INDEPENDENT MARKET OPERATOR

Market Advisory Committee

Agenda

Meeting No.	58
Location:	IMO Board Room Level 17, Governor Stirling Tower, 197 St Georges Terrace, Perth
Date:	Wednesday 20th March 2013
Time:	2.00pm – 5.00pm

Item	Subject	Responsible	Time
1.	**WELCOME**	**Chair**	2 min
2.	**MEETING APOLOGIES / ATTENDANCE**	**Chair**	2 min
3.	**MINUTES FROM MEETING 56**	**Chair**	5 min
4.	**ACTIONS ARISING**	**Chair**	5 min
	a) Presentation: Collgar Wind Farm	**Collgar**	10 min
5.	**CONCEPT PAPERS**		
	b) CP_2013_02: Clarification of GST Treatment	**IMO**	15 min
	c) CP_2013_01: Incentives to Improve Availability of Scheduled Generators	**IMO**	20 min
6.	**MARKET RULES**		
	a) Market Rule Change Overview	**IMO**	5 min
	b) PRC_2012_03: Assignment of Capacity Credits to NCS Facilities	**IMO**	20 min
	c) PRC_2012_23: Prudential Requirements	**IMO**	20 min
	d) PRC_2013_01: Clarification of Dispatch Compliance Obligations	**IMO**	10 min
	e) PRC_2013_03: LFAS Definition	**IMO**	10 min

	f) PRC_2013_05: LoadWatch, EOI and RDQ Provision	**IMO**	10 min
	g) PRC_2013_06: Exclusion of LFAS Quantities from Daily Ancillary Service Files	**IMO**	10 min
7.	**MARKET PROCEDURES**		
	a) Overview	**IMO**	5 min
8.	**WORKING GROUPS**		
	a) Overview and membership updates	**IMO**	5 min
	b) RCMWG Update - Outcomes	**IMO**	10 min
9.	**GENERAL BUSINESS**		
10.	**NEXT MEETING: Wednesday 10th April 2013**		

INDEPENDENT MARKET OPERATOR

Market Advisory Committee

Minutes

Meeting No.	56
Location	IMO Board Room Level 17, Governor Stirling Tower, 197 St Georges Terrace, Perth
Date	Wednesday 12 December 2012
Time	2.00pm – 5.05pm

Attendees	Class	Comment
Allan Dawson	Chair	
Suzanne Frame	Compulsory - IMO	
Peter Mattner	Compulsory – Network Operator	
Cameron Parrotte	Compulsory – System Management	Proxy
Andrew Everett	Compulsory –Electricity Generation Corporation	
John Rhodes	Compulsory –Electricity Retail Corporation	Proxy
Geoff Gaston	Discretionary – Generator	
Ben Tan	Discretionary – Generator	
Shane Cremin	Discretionary – Generator	
Steve Gould	Discretionary – Customer	
Nenad Ninkov	Discretionary – Customer	
Michael Zammit	Discretionary – Customer	
Geoff Down	Discretionary – Contestable Customer Representative	Proxy
Lisa Taylor	Minister's appointee - Observer	Proxy
Wana Yang	ERA - Observer	Arrived at 3.10 pm
Apologies	**Class**	**Comment**
Stephen MacLean	Compulsory –Electricity Retail Corporation	
Phil Kelloway	Compulsory – System Management	
Peter Huxtable	Discretionary – Contestable Customer Representative	
Nerea Ugarte	Minister's appointee - Observer	

David Murphy	Small Use Consumers' Representative	
Also in attendance	**From**	**Comment**
Natasha Cunningham	IMO	Minutes
Jenny Laidlaw	IMO	Presenter
Aditi Varma	IMO	Presenter
Greg Ruthven	IMO	Presenter
George Sproule	IMO	Observer
Brendan Clarke	System Management	Presenter
Alistair Craib	Collgar	Presenter
Miles Jupp	Collgar	Observer
Doug Aberle	Collgar	Observer
Elizabeth Walters	ERA	Observer
Tyson Self	ERA	Observer
Chin Koay	ERA	Observer Arrived at 3.10 pm
Andrew Sutherland	ERM Power	Observer Arrived at 2.10 pm
Andrew Stevens	Griffin Energy	Observer Arrived at 2.10 pm
Wayne Trumble	Griffin Energy	Observer

Item	Subject	Action
1.	**WELCOME** The Chair opened the meeting at 2.00 pm and welcomed members to the 56th meeting of the Market Advisory Committee (MAC).	
2.	**MEETING APOLOGIES / ATTENDANCE** The following apologies were received: • Nerea Ugarte (Minister's appointee - Observer) • Phil Kelloway (System Management) • Stephen MacLean (Compulsory – Electricity Retailer) • David Murphy (Small Use Consumers' Representative) • Peter Huxtable (Discretionary – Contestable Customer) The following other attendees were noted: • Cameron Parrotte (proxy for Phil Kelloway) • John Rhodes (proxy for Stephen MacLean) • Geoff Down (proxy for Peter Huxtable)	

	• Lisa Taylor (proxy for Nerea Ugarte) • Natasha Cunningham (minutes) • Jenny Laidlaw (presenter) • Aditi Varma (presenter) • Greg Ruthven (presenter) • George Sproule (observer) • Brendan Clarke (presenter) • Alistair Craib (presenter) • Miles Jupp (observer) • Doug Aberle (observer) • Elizabeth Walters (observer) • Tyson Self (observer) • Chin Koay (observer) • Andrew Sutherland (observer) • Andrew Stevens (observer) • Wayne Trumble (observer)	
3.	**MINUTES OF PREVIOUS MEETING** The minutes of MAC Meeting No. 55, held on 14 November 2012, were circulated prior to the meeting. The following amendments were agreed: ***Page 13, Section 5e: PRC_2010_27: Ancillary Services Payment Equations*** • "Mr Kelloway noted that the Market Rules for the Load Following standard do not cover ramping adjustments <u>for Balancing Generators</u>. Ms Laidlaw agreed that this was an existing problem with the Market Rules." ***Page 13, Section 5e: PRC_2010_27: Ancillary Services Payment Equations*** • "Mr Kelloway responded that such experimentation could pose a risk to system security and noted that if as a result of reducing LFAS there are ~~interruptions~~ <u>variations</u> to frequency then other services like Spinning Reserve will be need to be drawn upon." Subject to the agreed amendments, the MAC endorsed the minutes as a true and accurate record of the meeting. *Action Point: The IMO to amend the minutes of Meeting No. 55 to reflect the agreed changes and publish on Market Web Site as final.*	**IMO**

4.	**ACTIONS ARISING** The following comments were noted on the action items: • **Item 10:** Mr Greg Ruthven advised that preliminary discussions had taken place between the IMO and the ERA (Economic Regulation Authority) and that a meeting had been planned for January 2013 involving the IMO, the ERA and the PUO (Public Utilities Office). Mr Ruthven noted that he would report back to the MAC in early 2013. • **Items 11 and 29:** Mr Brendan Clarke advised that System Management would provide an update at the February 2013 MAC. • **Item 40:** Mr Clarke advised that System Management circulated a copy of the interface specification and operating agreement for AGC and ABC to all Market Generators. Mr Ben Tan noted that he had not received a copy of the documentation. *Action Point: Mr Brendan Clarke to forward a copy of the interface specification and operating agreement for AGC and ABC to Mr Tan.* • **Item 45:** Ms Suzanne Frame advised that this action had been completed and RC_2012_22 was to be submitted into the formal Rule Change Process. • **Item 47:** Ms Frame advised that this item was underway, and an update would be provided in a presentation to the MAC relating to action items 47 and 48. • **Item 48:** Mr Clarke advised that this action item was completed during discussion at the last market debrief. Mr Clarke noted that a 30 minute dispatch cycle was considered the most appropriate for the market at this stage, however this would be reviewed once more participants were on a business to business interface. • **Item 49:** Ms Frame noted that System Management and the IMO had initiated a series of workshops relating to this issue. It was envisioned that these workshops would become weekly workshops between the IMO and System Management and the group will report back to the MAC on a regular basis. • **Item 50:** Ms Frame advised that System Management would present an update on the 99% vs. 99.9% issue to the MAC.	**System Mgmt**
5.	**PRESENTATION: Impact of Changes to the Allocation of Capacity Credits to Intermittent Generators** The Chair invited Mr Alistair Craib from Collgar Wind Farm to make his presentation. The following discussion points were noted: • Mr Ruthven noted that the Reserve Capacity Requirement is essentially based on the premise of a one in ten year peak demand event and the allocation of Capacity Credits is centred on how much a Facility can contribute in meeting that requirement. Mr Ruthven noted that parameters used to establish the methodology were determined based on a trend analysis of wind farm performance vis-a-vis temperature increase. He noted that with Load for Scheduled Generation (LSG), peak demand and additional data if available, the same analysis would have occurred,	

	however there could have been potentially different parameter values which could have delivered that observed trend at higher temperatures. Mr Shane Cremin argued that the analysis done by Sapere Research Group was a subjective analysis to which Mr Ruthven agreed, noting that the SWIS had not experienced a one in ten year peak demand event. Mr Craib noted his agreement with Mr Ruthven but reiterated that the Sapere report did not include data from Collgar Wind Farm, and argued that the twelve intervals that the IMO used in its analyses may not necessarily be the only intervals which should be considered. • The Chair responded that the IMO had requested Collgar data however the data provided was incomplete and could not be used to demonstrate Collgar's performance during peak intervals. Mr Craib advised that Collgar's actual generation data was not to hand at the presentation however would be provided should the methodology be reviewed. • Mr John Rhodes queried the applicability of the Z-method to Collgar, noting that this methodology was considered to be more suitable when there are small increments in the amount of generation. Mr Rhodes considered the methodology may therefore be biased against Collgar due to its size. The Chair noted that there was a commitment to review the methodology in three years' time and questioned MAC members if there was any desire to bring that review forward within the first year of the 3-year transition. Mr Doug Aberle referred to the Zachary and Dent report where it recommends that once Intermittent Generator capacity approaches 330 MW, alternative methodologies should be considered and suggested that it may be appropriate to review the methodology on this basis. • Mr Andrew Everett considered that if the methodology could be demonstrated to be patently unfair, than there might be grounds for re-evaluating the methodology. • The Chair requested Collgar to provide its physical generation data demonstrating its performance during the 12 peak Trading Intervals for each of the five years that it had data for and present to the February 2013 MAC for consideration. The Chair noted that if it could be demonstrated from Collgar's output data that the methodology had materially disadvantaged Collgar relative to other Intermittent Generators during the peak periods, the MAC may advise the IMO to bring the review forward. *Action Point: Collgar Wind Farm to provide generation data demonstrating its performance during the 12 peak Trading Intervals for each of the past five years and present to the February 2013 MAC meeting for consideration.* *Action Point: Collgar to provide a revised copy of their presentation to the IMO so that the IMO can publish it on the Market Web Site.*	**Collgar** **Collgar/ IMO**
6.	**PRESENTATION: 99% versus 99.9% standard** The Chair invited Mr Brendan Clarke to make his presentation. The following discussion points were noted: • Ms Jenny Laidlaw questioned how the ramping Load Following	

compared with Intermittent Generator Load Following in terms of magnitude. Mr Cameron Parrotte responded that the estimate for ramping was greater than 10 or 20 MW. Mr Andrew Sutherland noted that the impact of ramping on Load Following was due to the half hour design of the market, and subsequently would not be so much of a problem if the market was designed on five minute Dispatch Instructions. Mr Clarke concurred that the quantity of Load Following caused by ramping would be reduced in a five minute market; however the potential to cause Load Following would remain while the transition was not linear. In response to a query Mr Clarke advised that the Load Following caused by wind was about 20 MW.

- Discussion ensued on the requirement to maintain the normal frequency band for 99% of the time as specified in the Technical Rules.
- The Chair questioned whether there was a real desire to keep the frequency above 48.75 Hz and asked how many times over the last six years this had occurred. Mr Parrotte responded that since he had been at System Management, there had been approximately two or three incidents a year. Mr Parrotte further noted that these incidents could be caused by unreliability of large generators coupled with System Management not maintaining the frequency.
- Mr Stevens questioned whether System Management could have maintained its frequency keeping performance for 99.9% of Trading Intervals with a different quantity of MW. Mr Clarke responded that System Management were looking at how they measured the actual MW requirement, but noted that this presentation was more about what level of service the market wanted.
- The Chair questioned Mr Parrotte on the effectiveness of System Management's wind forecasting tool. Mr Parrotte responded that forecasts for two out of three of the major wind farms were very good and another was less so. In response to a query Mr Clarke confirmed that wind farms (including Collgar Wind Farm) had been subject to ramp rate limits in the Technical Rules since November or December 2011.
- Mr Stevens queried if there was a definition for Balancing Dispatch Instruction frequency. Mr Clarke responded that there was currently no definition and that the majority of generators get their Dispatch Instructions at the start of the Trading Interval. He also noted that marginal generators can get a Dispatch Instruction ten minutes past the Trading interval, at the start of the Trading Interval or at twenty minutes past the start of the Trading Interval.
- Mr Stevens questioned what quantity was required to reduce the Load Following capacity requirements in order to achieve some reduction. The Chair noted that it was not entirely clear how 99.0% was established in the Technical Rules, when it appeared that the market historically managed at 99.9%. Mr Clarke responded that the Access Code puts obligations on the Network Operator regarding frequency keeping and the premise is that there are no technical barriers to open access in the market. He further noted that the Market Rules imposed an implicit obligation on System Management not to exceed the design of the network. Mr Nenad Ninkov queried whether other markets had relaxed their frequency variations to cope with the increase in Intermittent Generation in

	their systems and whether that would be pertinent for the SWIS. Mr Clarke responded that there were a number of options System Management were exploring to reduce the cost of Load Following. • Mr Clarke noted that System Management is receiving feedback relating to costs as well as any commercial impacts from industry. He noted that System Management would undertake a consultation process with generators and end use customers and would consider initiating tests to ascertain what level of frequency variation might be acceptable. Mr Clarke advised the group that System Management was considering conducting trials in relaxing the frequency control in March/April 2013. • Mr Rhodes noted that there had been a substantial increase in Load Following compared to previous years, which warranted System Management exploring alternative options. The Chair agreed with Mr Rhodes but noted his concern that there was significant variation between the historic level and the technical level. Mr Parrotte noted his concerns on security and service implications associated with this issue. He observed that relaxing the frequency could result in a security issue where customer Loads and generator machines would be experiencing greater wear and tear. • Discussion ensued on the complexity in conducting a cost benefit analysis on this issue. Ms Laidlaw noted that it was hard to establish a price given the way the Load Following market works. She noted that the cost of Load Following provision depended on a number of factors such as which generator was on, what its start-up costs were, and what the Short Run Marginal Cost was. Mr Cremin noted that the Load Following costs were not allocated properly and it seemed that a potential solution might just redistribute the costs between Market Participants. Mr Michael Zammit noted that the reduction in Load Following requirement could be provided by Dispatchable Loads and that System Management should conduct some trials for that. Mr Clarke agreed that this was something that could be considered. • Mr Parrotte also cautioned that performance in the SWIS was comparable to other jurisdictions, and noted that a reduction of the frequency standard could translate into system security risk, querying the group on whether there was an appetite to consider this risk. Members discussed the public consultation process and questioned whether it would produce meaningful answers on whether a change is needed, it was noted that the feedback process should focus on assessing what sort of costs would be imposed on different participants as a result of the reduction in the frequency standard. The Chair concluded by saying that if the level of LFAS places system security at risk, it was System Management's right and obligation to intervene. *Action Point: The IMO to publish System Management's presentation on the Market Web Site and circulate a copy to all MAC members.*	**IMO**
7a.	**MARKET RULE CHANGE OVERVIEW** Ms Frame provided an update to the MAC on the current Rule Changes under development. Ms Frame noted that the Final Rule Change Report	

	for the Transparency of Outage Information (RC_2012_11) had been extended due to the significant implementation cost and time frames identified by System Management during the second submission period. Ms Frame noted that these costs were unavailable during the first submission period and had only recently become available to the IMO. Ms Frame considered that in light of the impact of these implementation costs and time frames the IMO had engaged in a series of workshops with System Management to identify what was already captured in SMMITS to ascertain how best to achieve progress in outage transparency within a suitable time frame and at an acceptable cost. Ms Frame advised that the time frame for the publication of the Final Rule Change Report had therefore been extended to allow the IMO and System Management to conclude their discussions and conduct a round of further consultation if required on a revised proposal. Ms Frame advised the MAC that there had been one high priority rule change issue logged in November which was discussed at the November 2012 MAC meeting, and on the advice of the MAC had been progressed into a Fast Track Pre Rule Change Proposal which was on the MAC agenda for discussion that day. Ms Frame also noted that there were a couple of new medium priority issues on the issue log which Ms Laidlaw would speak to. Ms Laidlaw provided an overview of the two medium priority rule change issues. The first issue related to System Management's obligation under clause 7.2.3A to give the IMO a file every scheduling day on the quantity of Ancillary Services which might be provided by a Market Participant. Ms Laidlaw commented that as it currently stood, Verve Energy was the main Market Participant providing Load Following Ancillary Service. With the new Load Following market arrangements, other Independent Power Producers (IPPs) could also provide Load Following; however, System Management would not know on the Scheduling Day which Facilities would provide LFAS and what quantities would be nominated. This implied that System Management would be forced to submit on the Scheduling Day the entire capacity of an IPP as providing Load Following. This in turn would restrict the amount of capacity that the IPP bids into STEM which could produce perverse consequences such as steep increases in the STEM prices. The second issue was related to the definition of the Minimum Frequency Keeping Capacity, particularly that the calculated figure according to clause 3.10.1a(ii) (35 MW) referred to in the determination of the Reserve Capacity Target, did not seem to be consistent with the Load Following requirement submitted by System Management (90 MW). Ms Laidlaw noted that the Reserve Capacity Target should ideally be based on a reasonable estimate of the Load Following requirement. At present the Load Following requirement used in the determination of the RCT is based on the calculation in clause 3.10.1, which might not be the actual reasonable estimate of the LF requirement. *Action Point: The IMO to develop Pre Rule Change Proposals on* • *the impact of clause 7.2.3A on IPP LFAS Facilities; and* • *the definition and usage of Minimum Frequency Keeping Capacity.*	**IMO**

7b	**PRC_2012_20: Consideration of Network Constraints for Certified Reserve Capacity** Mr Ruthven presented an overview of the IMO's Pre Rule Change Proposal: Consideration of Network Constraints for Certified Reserve Capacity (PRC_2012_20). The following points were raised during the ensuing discussion: • Mr Rhodes queried what process the IMO employed in allocating Capacity Credits to two Facilities sharing the same connection point. Mr Ruthven responded that he was not sure if the IMO could envisage all scenarios at this point of time. • Mr Wayne Trumble questioned whether this issue was borne out of the network operator overselling connections. Mr Ruthven replied that it is possible for a generator to have more capacity that that nominated in the declared sent out capacity (DSOC) at its connection point. • Mr Everett noted that he could not see how the current situation imposed any security or reliability issues to the SWIS. Mr Everett further noted that he believed having a greater quantity 'sitting behind' a DSOC would in fact be more conducive to maintain system reliability. • Mr Geoff Gaston discussed the whether the parties involved in sharing the DSOC could initiate their own commercial arrangements with each other and provide that information to the IMO. Discussion ensued and it was agreed that this was implicit in the network agreement entered into by the parties. • The MAC agreed for the IMO to progress PRC_2012_20. *Action Point: The IMO to formally submit the Pre Rule Change Proposal: Consideration of Network Constraints for Certified Reserve Capacity (PRC_2012_20) into the formal Rule Change Process.*	**IMO**
7c	**PRC_2012_24: Cure Notices and Credit Support** Ms Aditi Varma presented an overview of the IMO's Pre Rule Change Proposal: Cure Notices and Credit Support (PRC_2012_24). The following points were raised during the ensuing discussion: • Mr Cremin questioned if there was a stipulated timeframe that the IMO followed in issuing a Cure Notice. Ms Varma responded that the IMO would normally start the process of issuing a Cure Notice and drawing upon Credit Support as soon as the payment defaulted is identified. • The Chair noted that it as it currently stood, the Market Rules do not afford the IMO any discretion around the activities related to Suspension Events and that this Rule Change Proposal will enable the IMO to avoid preparing Cure Notices and drawing upon Credit Support until the IMO has confirmed it is a definite default. • The MAC agreed for the IMO to progress PRC_2012_24. *Action Point: The IMO to formally submit the Pre Rule Change Proposal: Cure Notices and Credit Support (PRC_2012_24) into the*	**IMO**

	Formal Rule Change Process	
7d	**PRC_2012_25: Constrained On/Off Compensation Removal where a Facility is non-compliant with Dispatch Instructions** Ms Frame presented an overview of the IMO's Pre Rule Change Proposal: Constrained On/Off Compensation Removal where a Facility is Non-compliant with Dispatch Instructions (PRC_2012_25). The following points were raised during the ensuing discussion: • Mr Stevens queried whether the Theoretical Energy Schedule (TES) can currently be re-calculated as he believed that Verve Energy had proposed a rule change around this issue, noting that the two issues were related. Ms Frame confirmed that Verve previously raised an issue relating to the recalculation of TES, which had now been incorporated into a broader issue around the Adjustment Process. Ms Frame agreed that the issues were related, however noted that the issue that PRC_2012_25 sought to resolve was considered at the November MAC meeting and agreed by the MAC to constitute a manifest error, while the issue around the recalculation of TES would most likely be required to be processed through the Standard Rule Change process, hence it was decided to progress the issues separately. • The MAC agreed for the IMO to progress PRC_2012_25. *Action Point: The IMO to formally submit the Pre Rule Change Proposal: Constrained On/Off Compensation Removal where a Facility is non-compliant with Dispatch Instructions (PRC_2012_25) and progress the proposal using the Fast Track Rule Change Process.*	**IMO**
8a.	**MARKET PROCEDURE CHANGE OVERVIEW** Ms Frame informed the MAC that an IMO Procedure Change and Development Working Group meeting was held on 27 November 2012. Ms Frame noted that the Market Procedure for Determining Loss Factors was presented at this meeting.	
9a.	**WORKING GROUP OVERVIEW** Ms Frame sought MAC approval for Mr Brendan Clarke to replace Ms Grace Tan as System Management's representative and to remove Ms Fiona Edmonds as the IMO representative on both the System Management Procedures Working Group and the IMO Procedure Change and Development Working Group. The MAC approved the changes to the Working Groups. *Action Point: The IMO to update the Working Group memberships in accordance with MAC approval.*	**IMO**
9b.	**RCMWG UPDATE** Ms Frame reported that the last Reserve Capacity Mechanism Working Group (RCMWG) was held on 22 November 2012. Ms Frame noted that the Working Group remained inconclusive in their deliberations on some of the finer aspects of the Reserve Capacity Price (RCP) formula recommendations in particular. Ms Frame advised the MAC that the IMO had consolidated the aspects of the proposals that had been	

	agreed to for each work stream as well as identifying the aspects which remained outstanding and would present the resulting report to the IMO Board at the December 2012 meeting, in line with the agreed reporting deadline. Ms Frame advised that the outcome of the IMO Board's deliberations on the RCMWG report would be presented to the MAC at the February 2013 MAC meeting where the MAC would discuss next steps. Ms Frame requested working group members for their feedback on the proposed RCP formula before the IMO Board at December 2012 Board Meeting, noting that the request was for an indication of the level of support for the proposal and did not constitute a formal acceptance.	
10.	**2012 YEAR IN REVIEW** Ms Frame noted the 2012 Year in Review and highlighted the number of large pieces of work that had been undertaken in 2012, including the implementation of the Competitive Balancing and Load Following Markets, progressing the recommendations from the Outage Planning Review, and the significant work undertaken by the RCMWG in considering the issues and recommendations of the RCM Review. The Chair congratulated the MAC on the hard work and effort contributed by MAC and RCMWG members over the year. The MAC noted the proposed MAC Meeting Dates for 2013.	
11.	**GENERAL BUSINESS** Dr Steve Gould requested clarification on the confidentiality status relating to the Notional Wholesale Meter and requested this information to be made publicly available. Mr Rhodes noted his concerns that making this information public might reveal Synergy's position. The Chair requested that the IMO write to the PUO to ascertain which organisation would be responsible for making this available. He noted that if it was found that the PUO were not responsible for this information, the MAC would further clarify this issue on disclosure and whether the information should be made public in the interests of Market Participants. Ms Frame informed the MAC that the IMO had given further consideration an issue related to RC_2012_19 raised initially by Mr Geoff Gaston at the November MAC meeting, and subsequently by Alinta in its submission. The issue related to the IMO's decision to breach the Market Rules in order to prevent perverse market settlement outcomes in the case of two Intermittent Generators. Ms Frame clarified that after internal discussion, the IMO reviewed the issue and has extended its decision to apply to all spurious Constrained On/Off Compensation that has been allocated to Non-Scheduled Generators due to the manifest error addressed in RC_2012_19. Ms Frame advised that the IMO would report back to the MAC in February 2013 on the impacts of these adjustments. *Action Point: The IMO to contact the PUO to seek clarification and advice on the Metering Code and the confidentiality status of data captured by Notional Wholesale Meters.* *Action Point: The IMO to report back to the MAC at its February 2013*	**IMO** **IMO**

	meeting on the impact of extending its decision to apply to all spurious Constrained On/Off Compensation that has been allocated to Non-Scheduled Generators due to the manifest error addressed in RC_2012_19	
CLOSED: The Chair declared the meeting closed at 5.05 pm.		

