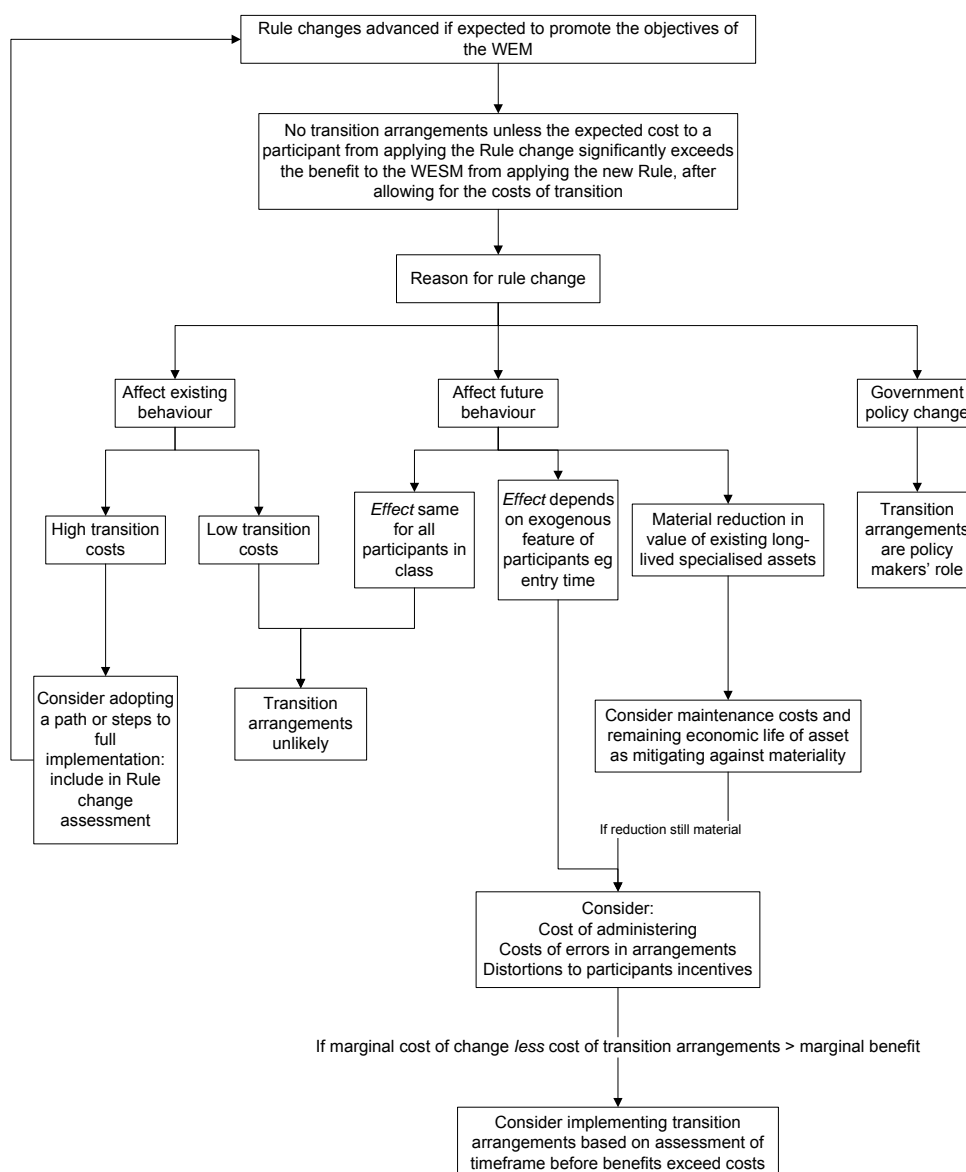


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1 Introduction

Market participants sometimes request transition arrangements that affect the timing of a new Rule coming into force. These arrangements may relate to an individual participant, a group of participants or all participants. Transition arrangements include stepped implementation of the effects of a new Rule.

This document sets out some guidelines for transitional arrangements using an economic framework. The guidelines would constrain regulatory discretion and enhance predictability, which is important for investment decision-making.

2 Approach

The general presumption should be against transition arrangements. Transition arrangements might be justified, in economic terms, when the expected cost to a participant from applying the Rule change to that participant materially exceeds the benefit to the WESM objectives expected from applying the Rule change to the participant, after allowing for the cost of any transition arrangement. If the costs of applying the Rule change to the participant exceed the benefits, then transition arrangements might be justifiable in terms of economic efficiency. .