Agenda item 4: 2012 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
10	2012	The IMO and Western Power to consider a revised design for the treatment of NCS facilities which ensures that the costs associated with avoiding a network upgrade via entering into a NCS Contract will accrue to the Network Operator.	IMO/WP	Apr	Completed. Presented as PRC_2012_03 to March MAC.
11	2012	System Management to consider whether any process changes for approving network outages could be possible to ensure that Market Generators are provided with sufficient notice of the outage.	SM	Apr	System Management to provide update at March MAC.
29	2012	System Management to advise the MAC on the arrangements for notifying customers with important large loads on the distribution network of outages.	SM	Aug	System Management to provide update at March MAC.
40	2012	System Management to send a copy of the interface specification and operating agreement for AGC and ABC to all Market Generators.	SM	Nov	Completed.
47	2012	The IMO to seek the ERA's interpretation on the 99% standard and information on the origin of the requirement in the Technical Rules for system frequency to stay within a 49.8 to 50.2 hz band 99% of the time	IMO	Nov	Completed.

#	Year	Action	Responsibility	Meeting arising	Status/Progress
48	2012	System Management to consult with stakeholders on the dispatch cycle length to be used from 5 December 2012.	SM	Nov	Completed.
49	2012	The IMO to work with System Management to provide transparency of VEBP Dispatch Instructions.	IMO/SM	Nov	Closed. Weekly workshops to commence between the IMO and SM and the MAC to be updated regularly.
50	2012	System Management/IMO to present a discussion paper on the 99% versus 99.9% issue at the December 2012 MAC meeting.	IMO/SM	Nov	Completed. Presented at Dec MAC.
51	2012	The IMO to amend the minutes of Meeting No. 55 to reflect the agreed changes and publish on Market Web Site as final.	IMO	Dec	Completed.
52	2012	Mr Brendan Clarke to forward a copy of the interface specification and operating agreement for AGC and ABC to Mr Tan.	SM	Dec	Completed.
53	2012	Collgar Wind Farm to provide generation data demonstrating its performance during the 12 peak Trading Intervals for each of the past five years and present to the February 2013 MAC meeting for consideration.	Collgar	Dec	Update to be provided at March MAC.
54	2012	Collgar to provide a revised copy of their presentation to the IMO so that the IMO can publish it on the Market Web Site.	Collgar/IMO	Dec	Completed.
55	2012	The IMO to publish System Management's presentation on the Market Web Site and circulate a copy to all MAC members.	IMO	Dec	Completed.
56	2012	The IMO to develop Pre Rule Change Proposals on the impact of clause 7.2.3A on IPP LFAS Facilities; and the definition and usage of Minimum Frequency Keeping Capacity.	IMO	Dec	Completed. Presented as PRC_2013_06 to March MAC.
57	2012	The IMO to formally submit the Pre Rule Change Proposal: Consideration of Network Constraints for Certified Reserve Capacity (PRC_2012_20) into the formal Rule Change Process.	IMO	Dec	Completed. The IMO submitted RC_2012_20 into the formal process on 1 January 2013.
58	2012	The IMO to formally submit the Pre Rule Change Proposal: Cure Notices and Credit Support (PRC_2012_24) into the Formal Rule Change Process	IMO	Dec	Completed. The IMO submitted RC_2012_24 into the formal process on 18 December 2012.

#	Year	Action	Responsibility	Meeting arising	Status/Progress
59	2012	The IMO to formally submit the Pre Rule Change Proposal: Constrained On/Off Compensation Removal where a Facility is non-compliant with Dispatch Instructions (PRC_2012_25) and progress the proposal using the Fast Track Rule Change Process.	IMO	Dec	Completed. The IMO submitted RC_2012_25 into the formal process on 21 January 2013.
60	2012	The IMO to update the Working Group memberships in accordance with MAC approval.	IMO	Dec	Completed.
61	2012	The IMO to contact the PUO to seek clarification and advice on the Metering Code and the confidentiality status of data captured by Notional Wholesale Meters.	IMO	Dec	Underway.
62	2012	The IMO to report back to the MAC at its February 2013 meeting on the impact of extending its decision to apply to all spurious Constrained On/Off Compensation that has been allocated to Non-Scheduled Generators due to the manifest error addressed in RC_2012_19	IMO	Dec	Update to be provided to March MAC.

Impact of Changes to the Allocation of Capacity Credits to Intermittent Generators

Presentation to the IMO Market Advisory Committee

20 March 2013

Recap and Objectives

RC_2010_25 has exhibited some drawbacks

- Load for Scheduled Generation (**LSG**) problems:
  - Tends to discriminate against the largest wind generator.
  - Discriminates against wind farms in a similar geographical area.
  - Devalues wind's maximum production.
- Interval number problems
  - Too low a number of intervals creates to much volatility – a small increase in the number of intervals places the calculation in a more predicable range.
- U & K factor problems
  - The relevance of these factors is questionable.
- Suggest the review process be brought forward by one year
  - Sapere report recognises the need to revisit the analysis as new data becomes available (pages 20 – 23).
  - A review should concentrate on the underlying methodologies that need revisiting, including the, use of Peak, number of intervals and the U and K factors.

2

Preliminary recommendations (1)

1. Reconsider application of Load for Scheduled Generation

- LSG inherently discriminates against IGF capacity contributions
  - Use of LSG discounts intervals where IGF generation is greatest.
  - The larger the facility the greater the discrimination.
  - Collgar's capacity contribution materially devalued relative to other generators.
  - This same effect could easily transfer to IGFs closely located.
  - Contrary to market objective (c).
- LSG introduces interdependency of output among IGFs
  - Inconsistent with treatment applied to other capacity classes (DSM, scheduled generation).
  - Introduces significant volatility and prevents effective forecasting of CC valuations.
- LSG has not gained industry acceptance
  - Several industry participants opposed the introduction of LSG.
  - Use of peak demand intervals arguably more appropriate.

3

Preliminary recommendations (2)

2. Consider a greater number and diversity of selected intervals

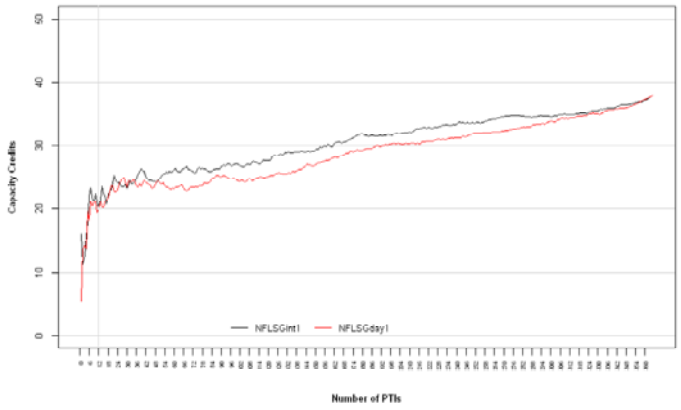
- Too few intervals introduces significant uncertainty and volatility
  - Independent analysis suggests data from at least 24 trading days per year for 5 years is recommended. (Data Analysis Australia – Dec 2012)

4

Analysis – Interval volatility

Use of too few intervals introduces material volatility of results

Collgar CC vs. no. selected trading intervals (selected by NFLSG demand)



Source: Data Analysis Australia

5

Results of change in preliminary recommendations

Material Impact on Collgar of a change to the number of intervals and use of Peak vs. LSG.

2014/15 Capacity Year

TIs/yr	LSG/Peak	Selection of days	Relevant Level	Materiality
12	LSG	sep days	20.1 MW	$ -
12	Peak	sep days	30.4 MW	$ 1.26m
24	Peak	sep days	33.4 MW	$ 1.62m

2015/16 Capacity Year

TIs/yr	LSG/Peak	Selection of days	Relevant Level	Materiality
12	LSG	sep days	17.4 MW	$ -
12	Peak	sep days	24.8 MW	$ 0.89m
24	Peak	sep days	26.5 MW	$ 1.10m

2016/17 Capacity Year

TIs/yr	LSG/Peak	Selection of days	Relevant Level	Materiality
12	LSG	sep days	16.3 MW	$ -
12	Peak	sep days	22.3 MW	$ 0.74m
24	Peak	sep days	23.9 MW	$ 0.93m

6

Summary and next steps

Rule Change process to be reviewed given new data

- RC_2010_25 has materially affected Collgar and its stakeholders and will continue to do so.
- The current capacity crediting formulation can act to discourage investment
- Given the potential ongoing impacts on the market (exemplified by the materiality of the financial impact on Collgar in the previous slide) there are sufficient grounds to bring forward the next review process by one year.

7

Wholesale Electricity Market
Concept Paper Proposal

Concept Paper Proposal ID: **CP_2013_02**
Date received: **TBA**

Concept requested by:

Name:	Allan Dawson
Phone:	(08) 9254 4333
Fax:	(08) 9254 4399
Email:	allan.dawson@imowa.com.au
Organisation:	IMO
Address:	Level 17, 197 St Georges Terrace, Perth WA 6000
Date submitted:	TBA
Urgency:	3 (High)
Concept proposal title:	Market Participant Fee - Clarification of GST Treatment
Market Rule(s) affected:	To be determined.

Introduction

The purpose of a Concept Paper Proposal is to foster analysis and discussion of complex issue(s) that can affect the Wholesale Electricity Market (Market), the Market Rules and the Wholesale 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;

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(c) to avoid discrimination in that market against particular energy options and technologies, including sustainable energy options and technologies such as those that make use of renewable resources or that reduce overall greenhouse gas emissions;

(d) to minimise the long-term cost of electricity supplied to customers from the South West interconnected system; and

(e) to encourage the taking of measures to manage the amount of electricity used and when it is used.

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Independent Market Operator
Attn: Group Manager, Development and Capacity
PO Box 7096
Cloisters Square, Perth, WA 6850
Fax: (08) 9254 4339
Email: market.development@imowa.com.au

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1. Log the proposal and notify the proposer that it has been received;
2. Assess the concept and consult with the Market Advisory Committee (MAC) for prioritisation against other Rule Participant issues registered; and
3. Work cooperatively with the proposer to develop the full concept paper including:
   - assessment against the Market Objectives; and
   - undertaking a detailed cost benefit analysis related to the identified options.

Details of the Proposed Concept Paper

1. Identify the issue(s) with the existing Market and/or its Market Rules that are to be addressed by the proposed concept paper (including any examples):

Background

From market start, the IMO has been collecting Market Fees, System Operation Fees and Regulator Fees (collectively known as the Market Participant Fees) from Market Participants to recover its own costs, and the costs System Management and the Economic Regulation Authority (ERA), respectively, in performing their functions under the Market Rules.

From market start, all three fees have been invoiced to the Market Participants subject to Goods and Services Tax (GST). The IMO has then passed the fees collected on behalf of ERA and System Management to each entity as received (including GST) and has issued the entities with Recipient Created Tax Invoices which itemised the GST amounts.

The IMO obtained external advice on the GST arrangements for market transactions prior to market start, and a further review was undertaken in 2010 which confirmed the IMO's compliance with GST legislation.

In November 2009 the ERA informed the IMO that they had not been passing on the GST they had been receiving from the IMO to the Australian Taxation Office (ATO), but had been keeping it (as revenue). This resulted in a significant amount of correspondence and discussion between the IMO and the ERA as to the GST classification of the Regulator Fee.

On 21 December 2011, the ERA forwarded to the IMO a copy of a private ruling it had received from the ATO (dated 7 October 2011) in respect of the GST classification of the Regulator Fee, the effect of which was to make the Regulator Fee GST exempt. The IMO received a copy of the ruling from the ERA after the 60 day objection period to the ruling had lapsed.

Conscious of the material impact on WEM settlement, IMO's settlement systems and Market Participants' settlement validation tools, the IMO subsequently lodged its own application for a private ruling which sought to clarify the earlier ruling provided to the ERA.

In September 2012, the ATO issued its private ruling in response to the IMO's private ruling submission, advising that the Regulator Fee passed onto the ERA should have been exempt from GST from market commencement. The ruling also suggested that the Market Fee was exempt from GST from 1 July 2012 following the introduction of new legislation. The ruling did not suggest that the System Operation Fee was also exempt from GST but indicated that System Management should undertake a self-assessment of the GST treatment of this fee in accordance with the new legislation.

GST is still being applied to all transactions under the Market Rules between the IMO and the Market Participants, and between the IMO and System Management. However from June 2012, no GST has been passed on by the IMO to the ERA, the IMO ceased claiming any input tax credits on the Regulator Fees it pays to the ERA and the IMO has continued to remit all amounts of GST collected from the Market Participants in respect of the Regulator Fee to the ATO.

The ATO Ruling

The ATO's key findings were that:

- the Market Fee component of the Market Participant Fee does not constitute a taxable supply under the A New Tax System (Goods and Services Tax) Regulations 1999 (GST Regulations); and

- that the IMO receives the Regulator Fee and System Operation Fee as a collection agent for the ERA and System Management respectively – the ERA and System Management make supplies directly to the Market Participants.

Following from the above, the IMO does not make a credible acquisition from the ERA when it pays the ERA the amount referred to as the Regulator Fee and therefore is acting only as an agent on behalf of the ERA in respect to the recovery of Regulator Fee amounts.

The ERA's own private ruling found that the Regulator Fee was exempt from GST under Division 81 of the GST Act.

A consequence of the ATO's ruling on the IMO is that:

- The IMO is not entitled to invoice Market Participants directly, in its own name, for the Regulator Fee and the System Operation Fee, as it has done since market start.

- The IMO was not entitled to claim GST credits for any period in relation to payments to the ERA for the amount referred to as the Regulator Fee and must recover and pay the ATO the value of these credits to account for the ATO's shortfall from October 2008 (in line with ATO recovery time frames).

- The Regulator Fee and the Market Fee are exempt from GST. It is likely that the System Operator Fee will also be exempt from GST following self-assessment under the new GST provisions.

While the IMO does not agree with the private ruling, it has accepted it. The IMO is now engaged with the ATO and the following points reflect discussions to date:

- The ATO has indicated that it has no intention of unwinding transactions historically between the IMO and the Market Participants and between the IMO and System Management which have been incorrectly treated as taxable and/or GST incorrectly levied by the IMO.

- The IMO will recover the incorrectly claimed GST credits in respect to payments to the ERA in the first year of its next Revenue Period (2013/14). This cost was included as a one off item in the IMO's Allowable Revenue Submission submitted to the ERA for approval and published on 20 December 2012. The total cost to be recovered is $543,480 which includes $43,929 of interest[1].

- The ATO agreed that the IMO will not be subject to any penalty.

- Since June 2012, the IMO has ceased claiming any input tax credits on the Regulator Fees it pays to the ERA. However, the IMO continues to remit all amounts of GST collected from the Market Participants in respect of the Regulator Fee to the ATO.

- Consistent with the indication not to unwind any historical transactions, the ATO has also indicated that it does not intend to unwind any transactions relating to the Regulator Fees that Market Participants continue to pay to the IMO and the associated input tax credits being claimed.

[1] Independent Market Operator - Proposal for Allowable Revenue and Forecast Capital Expenditure – 1 July 2013 to 30 June 2016, page 29, available at: http://www.erawa.com.au/cproot/11033/2/20121220%20-%20IMO%20Proposal%20for%20Allowable%20Revenue%20and%20Forecast%20Capital%20Expenditure_1%20July%202013%20to%2030%20June%202016.pdf

The IMO, in order to give effect to the findings of the ATO in the ruling, must change the GST treatment of the Market Participant Fees charged to Market Participants and the way these fees are invoiced.

The IMO is currently working with the ATO to establish a timeframe within which these changes will be implemented. Given the rule, procedure and systems changes involved, the IMO has suggested that a 1 January 2014 start date would be feasible (this time frame is also designed to enable adequate time for the full implications on Market Participants to be assessed and any consequential system changes to be effected). This matter is currently the subject of dialogue between the IMO and the ATO.

Implications of the Ruling

The ruling has several practical consequences for the IMO and Market Participants:

- The IMO's market settlement systems which were designed to add GST to all payments including the Regulator Fee, Market Fee, and the System Operation Fee (pending self-assessment by System Management) need to be adjusted to reflect the ruling.
- The IMO's invoicing and clearing procedures need to be reviewed to reflect the ruling.
- Market Participants will no longer be charged GST on the Regulator Fee, Market Fee, or the System Operation Fee (pending self-assessment by System Management) or be able to claim input credits for these fees going forward.
- The Credit Limits for Market Participants may marginally reduce over time and the procedures and calculation may require review.
- Market Participants' settlement verification tools and systems which interface directly with the IMO's systems may require adjustments.

The ruling has highlighted an issue in the Market Rules that means that the IMO would no longer be able to 'bundle' all market fees in the manner it currently does. The ruling also highlights a more fundamental issue regarding who the principal agent is for all transactions in the SWIS.

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2. Outline the overall objective of the Concept Paper Proposal:

The objective of this Concept Paper is twofold. The first objective is to make Market Participants aware of the issue. The second objective is to provide information on the implications and possible solutions so that participants may consider and provide feedback on possible concerns and changes required as a result of the rulings.

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3. Identify any reasonably practicable options for achieving the objective:

The removal of GST from fees within the settlement system processes does not, in itself, represent a significant change to the market. However, the finding that the IMO recovers the two fees as a collection agent on behalf of the ERA and System Management poses a wider issue.

There is a lack of clarity in the Market Rules as to the IMO's role as a clearing house for the market because the role of principal / agent in all electricity trades is not articulated.

IMO acts as principal

The WEM was established on the basis of the IMO acting as the principal in all physical trades and transactions made under the Market Rules. The IMO has developed its operations, settlement processes and systems and invoicing procedures in accordance with this understanding. As such, the IMO could propose changes to the Market Rules that would clarify the IMO's position as the principal in all such transactions in the market.

The principal role, which is common in energy markets around the world[2], essentially involves the IMO taking delivery (at least for an instant) of all electricity generated and subsequently consumed in the market. The introduction of the Balancing Market has resulted in 100% of the electricity generated being traded and scheduled through the IMO's market systems. While the IMO is yet to explore the full risks associated with taking on the principal role for all physical trades and transactions, it would appear to be a natural progression given the nature of the Balancing Market and the role of the IMO intended role as the market operator and clearing house for all physical electricity trades in the SWIS.

A consequence of the IMO being the principal is that all services provided in relation to the electricity would be being provided to the owner of the 'pool' of electricity (that is, to the IMO directly).

The IMO has completed a preliminary assessment of the settlement system, invoicing and clearing changes required if it were to act as principal to all physical trades. This clarification and the removal of GST from the Market Fee, Regulator Fee, and the System Operation Fee (pending self-assessment) is unlikely to require any substantial changes to the IMO's current operations, settlement and invoicing systems and procedures. It would also allow the IMO to continue bundling all market fees as currently occurs and for Market Participants to continue settling these amounts as per the current processes.

A Rule Change Proposal would be required to clarify the IMO's role as the central clearing house for the market, thereby removing the risk of additional settlement systems and clearing processes needing to be developed for payments made under the Market Rules.

IMO acts as agent

The IMO also considered an alternative option where it acts explicitly as an agent for the ERA and System Management in collecting the Regulator Fee and System Operation Fee from the Market Participants. This option involves several uncertainties besides the lack of clarity as to

[2] Including the National Electricity Market in eastern Australia.

who in the market is the principal for physical market transactions. The IMO also found that the practicalities, complexity of implementation, and significant additional costs for this option would not be consistent with the Wholesale Market Objectives.

The factors considered in regards to this option are outlined below.

Continuing to use the IMO's current systems and processes poses an issue if the IMO is to act as an agent. While the ATO found that the IMO collected the Regulator Fee and System Operation Fee as a collection agent for the ERA and System Management, the ATO did not go as far as to recognise an agency agreement, either express or implied, between any of the parties. As a result, the IMO is not able to issue tax invoices to the Market Participants in respect of the Regulator and System Operation Fees. Agency agreements could be entered into between the IMO and ERA and between the IMO and System Management to ensure the IMO could issue valid invoices in respect of these amounts.

Alternatively, given that the ruling found that the ERA and System Management are making supplies to the Market Participants directly, the ERA and / or System Management could create or alter their own settlement and clearing processes, prudential standards and/or monitoring systems in respect of these amounts and invoice Market Participants directly.

The IMO notes that the cost to the market of both or either of the ERA and System Management establishing their own settlement and related processes could be substantial and would add a level of complexity to the market which was not intended in the original design of the institutions. It is also unlikely that these changes could be implemented within the timeframe being negotiated with the ATO. Further, this would also require that the IMO adjust the current settlement, invoicing, and prudential processes to reflect the changed circumstances.

The prudential measures for each of the fees would also need to be reviewed. As the Regulator Fee and the System Operation Fee do not represent amounts owed to the IMO, these amounts may no longer be covered by the Credit Limit provisions in the current Market Rules. Further investigation of this issue would need to be undertaken to determine whether the ERA and System Management would be covered by the prudential security held by the IMO in the event of Market Participant default.

In both cases, a review wider review of the settlement and prudential rules would be required. The Market Rules were not drafted with the IMO as the collection agent as a frame of reference and, should an agency relationship be expressed between the parties, the Market Rules may not retain the interpretation that was intended by the drafters. Similarly, the Market Rules were not drafted with the intention of the ERA and System Management invoicing Market Participants directly and such a change would depart from their existing and intended roles.

The uncertainties with this option create additional risks for the IMO, ERA, System Management and the Market Participants. Additional costs of either option would be borne by the Market Participants.

Recommendation

The IMO proposes to progress the first option – to amend the Market Rules to make it explicit that the IMO is the principle in all physical market trades and transactions, including in relation

to services provided by the ERA and System Management.

This option:

- is consistent with the Wholesale Market Objectives;
- best reflects the existing design intention for the WEM, as well as the understanding of the IMO and Market Participants; and
- is likely to require more minimal changes to the existing settlement and prudential processes.

Wholesale Electricity Market
Concept Paper Proposal

Concept Paper Proposal ID: *CP_2013_01*
Date received: *21 February 2013*

Concept requested by:

Name:	Allan Dawson
Phone:	9254 4333
Fax:	9254 4399
Email:	Allan.dawson@imowa.com.au
Organisation:	Independent Market Operator
Address:	L17, 197 St Georges Tce, Perth, WA 6000
Date submitted:	*21 February 2013*
Urgency:	2 (medium)
Concept proposal title:	Incentives to Improve Availability of Scheduled Generators
Market Rule(s) affected:	4.11 (and relevant Market Procedure), 4.12, 4.27, proposed new Reserve Capacity Rule

Introduction

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INDEPENDENT MARKET OPERATOR

Concept Paper: Incentives to Improve Availability of Scheduled Generators

CP_2013_01

Date: March 2013

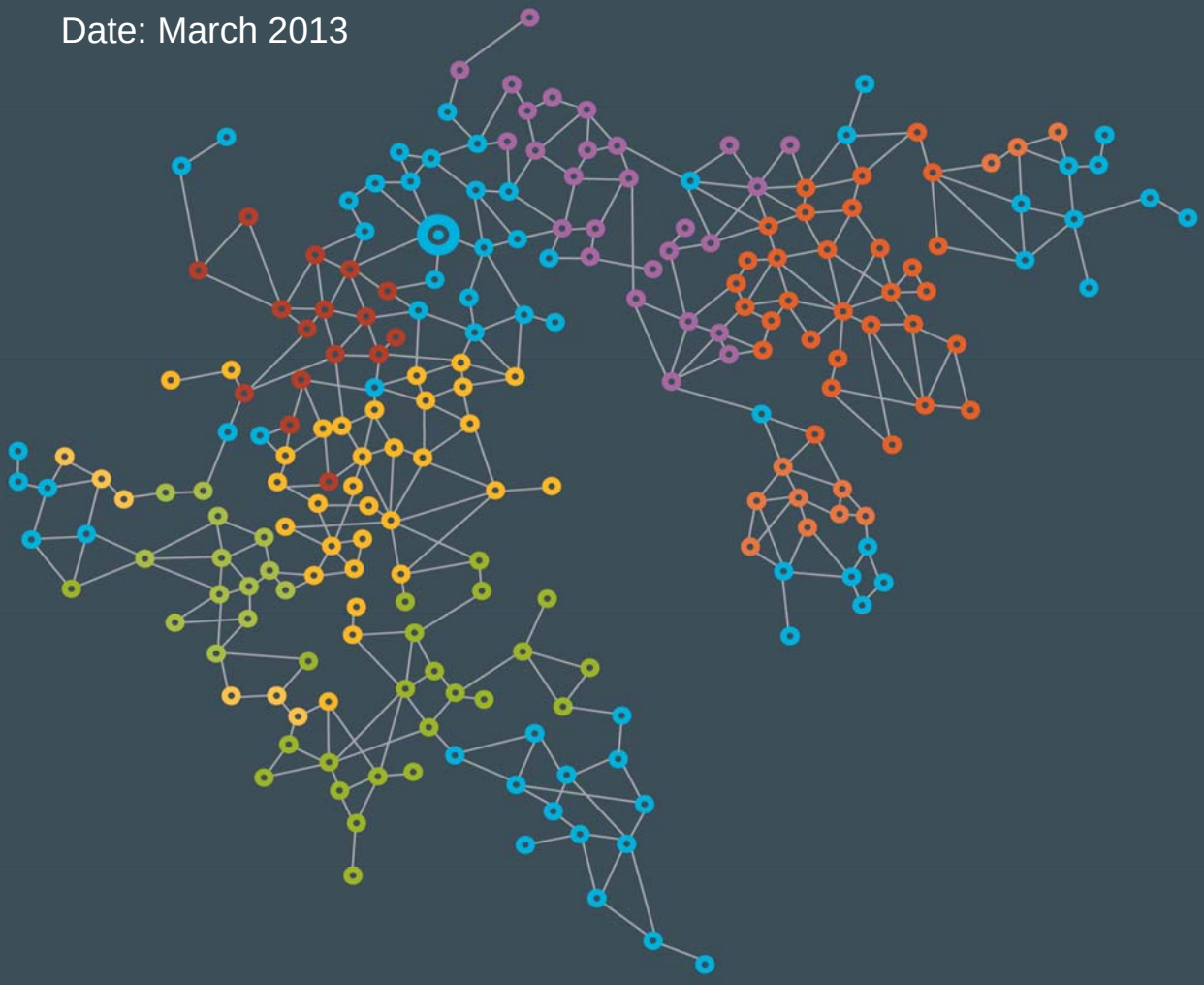

Table of Contents

1. INTRODUCTION

1.1 Purpose of the Reserve Capacity Mechanism

The Reserve Capacity Mechanism is a three-year, forward-looking procurement of access to energy capacity. It is designed to provide an incentive for the provision and maintenance of electricity generation resources necessary to meet the State's requirements for reliability and security of electricity supply in the South West Interconnected System (SWIS). A capacity market is a more stable solution to the revenue adequacy problem in a peaky energy market like WA than the scarcity pricing and volatility of an energy-only market.

However, while the Reserve Capacity Target is based on the forecast peak demand of a one-in-ten year load plus a Reserve Margin, capacity payments to generators are not intended to reserve access to that energy capacity for only a few peak hours of the year.

Capacity payments not only ensure security of supply. Procuring capacity from multiple providers strengthens competition and diversity in energy markets, so that the most economically efficient electricity supply option can be dispatched at all times. A solid buffer of available capacity means that an unforeseen supply interruption is less likely to result in a price spike. For these objectives to be met, it is essential that Scheduled Generators maximise the availability of their capacity to the market in return for receiving capacity payments.

In off-peak periods of the year, when much of the conventional generation fleet may be on Planned Outages scheduled well in advance, it is essential that the remaining Scheduled Generators are reliably available. The reduction in available capacity due to inefficiently managed planned outages, even if the probability of dispatch of that individual Facility may be low, increases the risk of a price spike should an unexpected generation failure occur.

Scheduled Generators sell their capacity for a full year; customers pay for that capacity for a full year; the Maximum Reserve Capacity Price is calculated for a full year and Scheduled Generators have an obligation to be available for a full year other than forced outages and essential planned outages.

The incentives for Scheduled Generators to maximise their availability should be no less for a capacity + energy market than for an energy-only market.

1.2 Scheduled Generator availability

Several large Scheduled Generators have demonstrated unacceptably low and deteriorating availability levels in recent years due to excessive Planned Outages. Despite high levels of Planned Outages over multiple years, these Facilities continue to perform poorly.

The existing Market Rules do not provide for sanctions against Scheduled Generators with chronically excessive Planned Outage rates, other than complete exclusion from the Reserve Capacity Mechanism at the IMO's discretion under clause 4.11.1(h) of the Market Rules. If the IMO chooses not to exercise this option, the Facility is entitled to its full allocation of Capacity Credits regardless of the number of Trading Intervals that the capacity is made available to the market.

The implications of this situation are:

- Poor value for money – the market is paying a significant amount for Scheduled Generation Reserve Capacity for which the probability of availability is relatively low;
- Inefficiency – the unavailability of large Scheduled Generators due to excessive Planned Outages reduces competitive pressure in the STEM and Balancing Market, resulting in higher-than-necessary average energy prices;
- Higher price risk – when significant amounts of capacity are unavailable due to excessive Planned Outages by some Scheduled Generators, the risk increases that a generator failure will result in a price spike;
- Higher supply security risk – excessive short-notice Planned Outages reduce the Reserve Capacity buffer when other Facilities are on programmed Planned Outages in accordance with recommended maintenance schedules.
- Inequity within Facility Class – Scheduled Generators that are available for, in some cases, barely 50% of Trading Intervals are rewarded at the same level as Scheduled Generators that are available for more than 95% of Trading Intervals, creating a cross subsidy between Market Participants;
- Risk of providing incentives to retain inefficient and unreliable generating plant – payment of full capacity revenue to plant with low availability mutes the normal commercial incentives for retirement of high-maintenance or obsolete generation facilities, and
- New investment may be discouraged – the assignment of full Capacity Credits to frequently unavailable Scheduled Generators exaggerates the apparent system reserve margin.

The situation is inconsistent with the Market Objectives of economically efficient, safe and reliable supply of electricity, encouraging competition, and minimising the long-term cost of electricity.

In its 2011 Wholesale Electricity Market Report to the Minister for Energy, the Economic Regulation Authority (ERA) drew attention to poor Scheduled Generator availability resulting from high Planned Outage rates. The ERA reiterated its concern in the Discussion Paper for the 2012 Report. The ERA has queried whether the existing Market Rules provide an effective mechanism for ensuring the economically efficient provision of generation capacity to the SWIS.

A number of industry submissions to the ERA's discussion paper expressed similar concerns about the negative impacts of encouraging the retention of unreliable Scheduled Generators in a market currently experiencing significant excess capacity.

1.3 Comparative performance of WA generation sector

Figures 1 - 3[1] show the average availability and outage performance indicators for WA conventional generating plant on the SWIS in the last ten years compared with the performance of the generation sector in other States, and how the ratio of Planned Outage Factors and Forced Outage Factors has changed.

[1] Source: Data from ESAA *Electricity Gas Australia* reports, as cited by the Office of the Tasmanian Economic Regulator in its *2011-12 Energy in Tasmania Performance Report*.

The term 'Availability Factor' is not used in the Market Rules, but is the percentage of the total hours in a period when the Facility is not affected by planned or unplanned outages. 'Equivalent Availability Factor' is adjusted for de-ratings.

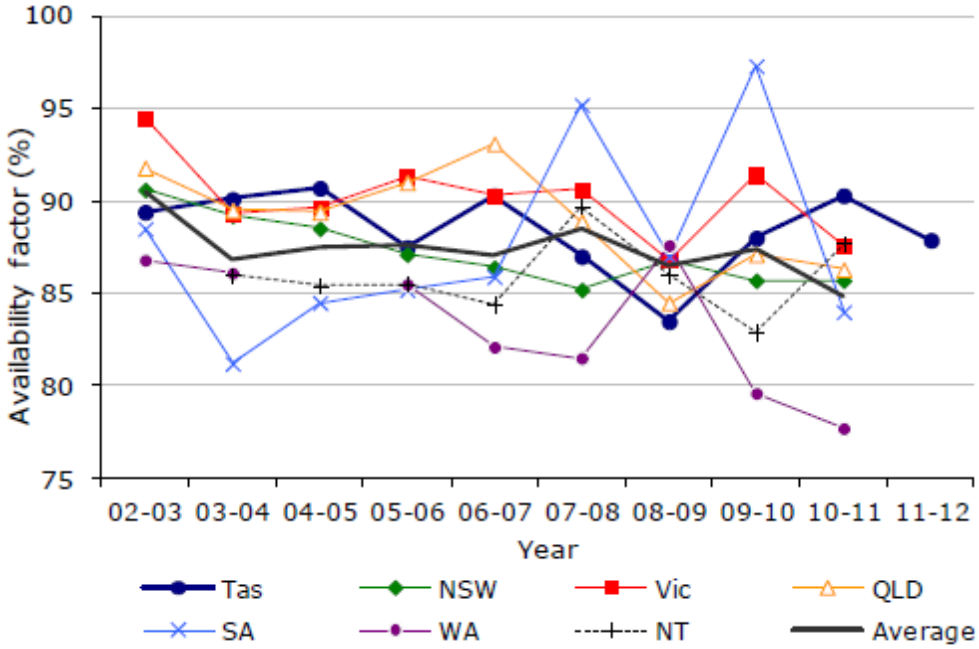

Figure 1 Australian generation plant average Availability Factors by State 2002 – 2011.

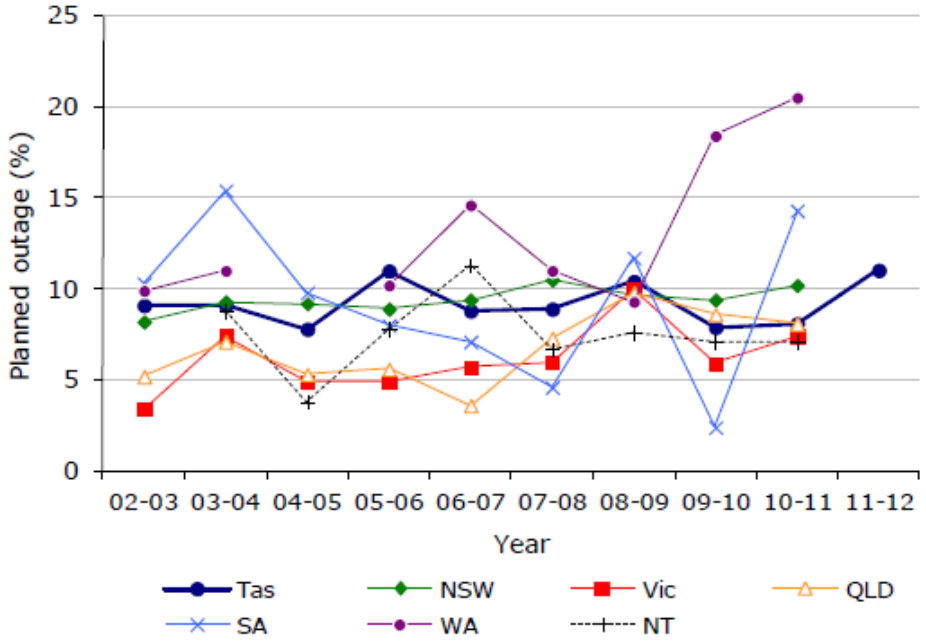

Figure 2 Australian generation plant average Planned Outage Factors by State 2002–2011.

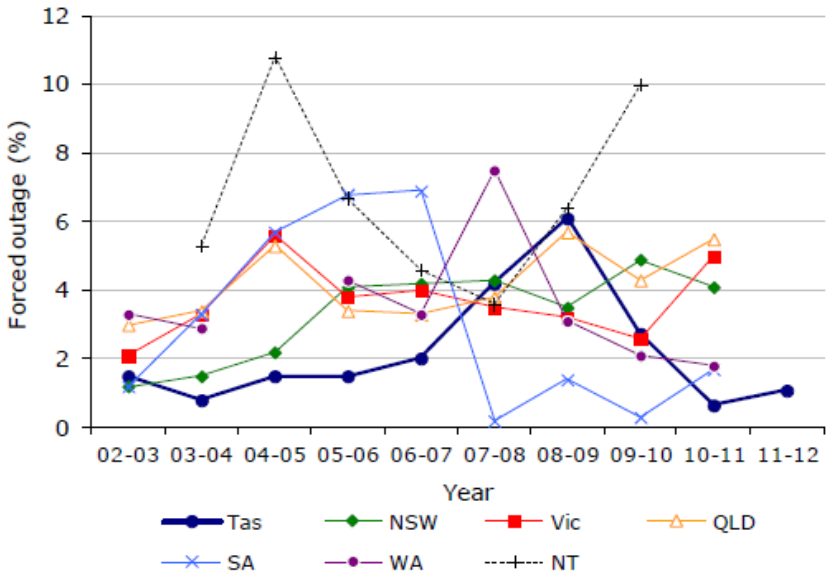

Figure 3 Australian generation plant average Forced Outage Factors by State 2002–2011

While the WA Forced Outage Factor appears relatively low, it should also be noted that WA does not use standard definitions for Forced Outages, which means that some outages that would be reported as forced outages under international standard definitions are classified as planned outages under the Market Rules. However, this does not affect Availability Factors, which are calculated using total outages.

Further analysis indicates that the average Equivalent Availability Factor for the WA conventional generation sector is attributable to the poor performance of relatively few large Facilities (Figure 4)[2].

For comparison, Figure 4 also shows the Equivalent Availability Factor representing the criteria in clause 4.11.1(h) of the Market Rules and average Equivalent Availability Factors from the North American Electric Reliability Corporation 2012 Generating Availability Report (NERC-GAR) for fossil-fuelled steam generating plant and open cycle gas turbines.

Figure 5 shows the availability performance of WA steam generators (excluding Combined Cycle) compared with the distribution of 1465 steam generators in the US and Canadian markets. Four of the WA Facilities are in the lowest performing decile and a further two are below the median.

[2] Note that the IMO is aware that the Alcoa WGP Facility has experienced reporting system anomalies which suggest that its outage rate has been over-stated.

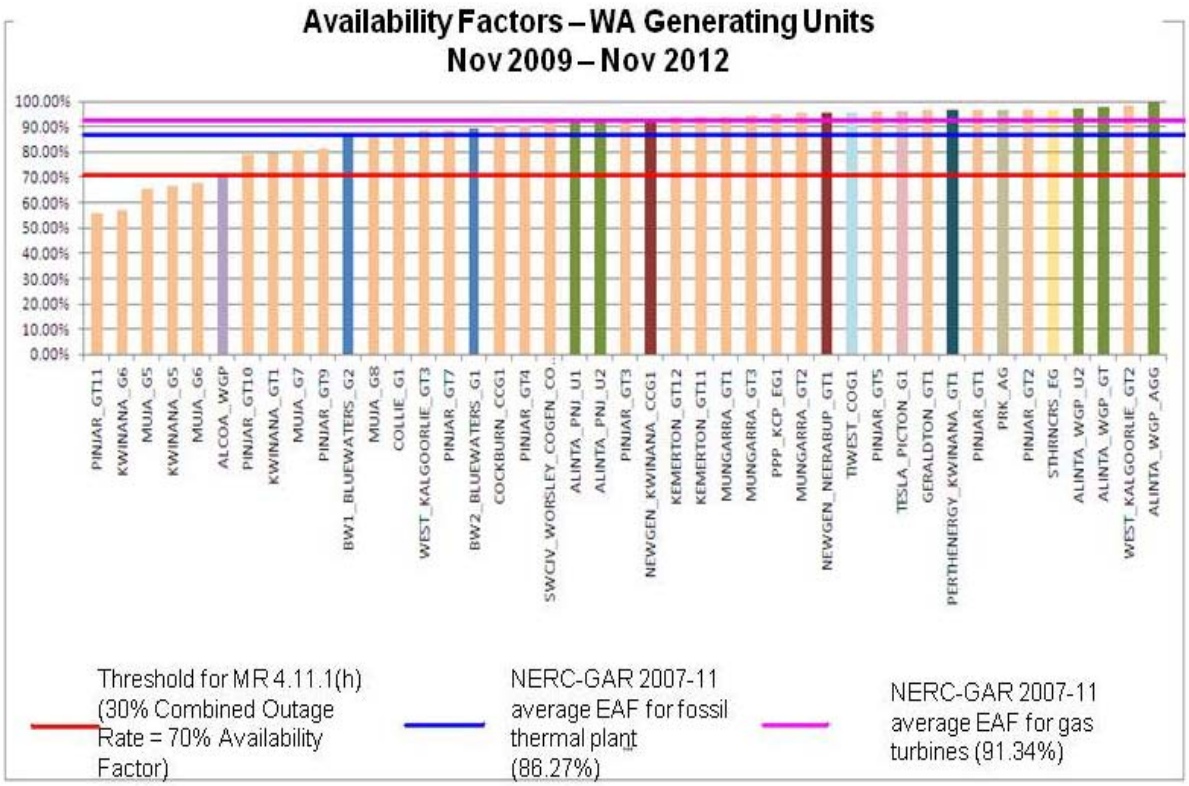

Figure 4 Average Equivalent Availability Factors Nov 2009 – Nov 2012 for active WA Scheduled Generators holding Capacity Credits at February 2013 (source: IMO records).

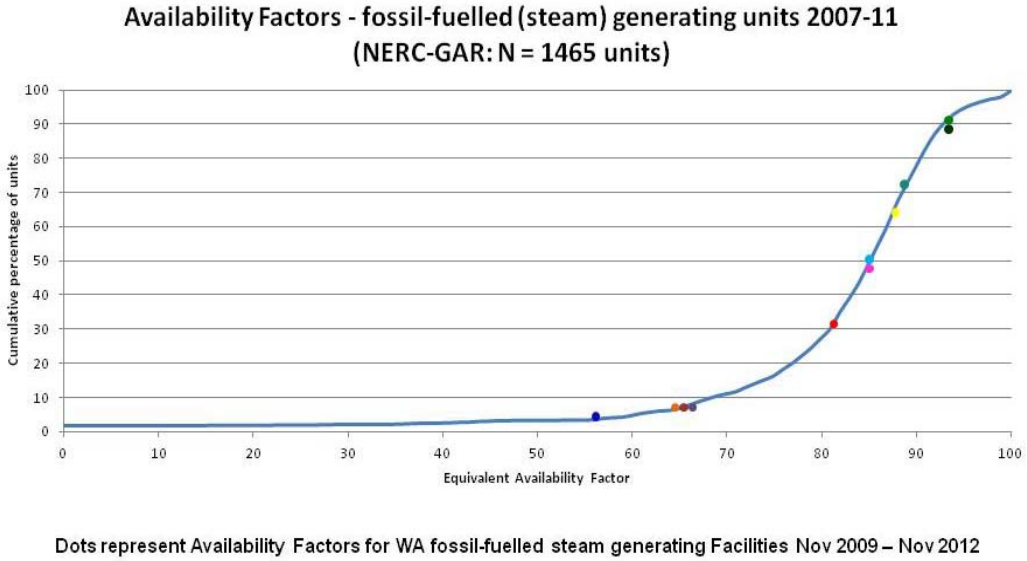

Figure 6 Three-year availability performance of WA steam generating units by comparison with five-year performance of North American plant (NERC-GAR 2012).

It should also be noted that there is currently excess base load generation capacity in the market, dating back to 2008/09 (Figure 6). Four of the Scheduled Generators with the lowest capacity availability are Kwinana units 5 and 6 and Muja units 5 and 6, which are historically base load and low mid-merit plant. However, the frequent unavailability of this capacity impacts on the efficiency of the energy markets.

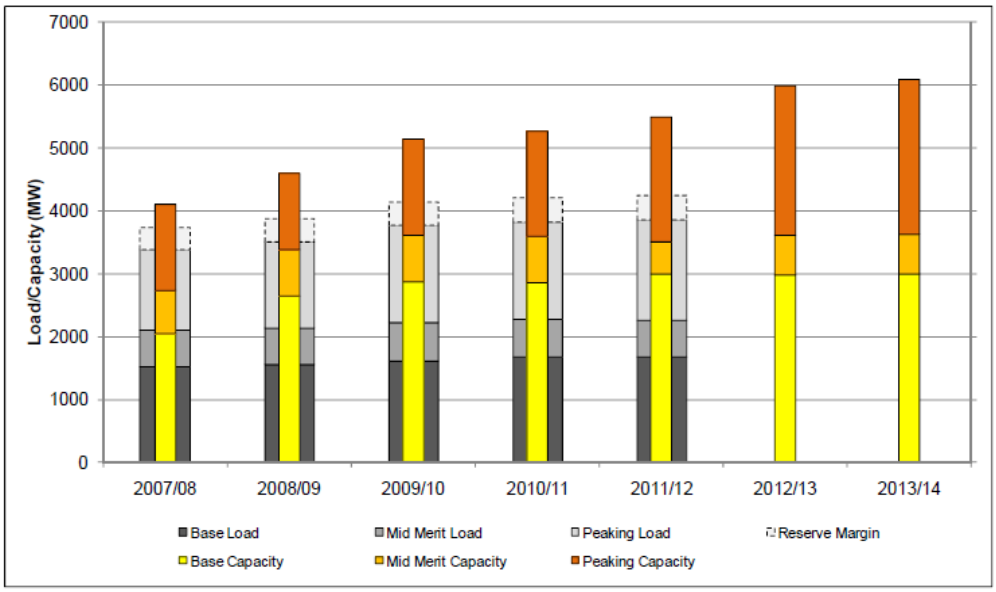

Figure 6 SWIS load characteristics and capacity mix (source: IMO 2012 Statement of Opportunities Report)

1.4 Recent decisions by the IMO Board

At the time applications were considered for the 2014/15 Capacity Year, five Scheduled Generators breached the criterion of 30% combined Planned and Forced Outage Rates over 36 months specified in clause 4.11.1(h). The IMO was therefore required to decide whether to not assign Certified Reserve Capacity to these Facilities for the 2014/15 Capacity Year.

The Board considered a range of information, including:

- an independent report commissioned by the IMO into the high outage rates of the identified Scheduled Generators in recent years;
- the ERA's findings from an investigation of planned outage impact on STEM prices in the period June-August 2011;
- the applicant's response to specific questions from the IMO concerning the outage rates;
- advice from System Management; and
- legal advice on the interpretation of clause 4.11.1(h).

The Board took into account:

- the amount of alternative Reserve Capacity available, which would allow the Reserve Capacity Target in 2014/15 to be met even if no Capacity Credits were allocated to the five Scheduled Generators;
- the potential financial impact on the applicant if no Capacity Credits were allocated to the five Scheduled Generators;
- the potential impact on third parties that may have contracted for the Capacity Credits from those Facilities for 2014/15, and
- the significant proportion of the total outages taken by the Facilities over the three year assessment period that were Planned Outages requested by the Market Participant;
- the comparatively low Forced Outage Rate applying to four of the Facilities;
- the summer outage rates of the five Scheduled Generators, which were lower than their rolling 36 month averages;
- System Management's approval of the Planned Outages and assurance that it was aware of 'no adverse security aspects' resulting from the high Planned Outage Rates,

The Board noted that little guidance is provided regarding the factors to be considered by the IMO in interpreting and applying clause 4.11.1(h).

The Board concluded in August 2012 that the information available to it concerning the past performance of the five Scheduled Generators meeting the criteria in clause 4.11.1(h)(i) was inadequate for a '*confident prediction of future unavailability in the medium term sufficient to justify not allocating Certified Reserve Capacity to any of these Facilities*' in 2014/15.

The Board expressed concern that the Market a *planned outage philosophy practised by* (the Market Participant) *and approved by System Management may be inconsistent with one or more of the purpose of the Reserve Capacity Mechanism, the Market Rules, and the Market Objectives relating to* '.. *promoting the economically efficient... supply of electricity' and 'minimising the long term cost of electricity supplied'*.

The Board determined that closer monitoring of the planning and execution of Planned Outages of the Facilities would be warranted, and also decided to undertake a review of clauses 4.11.1(h) and 4.27 of the Market Rules to improve their effectiveness.

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2. OBJECTIVES OF THIS PROPOSAL

The objectives of the proposals set out in this Concept Paper are to ensure that:

- The Market Rules deliver effective incentives to Market Participants to maintain the availability of their Scheduled Generators above a specified threshold;
- Scheduled Generators with low availability due to excessive Planned Outage Rates are not subsidised by other Market Participants or Market Customers.

- The IMO has the discretion to order a Market Participant to submit to additional scrutiny, at the Market Participant's expense, of individual Scheduled Generators that exceed a defined threshold level of Planned Outages over a 12 month period.
- Market Participants receive appropriate price signals to encourage them to retire Scheduled Generators, or at least withdraw them from the capacity market, when they can no longer meet a sustained minimum availability standard.
- The Market Rules contain a mechanism to facilitate the progressive improvement of the overall availability of the WA generation fleet to a level consistent with good industry practice.
- The market has more transparency with respect to the availability and outage performance of WA Scheduled Generators, benchmarked against generating plant in other markets.

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3. PROPOSED OPTIONS TO ACHIEVE THE OBJECTIVES:

Several stakeholders, in responding to the ERA's discussion paper for its 2012 Wholesale Electricity Market Report to the Minister for Energy have supported the ERA's concerns with the Planned Outage rates of some Scheduled Generators, and indicated support for providing incentives to encourage high availability and the retirement of unreliable Scheduled Generating Facilities.