2.1 Prima facie: no transition arrangements

The reason for the general presumption against any transitional arrangements is that Rule changes are advanced because they are expected to promote the objectives of the WEM. Rule changes should therefore take effect as soon as practicable in order to deliver the benefits.

2.2 Reasons for Rule change

The reason for the Rule change is an important consideration in evaluating whether transition arrangements might be justified. The key issue is whether the Rule is intended to affect existing behaviour, or alter future decisions or behaviour.

If the Rule change is intended to alter existing behaviour, then the case for transition arrangements is likely to be weak, given that the analysis of the change shows that it makes a positive net contribution to the objectives of the WEM.

The exception to this is in the event that there are high transition costs; if transition costs are high, then transition arrangements may be appropriate in the form of a path or stepped programme toward full implementation of the new Rule. In this

case, the transition arrangements would apply equally to all participants to whom the new Rule applies, including incumbents and entrants of the relevant type. This could be the case, for example, if participants require time to adjust their behaviour and there are high costs associated with not meeting the new Rule (whether penalties or resource costs). This type of transition should be part of the analysis of the Rule change, and should therefore be put in place only if it is deemed to have a positive net benefit.

If the Rule change is intended to alter future behaviour or investment decisions, then a stronger argument may exist for transition arrangements for incumbent participants, if their behaviour is not being targeted by the Rule change. The strength of the argument for transition arrangements, however, depends on the applicability of one or more of the guidelines below. That is, a focus on future investment decisions is not a sufficient argument for transition arrangements for incumbent participants.

Rule changes resulting from a change in Government policy are unlikely to be suitable for transition arrangements. All investors accept sovereign risk, i.e. the risk that the Government will change policies, so the associated trade-offs and protections for investors (transition arrangements) are a matter for government policy makers, not those making market Rules.

2.3 Intended effects

If the *effect* of the Rule change is the same for all participants or all participants in a given class then the argument for transition arrangements is likely to be weak, unless there are high transition costs, as discussed above.

All investors appreciate that costs will change over the life-time of the assets and that these cost changes are almost certainly likely to vary from the projections that underpinned the valuation model. Where market costs change for all participants, or for all generators or all consumers, these costs can expect to be reflected in wholesale prices (STEM and MCAP) and adjustments under long-term contracts.

If the effect differs due to some exogenous feature, such as the time the participant entered the market, the argument for transition arrangements is stronger.

2.4 Asset types

Where the Rule change will affect the value of assets that are long-lived and specialised then it is likely that there will be a stronger argument for transition arrangements related to the existing assets. This argument follows from the previous two guidelines, but because it is common to have long-lived specialised

assets in electricity markets it is worth discussing separately and having an explicit guideline.

- From the first guideline: the reason for the Rule change is unlikely to relate to existing high value, long-lived, specialised investments because Rule makers recognise that the behaviour of asset owners is unlikely to be affected in the medium term.
- From the second guideline: the effect of the Rule is different for different participants, because those who have already invested cannot change their decision to reflect the new Rule.

Electricity generators are an example of a durable investment; that is, one that provides benefits over many periods. Electricity generators have expected economic lives of 20 or more years.

In electricity markets, many capital intensive investments are specialised – economists use the term “specialised” to refer to investments that would have little value for use in another activity (resale or scrap value). Since Alfred Marshall wrote his famous treatise,¹ economists have recognized that investors in specialised assets are vulnerable to expropriation from a change in the Rules. Once an investment is made in a specialised asset, for example in an electricity generator, the plant will continue to operate while its operating costs are below operating revenue, even if it can no longer recover its initial investment cost.

Investors in long-life, specialised assets are of course very aware of this vulnerability. Hence, actions which increase or decrease the perceptions of investors that they would be exposed to unanticipated changes increase or decrease investment risk, and therefore the cost of investing.

This vulnerability does not arise – at least it does not arise to anywhere the same extent – for non-specialised assets or short-lived assets. Non-specialised assets, for example land or motor vehicles, that become surplus following a change in the Rules can be sold for use in another market for approximately equivalent value as in the current use. Investors in short-lived specialised assets are generally protected through Rule changes being signaled well in advance through the Rule change process.

¹ Alfred Marshall, *Principles of Economics*, 1890.