Stakeholder suggestions in their submissions to the ERA included:

- amending clause 4.11.1(h) of the Market Rules to allow the IMO more flexibility to relate the quantity of assigned Certified Reserve Capacity to Scheduled Generator availability;
- adopting international best practice as the threshold for clause 4.11.1(h);
- reducing the quantity of Capacity Credits offered to Scheduled Generators with a record of frequent or long duration outages;
- ensuring effective price signals to encourage the retirement of poor-performing plant, such as through the introduction of financial penalties, market refunds or other compensatory mechanisms to apply to Scheduled Generators with high Planned Outage Rates;
- reducing the criterion referring to system capacity availability for mandatory reporting in clause 4.27.3;
- rigorous performance monitoring by the IMO and questioning of Planned and Forced Outages to identify where Planned Outages are excessive;
- annual reporting by IMO about the prevalence and extent of prolonged outages and comparison with industry best practice, and
- applying a discretionary limit to the amount of Planned Outages allowable for a Scheduled Generator.

The options explored in this section include a combination of more timely financial incentives and a mandate for the IMO to more closely monitor of the performance of low-availability

Scheduled Generators. The options aim to address the issues described in section 1, achieve the objectives listed in section 2, and consider the suggestions made by stakeholders in response to the ERA's 2012 Discussion Paper, as summarised above.

Note that unless otherwise specified, all references to a Facility in options below apply to Facilities of the Scheduled Generator class as defined under clause 2.29.

3.1 IMO's proposed measures to address the issue

The IMO Board has considered a number of options to improve incentives for Scheduled Generators to maintain availability levels consistent with good industry practice. It proposes a suite of measures to:

- Provide for more flexibility for the IMO in applying clause 4.11.1((h) to low-availability Scheduled Generators, which currently requires an 'all or nothing' decision on the assignment of Certified Reserve Capacity **(amendment to clause 4.11.1(h))**;
- Clarify the factors to be considered by the IMO in interpreting and applying clause 4.11.1(h), in the context of the value to the energy market of the applicant's capacity as well as system security **(new clause 4.11.1(hA))**;
- Progressively tighten the outage thresholds that will trigger the application of clause 4.11.1(h) and the Reserve Capacity Performance Adjustment **(new clause 4.11.1(hB))**;
- Strengthen the IMO's ability to more closely monitor individual Scheduled Generators displaying unacceptably low availability, by decoupling the performance monitoring power in clause 4.27 from overall system availability impairment and providing for the imposition of performance monitoring regimes overseen by independent auditors **(new clauses 4.27.3A and 4.27.7A and amendment to clause 4.27.2)**;
- Establish a Reserve Capacity Performance Adjustment to rectify the current lack of incentives in the Market Rules for poorly performing Scheduled Generators to improve availability levels **(new clause 4.27A)**;

The Market Procedure for Certifying Reserve Capacity will need to be amended to support changes to clause 4.11.1.

Consequential amendments will be identified during the Rule Change Proposal process.

An additional option would be to amend clause 4.12.6(b) which currently provides a strong perverse incentive to Market Participants to use excessive Planned Outages, with no Reserve Capacity consequences, to mitigate the risk of Forced Outages that incur Reserve Capacity Deficit Refunds.

3.2 Proposed changes to clause 4.11.1 of the Market Rules

Clause 4.11.1(h)

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

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

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

where the Planned Outage rate and the Forced Outage rate for a Facility for a period will be calculated in accordance with the Power System Operation Procedure. The IMO may consult with System Management in deciding whether or not to refuse to grant Certified Reserve Capacity under this clause 4.11.1(h);

Decisions made under clause 4.11.1(h) are not Reviewable Decisions under clause 2.17.1.

To support the IMO in making a decision under clause 4.11.1(h), it may use information provided by the applicant under clause 4.10.1 including expected (clause 4.10.1(e)(vi)) and actual (clause 4.10.1(e)(vii)) forced and unforced outage rates.

The Market Procedure for Certifying Reserve Capacity allows for the IMO to seek additional information from the applicant, including the causes of the past outages, the steps being taken by the applicant to reduce the outage rates, and the applicant's expectation of the level of future outages. The IMO may assess the likelihood that the applicant's actions will reduce the outage rates and consider whether the expected outages are likely to compromise the security and reliability of the SWIS. It may consult with System Management in making its decision.

3.2.1 Proposal 1 – Greater flexibility for the IMO in applying clause 4.11.1(h)

Clause 4.11.1(h) of the Market Rules is a 'go/no go' filter. The IMO has the option to not assign *ANY* Certified Reserve Capacity to a Scheduled Generator that breaches the outage rate threshold. However, if it does not exercise this option, it has no discretion to adjust the quantity of Capacity Credits to be assigned.

The current Market Rules do not have a mechanism for the IMO to consider the likely unavailability of the Scheduled Generator due to outages when determining the level of Certified Reserve Capacity to be allocated to the Facility.

Clause 4.11.1(a) refers to the 'IMO's reasonable expectation of the amount of capacity likely to be available….for Peak Trading Intervals on Business Days' between 1 October in Year 3 of the Reserve Capacity Cycle and 31 July in Year 4. Neither this nor any other clause specifies a minimum proportion of those Peak Trading Intervals during which the IMO should be able to reasonably expect that the capacity will be available.

Clauses 4.11.1(a), (b) and (g) place upper limits on the level of Reserve Capacity that the IMO may certify for a Facility, implying that a lower level may be assigned. However, other parts of the Market Rules including Appendix 3, and the Market Procedure for Certifying Reserve Capacity, imply a default level for Scheduled Generators that is the maximum sent-out capacity for the Facility within stated technical constraints and specific availability constraints (excluding outages) as identified by the applicant.

Under clause 4.12.3, the IMO must use the information described in clauses 4.10.1 and 4.25.12 to set the Reserve Capacity Obligation Quantity to apply to a Facility in each Trading Interval. The Reserve Capacity Obligation Quantity to apply to a Facility may differ between Trading Intervals. The information that must be provided by the applicant under clause 4.10.1 of the Market Rules includes previous and expected outage rates for the Facility as well as other restrictions on availability.

In effect, the existing Market Rules require the IMO to consider the availability of a Scheduled Generator in assessing how many Capacity Credits the Facility will be obliged to provide, but do not permit the IMO to consider availability when assessing the number for which it will be paid.

The proposed change to clause 4.11.1(h) would provide the IMO with three options in assessing applications for Certified Reserve Capacity for Facilities meeting the criteria in clause 4.11.1(h):

- assign no Certified Reserve Capacity to the Scheduled Generator;
- assign the full quantity of Certified Reserve Capacity to the Scheduled Generator under clause 4.11.1(a), subject to the other conditions of clause 4.11 being met; or
- assign a specified quantity of Certified Reserve Capacity to the Scheduled Generator that is greater than zero but less than the quantity that would be assigned if clause 4.11.1(h) did not apply.

Implementation: This measure could be implemented immediately.

3.2.2 Proposal 2 – Clarify the factors to be considered by the IMO in applying clause 4.11.1(h)

The Market Rules do not specify the purpose of clause 4.11.1(h) and do not provide guidance to the IMO in identifying and weighting the factors to be considered in the exercise of its discretion under this clause.

The proposed change to clause 4.11.1(h) of the Market Rules will specify, at a high level, the factors the IMO is to consider in deciding whether to exercise its discretion to not assign Certified Reserve Capacity to a Scheduled Generator with an excessive level of unavailability, or to assign a specified reduced quantity. It will also clarify the additional sources of information that the IMO may consult in obtaining the information necessary for its decision. These matters will be expanded in changes to the Market Procedure for certifying Reserve Capacity.

The IMO must be satisfied that its decision would not be contrary to the public interest having regard to the Market Objectives. Factors to be considered by the IMO in making its decision will include, but not be limited to:

(a) the extent to which the Reserve Capacity that can be provided by the Facility is necessary to meet the Reserve Capacity Target;

(b) whether the Reserve Capacity provided by the Facility is of critical importance to the SWIS, having regard to:

  i. the size of the Facility;

  ii. the operational characteristics of the Facility;

iii. the extent to which the Facility contributes to the security of the system through fuel diversity;

iv. the reliability trends of the Facility;

(c) whether a refusal to assign Certified Reserve Capacity to the Facility is likely to result in a material decrease in competition in at least one market;

(d) the extent of the net public benefit associated with assigning Certified Reserve Capacity to the Facility, in the context of the probable availability of its capacity to the energy market and the quantity of alternative Reserve Capacity likely to be available from Facilities to which the criteria in clause 4.11.1(h) do not apply;

(e) assurances and evidence provided by the applicant concerning the effectiveness of its strategy to maximise the availability of the Facility in the relevant Capacity Cycle consistent with good industry practice; and

(f) other relevant matters at its discretion.

The IMO will be able to take into account a range of information to assist it in assessing the factors above and making its decision, including:

(a) the extent to which the outage rates of the Facility exceed the thresholds set out in clause 4.11.1(h) and the total period over which they have been exceeded;

(b) relevant and accessible indicators of the reliability and availability of the Facility, including but not limited to the Equivalent Demand Forced Outage Rate (EFORd)[3];

(c) the causes of the outages in the previous 36 months, and whether the Planned Outages taken have demonstrably improved the availability trend of the Facility;

(d) the proportion of Planned Outages classified as Opportunistic Maintenance and the number of Planned Outages that were taken at short notice;

(e) the measures that the Market Participant has taken, is taking and proposes to take to improve the availability of the Facility, and the demonstrated or probable effectiveness of those remedial measures in reducing the level of outages in the Facility;

(f) the accuracy of any previous predictions made by the applicant concerning the availability performance of the Facility;

(g) the findings of an independent auditor as reported to the IMO under the proposed performance monitoring provisions in clause 4.27;

[3] This is not a generation performance indicator currently used in the WEM, but is becoming one of the major international performance indicators, particularly in deregulated markets. It is a measure of the probability that a generating unit will not be available due to forced outages or forced de-ratings when there is demand on the unit to generate. (Note the term 'forced outage' here is used according to the standard IEEE definition and refers to any condition requiring removal or partial removal of the unit from service that cannot be deferred beyond the end of the following weekend.)

(h) the applicant's documented maintenance schedule for the Facility, its monthly Planned Outage program for the next 36 months, and the extent to which this varies from the expected outage rates of the Facility based on manufacturer data;

(i) the expected number of days of Planned Outages to be taken by the Facility in the period 1 October of Year 3 and 31 July of Year 4 of the relevant Capacity Cycle, and the reasons for them;

(j) whether or not the outages of the Facility are compromising, or are likely to compromise, the ability of the Facility to contribute to the security and reliability of the SWIS; and

(k) whether or not the outages of the Facility appear to be reducing the level of competition or to be correlated with price spikes in the energy markets.

In making its decision, the IMO may consult on any relevant matter with System Management, an independent auditor commissioned in relation to a performance monitoring regime established under proposed changes to clause 4.27, and/or may seek the advice of an appropriately qualified independent expert, acceptable to the applicant and at the applicant's expense. The IMO will be required to document and publish the reasons for its decision.

Implementation: This measure could be implemented immediately.

3.2.3 Proposal 3 – Tighten the outage rate thresholds under clause 4.11.1(h)

The threshold outage criteria in clause 4.11.1(h) were set at a time when the average Forced Outage Factor of SWIS-connected conventional generation was around 4% and the Planned Outage Factor was approximately 10% (equating to an Availability Factor of 86%). At that time, Availability Factors for conventional generation plant in WA had been mostly in the range 85-92% for the previous decade.

A total outage factor of >30% was (and still is) indicative of the worst-performing decile of thermal generating plant by comparison with international benchmarks. It is likely that the original designers of this clause considered it improbable that the threshold would be breached by a Scheduled Generator in normal commercial operation.

This proposal will add a provision to clause 4.11.1 to progressively tighten the combined outage rate threshold in clause 4.11.1(h) from 30% to 20% over five years, with a corresponding change in the Forced Outage rate threshold.

The following glide path is proposed:

Year of glide path	Forced Outage rate greater than	Combined Planned Outage rate and Forced Outage rate greater than
0	15%	30%
1	14%	28%
2	13%	26%
3	12%	24%

4	11%	22%
5	10%	20%
Thereafter	subject to review	subject to review

The IMO will undertake a review, to be completed by 31 December of year 4, of the operation of clause 4.11.1(h) and the merits of further amending the outage thresholds in clause 4.11.1(h). The review will consider:

- the availability performance of the WA generation sector compared with generating plant in other markets, using IEEE Standard Definitions for Use in Reporting Electric Generating Unit Reliability, Availability, and Productivity (IEEE 762) or an appropriate equivalent;
- the number of Scheduled Generators in the SWIS to which the criteria in clause 4.11.1(h) have applied in each of the previous five years;
- the number of times in the previous five years that the IMO has exercised its discretion under clause 4.11.1(h) to assign no Certified Reserve Capacity or a reduced level of Certified Reserve Capacity to Scheduled Generators to which the criteria in clause 4.11.1(h) have applied;
- the number of Scheduled Generators to which a Reserve Capacity Performance Adjustment has been applied in each of the previous five years, and the number that have been liable for Reserve Capacity Performance Adjustments in successive years, and
- such other relevant matters as the IMO Board agrees

Implementation: This measure will require some notice to Market Participants. The Capacity Year of 2015/16 is proposed as Year 0.

3.2.4 What these proposals aim to do

- Replace the current all-or-nothing approach of clause 4.11.1(h) of the Market Rules with more flexibility for the IMO, allowing the IMO to acknowledge the contribution to the Reserve Capacity Target made by Scheduled Generators with poor availability, while reflecting the lower value of this contribution to the energy market and system security compared with more reliable Facilities in the same class;
- Provide parameters that allow the IMO to take into account the importance of the Scheduled Generator to the system, the probable reliability of the Facility, the value of its availability in the market and the potential impact on competition and energy markets of not allocating Certified Reserve Capacity to the Facility;
- Specify that the IMO may seek information from a variety of sources as necessary in making its decision under clause 4.11.1(h);
- Broaden the focus of the Reserve Capacity Mechanism beyond system security to include energy market efficiency;
- Provide an incentive to the worst-performing Scheduled Generators to raise their standards of availability;
- Reduce the incentives for Market Participants to retain unreliable and inefficient generation assets, and

- Reverse the downward trend in average WA generation availability (see Figure 1 in this paper) by progressively raising standards.

3.2.5 Impact and effectiveness of the measure

Affected Market Participants will see a reduction in revenue associated with a lower level of Capacity Credits being allocated to the low-availability Scheduled Generators they control. This should provide a greater incentive to maximise availability.

Net financial impact on the market –

- **Downward competitive pressure on energy prices if previously unavailable capacity is bid into the market as a result of the incentive.**
- **Potential reduction of the risk of price spikes resulting from a supply security event.**
- **Short Run Marginal Cost of older generators may increase to meet new availability standards, with a reflection in energy prices.**

Net economic impact on the market –

- **Potentially positive as a result of reduction of cross subsidies between Market Participants and improvement of availability due to the incentive.**
- **Potentially greater value for money if Reserve Capacity allocation better aligned with capacity availability.**
- **Potentially positive as an incentive to have efficient and reliable generation facilities.**

3.2.6 Challenges, risks and mitigation

Potential Risks and Challenges:

- Past performance may not be an accurate predictor of future performance.
- Allocation of a level of Certified Reserve Capacity may be seen as arbitrary.
- A Facility's three-year average may be affected by a single large outage event.
- The effectiveness of the measures will depend on Market Participants' expectations of the IMO's interpretation and application of clause 4.11.1(h).
- The loss of capacity revenue may affect the viability of the Market Participant.
- The incentive may be inadequate to improve the performance or bring forward the retirement of old Scheduled Generators with low fixed costs.
- Reserve Capacity may fall to unacceptable levels due to retirement of old Scheduled Generators without replacement.
- Overly stringent availability criteria may not be cost effective or economically efficient.

Mitigation Measures

- The IMO may seek additional information from the applicant, including the applicant's own expectations of the Scheduled Generator's outage performance, consult System

Management and independent expertise, and consider a variety of factors in making its decision under clause 4.11.1(h).

- Closer monitoring of an individual Scheduled Generator's performance by the IMO (see proposal 4 of this paper) would provide additional supporting evidence for its decisions.
- Past outage performance becomes more accurate as a predictor of future performance when trends over multiple years are considered, because the impact of single events is reduced. Outage rates over a 36 month period that are well in excess of standard industry practice indicate a chronic deficiency in reliability and ineffective remediation measures.
- A strong evidentiary base backed with broader information sources, transparent methodology and clear criteria will guide the IMO in its decisions under clause 4.11.1(h).
- The IMO will document and publish its reasons for its decision.
- The IMO will have discretion to take into account atypical events that could not reasonably have been foreseen by a competent Facility operator acting in accordance with good industry practice.
- The financial impact of the IMO's Reserve Capacity allocation decision under clause 4.11.1(h) is not experienced by the Market Participant until more than two years later, allowing time to adjust budgets, contracts and business plans.
- A reduction in a Market Participant's Certified Reserve Capacity in one Capacity Cycle could be reversed in the next Capacity Cycle if the Scheduled Generator's availability improved sufficiently to raise the 36 month average above the threshold in clause 4.11.1(h).
- If capacity revenue appears to operate as an incentive to retain Scheduled Generators with substandard availability despite the tightening outage criteria, the IMO may need to consider establishing a performance floor as a future option. This would require a change to clause 4.8.1 to ensure that Market Participants may not apply for Certified Reserve Capacity for Scheduled Generators with a five-year Equivalent Availability Factor (by industry standard definition) of less than a specified minimum.
- The inbuilt incentives in the Reserve Capacity Mechanism should operate to entice additional generation investment when needed if high-maintenance Facilities are retired, although a decision to retire without replacement tends to be a last resort for generating businesses. Some coal-fired generators in the NEM experienced very low capacity factors in 2012 without triggering retirement, although some have instituted seasonal shut-downs.
- Regular benchmarking of WA generation against industry standards should ensure that the criteria remain realistic and justifiable. Most existing Facilities in the SWIS have combined outage rates well below the 20% glide path end-point and would not be affected.

3.2.7 Assumptions

The quantity of Capacity Credits held by a Scheduled Generator should reflect its ability and willingness to make that capacity available to the energy market and contribute to efficient market outcomes.

A multi-year performance trend is a reasonable indicator of future performance unless the operator of the Facility has changed its strategy or undertaken a major reliability improvement in the Facility.

Claims that a high Planned Outage Rate over 36 months has effectively improved the overall availability of the Scheduled Generator should be substantiated through observable performance trends or independent audit.

If the Facility's outage record is poor, the onus of proof should be on the Market Participant to demonstrate that the Facility can maintain an acceptable level of availability in the Capacity Year for which it is seeking Certified Reserve Capacity.

Appropriate and comparable benchmarking data is well-established internationally over the long term, although standardised performance indicators for WA generation will need to be agreed.

3.3 Changes to clause 4.27 of the Market Rules

Clause 4.27 provides the potential for greater scrutiny and intervention by the IMO regarding Scheduled Generators with excessive Planned Outage rates. The effectiveness of this clause is severely limited by being triggered only if '*the number of days in the preceding 12 months where the total available capacity in the SWIS dropped below 80% (during the Hot Season), and 70% (in either the Intermediate Season or Cold Season), of the total Capacity Credits held by Market Participants for more than six hours*' exceeds 40 days to trigger clause 4.27.3 and 80 days to trigger clause 4.27.9. If the system availability criterion is met, then clause 4.27.3 provides:

4.27.3. If the number of days determined in accordance with clause 4.27.2 exceeds 40, then the IMO must require reports to be filed by those Market Participants holding Capacity Credits for each Facility which:

(a) has been unavailable due to Planned Outages for more than 1000 hours during the preceding 12 calendar months; and

(b) has not been included in such a report during the preceding 12 calendar months.

4.27.4. The reports described in clause 4.27.3 must include:

(a) explanations of all Planned Outages taken by the Facility in the preceding 12 calendar months;

(b) a statement of the expected maximum number of days of Planned Outages to be taken by the Facility in each of the next 24 months commencing from the month in which the report is requested, including adequate explanation to make clear the reason for each Planned Outage; and

(c) measures proposed by the Market Participant to increase the availability of the Facility.

4.27.5. A Market Participant must provide a report described in clause 4.27.3 to the IMO in a format specified in the Reserve Capacity Procedure within 20 Business Days of being requested to do so.

Clause 4.27.7 permits the IMO, at its discretion, to limit the number of Planned Outage days that may be taken in the next 24 months if it considers that the Market Participant's proposed rate is unjustified based on good industry practice.

If the 80 day criterion is met, clause 4.27.9 requires the IMO to cease adjusting Reserve

Capacity Obligation Quantities for the Scheduled Generators meeting the criteria in clause 4.27.3 once they exceed the number of days of Planned Outage predicted by the Market Participant or determined by the IMO.

3.3.1 Proposal 4 – Provide for independent performance monitoring for Facilities taking excessive Planned Outages

The IMO does not have any discretion to apply clauses 4.27.3 – 4.27.9 unless the total system available capacity reduction threshold is met. This threshold has not been met since the commencement of the market, and the probability of it being met in the future is negiligible. The current Market Rule also allows only for a one-off report not more than annually from an eligible Facility.

This level of scrutiny is inadequate for effectively monitoring the performance of individual Scheduled Generators with unacceptably high outage rates. The unavailability of these Scheduled Generators has implications for the efficiency of the energy market that is unrelated to the level of total system capacity availability as measured in clause 4.27.2.

This proposal will amend clause 4.27 to:

- Add a new clause 4.27.3A to provide the IMO with the discretion to require reports from a Market Participant holding Capacity Credits for a Scheduled Generator breaching a Planned Outage Rate threshold, proposed to be 1,750 equivalent Planned Outage hours (about 20%), regardless of the availability of total system capacity;
- Add a new sub-clause 4.27.7(b) to allow for the IMO, if it believes that the Planned Outage hours proposed by the Market Participant for the next two years to be inconsistent with good industry practice, to mandate the appointment of an independent auditor by the IMO, to undertake a performance monitoring program, at the Market Participant's expense, until the eligible Scheduled Generator's outage performance returns to acceptable levels;
- Add a new clause 4.27.7A to set out the parameters of the performance monitoring regime as described below.

If the IMO mandates an independently audited performance monitoring regime for a Scheduled Generator, then it will consult with the Market Participant holding the Capacity Credits prior to appointing a mutually acceptable independent auditor with appropriate expertise to:

(a) Provide an initial report to the IMO within one month that includes:

  i. A comparison of the performance of the Facility over the last three years with similar plant in other markets;

  ii. Details of the Market Participant's long term maintenance strategy for the Facility and assessment against standard industry practice;

  iii. Details of the 12-month maintenance plan for the Facility and commentary on its contribution to the long term maintenance strategy and improved availability of the Facility; and.

(b) Provide a quarterly review to the IMO within one month of the end of each quarter that includes:

i. An assessment of all outages within the quarter to:

- Compare the outages with the long term maintenance strategy and 12 month outage plan;
- Assess the improvement to the availability of the Facility that will result from each Planned Outage taken within the quarter;
- Determine whether each outage was appropriately classified as a Planned or a Forced Outage consistent with industry standard definitions and the Market Objectives.

ii. An update of the historic rolling 36-month Forced Outage rate and Planned Outage rate for the Facility;

iii. A forecast of the expected change to the outage rate for the Facility, over the next three years, based on the outages taken during the quarter and the future maintenance plans; and

iv. A site visit report.

The independent auditor will be required to visit the Facility at least once each quarter, with at least two visits per year to coincide with a Planned Outage. The IMO will be required to provide the Market Participant with copies of the auditor's reports, and to consider the Market Participant's response to the auditor's findings. The IMO will be required to consult with System Management on the implications of the auditor's reports and the Market Participant's response.

The performance monitoring regime would be terminated when the Scheduled Generator, in the opinion of the IMO and the independent auditor, achieved a sustained availability performance standard agreed between the IMO and the Market Participant.

Implementation: This measure could be implemented immediately**.**

3.3.2 What this proposal aims to do

- Decouple Scheduled Generator performance reporting from the availability of total system capacity.
- Impose a higher level of scrutiny, at the IMO's discretion, on individual Scheduled Generators undertaking a high level of Planned Outages.
- Extend the one-off report requirement currently provided for in clause 4.27.3 to allow for a regular performance monitoring regime with quarterly reports from an independent auditor until the Scheduled Generator returns to an outage rate consistent with good industry practice or achieves agreed performance standards.
- Provide additional detailed data on individual Facilities to inform the decisions of the IMO under clause 4.11.1(h) if a monitored Scheduled Generator applies for Certified Reserve Capacity.
- Enable the IMO to warn Market Participants if the Forced Outage Rate or combined outage rates of a monitored Facility approach the level that would trigger clause 4.11.1(h) in the next Reserve Capacity Cycle.

3.3.3 Impact and effectiveness of the measure

The additional information collected through the performance monitoring mechanism will greatly strengthen the evidentiary base on which the IMO will make decisions under clause 4.11.1(h) if that Scheduled Generator applies for Certified Reserve Capacity.

Net financial impact on the market –

- **Minimal because most costs will be borne by the Market Participant responsible for the Scheduled Generator concerned.**

Net economic impact on the market –

- **Positive if monitoring results in more efficient operation of the Scheduled Generator and higher availability of its capacity in the energy market.**
- **Positive through a stronger base for IMO decision making on the allocation of Certified reserve Capacity to low-availability Scheduled Generators.**

3.3.4 Challenges, risks and mitigation

Potential Risks and Challenges:

- Intensive monitoring of all Scheduled Generators taking more than 1,000 hours of Planned Outages in 12 months (clause 4.27.3 criterion) is unlikely to be cost effective.
- Market Participants will incur additional costs for performance monitoring.
- The need to assess monitoring reports will place pressure on IMO resources.
- Information provided with respect to the Facility may not be reliable.
- Commercially confidential information about a Scheduled Generator or Market Participant's business model may be disclosed.
- The costs associated with performance monitoring are unlikely to provide a strong incentive to a Market Participant to improve a Scheduled Generator's outage rates.

Mitigation Measures:

- Set the level of Planned Outages triggering the IMO's consideration of whether to require a report and potentially a performance monitoring regime at a less stringent level:
  - 30% Planned Outage Rate in the previous 12 months (2,628 equivalent hours) – five Scheduled generators currently breach this threshold; or
  - 20% Planned Outage Rate in the previous 12 months (1,750 equivalent hours), is proposed. This level is intermediate between the existing clause 4.27.3 criterion and the clause 4.11.1(h) criterion (eight Scheduled Generators currently breach this threshold).
- Exempt atypical events such as major overhauls required under manufacturers' recommended maintenance schedules from the calculation of annual Planned Outage hours.
- The first level of the IMO's discretionary response to high Planned Outage Rates would be a report from the Market Participant as described in clause 4.27.4, with the IMO having the

discretion whether to impose an independent performance monitoring regime on eligible Facilities after considering the report.

- IMO could exercise its discretion to limit intensive monitoring to those Scheduled Generators that the IMO considers have the greatest impact on the market when they are unavailable.
- Commissioning, at the Market Participant's expense, a mutually acceptable independent expert to undertake the performance monitoring should instil confidence in the reliability of the information.
- The IMO may additional opinions from System Management and other qualified experts.
- Outage rates for individual Scheduled Generators are already public information. Operational detail would be subject to the confidentiality arrangements that apply to other commercially sensitive information provided by Market Participants to the IMO.
- The reputational risk of scrutiny and of having substandard performance reported may be an incentive to Market Participants to initiate improvement.

3.3.5 Assumptions

Effective asset management strategies can be expected to already record the information required by the IMO. The additional cost to affected Market Participants would therefore be limited to the independent verification and assessment.

The current non-discretionary requirement for the IMO to take action when the system capacity availability is significantly impaired would be retained, although the probability of this criterion being met is extremely low.

3.4 New Performance Adjustment as an incentive to maximise Scheduled Generator availability

Under the current Market Rules, the only sanction available to the IMO to apply to a Scheduled Generator with total outage rates greater than the threshold in clause 4.11.1(h) is the potential refusal by the IMO under that clause to allocate Certified Reserve Capacity.

3.4.1 Proposal 5 – Establish a Reserve Capacity Performance Adjustment

This proposal will introduce an additional incentive to low-availability Scheduled Generators to improve their availability. It will apply a Reserve Capacity Performance Adjustment based on their total outage rate for the previous 36-month period, for Scheduled Generators breaching the threshold specified in clause 4.11.1(h).

It is proposed that if a Scheduled Generator meets the criteria in clause 4.11.1(h)(i) over a given 36 months, then the Market Participant holding Capacity Credits for that Facility would be required to pay a Reserve Capacity Performance Adjustment for the Facility in the following year.

The Reserve Capacity Performance Adjustment payable by a Market Participant for an eligible Facility would be calculated by multiplying:

the total number of Capacity Credits allocated to the Facility for the Capacity Year

by the combined Planned Outage rate and Forced Outage rate for the Facility for the previous three years,

then multiplying the product by the Reserve Capacity Price for the current year,

In each year that the Facility breaches the outage thresholds stated in clause 4.11.1(b):

$FRCPA_{y4} = (TCC_{y4} \times EUF_{y1\text{-}y3} \times RCP_{y4})$

Where:

FRCPA	is the Facility Reserve Capacity Performance Adjustment for to be paid in that year by the Market Participant holding Capacity Credits for the eligible Facility;
TCC	is the total Capacity Credits allocated to the Facility for that year;
EUF	is the Equivalent Unavailability Factor for the eligible Facility, equal to the combined Planned Outage rate and Forced Outage rate for the Facility for the previous three years calculated in accordance with the Power System Operation Procedure;
RCP	is the Reserve Capacity Price for that year calculated in accordance with clause 4.29.1(c).

The maximum Facility Reserve Capacity Performance Adjustment that can apply to an eligible Facility would be the multiple of the Capacity Credits assigned to that Facility and the Reserve Capacity Price. The funds collected from Reserve Capacity Performance Adjustments would be distributed in the same manner as Reserve Capacity Deficit Refunds.

Setting the Reserve Capacity Performance Adjustment at the actual combined outage rate of the Facility, not the amount by which it breached the threshold, will maximise the financial incentive to reduce outage rates.

- For example, a Market Participant may hold 100 MW of Capacity Credits for a Scheduled Generator with a combined Planned Outage rate and Forced Outage rate over the previous 36 months of 40%. A 40% Reserve Capacity Performance Adjustment would be applied to the Facility in the subsequent year.
- The Market Participant holding the Capacity Credits for the Facility would be required to pay a Reserve Capacity Performance Adjustment for the Facility of (100MW x 0.4 x Reserve Capacity Price for that year),.

The IMO would have discretion to waive the Reserve Capacity Performance Adjustment for an individual Facility if the Market Participant could demonstrate that its high outage rate was due to exceptional circumstances and the Performance Adjustment would unfairly disadvantage it.

The application of the Reserve Capacity Performance Adjustment would be independent of whatever decision the IMO made under clause 4.11.1(h), although the same outage rate threshold would be used to determine eligibility.

This proposal would require a new Market Rule to establish a mechanism for the Reserve Capacity Performance Adjustment.

Implementation: This measure may need a transition period to enable Market Participants to manage their potential liability for Scheduled Generators for which they hold Capacity Credits.

3.4.2 What the proposal aims to do

- Impose a Performance Adjustment to recognise that the Scheduled Generator had received Reserve Capacity revenue over a three year period for capacity that it had not made available to the market at an acceptable level. Consequential Outages would not be included.
- Send an immediate financial signal to Market Participants holding Capacity Credits for Scheduled Generators, that part of their revenue associated with Certified Reserve Capacity will be at risk if their Facility's outage rates exceed the total outage rate threshold specified in clause 4.11.1(h).
- Complement the current incentive in clause 4.11.1(h), which, at the IMO's discretion applies a consequence that lags the behaviour by more than two years, with a more immediate financial consequence for poor outage performance over multiple years.
- Provide a stronger financial incentive for Market Participants to maintain the availability of their Scheduled Generators consistent with good industry practice.
- Eliminate the current cross subsidy inherent in having Scheduled Generators entitled to the same capacity revenue regardless of how frequently they make that capacity available to the energy market.

3.4.3 Impact and effectiveness of the measure

This measure has the advantage that the consequence of poor performance is experienced in the year immediately following the performance failure.

Net financial impact on the market –

- **Neutral in that the funds collected from the Reserve Capacity Performance Adjustment would be reallocated among Market Participants.**
- **The cost of revenue retrieval from Facilities subject to Performance Adjustment would be minimal if integrated with existing refund mechanisms.**
- **Positive impact on energy prices if incentive leads to previously unavailable capacity being bid into the market.**

Net economic impact on the market –

- **Positive due to removal of cross subsidies and improvement in availability due to incentive.**

3.4.4 Challenges, risks and mitigation

Potential Risks and Challenges:

- Market Participants with poorly performing Facilities may target the achievement of a combined outage rate just below the threshold to avoid the Performance Adjustment. This would still deliver an unacceptable availability level for the market.
- Market Participants may be tempted to under-report outages.
- A Market Participant may be penalised twice for the same outages if it has already paid Reserve Capacity Deficit Refunds for the Forced Outage component of its total outages over the three years.
- A single large outage event may push the Scheduled Generator over the threshold.
- The Reserve Capacity Price applied to the Performance Adjustment calculation may vary significantly from the Reserve Capacity Price or bilateral trade price received by the Market Participant in the years in which its outage rates were high.
- The financial viability of a Market Participant may be affected by the Performance Adjustment.

Mitigation Measures:

- The proposed progressive tightening of availability performance thresholds in clause 4.11.1(h) will ensure improvement even if Market Participants target minimally complying performance.
- System Management is responsible for monitoring compliance with outage notification requirements. If breaches occur, more stringent monitoring and increased penalties may be required.
- Allowing the amount already paid on behalf of the Scheduled Generator in Facility Reserve Capacity Deficit Refunds to be offset against the Reserve Capacity Performance Adjustment liability could eliminate the risk of losing capacity revenue twice for the same outages.
- A Scheduled Generator at risk of having a Reserve Capacity Performance Adjustment imposed may already be subject to increased performance monitoring by the IMO, which will warn it about the emerging risk of a Performance Adjustment.
- Eligibility for a Reserve Capacity Performance Adjustment is based on a high outage rate over three consecutive years, reducing the impact of any single large outage event.
- The mechanism would include IMO discretion to exclude exceptional events from outage calculations for the purposes of the Performance Adjustment.
- The variation of the Reserve Capacity Price on which the Performance Adjustment is based from the price that was earned by the Scheduled Generator during the periods of unavailability may affect the Market Participant either positively or negatively
- A long lead time for the implementation of this measure will provide a transition period for potentially affected Market Participants to adjust their outage strategies and business models to mitigate the risk of having a Reserve Capacity Performance Adjustment imposed.

4 ADDITIONAL OPTIONS FOR FUTURE CONSIDERATION

4.1 Reduce the number of outages for which Reserve Capacity Obligation Quantities can be adjusted

Clause 4.12.6(b)

4.12.6 (b) subject to clause 4.27.9, during Trading Intervals where there is a Consequential Outage or a Planned Outage for a Facility provided to the IMO by System Management in accordance with clause 7.3.4, the IMO must reduce the Reserve Capacity Obligation Quantity for that Facility, after taking into account any adjustments in accordance with paragraph (a), to reflect the amount of capacity unavailable due to that outage;

This clause protects Market Participants holding Capacity Credits for those Scheduled Generators from the Reserve Capacity Deficit Refund which would otherwise apply under clause 4.26 to a Facility failing to deliver its Reserve Capacity Obligation Quantities in any Trading Interval.

The protection that clause 4.12.6(b) provides for unreliable Scheduled Generators is significantly increased by the very broad definition of Planned Outages, defined in clause 3.19.11 as any outage that is approved by System Management. In addition:

- Clause 3.18.5 allows Market Participants to submit an Outage Plan to System Management for approval with no more than two days' notice prior to the proposed commencement of the outage.
- Clause 3.19.2 allows Market Participants to seek System Management's approval for unscheduled Opportunistic Maintenance with as little as one hour's notice for an outage confined to a single Trading Day, for minor maintenance that does not require changes to scheduled energy or ancillary services. Opportunistic Maintenance is specifically classified as a Planned Outage under clause 3.19.11.

Clause 4.27.9 requires the IMO to limit Planned Outage rates in specific circumstances:

4.27.9. If the number of days determined in accordance with clause 4.27.2 exceeds 80 then the IMO must:

(a) notify all Market Participants that this has occurred; and

(b) the 12 months commencing from the first Trading Day of the following month, cease to adjust Reserve Capacity Obligation Quantities under clause 4.12.6(b) in response to Planned Outages for Facilities:

i. referred to in clause 4.27.3; and

ii. *for which the number of days of Planned Outage during that 12 month period has exceeded the total number of days of Planned Outage predicted for that 12 month period in accordance with clause 4.27.4(b), as modified by clause 4.27.8.*[4]

As with the performance monitoring provisions in the existing clause 4.27.3, clause 4.27.9 is ineffective in practice because of the negligible probability of the total system capacity availability criterion being met.

4.1.1 Proposal to limit the hours of Planned Outages that can be claimed as a reduction of Reserve Capacity Obligation Quantity

The effect of the existing clause 4.12.6(b) is to grant Scheduled Generators an unlimited entitlement to have their Reserve Capacity Obligation Quantity reduced for the Trading Intervals during which their capacity is unavailable due to Planned Outages.

This is the specific clause that provides the perverse incentive to Scheduled Generators to maximise Planned Outages (which attract no penalty) as a measure to mitigate the risk of Forced Outages, which are heavily penalised under clause 4.26. This clause is a key enabler for the low availability trends displayed by some Scheduled Generators.

Clause 4.12.6(b) does not take into account the potential significant negative impact on the efficiency of the energy market of allowing Scheduled Generators an unlimited right to withdraw their capacity from the market without risking their capacity revenue.

If the proposals described in section 3 of this paper are not sufficiently effective in reducing excessive outage rates, then a broader limitation may be needed in Clause 4.12 to place an upper limit on the number of Trading Intervals in a year for which the Reserve Capacity Obligation Quantity for a Facility may be reduced under clause 4.12.6(b) for Planned Outages.

A Scheduled Generator's Planned Outages in excess of the limit may then attract liability for Reserve Capacity Deficit Refunds under clause 4.26. Once the Planned Outage limit is exceeded by a Scheduled Generator, there will be no differentiation between Planned Outages and Forced Outages for the purposes of clause 4.26, although Consequential Outages will still be claimable as a reduction in Obligation Quantities.

The upper limit Planned Outage Rate is proposed to be set at a level unlikely to be breached by a Scheduled Generator operating in accordance with good industry practice, other than in years when an infrequent long Planned Outage may be scheduled to undertake major testing, inspection or overhauls recommended by the manufacturer as part of a formal maintenance schedule.

If this change is progressed, Market Participants would be able to seek pre-approval for exemption of major scheduled Planned Outages required to comply with manufacturers' recommended maintenance schedules for their Facilities.

[4] Clauses 4.27.7 and 4.27.8 permit the IMO to limit the number of days of Planned Outages in each of the subsequent 24 months, that may be taken by a Scheduled Generator required to report under clause 4.27.3.

The application to the IMO to exempt a Planned Outage from the limit would need to be made well in advance of the proposed commencement of the relevant Planned Outage. The IMO would be able to request supporting information from the Market Participant, consult with System Management and seek appropriately qualified advice in considering such a request, but would not unreasonably refuse a request to exempt a qualifying outage event.

A more targeted alternative would be to amend clause 4.27.9 to make it applicable to Scheduled Generators subject to the performance monitoring provided for in the proposed new clause 4.27.3A.

4.1.2 What this proposal would aim to do

- Apply to Facilities to which Reserve Capacity Obligation Quantities have been assigned and which take Planned Outages in excess of standard industry practice.
- Expose a Market Participant under clause 4.26 to the risk of Reserve Capacity Deficit Refunds for a Scheduled Generator for Planned Outages in excess of a limit aligned to standard industry practice.
- Reduce the incentive for a Market Participant to minimise Forced Outages through excessive use of Planned Outages by applying consequences to the excess.
- Reduce the incentive to retain high-maintenance Scheduled Generators that can operate reliably only by making use of excessive Planned Outages.
- Provide an early warning to Scheduled Generators with declining availability due to excessive Planned Outages, to encourage them to take remedial action prior to breaching the outage criteria set out in clause 4.11.1(h).
- Differentially affect Scheduled Generators with inefficient Planned Outage strategies – the treatment of Forced Outages and Consequential Outages would not change.
- Allow justified exemptions from the limit for major scheduled outages such as inspections, testing and overhauls that must be undertaken to comply with a manufacturer's recommended maintenance schedule.

4.1.3 Impact and effectiveness of the measure

The immediacy of the consequence would be a key benefit of this option and would provide a strong financial incentive to Market Participants to plan outages well in advance and to use them effectively.

This option would send a weaker signal to Market Participants than the Reserve Capacity Performance Adjustment option described above, as it would apply only to Planned Outages above the defined limit, not to the total outage rate.

Combining the measures would deliver a strong incentive to reduce total outage rates, with the Performance Adjustment effectively then removing the protection provided by clause 4.12.6(b) for Planned Outages below the limit, although a mechanism may be needed to account for any amount already paid as Reserve Capacity Refunds in assessing the Reserve Capacity Performance Adjustment.

Net financial impact on the market –

- **Potentially some cost in processing an increased number of Reserve Capacity Deficit Refunds.**
- **Potentially a positive impact on energy prices and a reduced risk of price spikes if previously unavailable capacity is bid into the market.**
- **Possible short-term negative price impact if incentive leads to retirement of Scheduled Generators unable to reduce their Planned Outage Rate.**

Net economic impact on the market –

- **Positive due to removal of cross-subsidies and improvement in availability due to incentive.**

4.2 Align the generation performance indicators used in the Market Rules with international standards

The definitions of Forced Outages, Planned Outages, Forced Outage Rates and Planned Outage Rates in the Market Rules vary significantly from the generation availability performance indicators used by international benchmarking bodies and other markets. This complicates benchmarking of either generating Facilities or the generation sector of the system against broader industry standards. The outage definitions in the WEM may also reduce the effectiveness of some market incentives.

For example, the Market Rules have a simple definition that Planned Outages are any outages for which System management has given permission and Forced Outages are outages that are not approved by System Management. Industry standard definitions by contrast mostly define Forced Outages by the urgency with which a unit must be removed from service for work to be done, which is a more accurate measure of the reliability of a unit for planning purposes. In the Market Rules, Forced Outage Rates are defined in terms of period hours rather than service hours, as is the usual definition. In the Market Rules, outage rates are also defined in terms of Capacity Credits held rather than Facility capacity, which may be problematic if Certified Reserve Capacity does not equal maximum sent-out capacity.

It is recommended that consideration be given to aligning the definitions of generation availability indicators with international standards, such as the IEEE Standard Definitions for Use in Reporting Electric Generating Unit Reliability, Availability, and Productivity (IEEE 762) or equivalent appropriate derivations of these definitions used by major industry benchmarking bodies. The necessary data is already collected; only the classifications and indices would be affected.

5 CONCLUSION

The proposals described above have been considered by the IMO. The Board believes that they will introduce effective incentives to limit the number of hours that a Scheduled Generator is unavailable in the energy market, particularly when the unavailability is due to factors under

its control, such as Planned Outages.

This suite of measures re-establishes the linkage between the Reserve Capacity Mechanism and the efficiency of the energy market, and reinforces the market's expectation that the receipt of revenue from Certified Reserve Capacity carries with it an obligation to maximise the availability of the recipient's capacity to the market to the extent that it is capable, not merely to be available during times of highest annual peak demand.

Maximising the quantity of capacity that is available to the market provides a stronger buffer against the risk of price spikes should a quantity of capacity become unexpectedly unavailable and is also likely to reduce average prices through competitive pressure.

These initiatives will reduce the financial incentive for retaining high maintenance Scheduled Generators that depend on excessive Planned Outages to remain reliable when dispatched. This may encourage the retirement and replacement of inefficient, unreliable Scheduled Generators with more efficient and reliable plant, for the overall benefit of the customers who receive their electricity supply from the SWIS.

Providing for closer scrutiny of Scheduled Generators at risk of incurring outage-related sanctions will provide the IMO with more information to inform its decisions, particularly concerning applications for Certified Reserve Capacity from Scheduled Generators with poor availability performance. It will also allow the IMO to notify Market Participants of deteriorating performance prior to the application of sanctions such as loss of Certified Reserve Capacity or Reserve Capacity Performance Adjustments.

The IMO anticipates that these Market Rule changes will help to arrest the recent decline in the average availability performance of the WA generation sector, and potentially facilitate international generation performance benchmarking.

The mitigation of any increased financial risk to Market Participants with poorly performing Scheduled Generators is within the management control of those Market Participants, who will need to adjust their business models and asset management strategies to the new incentives. Lead periods for specific Market Rule changes will be considered to allow for affected Market Participants to plan for the transition.

The overall impact on the market is expected to be financially neutral to positive, and to deliver net economic benefits. Equity between competing Market Participants will be improved by the removal of cross-subsidies.

The above proposals are considered consistent with, and likely to facilitate the achievement of, the Market Objectives to *promote the economically efficient….and reliable production and supply of electricity*, to *encourage competition among generators….including by facilitating efficient entry,* and to *minimize the long-term cost of electricity supplied to customers.*

Other proposals are also provided for information and potential future consideration.

Agenda Item 6a: 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)	6th February 2013	13th March 2013
Fast track with Consultation Period open	1	0
Standard Rule Changes with 1st Submission Period Open	1	0
Fast Track Rule Changes with Consultation Period Closed (final report being prepared)	0	0
Standard Rule Changes with 1st Submission Period Closed (draft report being prepared)	6	5
Standard Rule Changes with 2nd Submission Period Open	0	2
Standard Rule Changes with 2nd Submission Period Closed (final report being prepared)	1	1
Rule Changes - Awaiting Minister's Approval and/or Commencement	4	4
Total Rule Changes Currently in Progress	**13**	**12**

Potential changes logged by the IMO- Not yet formally submitted	November	December/ January	February/ March
High Priority (to be formally submitted in the next 3/6 months)	0	0 (+0/-0)	0 (+0/-0)
Medium Priority (may be submitted in the next 6/12 months)	25	27 (+2/-0)	25 (+0/-2)
Low Priority (may be submitted in the next 12/18 months)	24	26 (+2/-0)	25 (+2/-1)
Potential Rule Changes (H, M and L)	**49**	**53**	**50**

The changes in the rule change issues log from December to March are outlined below:

Priority	Issue
High	• N/A
Medium	**In:** • **LFAS Facility Definition:** Clauses 7.13.1(e), (eA), (eB) and (eC) require System Management to provide to the IMO for each Trading Interval the ex-post LFAS enablement quantities for each LFAS Facility. These quantities are used to calculate LFAS payments under clause 9.9.2. However, the definition of "LFAS Facility" in the Glossary excludes both the Verve Energy Balancing Portfolio and the individual Facilities contained within it. A literal interpretation would lead to the absurd outcome where System Management did not provide ex-post LFAS enablement quantities for the VEBP and Verve Energy did not therefore receive any payment for providing LFAS. The IMO considers the failure to specify the VEBP in these clauses is a manifest error in the Market Rules. • **Tolerance Ranges:** Clause 2.13.6D confers discretion on System Management to calculate tolerances should it choose to do so. System Management has exercised this discretion in setting a Tolerance Range for Scheduled Generators only. However, clause 2.13.6D refers to determining a Tolerance Range to apply to all Facilities. System Management is of the view that this is an issue of ambiguity within the Market Rules, and that this ambiguity could be addressed through amending clause 2.13.6D so that it explicitly provides for System Management to determine Tolerance Ranges for classes of Facilities. Further, it is not clear under the current Market Rules how often Tolerance Ranges may vary. For example, System Management has defined the Tolerance Range for Scheduled Generators in terms of a formula. The parameters for this formula include Standing Data items for the relevant Facility, so that the actual Tolerance Range value varies from one Facility to another, and may change for one Facility during a year. More frequent updates could be possible if a different formula was adopted. Uncertainty about the level of volatility of Tolerance Ranges creates difficulties in the design of supporting IT systems and interfaces. **Out:** • **Impact of clause 7.2.3A on IPP LFAS Facilities:** Progressed as PRC_2013_06. • **LFAS Facility Definition:** Progressed as PRC_2013_03.

Low	**In:** • **Limit on Demand Side Programme Capacity Cost Refunds:** Clause 4.26.3(a) places a limit on the Generation Capacity Cost Refund (GCCR) for a Market Participant in a Trading Month, so that the total GCCRs for the Market Participant over the relevant Capacity Year cannot exceed the Maximum Participant Generation Refund (MPGR) defined in the Refund Table in clause 4.26.1. The MPGR is the calculated as the total Capacity Credit payment to the Market Participant in the relevant Capacity Year (excluding payments for DSPs), assuming the IMO acquires all of the relevant Capacity Credits and the cost of each Capacity Credit so acquired is determined in accordance with clauses 4.28.2(b), (c) and (d) (as applicable). This means that any Capacity Credits covered by a Long Term Special Price Arrangement (LTSPA) or Short Term Special Price Arrangement (STSPA) are accounted for correctly. For DSPs a corresponding limit on the Demand Side Programme Capacity Cost Refund is prescribed in clause 4.26.3A(a). However, the calculation of this limit assumes that all of the relevant Capacity Credits are acquired by the IMO at the Monthly Reserve Capacity Price. The limit in clause 4.26.3A(a) needs to be amended to apply the appropriate refund price to Capacity Credits for DSPs covered by an LTSPA or STSPA. • **Obligations for LoadWatch Data and Publication, Supply of Provisional RDQ and EOI Data:** An obligation needs to be included into the Market Rules top formalise the requirement for System Management to deliver LoadWatch data to the IMO each summer. The requirement would be for the data to be delivered each Monday (before noon) between 1 December and 31 March each summer. Required data would include forecast minimum and maximum temperature, and forecast system load, for the weekdays of that week (Monday to Friday). The obligation on the IMO should be to publish the LoadWatch report each Monday of summer. An obligation also needs to be included to formalise the requirement for System Management to deliver provisional RDQ and EOI data for each Trading Interval within five minutes of the end of the Trading Interval. This data is required by the IMO for the calculation of Balancing prices and Out of Merit quantities. • **Adjustments to Settlement Statements:** Clause 9.16.3 of the Market Rules notes that the IMO must undertake an Adjustment Process to facilitate corrections from notices of disagreements, resolution of disputes, revised metering data, revisions to fees/fee rates and a Facility's compliance to a Dispatch Instruction. Clause 9.16.3A describes the situations where a Settlement Statement could be adjusted and in addition clause 9.19.1 notes the situations that IMO must take into account when adjusting a Settlement Statement. Both clauses 9.16.3A and 9.19.1 are missing a reference to revisions to fees/fee rates. These two clauses should contain a reference to revisions of fees/fee rates as prescribed in clause 9.16.3. • **Process for Nominating Stand Alone Facilities:** 7A.4.4 requires, following a trial of a Stand Alone Facility, Verve to make its nomination in relation to that facility exactly 7 business days prior to the end of the trial month. The clause should be relaxed to allow the nomination to occur at any time, provided that it is done at least 7 business days prior to the end of the trial month.