For these reasons, the case for transition arrangements is likely to be stronger where the Rule change would impact materially on the value of existing, specialised, long-lived assets. There are some other factors to consider:

- Future costs relating to existing long-lived assets should be taken into account. Where there are maintenance costs, the net cost of change will be lower, because maintenance costs will be avoided. The higher the maintenance cost associated with the existing asset the weaker the argument for transition arrangements for existing assets.
- If the asset is near the end of its economic life, or is due for a refurbishment then the argument for transition arrangements is stronger.

Both these points follow from the general rule, as they reduce the materiality of the effect of the Rule change on the asset value.

2.5 Timeframe for transition arrangements

The length of time during which transition arrangements should apply may vary. Recall that the economic test is whether the marginal benefit of change outweighs the cost of change for the relevant participants (less the cost of the arrangements). Costs and benefits often vary over time and declining adjustment costs or increasing benefits would indicate short-lived transition arrangements may be appropriate.

For example, maintenance costs associated with long-lived assets often increase as the asset wears out. This suggests that the period of transition should optimally be shorter than the lifespan of the asset.

Modifications may be required to long-lived assets in the medium term for reasons not related to the Rule change. If these modifications lower the cost of adopting a new standard or other Rule change then transition arrangements should be shorter-lived than otherwise.

As new entrants join the market, or other technological change occurs, the benefit associated with a new Rule may increase. This is an argument for shorter-term transition arrangements if it increases the marginal benefit of having all participants implement the new Rule.

2.6 Cautions

Some cautions are worth sounding:

- There are administrative costs associated with determining eligibility for transition arrangements, the more difficult (costly) it is to determine eligibility the weaker the argument for transition arrangements.

- It is unlikely that the optimal transition arrangements will be adopted (due to imperfections in the information available to make decisions). The cost of errors in the transition arrangements should be considered; that is, consideration should be given to the relative costs of forcing too much change (insufficient transition) with the costs of not achieving the benefits of the Rule (too broad or long a transition).
- Transition arrangements can distort incentives. For example, where some action is taken or continued in order to be eligible for lower cost participation in the future under transition arrangements. It is important to consider the social desirability of these types of incentives. For example, if the policy relates to something that creates social harm, such as pollution control, it is not desirable to encourage early entry by participants emitting higher levels of pollution (in some cases these types of effects can be mitigated by careful thought as to when any new Rule might take effect, for example, the Rule might apply to new investment from the date that public consultation commenced on the new Rule).

3 Guidelines

If a proposed Rule change is shown to deliver a net positive benefit toward the objectives of the WEM, the presumption should be that there will be no transition arrangements.

Transition arrangements might be justified, in economic terms, when *the expected cost to a participant from applying the Rule change to that participant materially exceeds the benefit to the WESM objectives expected from applying the Rule change to the participant, after allowing for the cost of any transition arrangement.*

Guidelines for applying this economic test are:

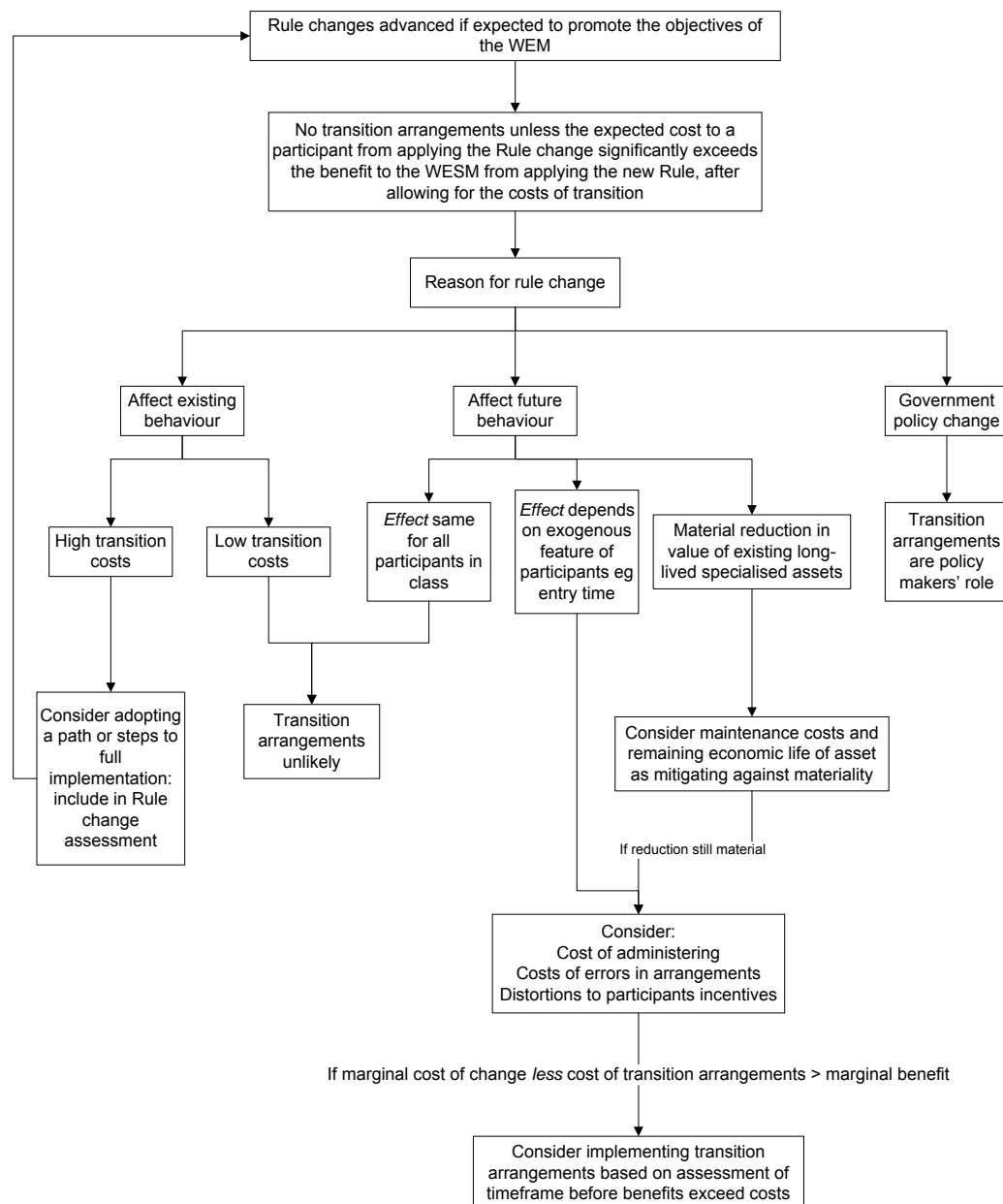
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Agenda Item 10: 2011 Year in Review

What	2009	2010	2011
MAC and Working Group meetings	20	38	27
MAC meetings	9	9	9
MAC Special Meetings	0	3	0
Renewable Energy Generation Working Group	5	9	n/a
Rules Development Implementation Working Group	n/a	7	10
Maximum Reserve Capacity Price Working Group	n/a	5	5
IMO Procedures Working Group	2	3	3
System Management Procedures Working Group	3	2	0
Reserve Capacity Refund Working Group (2008)	1	n/a	n/a
Supplementary Reserve Capacity Working Group	n/a	n/a	n/a
Energy Price Limits Working Group	n/a	n/a	n/a
Rule Changes Developed/Underway	40	37	33
Procedure Changes	19	12	10
Stakeholder Workshops (i.e. Rule Changes, Procedure Changes, Market Design review and NCS workshops)	7	6	11
RulesWatch issued	6	49	49

Year	Significant Pieces of Work
2008	Funding of SRC (RC_2008_27) Funding of SRC in the Event of Capacity Credit Cancellation (RC_2008_34) Capacity Refund Mechanism – New Generators (RC_2008_35)
2009	Updates to Commissioning Provisions (RC_2009_08) Early Certified Reserve Capacity/Changing the Window of Entry (RC_2009_10 & 11) MAC Constitution and Operating Practices (RC_2009_28)
2010	Calculation of Net STEM Shortfall (RC_2010_03) Certification of Reserve Capacity (RC_2010_14) Curtaileable Loads and Demand Side Programmes (RC_2010_29)

Year	Significant Pieces of Work
2011	<p>Required Level and Reserve Capacity Security (RC_2010_12)</p> <p>Calculation of Capacity Value for Intermittent Generation (RC_2010_25 & 37)</p> <p>Ancillary Services payment Equations (RC_2010_27)</p> <p>Competitive Balancing and Load Following Market (RC_2011_10)</p> <p>Outage Planning 5 Year Review</p> <p>MRCP Market Procedure 5 Year Review</p>