	Out: • **Obligations for LoadWatch Data and Publication, supply of provisional RDQ and EOI data:** Progressed as PRC_2013_05.

The IMO also notes that it keeps a log of Minor and Typographical issues and Rule Change Suggestions that is updated on a regular basis. The Issues contained within the Minor and Typographical Log are collated and submitted in batches during the year. Rule Change Suggestions contained on the IMO's log form the basis for the Market Rules Evolution Plan.

OTHER BUSINESS RELATING TO RULE CHANGES

Proposed Changes to the Regulations

The IMO wishes to advise the MAC that a letter was sent to the Public Utilities Office on 21 December 2012 requesting amendments to the WEM Regulations as a result of RC_2012_06: Clarification of Reviewable Decisions and Definition of Regulations and RC_2012_12: Commissioning Test Plans, with a proposed commencement date of 1 April 2013.

The Public Utilities Office responded to the IMO on 6 February 2013 advising that they are not comfortable with including 3.21A.5 as a civil penalty provision at this time. The Public Utilities Office has suggested that the language in the rules be modified to provide an overt obligation should the IMO wish to include as a civil penalty provision and if this is intended, it is suggested that clause 3.18.7 be modified as well.

The Public Utilities Office has also proposed to modify the commencement date to 1 June 2013.

APPENDIX 1: FORMALLY SUBMITTED RULE CHANGES (Current as of 13th March 2013)

Standard Rule Change with First Submission Period Closed

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2012_02	03/09/2012	Relevant Demand of a Demand Side Program	EnerNOC	Draft Rule Change Report Published	15/05/2013
RC_2012_07	20/11/2012	Loss Factor Determination	IMO	Draft Rule Change Report Published	15/03/2013
RC_2012_10	22/06/2012	Limits to Early Entry Capacity Payments	Synergy	Draft Rule Change Report Published	22/04/2013
RC_2012_20	21/01/2013	Consideration of Network Constraints for Certified Reserve Capacity	IMO	Draft Rule Change Report Published	06/03/2013
RC_2012_22	11/12/2012	Commitment and De-commitment Notification Requirements	System Management	Draft Rule Change Report Published	21/03/2013

Standard Rule Change with Second Submission Period Open

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2012_21	20/11/2012	5-Yearly Review of Planning Criterion	IMO	Submissions close	19/03/2013
RC_2012_24	18/12/2012	Cure Notices and Credit Support	IMO	Submissions close	04/04/2013

Standard Rule Change with Second Submission Period Closed

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2012_11	30/07/2012	Transparency of Outage Information	IMO	Final Rule Change Report Published	22/03/2013

Fast Track Rule Change Awaiting Ministerial Approval

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2012_25	21/01/2013	Constrained On/Off Compensation Removal where a Facility is Non-compliant with Dispatch Instructions	IMO	Ministerial Approval	22/03/2013

Standard Rule Change Awaiting Commencement

ID	Date submitted	Title	Submitter	Next Step	Date
RC_2011_02	10/03/2012	Reassessment of Allowable Revenue during a Review Period	ERA	Commencement	01/07/2013
RC_2012_06	07/11/2012	Clarification of Reviewable Decisions and Definitions of Regulations	IMO	Commencement	01/04/2013
RC_2012_12	25/07/2012	Updates to Commissioning Test Plans	IMO	Commencement	01/04/2013

INDEPENDENT MARKET OPERATOR

Wholesale Electricity Market
Rule Change Proposal

Rule Change Proposal ID: **PRC_2012_03**
Date received: **TBA**

Change requested by:

Name:	Greg Ruthven
Phone:	(08) 9254 4300
Fax:	(08) 9254 4399
Email:	Greg.ruthven@imowa.com.au
Organisation:	IMO
Address:	Level 3, Governor Stirling Tower, 197 St Georges Terrace
Date submitted:	TBA
Urgency:	Medium
Change Proposal title:	Assignment of Capacity Credits to Network Control Service Facilities
Market Rule(s) affected:	Clauses 4.1.13, 4.13.9, 4.14.3, 4.14.10, 4.15.2 and 4.20.5A

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, Development and Capacity
PO Box 7096
Cloisters Square, Perth, WA 6850
Fax: (08) 9254 4339
Email: market.development@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 Rule Change

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

Background

The Wholesale Electricity Market (WEM) includes a Reserve Capacity Mechanism (RCM) that facilitates the provision of adequate generation and Demand Side Management (DSM) capacity to meet the defined reliability criteria. These criteria define the Reserve Capacity Target (RCT), which is determined from the forecasted maximum demand for the South West interconnected system (SWIS) and an appropriate reserve margin.

The IMO procures capacity to meet the RCT by encouraging Market Participants to apply for Capacity Credits corresponding to the amount of capacity they can provide to the market. Any shortfall or excess in capacity has a negative financial impact on the market.

The RCM includes a methodology (Appendix 3 of the Market Rules) to limit excess capacity – except for capacity from committed Facilities that is intended to be traded bilaterally. In the event of a shortfall in meeting the RCT, the IMO would be required to procure additional capacity through the Reserve Capacity Auction or Supplementary Reserve Capacity mechanisms to meet the shortfall.

Facilities subject to Network Control Service Contracts

A Network Control Service (NCS) is a service provided by generation or demand side management that can act as a substitute for transmission or distribution network upgrades (clause 5.1.1). A NCS is provided by a Facility in accordance with an NCS Contract, which exists between the relevant Market Participant and the Network Operator.

A Market Participant with a Facility that is subject to an NCS Contract is required in clause 5.2A.2 of the Market Rules to apply for Certified Reserve Capacity. Further, it is possible under the Market Rules for a Market Participant with an existing Facility which has already been assigned Capacity Credits to enter into an NCS Contract with a Network Operator.

NCS Facilities may be capable of simultaneously providing network support, deferring the need for network expenditure, and providing Reserve Capacity to the market, either in the form of reduced demand or additional generation capacity. Further, these Facilities may be capable of providing this Reserve Capacity to the market in times when the NCS service is not required by the network.

Long Term Special Price Arrangements

To assist new Facilities entering the market in an auction situation to finance their project without bilateral contracts a Long Term Special Price Arrangement (LT-SPA) option is available. Where capital costs of not less than 10 percent of the Maximum Reserve Capacity Price (MRCP) per MW are incurred in supplying new capacity, either from an upgrade of an existing Facility or from a new Facility, then that Facility is eligible for a LT-SPA. This arrangement allows the Market Participant to receive the (inflation adjusted) auction price it earns in the first year in each year the LT-SPA applies, which may be up to 10 years.

A holder of a LT-SPA is required to apply to have its capacity re-certified each year, and the guaranteed LT-SPA price will only be paid on the lesser of the capacity actually certified in each year and the original capacity upon which the LT-SPA was granted.

Issues

The IMO has identified a number of issues within the Market Rules associated with NCS Facilities and one issue associated with LT-SPA Facilities.

- A Facility subject to an NCS Contract or a pre-existing LT-SPA is not assigned Capacity Credits for its Certified Reserve Capacity in clause 4.20.5A. This is at odds with other sections of the Market Rules that require these Facilities to apply for Certified Reserve Capacity. This may result in economically inefficient outcomes where some available, certified capacity is not considered in the determination of whether there exists a shortfall in Reserve Capacity.

- A Market Participant with an NCS Facility is obliged to offer its capacity into the Reserve Capacity Auction under clause 4.14.10. This is in conflict with clause 4.14.3, which effectively prohibits the Market Participant from offering this capacity into the Reserve Capacity Auction.

- Clause 4.13.9, which prescribes the date by which Reserve Capacity Security for a new Facility (or an existing Facility which has undergone an upgrade) must be provided to the IMO, does not cover Facilities subject to an NCS Contract. This means that the Certified Reserve Capacity of a new NCS Facility would not lapse if the Market Participant failed to provide any Reserve Capacity Security.

- There is an error in the cross references in clause 4.13.9. Clause 4.13.9(a) refers to clause 4.1.13(a) but should refer to both clause 4.1.13(a)(i) and clause 4.1.13(b)(i). Clause 4.13.9(b) refers to the clause 4.1.13(b) when it should refer to both clause 4.1.13(a)(ii) and clause 4.1.13(b)(ii) to align with the intended outcome.

- The calculation of the Reserve Capacity Auction Requirement in clause 4.15.2 does not consider NCS capacity, though this capacity is deducted in the determination of

the capacity requirement for each Availability Class in Appendix 3 of the Market Rules (Reserve Capacity Auction & Trade Methodology).

April 2012 MAC meeting

This Rule Change Proposal was initially presented to and discussed with the MAC in April 2012[1]. A number of issues were raised at the meeting including:

- Appropriateness of the market versus network users bearing the cost of capacity credits;
- Payment of Capacity Credits envisioned in the original market design;
- The role of the NCS contract and Capacity Credits as inputs into Western Power's assessment of network solutions; and
- The allocation of network solution costs and the incentives where the market bears the cost of the Capacity Credits.

At the conclusion of the discussion, the Chair noted that the IMO would like to still provide these facilities with Capacity Credits as it would ensure that the amount of capacity available to the market is correctly reflected.

The Chair also informed the MAC that the IMO and Western Power would further consider a revised design for the treatment of NCS Facilities and that following that discussion a revised Pre Rule Change Proposal would be presented at a future MAC meeting.

February 2013 workshop with Western Power, ERA and PUO

As committed at the April 2012 MAC meeting, the IMO and Western Power, along with representatives from the Economic Regulation Authority (ERA) and the Public Utilities Office (PUO) met on 7 February 2013 to discuss NCS Contracts and Capacity Credits.

In addition to discussing several of the issues covered in the April 2012 MAC meeting, the workshop also covered in more detail:

- The ability for Facilities to simultaneously both provide capacity and fulfill obligations under a NCS Contract;
- The appropriate compensation mechanisms for NCS Facilities, whether from the market or from Western Power via a NCS Contract;
- The consideration of Capacity Credits as an input into network solution assessments; and
- Possible implications for the allocation of NCS costs where the need is driven by a block load versus organic growth and the role of Capacity Credit payments in this cost allocation.

A summary of the issues discussed at this meeting and the agreed views are outlined in Appendix 1 along with the issues raised at the April 2012 MAC meeting.

[1] MAC Meeting No. 48 Final Minutes (18 April 2012), available at: http://www.imowa.com.au/MAC_48

Proposal

In preparing this Rule Change Proposal, the IMO has considered the current market design, historical amendments to the Market Rules, potential outcomes from assigning or not assigning Capacity Credits to NCS Facilities and Facilities subject to a LT-SPA, and the administration and associated market processes around NCS Facilities. Consistent with the request from the April 2012 MAC Meeting, the IMO has reconsidered the design of the NCS and the relationship to investment decisions made by the Network Operator.

The IMO has determined to propose rule amendments which ensure NCS Facilities and LT-SPA Facilities are assigned Capacity Credits (assuming that they are certified) and that these Capacity Credits are administered in the same manner as all other Capacity Credits.

The IMO's decision to progress the Rule Change Proposal in this manner was made on the following basis:

Assignment of Capacity Credits to NCS Facilities and Facilities subject to a LT-SPA

If these Facilities are assigned Capacity Credits the IMO is able to consider the potential capacity available from these Facilities in the determination of any shortfall in Reserve Capacity. There is potential for a 'false' shortfall in Reserve Capacity to arise if these Facilities are granted Certified Reserve Capacity but not assigned Capacity Credits. This may result in the IMO being required to procure additional capacity from elsewhere at a higher overall cost to the market.

NCS Facilities are required under clause 5.2A.2 of the Market Rules to apply for Certified Reserve Capacity. The original Market Rules were silent on the assignment of Capacity Credits to all Facilities including NCS Facilities and LT-SPA Facilities. There is nothing in the previous Rule Change Proposals (RC_2010_11[2] and RC_2010_14[3]) to suggest that NCS Facilities and LT-SPA Facilities should not be assigned Capacity Credits. RC_2010_11 specifically includes steps in the overview process diagram where NCS Facilities are granted Capacity Credits following approval of Certified Reserve Capacity[4]. See Appendix 2 for further detail.

The Market Rules do not preclude a Facility that has already been assigned Capacity Credits for a Capacity Year (two years prior to the commencement of the relevant Capacity Year) from subsequently entering into a NCS contract for that period. This may create perverse incentives for parties to delay the execution of a NCS Contract until Capacity Credits have already been assigned.

An existing Facility with Capacity Credits may secure a NCS Contract. It would be perverse for that Facility to no longer receive Capacity Credits as a result of the NCS Contract when the Facility remains capable of providing Reserve Capacity to the market.

A LT-SPA exists to provide long-term certainty of income for a Facility that is cleared in a previous Reserve Capacity Auction. It seems contrary to this intent for the Facility to not receive Capacity Credits, and the corresponding income stream, due to the existence of the LT-SPA.

[2] Full details of RC_2010_11 are available at: http://www.imowa.com.au/RC_2010_11
[3] Full details of RC_2010_14 are available at: http://www.imowa.com.au/RC_2010_14
[4] Final Rule Change Report for RC_2010_11 (17 August 2010), Overview of Proposed Process, page 36

Payment of Capacity Credits by the market using existing mechanisms

The market benefits from the provision of Reserve Capacity by a NCS Facility, regardless of the support the Facility is providing to the Network, commensurate with the benefit from the provision of Reserve Capacity by non-NCS Facilities. As such, the IMO considers it appropriate that the market should compensate the Facilities for its capacity.

An existing Facility with Capacity Credits, which are already being funded by the market, may secure a NCS Contract. It would be perverse for the market to cease to fund those Capacity Credits simply because the Facility secured a NCS Contract when the Facility remains capable of providing Reserve Capacity to the market.

Participation of NCS Facilities in the Reserve Capacity Auction

The function of the Reserve Capacity Auction is to procure any shortfall in capacity needed to meet the Reserve Capacity Requirement. As such, any capacity that has already been accounted for in the calculation of the shortfall should not be allowed to participate in the auction. This currently includes bilaterally traded capacity, and capacity which is the subject of a LT-SPA.

If NCS Facilities are assigned Certified Reserve Capacity and subsequently receive Capacity Credits then the associated capacity would have formed part of the initial calculation of the shortfall and it should be clarified that this capacity is also not eligible for participation in the Reserve Capacity Auction.

Allowing participation in the Reserve Capacity Auction could result in adverse auction outcomes and higher overall costs for the Wholesale Electricity Market. A Facility which has already secured a NCS Contract may be provided an opportunity to seek out a higher payment for its Capacity Credits than either the contracted or Administered Price would provide for. This would ultimately come at a higher cost to all Market Customers and is contrary to the economically efficient supply and minimization of long-term cost of electricity services to the market.

Reserve Capacity Security for new NCS Facilities

Clause 4.13.9 prescribes the date by which Reserve Capacity Security for a new Facility (or an existing Facility which has undergone an upgrade) must be provided to the IMO and allows the Certified Reserve Capacity of the Facility to lapse if the Reserve Capacity Security is not provided by the specified date.

The clause currently covers Facilities with Certified Reserve Capacity that is to be bilaterally contracted and Facilities with Certified Reserve Capacity that is to be offered into the Reserve Capacity Auction. By virtue of omission, a Facility with Certified Reserve Capacity that is to be the subject of a NCS Contract (and will not be bilaterally traded) may fail to provide Reserve Capacity Security by the required date and yet its Certified Reserve Capacity would not lapse.

Consistent with the intention of reducing the risk that new Facilities fail to meet their capacity obligations, the IMO considers inclusion of a specific reference to Facilities subject to a NCS Contract in this clause is appropriate.

Alignment of clause 4.15.2 and Appendix 2 of the Market Rules

Clause 4.15.2 outlines information to be published by the IMO when the Reserve Capacity

Auction is not cancelled. Part (b) of the clause includes a calculation for the Reserve Capacity Auction Requirement which is equal to the Reserve Capacity Requirement less capacity to be traded bilaterally less Capacity Credits assigned under the Early Certified Reserve Capacity process. Capacity subject to NCS Contracts or LT-SPAs is not considered in this calculation.

However, the calculation of the capacity requirement for each Availability Class, outlined in Appendix 3 of the Market Rules, accounts for NCS Facilities and LT-SPAs by deducting these from the Availability Class requirement that is included within the Availability Curve in clause 4.5.12(c) (Early Certified Reserve Capacity is also deducted).

This inconsistency means that the Reserve Capacity Auction Requirement would be overstated by the amount of capacity associated with NCS Facilities and LT-SPAs.

The consideration of capacity associated with NCS Facilities and LT-SPAs would avoid this potential overstatement in capacity shortfall and is consistent with the proposal that NCS Facilities that are granted Certified Reserve Capacity should also be assigned Capacity Credits.

Proposed Amendments

The IMO proposes to amend the relevant clauses so that:

- a Facility subject to a NCS Contract with Certified Reserve Capacity is automatically assigned Capacity Credits and does not enter the Reserve Capacity Auction;
- a Facility is automatically assigned Capacity Credits for Certified Reserve Capacity that is associated with a pre-existing LT-SPA;
- clause 4.13.9 specifies the date by which Reserve Capacity Security must be provided for a new NCS Facility and the cross references to 4.1.13 in this clause are corrected; and
- clause 4.15.2 considers capacity associated with NCS Facilities and LT-SPAs in the calculation of the Reserve Capacity Auction Requirement so that it aligns with Appendix 3 of the Market Rules.

The IMO also proposes a number of amendments to address incorrect clause references and minor and typographical errors which have been identified in the relevant sections of the Market Rules.

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2. Explain the reason for the degree of urgency:

Western Power has indicated on several occasions during the last two years that it has been considering the use of NCS in three areas of the network (Albany, North Country, Goldfields). At the workshop on 7 February 2013, Western Power indicated that it did not have any immediate plans to enter into a NCS Contract, but that clarity on the assignment of Capacity Credits for NCS Facilities is desirable for the purposes of contract negotiations.

In light of the Reserve Capacity Cycle timelines and the advice on potentially entering the first NCS Contract, the IMO proposes to assess this Rule Change Proposal under the Standard Rule Change Process outlined in clause 2.7 of the Market Rules. If the proposed amendments were approved, the Standard Rule Change Process could allow for any Amended Rules to commence prior to the assignment of Capacity Credits for the 2013

Reserve Capacity Cycle, which is anticipated to occur on 4 September 2013.

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

4.1.13. Each Market Participant must provide to the IMO any Reserve Capacity Security required in accordance with clause 4.13.1 not later than 5:00 PM of the last Business Day falling on or before:

(a) for Reserve Capacity Cycles up to and including 2010:

i. 10 August of Year 1 of the relevant Reserve Capacity Cycle if any of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c); or

ii. 29 August of Year 1 of the relevant Reserve Capacity Cycle if any of the Facility's Certified Reserve Capacity is specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where none of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c);

(b) for Reserve Capacity Cycles from 2011 onwards:

(i) 2 September of Year 1 of the relevant Reserve Capacity Cycle if any of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c) or the Facility is subject to a Network Control Service Contract; or

(ii) 14 September of Year 1 of the relevant Reserve Capacity Cycle if any of the Facility's Certified Reserve Capacity is specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where none of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c).

4.13.9. If a Market Participant does not comply with clause 4.13.1 in full by the date and time specified in:

(a) clause 4.1.13(a)(i) or clause 4.1.13(b)(i), as applicable, in the case of a Facility with Certified Reserve Capacity specified to be traded bilaterally in accordance with clause 4.14.1(c) or a Facility subject to a Network Control Service Contract; or

(b) clause ~~4.1.13(b)~~ 4.1.13(a)(ii) or clause 4.1.13(b)(ii), as applicable, in the case of a Facility with Certified Reserve Capacity specified to be offered into the Reserve Capacity Auction in accordance with clause 4.14.1(a) and where none of the Facility's Certified Reserve Capacity is specified to be traded bilaterally in accordance with clause 4.14.1(c),

for the Reserve Capacity Cycle to which the certification relates, the Certified Reserve Capacity of that Facility will lapse.

4.14.3. A Market Participant ~~may~~ must not make a submission under clause 4.14.1 with respect to a Facility subject to a Network Control Service Contract.

4.14.10. A Market Participant must make available in any Reserve Capacity Auction held in accordance with clause 4.15 any Certified Reserve Capacity it holds for a Facility, except to the extent that:

(a) clause 4.14.8 applies;

(b) the Certified Reserve Capacity is covered by a pre-existing Long Term Special Price Arrangement; ~~or~~

(c) the IMO has notified the Market Participant in accordance with clause 4.14.9 that the Certified Reserve Capacity can be traded bilaterally~~.~~; or

(d) the Certified Reserve Capacity is issued to a Facility that is subject to a Network Control Service Contract.

4.15.2. If the Reserve Capacity Auction for a Reserve Capacity Cycle is not cancelled in accordance with clause 4.15.1, then, by the date and time specified in clause 4.1.16, the IMO must publish a notice specifying:

(a) that the Reserve Capacity Auction will be held;

(b) the Reserve Capacity Auction Requirement, where this equals the

i. Reserve Capacity Requirement; less

ii. the total amount of Certified Reserve Capacity which the IMO has notified Market Participants can be traded bilaterally under clause 4.14.9 or is covered by a pre-existing Long Term Special Price Arrangement; less

iii. the amount of Capacity Credits assigned under clause 4.28C for the relevant Reserve Capacity Cycle; ~~and~~ less

iv. the total amount of Certified Reserve Capacity assigned to Facilities that are subject to a Network Control Service Contract; and

(c) the amount of Reserve Capacity required to be procured via the auction from each Availability Class.

4.20.5A. Where a Reserve Capacity Auction is:

(a) cancelled under clause 4.15.1 the IMO must assign Capacity Credits:

i. to each Facility included in a notification under clause 4.14.9~~. The~~, where the quantity of Capacity Credits assigned will equal the quantity in the notification~~.~~;

ii. to each Facility assigned Certified Reserve Capacity that is subject to a Network Control Service Contract, where the quantity of

Capacity Credits assigned will equal the quantity specified under clause 4.9.9(a); and

iii. to each Facility assigned Certified Reserve Capacity with a pre-existing Long Term Special Price Arrangement, where the quantity of Capacity Credits assigned will equal the quantity specified under clause 4.14.1(b),

and t~~T~~he IMO must publish the Capacity Credits assigned, by Facility, by the date and time specified in clause 4.1.16~~.~~;

(b) not cancelled under clause 4.15.1 the IMO must assign Capacity Credits:

i. to each Facility for which a Market Participant lodged a notification under clause 4.20.1(a)~~. The~~, where the quantity of Capacity Credits assigned will equal the quantity notified under that clause and confirmed by the IMO under clause 4.20.2; ~~and~~

ii. to each Facility included in a notification under clause 4.14.9~~. The~~, where the quantity of Capacity Credits assigned will equal the quantity notified under that clause, as may be amended by a notification given under clause 4.20.1 and confirmed by the IMO under clause 4.20.2~~.~~;

iii. to each Facility assigned Certified Reserve Capacity that is subject to a Network Control Service Contract, where the quantity of Capacity Credits assigned will equal the quantity specified under clause 4.9.9(a); and

iv. to each Facility assigned Certified Reserve Capacity with a pre-existing Long Term Special Price Arrangement, where the quantity of Capacity Credits assigned will equal the quantity specified under clause 4.14.1(b),

and t~~T~~he IMO must publish the Capacity Credits assigned, by Facility, by the date and time specified in clause 4.1.21A; and

(c) not cancelled under clause 4.15.1 and the IMO receives no notification under clause 4.20.1 from a Market Participant, the IMO must not assign Capacity Credits to that Market Participant.

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

The IMO considers the proposed amendments will improve the integrity of the Market Rules and better achieve Wholesale Market Objectives (a), (b) and (c).

The proposed amendments will provide certainty to Market Participants that they will receive Capacity Credits for Certified Reserve Capacity that is subject to a NCS Contract or a LT-SPA. This will:

- encourage Market Participants to enter into NCS Contracts and locate in areas that

assist the operation of the network, better promoting the economically efficient and reliable production and supply of electricity and electricity related services in the SWIS (Wholesale Market Objective (a));

- encourage and facilitate the entry of new capacity that will be subject to an NCS or a LT-SPA to the market, thereby increasing competition (Wholesale Market Objective (b)); and

- ensure that the long-term cost of electricity supplied is minimised by avoiding higher costs associated with procuring capacity in the event of a 'false' shortfall in capacity; and by reducing the overall cost of the combined network and energy costs by providing appropriate compensation and incentives for new Facilities that, by locating in a particular region, may avoid higher alternative network augmentation costs (Wholesale Market Objective (c)).

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

Costs:

No significant costs have been identified.

This proposal would not require any changes to market or dispatch systems.

Benefits:

The proposed amendments clarify the assignment of Capacity Credits to NCS Facilities and Facilities subject to a pre-existing LT-SPA.

The amendments ensure all certified Facilities that are capable of providing capacity to the market, including NCS Facilities and Facilities subject to a LT-SPA, are appropriately assigned Capacity Credits and are considered when the IMO determines if there is sufficient capacity to meet the Reserve Capacity Target. This avoids a potential 'false' shortfall of capacity in the market and the potentially higher costs associated with such circumstances.

The amendments also remove inconsistencies in the Market Rules and update cross references to align with the intended outcomes.

Appendix 1: Summary of issues raised and agreed responses

Topic	Comments	Agreed response (IMO, WP, ERA, PUO)
Should a Facility be able to be dispatched for two purposes?	At the February 2013 workshop, the ability for Facilities to provide both NCS and Reserve Capacity was discussed.	It was agreed that Facilities are able to provide both services and that this ability should be recognised in the Market Rules. The IMO considers it would be beneficial to the market to use Facilities in both capacities and that Facilities should be compensated for the services provided.
Should a NCS facility be eligible to be assigned Capacity Credits?	At the February 2013 workshop, the IMO noted that NCS Facilities are already required to register and apply for Certified Reserve Capacity. The benefit to the market of assigning these Facilities Capacity Credits was discussed.	It was agreed that assigning Capacity Credits to these Facilities (provided that they satisfy the requirements for Certified Reserve Capacity) would benefit the market. It was agreed that an NCS Facility can provide Reserve Capacity in the same way as other Facilities. This would avoid the potential adverse outcome of a 'false' shortfall in Reserve Capacity. In this scenario, additional capacity would need to be procured by the IMO at a potentially higher cost to the market. Further, it is possible for existing Market Participants which have already been assigned Capacity Credits to enter into an NCS Contract. It was agreed that it would not be appropriate for an existing Facility to no longer receive Capacity Credits simply because it has secured an NCS Contract.
Should a NCS Facility be required under the Market Rules to apply for Certified Reserve Capacity?	At the February 2013 workshop, the IMO noted that NCS Facilities were currently required to register and apply for Certified Reserve Capacity.	The consensus view at the workshop was that it was likely that an NCS Facility would apply for Certified Reserve Capacity, but that the risk of a 'false' shortfall would remain if there was no specific requirement. It was agreed that the requirement for NCS Facilities to apply for Certified Reserve Capacity should be retained.

If a Facility receives Capacity Credits, who should bear the costs of Capacity Credits?	At the April MAC meeting, Mr Dykstra queried why conceptually the market should bear the costs and not the network users given that an NCS contract is a replacement for a network solution. Mr Dykstra suggested that either the marginal load that triggers the need for the upgrade or more generally the users of that area of the network should pay for the transmission network upgrade through the network charges, so that specific users bear the costs and not the market. This would be more consistent with the impacts of the network solution having been undertaken. This issue was explored further at the February 2013 workshop.	The consensus view at the workshop was that the Reserve Capacity available from an NCS Facility would benefit the market in the same manner that Reserve Capacity from a non-NCS Facility provides a benefit. As such, the market should provide compensation for this in the same manner as other Facilities. The workshop attendees considered the scenario where an existing Facility secured an NCS Contract and noted that it would be perverse for the market to stop paying that Facility merely because of the existence of the NCS Contract. Although not directly related, Western Power also advised at the workshop that it is required to consider all costs and benefits to all stakeholders in the market when assessing network solutions. As such, the workshop participants agreed that the cost of Capacity Credits would be considered in network constraint assessments regardless of who bore the costs of Capacity Credits.
Should Western Power or the Facility be paid for Capacity Credits?	Following agreement that NCS Facilities should be eligible for Capacity Credits and that the Market is the most appropriate mechanism through which compensation is provide, the issue of who would be paid (the Facility or Western Power) was discussed at the February 2013 workshop.	The consensus view at the workshop was that the Market Participant with the NCS Facility should be paid capacity income directly. This would align with existing mechanisms and allows that a Facility may enter into an NCS for less than the total capacity that it is able to provide. Further, it was noted that Western Power is not a Market Participant and is precluded from trading in the market.
How was the assignment and payment of Capacity Credits envisioned in the original market design?	During the April 2012 MAC meeting, Mr Dykstra noted that the original market design document had an availability payment and dispatch payment for a NCS contract. The IMO paid the availability costs less the value of Capacity Credits for that Facility, with the recovery of those costs being from System Management. Mr Dykstra considered that this suggests that there would not be a net cost to the market of the NCS. Mr Gaston considered that this makes more sense.	The IMO has reviewed the original market design documents and the original Market Rules as part of this Rule Change Proposal (see Appendix 2). There have been a number of changes to the Market Rules regarding NCS since the start of the market. In considering the issues and possible solutions, the IMO considered the assignment and payment for Capacity Credits in the context of the current market design and Market Rules and found that the proposed solution best meets the Market Objectives.

Consideration of Capacity Credit costs in Western Power's assessment of options for addressing network constraints	During the April 2012 MAC meeting, Mr Gaston pointed to a potential issue in Western Power's assessment of solutions. Namely, if Western Power procures a NCS Contract from a Facility which has included into its offer a reduced price in the expectation that it will also receive income from Capacity Credits then the price offer from the NCS provider will be lower than the actual costs of provision. He queried whether Western Power's assessment of whether or not to enter into a NCS contract would be based on an artificially low NCS price and therefore the decision on whether to the physically upgrade the line to overcome the network constraint would potentially be distorted.	Western Power has advised that in assessing solutions for addressing a network constraint, it is required to consider the costs and benefits to all network users. As such, the cost of Capacity Credits would be considered as part of the assessment regardless of who paid for those Credits.

Appendix 2: Relevant history of NCS and Capacity Credits

Original Market Design and Market Rules

The original market design document and the notes in the marked up version of the original Market Rules (gazetted on 19 September 2006) indicate that although NCS Facilities would not be eligible to participate in any Reserve Capacity Auction, that these Facilities would, if certified by the IMO, automatically receive Capacity Credits and hence would be required to make capacity available to the market.

"The Network Control Service contract allows System Management to issue real-time dispatch instructions to the facility as required, within the capacity and availability limits of the contract. For its part, the facility providing Network Control Service gets guaranteed minimum revenue and is not precluded from participating in the energy market. The rules do require, however, that any facility contracted to provide Network Control Service must seek certification for Reserve Capacity. The Reserve Capacity rules ensure that to the extent such a facility is certified, it will be issued Capacity Credits and settled at the prevailing Reserve Capacity price." [5]

4.14.3. A Market Participant may not make a submission under clause 4.14.1 with respect to a Facility subject to a Network Control Service Contract.

~~These Facilities will be automatically assigned Capacity Credits.~~ [6]

It was noted in the original market design documents that Capacity Credits assigned to Facilities subject to a NCS Contract would be settled at the prevailing Monthly Reserve Capacity Price. The original market design document states that in calculating the income a Facility receives from participating in the market, that the income for its Reserve Capacity would offset the Network Control Service payment.[7]

The IMO (which was responsible for the acquisition of NCS at the time) would recover only the net cost of the NCS Contract (less the value of the Capacity Credits and any payments due to non-compliance) from the Network Operator that requested the service be acquired.[8]

As such, it would appear that the original intention was to recover the cost of Capacity Credits through the usual market mechanisms and that payments in a NCS Contract would be separate from the payment for Reserve Capacity (albeit reduced to the extent that a Facility received income from its Reserve Capacity).

[5] Wholesale Electricity Market Design Summary, September 2006, section 8.1, page 41, available at: http://www.imowa.com.au/market-structure

[6] Western Australian Government Gazette, 19 September 2006, No. 161 (special), page 92, available at: http://www.slp.wa.gov.au/gazette/gazette.nsf/gazlist/43EDE36827EBE11F482571ED0023C9C5/$file/gg161.pdf Note the strike through included in the gazette simply reflect the removal of all explanation from within the Market Rules and were not intended to detract meaning from the explanation.

[7] Wholesale Electricity Market Design Summary, September 2006, section 8.1, page 42

[8] Ibid, page 43

RC_2010_11 Removal of Network Control Services Expression of Interest and Tender Process from the Market Rules

Following a review by the Office of Energy (now the Public Utilities Office) that concluded in late 2009 and determined that the Network Operator, rather than the IMO, should be responsible for tendering and contracting NCS, the IMO progressed RC_2010_11 to remove the procurement process from the Market Rules.

As part of the proposal it was noted that:

"*The current Market Rules require that a Market Participant contracted to provide an NCS must seek certification for Reserve Capacity for the relevant Facility. To the extent that such a Facility is certified, it will be issued Capacity Credits and settled at the prevailing Reserve Capacity price. The NCS payment for a Facility will be reduced by the value of Capacity Credits held by the Facility. There is currently also no restriction on an NCS facility trading its Capacity Credits bilaterally. To the extent this happens, its payment under the Reserve Capacity Mechanism will be reduced.*"[9]

The process diagram included in the Rule Change Proposal and Final Report do not indicate a deviation from this process. Further, there is no discussion to suggest that NCS Facilities should not be required to be certified or that, upon certification, they would not automatically be assigned Capacity Credits by the IMO.

The Rule Change Proposal also sought to address and remove any potential cross subsidies from NCS energy payments associated with System Management issuing instructions under an NCS to either a generation or DSM facility. At the August 2010 MAC meeting, where a Discussion Paper on the removal of NCS procurement from the Market Rules was discussed, the IMO explained that the market, rather than the Network Operator, should be liable for the balancing energy payment because "electricity was being generated and purchased by the balancing generator and if the Network Operator paid for this and passed the charge through to customers, then those customers would be paying for their electricity twice."[10] To this end, the Amending Rules provided that the energy price paid by the market to NCS providers who generate would be MCAP and the energy price paid to NCS providers who are DSM would be zero. Any additional energy payments on top of the balancing payment would be from the Network Operator to the NCS Facility in accordance with the NCS Contract.

The amendments to the relevant parts of old clause 6.17.6 were as follows:

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

…

(e) if the participant is given an instruction under a Network Control Service Contract then the sum over all Network Control Service Contract ~~f~~Facilities registered by the Market Participant of the amount that is the product of:

i. the quantity by which the ~~f~~Facility was instructed by System Management to increase its output as specified by System

[9] Final Rule Change Report for RC_2010_11, page 32, available at: http://www.imowa.com.au/RC_2010_11

[10] MAC Meeting No. 30 Final Minutes (11 August 2010), page 12, available at: http://www.imowa.com.au/n2541.html

Management in accordance with clause 7.13.1(dB) (where for the purpose of this calculation a Loss Factor adjustment is to be applied to the quantity specified by System Management so that the result is measured at the Reference Node) or reduce its consumption as specified by System Management in accordance with clause 7.13.1(dB); and

ii. the price defined as: ~~as applicable under the relevant Network Control Service Contract for the facility as specified in clause 5.9.1(b).~~

1. MCAP for Trading Interval t, if the Facility was instructed to increase its output; or

2. zero, if the Facility was instructed to reduce its consumption.

This Rule Change also clarified the dispatch protocols for NCS Facilities. The IMO notes that while this discussion focused primarily on the Dispatch Merit Order for Facilities with DSM that provide NCS, it also sheds light on the dispatch arrangements that would apply to NCS Facilities more generally.

Discussions between the IMO and System Management regarding the inclusion of NCS in the Dispatch Merit Order following an action point at the October 2010 MAC Meeting[11] resulted in clause 7.6.1A being inserted into the Market Rules. This clause gives priority to the dispatch of an NCS Facility if the NCS provided under contract is required to assist System Management meet the Dispatch Criteria.

RC_2010_14 Certification of Reserve Capacity

RC_2010_14 was put forward by the IMO to address a number of issues with the Market Rules surrounding certification of Reserve Capacity.

One of the issues related to the timing of the assignment of Capacity Credits and the publication of this information. As part of the solution, a new clause 4.20.5A was introduced.[12] Clause 4.20.5A provides specifically for the assignment of Capacity Credits. Prior to the introduction of this clause, the Market Rules did not specify when the actual assignment of Capacity Credits would take place.

4.20.5A Where a Reserve Capacity Auction is:

(a) cancelled under clause 4.15.1 the IMO must assign Capacity Credits to each Facility included in a notification under clause 4.14.9. The quantity of Capacity Credits assigned will equal the quantity in the notification. The IMO must publish the Capacity Credits assigned, by Facility, by the date and time specified in clause 4.1.16.

(b) not cancelled under clause 4.15.1 the IMO must assign Capacity Credits:

[11] MAC Meeting No. 32 Final Minutes (13 October 2010), page 13 available at: http://www.imowa.com.au/n2849.html

[12] Final Rule Change Report, RC_2010_14, pages 59 to 60, available at: http://www.imowa.com.au/RC_2010_14

i. to each Facility for which a Market Participant lodged a notification under clause 4.20.1(a). The quantity of Capacity Credits assigned will equal the quantity notified under that clause and confirmed by the IMO under clause 4.20.2; and

ii. to each Facility included in a notification under clause 4.14.9. The quantity of Capacity Credits assigned will equal the quantity notified under that clause, as may be amended by a notification given under clause 4.20.1 and confirmed by the IMO under clause 4.20.2.

The IMO must publish the Capacity Credits assigned, by Facility, by the date and time specified in clause 4.1.21A; and

(c) not cancelled under clause 4.15.1 and the IMO receives no notification under clause 4.20.1 from a Market Participant, the IMO must not assign Capacity Credits to that Market Participant.

The assignment of Capacity Credits was linked in clause 4.20.5A to the outcomes of the Bilateral Trade Declaration and Reserve Capacity Auction processes. As such, Facilities which were the subject of a NCS Contract or a LT-SPA would not be specifically assigned Capacity Credits in this clause.

The issues covered in this Rule Change were discussed at both the September 2010 and October 2010 MAC Meetings[13]. However, Facilities subject to a NCS Contract or a LT-SPA were not noted as being discussed and there is nothing in the Rule Change Proposal or subsequent reports to indicate that these Facilities were intentionally excluded from the assignment of Capacity Credits.

The IMO further notes that the Rule Change did not seek to amend any of the associated clauses requiring these Facilities to register and apply for Certified Reserve Capacity.

RC_2011_10 Competitive Balancing and Load Following Market

The introduction of the Balancing and Load Following Market necessitated a number of changes to the Market Rules. As part of the Rule Change, a number of the clauses and terms used in the dispatch process were amended. Specifically, System Management now issues both Operating Instructions and Dispatch Instructions when scheduling Facilities that are the subject of a NCS Contract.

The settlement process for the Balancing Market includes adjustments to the Out of Merit Generation for Trading Intervals where the Facility is complying with an Operating Instruction (clauses 6.16A.1, and 6.16B.1). These adjustments ensure that Constrained On payments are not made for actions undertaken to comply with an Operating Instruction.

The drafting of these clauses preserved the intentions of the old clause 6.17.6(e) which provided payments of MCAP to generation Facilities that are dispatched for NCS purposes and zero for Demand Side Management curtailed for NCS purposes.

[13] Refer to MAC Meeting No. 31 Final Minutes (8 September 2010), available at: http://www.imowa.com.au/MAC_31; and MAC Meeting No. 32 Final Minutes (13 October 2010), available at: http://www.imowa.com.au/n2849.html

Wholesale Electricity Market
Pre Rule Change Proposal Form

Change Proposal No: *PRC_2012_23*
Received date: *TBA*

Change requested by:

Name:	Allan Dawson
Phone:	9254 4333
Fax:	9254 4399
Email:	allan.dawson@imowa.com.au
Organisation:	*IMO*
Address:	Level 17, Governor Stirling Tower, 197 St. Georges Terrace, Perth
Date submitted:	*TBA*
Urgency:	*2-medium*
Change Proposal title:	Prudential Requirements
Market Rule(s) affected:	Clauses 2.37.4, 2.37.9, 2.40.1, 2.40.2, 2.41.2, 2.41.3, 2.42.2, 2.42.3, 2.42.7, 2.43.1, 10.7.1, and Glossary and new clauses 2.37.4A and 2.40.1A and 2.40.1B

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,Development & Capacity
PO Box 7096
Cloisters Square, Perth, WA 6850
Fax: (08) 9254 4339
Email: market.development@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 and Margin Calls.

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 shortpaying the market.
In accordance with Market Rules, 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 at any time, the Participant's market exposure becomes greater than the security provided by the Market Participant, the IMO may make a Margin Call on the Participant in order to reduce the credit risk created in the market.

Currently, the IMO determines the Credit Limit based on available historical data or a reasonable estimate, in respect of a Market Participant. The associated clause 2.37.4, however, does not accurately reflect the current methodology. The IMO has proposed amendments to this clause to reflect the IMO's current practice. Additionally, the IMO is

seeking to make the Outstanding Amount more reflective of current and forecast liabilities for a Market Participant. The IMO has proposed to include actual data, where available or reasonable estimations of a Market Participant's liabilities to improve the robustness of the Outstanding Amount. Further, the concepts of Typical Accrual and Margin Call, which are related to the Outstanding Amount, have been updated. The IMO currently does not produce guidelines for expected value of transactions. However, in this Pre Rule Change Proposal, the IMO has proposed to amend the concept of guidelines to a set of factors that must be taken into account when determining the expected value of transactions. Further, the IMO has proposed a list of these factors in the associated Market Procedure: Prudential Requirements.

In conjunction with identifying and proposing changes to the current methodology of determining prudential security for Market Participants, the IMO is also seeking to align the Market Rules to be principles-based as opposed to being prescriptive. The prescriptive detail relating to Prudential Requirements has been moved to the associated Market Procedure: Prudential Requirements. The IMO seeks to consult on the proposed amended Market Procedure at the same time as this Rule Change Proposal to ensure consistency between Rules and Procedures.

Issues Description and Proposed Solutions

Issue 1: Determination of Credit Limit

a) *Prediction of a Credit Limit amount that must not be exceeded:* 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 [emphasis added].

The IMO notes that the process followed for Credit Limit determination since market start has not included any future prediction of amounts. Instead, the IMO has relied on using past data as an appropriate representation of a Market Participant's future exposure in the market. Additionally, in the case of Market Participants for whom past data does not exist (for example new entrants), the IMO has made reasonable assumptions about their market exposure based on information provided during registration[1].

The IMO considers that the current practice of determining Credit Limits for existing Market Participants which is based on assessing maximum exposure using historical data is simple and robust. It is general commercial practice to use past behaviour as a predictor of future behaviour. In situations where the IMO considers that the historical data for that Market Participant are no longer appropriate, the IMO proposes to use discretion to revise the Credit Limit upwards or downwards after analysing the specific circumstances of that Market Participant.

The IMO observes that a proposed amendment to clause 2.37.4 to reflect current practice as discussed above would only account for Market Participants with existing historical data and would ignore new Market Participants with no historical data.

To address this problem, the IMO considers that clause 2.37.4 be amended to reflect a set of principles which must be applied in the case of each Market Participant, whether existing or new. The detailed methodology for determining Credit Limits

[1] Information includes for example, generation capacity of facilities, bilaterally contracted energy, Certified Reserve Capacity etc. Details are available in the Market Procedure

should appropriately be moved to the Market Procedure. The IMO has amended the associated Market Procedure (see Section 2 of Market Procedure) to reflect this change.

Proposed Solution

The IMO proposes to amend clause 2.37.4 to lay out the principles to be used in determining Credit Limits. Further, the IMO proposes to move the prescriptive detail of Credit Limit determination for different types of Market Participants to the Market Procedure.

b) *Factors to take into account:* Clause 2.37.4 stipulates that the IMO must take into account several factors when determining Credit Limits. However, the clause does not specify what the IMO must do in practice to implement these factors in determining Credit Limits. For example, clause 2.37.4(d) requires the IMO to take into account the processes set out in clauses 9.23 (Default), 9.24 (Settlement in Default situations) and 2.32 (Rule Participant Suspension and Deregistration). This implies that 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; however, it is not clear how the IMO should reasonably translate a Participant's prior breaches into a dollar value to be used to adjust a Credit Limit. Factors listed in (a), (c) and (h) require statistical determinations which are currently not available. However, the IMO also notes that there are other factors such as (b), (e), (f), (fA) and (g) which are already taken into account directly or indirectly in the current methodology for determining Credit Limits.

The IMO considers that it is important to retain the underlying rationale behind the factors listed in clause 2.37.4 to ensure that the IMO has taken all relevant factors into account. However, the IMO also considers that in taking factors into account, it should either use actual data or make impartial and reasonable estimations. The IMO considers that the list of factors as currently stated in clause 2.37.4(a) – (j), limits the ability of the IMO to use actual data or make impartial and reasonable estimations (as discussed in the previous paragraph).

Therefore, the IMO proposes to modify the list of factors to include those that can be quantified appropriately using actual data or reasonable estimations. This would result in clause 2.37.4 listing the principles that the Credit Limit determination must be based on; with the methodology for converting those principles into estimable quantities, set out in the Procedure. This is consistent with the discussion in Issue 1(a) above. The IMO considers that this approach will bring clarity and transparency to the process of determining Credit Limits.

Proposed Solution

The IMO proposes to amend the list of factors in clause 2.37.4 to include those that can be quantified appropriately using actual data or reasonable estimations. The IMO proposes to retain the detailed methodology for taking this list of factors into account in the associated Market Procedure.

c) *Time Period:* In determining Credit Limits for Market Participants with historical data, the IMO has based the Credit Limit on a maximum of 48 months of historical data. The IMO has received suggestions from Market Participants that this time period is too long and does not adequately represent current circumstances.

In the IMO's view, in general, more recent Settlement outcomes are more relevant in reflecting Market Participants' current exposure and likely risk to the market than less recent Settlement outcomes.

In seeking to assess the benefits and risks to the market of changing the period of historical data that is used to set Credit Limits, the IMO has examined the results of the last two annual Credit Limit reviews performed in late 2010 and 2011. Using the current methodology of four years, the data shows that about 50% of Market Participants' Credit Limits were set based on Settlement outcomes within the previous two years, and about 50% were set based on Settlement outcomes that had occurred in the immediate two years prior to the previous two years. This indicates that, if the Market Rules had required the IMO to consider only the last two years of Settlement data, about half of the Participants would have had their Credit Limits set at levels lower than were set by the IMO using four years of prior data, which would have resulted in reduced prudential financing costs to those Participants.

Since the 2011 Credit Limit review, two Market Participants have had their Credit Limits reviewed upwards during 2012. One of those was a new retailer whose Credit Limit was first set in early 2012, while the other had its 2012 Credit Limit set on data within the previous two years. The fact that the Credit Limit had to be revised upwards in these cases indicates that using data from a longer period (four years) is no guarantee that sufficiently high Credit Limits will be set such that Credit Limit increases will not be required periodically.

Accordingly, the IMO considers that using more recent Settlement data would result in reduced costs for Market Participants that would have lower Credit Limits set.

With regard to potential risk to the market resulting from reduced prudential security being held by the IMO, the IMO considers that current protections around continuous monitoring of Credit Limits and Trading Margins and the ability to make Margin Calls at short notice already protect the market adequately from changes in commercial positions.

Based on the considerations as discussed above, the IMO proposes that the time period of historical data to be used in Credit Limit determination should be reduced to a maximum of 24 months. The IMO considers that a time period of up to 24 months captures two samples of peak periods (including two summer seasons). A shorter time period would not offer enough peak periods and would reduce further if exceptional events (for example price spikes due to Varanus Island) had to be factored out.

Additionally, the IMO also considers that the application of this time period in determining Credit Limits should be moved to the Market Procedure, as this is the sort of prescriptive detail that should be set out in the Procedure.

Proposed Solution

The IMO proposes to amend clause 2.37.4 to remove the reference to time period and move it into the Market Procedure. In the Procedure, the IMO proposes to reduce the time period of historical data used to 24 instead of 48 months (see step 2.2.3 in the Procedure).

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

a) *Net Forecast Liability and the Outstanding Amount:* In accordance with clause 2.40.1, the IMO calculates a Market Participant's Outstanding Amount as the net aggregate of all amounts payable including unpaid invoices and amounts for which a Settlement Statement has not yet been issued.

Currently, the IMO also monitors a Net Forecast Liability for a Market Participant to assess its current and future liabilities against its Trading Margin. The net forecast liability component is currently calculated as the sum of:

- average daily STEM trade imbalance from the most recent 30 days, projected upto the next STEM Settlement Date up to a maximum of 15 days; and
- average daily Non-STEM trade imbalance from the most recent invoice projected upto the next Non-STEM Settlement Date up to a maximum of 70 days.

The IMO is seeking to improve robustness in both the Outstanding Amount and the Net Forecast Liability components by including the current and expected liability arising from Capacity Cost Refunds, respectively. For Facilities that are subject to prolonged Forced Outages, the IMO is able to use the outage data to calculate in advance the projected Capacity Cost Refunds for the tenure of the Forced Outage. The IMO considers that including actual Capacity Cost Refunds as they arise in the Outstanding Amount calculation[2] will improve the representation of the amounts currently owed by the Market Participant. Further, by including the expected liability arising from Capacity Cost Refunds in the Net Forecast Liability component, the IMO will improve the estimation of forecast exposure for Market Participants that have Facilities on prolonged Forced Outages. To avoid any double-counting in assessing expected liabilities, the IMO will remove any previously-invoiced Capacity Cost Refund amount before adding any actual Forced Outage refunds.

The IMO also considers that as more real-time data becomes available, the IMO will be able to expand and improve the calculation of Net Forecast Liability, thereby making prudential monitoring more robust and real-time.

To account for the Net Forecast Liability component as modified according to the discussion mentioned in the previous paragraph, the IMO proposes to create a new clause 2.40.1A requiring that a Net Forecast Liability will be calculated and monitored for Market Participants. The IMO has also proposed to define Net Forecast Liability in the Glossary. The IMO also considers that the detailed calculation of the Outstanding Amount and Net Forecast Liability should be moved to the Market Procedure, making it consistent with recent Rule Changes (for e.g. RC_2011_10).

To improve real-time prudential monitoring for both Market Participants and the IMO, the IMO also proposes to calculate and publish the Outstanding Amount and net forecast liability daily on the WEMS Market Participant Interface (MPI).

Proposed Solution

The IMO proposes that a new clause 2.40.1A and a Glossary definition be created to account for Net Forecast Liability. Further, the IMO proposes to retain the detailed

[2] Actual current liability arising from Capacity Cost Refunds will be included in the net current liability which makes up the Outstanding Amount. For detailed calculations, please refer to Appendix 1 of the Market Procedure: Prudential Requirements

methodology (and formula) for calculating the Outstanding Amount and the Net Forecast Liability in the Market Procedure.

The IMO also proposes that a new clause 2.40.1B be created to state that the Outstanding Amount and Net Forecast Liability will be calculated and published daily on the WEMS MPI.

b) *Typical Accrual and the amount of Margin Call*: The Typical Accrual, defined in clause 2.42.2 is a mechanism by which the amount of a Margin Call can be arrived at in the event a Market Participant's Trading Margin has fallen to zero or below**.** The clause contemplates that the IMO would determine the Typical Accrual as the current Outstanding Amount resulting from the application of average prices and quantities as applied to the most recent determination of the Market Participant's Credit Limit. However, in practice, the IMO does not apply any "average prices and quantities" when calculating the Non-STEM liability component of a participant's Credit Limit. Besides, the proposed amendments to the determination of Credit Limit (as discussed in Issue 1) remove the use of average prices and quantities. Therefore, the IMO considers that the concept of Typical Accrual should be removed.

   In practice, the amount of the Margin Call would be determined based on the Market Participant's most recent Trading Margin, available Credit Support held with the IMO and any outstanding payments that the Participant makes or is going to make so that its market exposure is covered until the next Settlement Date.

Proposed Solution

The IMO proposes to remove the concept of Typical Accrual and amend clause 2.42.3 to indicate the amount of the Margin Call as being up to an amount that will raise the Trading Margin to zero or above. The IMO also proposes to include in the Market Procedure that in making a Margin Call the IMO may also take into account the Net Forecast Liability amount and any pre-payments that may have been made to cover market exposure.

Issue 3: Guidelines for Determining the Expected Value of a Transaction

Clause 2.37.9 requires the IMO to provide, in the relevant Market Procedure, guidelines for determining the expected value of a transaction. To date, the Market Procedure has not included any such guidelines.

These guidelines are intended to be used by the IMO and a Market Participant to assess whether a submission should be rejected or not made at all, if the transaction could result in the Market Participant's Trading Margin being exceeded were the transaction to be valued according to the guidelines (clauses 2.41.2 and 2.41.3).

The guidelines are required to be consistent with the methodology the IMO uses for determining Credit Limits; however the methodology for determining Credit Limits is assisted by a set of principles the IMO must take into account rather than a "guideline" per se.

Assessment of an appropriate guideline has led the IMO to conclude that a definitive and prescriptive guideline is not practicable given the way in which submissions are made and liabilities arise in the WEM.

Proposed solution

To ensure consistency between the methodology used by the IMO in determining Credit Limits and to provide a practicable guide to Market Participants and the IMO in assessing whether to not make or reject a submission, the IMO proposes to amend the clause to require the IMO to set out a list of factors that the IMO and Market Participants must take into account in determining an expected value of a transaction.

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2. Explain the reason for the degree of urgency:

The IMO has determined that PRC_2012_23 is of medium urgency and proposes that this Rule Change Proposal be progressed through the Standard Rule Change Process.

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

2.37.4. The Credit Limit for each Market Participant 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 that the IMO reasonably expects will not be exceeded, when this amount is determined applying the principles set out in clause 2.37.4 (a) to (f). ~~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 Balancing Price and the STEM Clearing Price for the previous 48 months, or such shorter time period as data is available for;~~

(~~b~~a) the historical level of payments based on 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 Relevant Dispatch Quantity and the Balancing Price;~~

(~~d~~b) the length of the settlement cycle~~ and the process set out in clauses 9.23, 9.24 and 2.32~~;

(~~e~~c) ~~a reduction in the Credit Limit reflecting applicable~~ the historical level of payments based on bilateral contract sales and 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~~d) the historical level of payments based on 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;

(~~f~~Ae) the historical level of payments under clause 9.8.1 or an estimate of the Market Participant's expected level of payments under clause 9.8.1 where no historical payment data is available;

(~~g~~f) the historical ~~expected~~ level of Reserve Capacity payments, Ancillary Service payments, outage compensation payments, reconciliation of settlements and Market Participant fees, or an estimate where no historical data is available.;

~~(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.~~

2.37.4A. In making its determination under clause 2.37.4, the IMO may, to the extent it considers relevant, take into account a degree of confidence that the Credit Limit will adequately protect the market in the event a Market Participant defaults.

2.37.9 The IMO must ~~develop guidelines~~ publish a list of factors to be taken into account, in the Market Procedure referred to in clause 2.43 for determining the expected value of a transaction. The ~~guidelines~~ factors 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 equals:

(a) [Blank]

(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; less

iii. any voluntary pre-payments the Market Participant makes in consideration of reducing its Outstanding Amount.

2.40.1A. The IMO must calculate and monitor a reasonable estimate of a Market Participant's Net Forecast Liability.

2.40.1B. The IMO must calculate each Market Participant's Outstanding Amount and its Net Forecast Liability daily and make these values available to that Market Participant through the Market Web Site.

2.40.2. The amounts to be used for the purposes of making the calculation under clauses 2.40.1(b)(i) and (ii) and 2.40.1A will be the actual amounts for which Settlement

Statements have been issued by the IMO and the IMO's reasonable estimate of other amounts.

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, were the transaction to be valued ~~according to the expected value guidelines~~ taking into account the factors referred to in clause 2.37.9.

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, were the transaction to be valued ~~according to the expected value guidelines~~ taking into account the factors referred to in clause 2.37.9.

2.42.2. [Blank] ~~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 for an amount that will raise the Trading Margin to at least zero ~~equal to the Market Participant's Outstanding Amount less the Market Participant's Typical Accrual~~.

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 from the date on which the Margin Call Notice was 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:

...

(e) ~~guidelines~~ list of factors to be taken into account for assessing the expected value of transactions;

(f) issuing of Margin Calls; ~~and~~

(g) determining Net Forecast Liability; and

(h) other matters relating to clauses 2.37 to 2.42,

...

10.7.1. The IMO must set the class of confidentiality status for the following information under clause 10.2.1, as Rule Participant Market Restricted Information and the IMO must make this information available from the Market Web Site:

...

(f) Market Participant specific Outstanding Amount

(g) Market Participant specific Net Forecast Liability

Net Forecast Liability: The sum of all STEM and Non-STEM estimated forecast exposure for the period from the Trading Day on which the net current liability is calculated up to and including the next Non-STEM Settlement Date.

~~**Typical Accrual**: The amount determined in accordance with clause 2.42.2.~~

---

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

PRC_2012_23 would allow the Market Rules to impact the Wholesale Market Objectives, as described below.

Impact	Market Objectives
Allow the Market Rules to better address the objective	a
Consistent with objective	b, c, d, 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 the Market Participants would allow the Market Rules to better achieve key Wholesale Market Objective (a) as follows:

- greater transparency of a Market Participant's Credit Limit and Outstanding Amount will promote a more economically efficient market due to increased accuracy in monitoring Trading Margins and making Margin Calls;
- adding a current actual Capacity Cost Refund liability to the calculation of Outstanding Amount will improve the representation of current exposure in Trading Margin, giving the IMO better accuracy while making decisions on Margin Calls;

- adding a Net Forecast Liability component, which includes expected Capacity Cost Refund liability in prudential monitoring will better reflect a Market Participant's future market exposure resulting in reduced exposure to risk for other Market Participants; and
- daily calculation of the Outstanding Amount and Net Forecast Liability will place the IMO and Market Participants in a better position to calculate the amount of security needed to monitor and manage credit risk effectively and efficiently.

The IMO also considers that the proposal is consistent with the remaining Wholesale Market Objectives.

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

Costs

The move to more real-time monitoring and the addition of new terms will require some changes within the Settlement system and its integration with WEMS. A formal costing for these IT changes has not yet 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.

Agenda item 6c (Attachment): Cover Paper – Proposed Amendments to Market Procedure: Prudential Requirements

Background

The IMO has developed the Pre Rule Change Proposal: Prudential Requirements (PRC_2012_23) to address issues related to the determination of Credit Limits, calculation of Outstanding Amount, the concepts of Typical Accrual and Margin Call and the list of factors for assessing the expected value of transactions.

While developing this Pre Rule Change Proposal, the IMO has simultaneously proposed amendments to the associated Market Procedure: Prudential Requirements to allow the MAC to assess the Pre Rule Change Proposal as a package. The IMO is seeking to make the rules principles-based and move the prescriptive detail to the Procedure.

The Procedure has not been amended since 2008 necessitating a re-write of the Procedure to:

- Implement proposed Amending Rules from PRC_2012_23,
- Incorporate changes to make consistent with the new template, and
- Reflect the IMO's new standards in language and formatting,

As a result, the IMO has not shown proposed amendments in mark-ups because of the substantial nature of changes to the Procedure. However, the main areas that the IMO has amended materially are:

- Determination of Credit Limits for different types of Market Participants (Section 2),
- Trading Margins and Margin Calls (Section 5),
- Outstanding Amount and Net Forecast Liability (Appendix 1),
- List of factors for assessing the expected value of transactions (Appendix 2).

Recommendation

The IMO requests that the MAC:

- discuss the Pre Rule Change Proposal and the associated Market Procedure
- agree to the submission of the Pre Rule Change Proposal into the formal process

INDEPENDENT
MARKET
OPERATOR

Market Procedure:
Prudential Requirements

VERSION 3

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	XX Month 2013	Amendments to Market Procedure resulting from PC_2013_XX

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1 PROCEDURE OVERVIEW

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 **[Clause XX]** are current as of 1 November 2012. These references are included for convenience only, and are not part of this Procedure.

1.2 Purpose of this Procedure

1.2.1 This Procedure outlines:

(a) how the IMO will determine Credit Limits;

(b) how the IMO will assess persons against the Acceptable Credit Criteria;

(c) the arrangement for Credit Support, including:

i. the form of acceptable guarantees and bank letters of credit;

ii. where and 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 will be calculated;

(e) factors to be taken into account in determining the expected value of transactions;

(f) how Margin Calls will be issued;

(g) how the IMO will determine Net Forecast Liability; and

(h) other matters relating to clauses 2.37 to 2.42 of the Market Rules.

1.3 Application of this Procedure

1.3.1 This Procedure applies to the IMO and Market Participants.

1.4 Associated Market Procedures and Market Documents

1.4.1 The following Market Procedures are associated with this Procedure:

(a) Participant Registration and Deregistration Market Procedure; and

(b) Settlements Market Procedure.

1.4.2 The following Market Documents are associated with this Procedure:

(a) Bank Undertaking for Credit Support;

(b) Guarantee for Credit Support;

(c) Security Deposit Deed for Credit Support;

(d) Security Deposit Deed for Credit Support, provided by Third Party;

(e) Acceptable Credit Criteria form; and

(f) List of entities meeting Acceptable Credit Criteria

1.5 Conventions Used

1.5.1 In this Procedure, the conventions specified in clauses 1.3 - 1.5 of the Market Rules apply.

1.5.2 The appendices contained within this Procedure for part of the Procedure and are legally enforceable.

1.6 Terminologies and Definitions

1.6.1 A word or phrase defined in the Market Rules, the Electricity Industry Act or the Regulations has the same meaning when used in this Procedure. In addition the following defined terms have the meaning given.

Term	Definition
Due Date	Due Date is the date notified by the IMO in respect of a step in this Market Procedure where the Due Date is specified

Table 1 – Defined Terms

2 CREDIT LIMITS

2.1 Determination of Credit Limits

2.1.1 The IMO must determine a Credit Limit for each Market Participant **[Clause 2.37.1]**. In making this determination, the IMO must take into account the principles laid out in clause 2.37.4(a) – (f) when determining the Credit Limit. Steps 2.2 and 2.3 of this Procedure detail how these principles will be taken into account.

2.1.2 The IMO must review each Market Participant's Credit Limit at least once a year **[Clause 2.37.3]**.

2.1.3 The IMO may revise the Credit Limit of a Market Participant at any time **[Clause 2.37.2]**.

2.1.4 In accordance with clause 2.37.5, a Market Participant must notify the IMO as soon as practicable, where it considers that:

(a) Its metered consumption quantities in a Trading Month will significantly exceed the amount assumed in the last calculation of its Credit Limit; or

(b) Its quantity of electricity purchased bilaterally in a Trading Month will be significantly lower than assumed in the last calculation of its Credit Limit.

2.1.5 A Market Participant must provide the notification in step 2.1.4 to the IMO, in writing via email or letter.

2.1.6 A Market Participant may submit a request to the IMO, in writing via email or letter, to consider revising its Credit Limit.

2.1.7 If the IMO decides to revise the Credit Limit for a Market Participant in response to a notification received in step 2.1.5 or 2.1.6, then the IMO must determine the revised Credit Limit in accordance with step 2.2 or step 2.3.

2.1.8 If the IMO decides that the Credit Limit does not need to be revised in response to a Market Participant's request under step 2.1.6, then the IMO must, as soon as practicable, notify the Market Participant in writing via email or letter, its reasons for not doing so.

2.1.9 Within one Business Day after determining the Credit Limit, the IMO must provide notification to each Market Participant, in writing via email or letter, of its Credit Limit and the basis for making that determination **[Clause 2.37.8]**.

2.1.10 The IMO must ensure that 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 Site[1]. 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.

2.2 Determination of Credit Limits for existing Market Participants

2.2.1 The IMO must identify when a minimum of three full months of settled data in Non-STEM become available for a Market Participant.

2.2.2 Within five Business Days of making the identification in step 2.2.1, the IMO must determine the Credit Limit for the Market Participant using the Anticipated Maximum Exposure (AME) method, detailed in step 2.2.3.

2.2.3 The IMO must determine a Market Participant's Anticipated Maximum Exposure (AME) using up to 24 months of available settlement data from the period preceding the date on which the Credit Limit is determined, as follows:

(a) For each settled Trading Month, the IMO must calculate the Trading Day exposure for the Market Participant. This Trading Day exposure consists of Reserve Capacity settlement amount, balancing settlement amount, Ancillary Service settlement amount, Outage Compensation settlement amount, Reconciliation Settlement amount and the applicable Market Participant Fee settlement amount. This is calculated as follows:

$$\text{Trading Day exposure} = RCSA(p,m) \div n + \sum BSA(p,d,t) + ASSA(p,m) \div n + COCSA(p,m) \div n + RSA(p,m) \div n + MPFSA(p,m) \div n$$

Where

RCSA(p,m) is the Reserve Capacity settlement amount for Market Participant p for Trading Month m calculated as per clause 9.7.1;

$\sum BSA(p,d,t)$ is the sum of the balancing settlement amounts for Market Participant p for all Trading Intervals t of Trading Day d calculated as per clause 9.8.1;

ASSA(p,m) is the Ancillary Service settlement amount for Market Participant p for Trading Month m calculated as per clause 9.9.1;

COCSA(p,m) is the Outage Compensation settlement amount for Market Participant p for Trading Month m calculated as per clause 9.10.1;

RSA(p,m) is the Reconciliation Settlement amount for Market Participant p for Trading Month m calculated as per clause 9.11.1;

[1] http://www.imowa.com.au/f144,1373523/MIMarketParticipantRegistrationUserGuide.pdf

MPFSA(p,m) is the applicable Market Participant Fee settlement amount for Market Participant p for Trading Month m calculated as per clause 9.13.1; and

n is the number of Trading Days in Trading Month m.

(b) Using each day's Trading Day exposure, the IMO must calculate the total running 70 day exposure, for all consecutive 70 day periods up to the last day of the most recently settled Trading Month.

(c) The IMO must determine the highest running 70 day exposure, plus GST, as the Market Participant's 70 day maximum exposure in Non-STEM.

(d) If the Market Participant participated in STEM over that period, the IMO must calculate the total running 15 day exposure up to the last day of the most recently settled Trading Week.

(e) The IMO must determine the highest running 15 day exposure, plus GST, as the Market Participant's 15 day maximum exposure in STEM.

(f) The AME is equal to the sum of the 70 day maximum Non-STEM exposure and 15 day maximum STEM exposure.

(g) The IMO must set the AME calculated in step (f) as the Credit Limit for that Market Participant.

2.2.4 In accordance with clause 2.37.4A, the IMO may, in its absolute discretion, deviate from the methodology described in step 2.2.3 if it considers that certain circumstances exist that warrant a revision of the Credit Limit for a Market Participant. Such circumstances include, but are not limited to:

(a) Significant changes in metered quantities;

(b) Significant changes in bilateral contracting;

(c) Significant changes in commercial behaviour such as increase in customer base or acquisition of new facilities;

(d) Changes in Reserve Capacity Price;

(e) Unforeseen events, for example a material fuel disruption.

2.3 Determination of Credit Limits for other Market Participants

2.3.1 At least one Business Day before a new Market Participant participates in the market, the IMO must determine an initial Credit Limit for that Market Participant, as follows:

(a) If the Market Participant is a Market Generator, refer to step 2.4

(b) If the Market Participant is an existing Market Generator with a new Facility under construction, then for the Credit Limit in respect of that new Facility, refer to step 2.4

(c) If the Market Participant is a Market Customer, refer to step 2.5

(d) If the Market Participant is both a Market Generator and a Market Customer, then the sum of the Credit Limits determined under step 2.4 and 2.5

(e) If the Market Participant has a Demand Side Programme, refer to step 2.6

(f) If the Market Participant is a Market Customer with a retail base and a Demand Side Programme, then the sum of the Credit Limits determined under step 2.5 and 2.6

(g) If the Market Participant is a Market Generator with a Demand Side Programme, then the sum of the Credit Limits determined under step 2.4 and 2.6

(h) If the Market Participant is both a Market Generator and a Market Customer and also has a Demand Side Programme, then the sum of the Credit Limits determined under step 2.4, 2.5 and 2.6.

2.3.2 In accordance with clause 2.37.4A, the IMO may, in its absolute discretion, deviate from the methodology described in step 2.3.1 if it considers that certain circumstances exist that warrant a revision of the Credit Limit for a Market Participant.

2.3.3 When the IMO identifies that a minimum of three full months of settled data in Non-STEM are available for a new Market Participant, the IMO must determine the Credit Limit for that Participant using the methodology described in step 2.2.

2.4 Determination of initial Credit Limit for a new Market Generator

2.4.1 If not already submitted at the time of Facility Registration, a new Market Generator must, by the agreed Due Date, provide the following data to the IMO:

(a) The generation capacity of its Facilities;

(b) The Certified Reserve Capacity of its Facilities;

(c) The amount of energy it has bilaterally contracted; and

(d) The amount of Capacity Credits it has bilaterally contracted.

2.4.2 The IMO must make reasonable estimations for the following:

(a) Average Balancing Price;

(b) Percentage of time the Facility is expected to run;

(c) Monthly Reserve Capacity Price; and

(d) Refund factor based on the Refund Table in clause 4.26.1

2.4.3 Based on the data provided in step 2.4.1, the IMO must reasonably assume:

(a) The maximum quantity of the energy to be bought in Balancing Market over 70 days;

(b) The maximum amount of Market Fees and Ancillary Service payments over 70 days; and

(c) The maximum quantity of potentially unavailable capacity over 70 days.

2.4.4 Using the data in step 2.4.2 and assumptions in step 2.4.3, the IMO must determine the initial Credit Limit for the new Market Generator.

2.4.5 A Market Generator with a new Facility under construction must provide to the IMO Credit Support of an amount no less than the Credit Limit (determined for that Facility) before the commencement of the Commissioning Test Period. The Market Generator must provide Credit Support in accordance with Section 4 of this Procedure.

2.5 Determination of initial Credit Limit for a new Market Customer

2.5.1 If not already submitted at the time of Participant Registration, a new Market Customer must, by the agreed Due Date, provide the following data to the IMO:

(a) The amount of energy contracted to sell to consumers;

(b) The amount of Capacity Credits assigned under bilateral contracts; and

(c) The amount of energy to be purchased under bilateral contracts

2.5.2 The IMO must make reasonable estimations for the following:

(a) Average Balancing Price;

(b) Monthly Reserve Capacity Price;

(c) Individual Reserve Capacity Requirement

2.5.3 Based on the data provided in step 2.5.1, the IMO must reasonably assume:

(a) The maximum quantity of energy to be bought in the Balancing Market over 70 days;

(b) The maximum amount of Market Fees and Ancillary Service payments over 70 days; and

(c) The maximum quantity of Capacity Credits to be bought from the IMO over 70 days.

2.5.4 Using the data in step 2.5.2 and assumptions in step 2.5.3, the IMO must determine the initial Credit Limit for the new Market Customer.

2.6 Determination of Initial Credit Limit for a new Market Participant that has a Demand Side Programme

2.6.1 If not already submitted at the time of Facility Registration, a new Market Participant with a Demand Side Programme must, by the agreed Due Date, provide the following data to the IMO:

(a) The quantity of Associated Loads to the Demand Side Programme;

(b) The Certified Reserve Capacity of its Facilities; and

(c) The amount of Capacity Credits it has bilaterally contracted.

2.6.2 Based on the data provided in step 2.6.1, the IMO must reasonably assume:

(a) The maximum amount of Capacity Cost Refunds over 70 days

2.6.3 The IMO must make reasonable estimations for the following:

(a) Percentage of time the Facility is expected to perform;

(b) Monthly Reserve Capacity Price; and

(c) Refund factor based on the Refund Table in clause 4.26.1

2.6.4 Using the data in step 2.6.2 and estimations in step 2.6.3, the IMO must determine the initial Credit Limit for the new Market Customer with a Demand Side Programme.

3 ACCEPTABLE CREDIT CRITERIA

3.1 Confirming an entity meets the Acceptable Credit Criteria

3.1.1 The IMO must maintain on the Market Web Site, a list of entities which:

(a) have provided to the IMO, in the previous 12 months, evidence satisfactory to the IMO that they meet the Acceptable Credit Criteria; or

(b) the IMO in its absolute discretion determined to be entities that meet the Acceptable Credit Criteria. **[Clause 2.38.7]**

3.1.2 The list of entities referred to in step 3.1.1 must include details of the date from which the entity has been included in the list and whether it has been included under step 3.1.1(a) or step 3.1.1(b).

3.1.3 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

3.1.4 The IMO must undertake 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 it no longer meets the Acceptable Credit Criteria. [**Clauses 2.38.8 and 2.38.9]**

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

3.1.6 Where a Market Participant elects to provide Credit Support other than a Security Deposit and the entity is included on the IMO's list of entities that meet the Acceptable Credit Criteria, the Market Participant will not be required to submit an Acceptable Credit Criteria Form.

3.1.7 Where a Market Participant elects to provide a Credit Support other than a Security Deposit and the credit support provider is not included on the list of entities that meet the Acceptable Credit Criteria, the Market Participant must arrange for the completion of an Acceptable Credit Criteria Form, outlining that an entity meets the Acceptable Credit Criteria outlined in clause 2.38.6, 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/n5705,205.html

3.1.8 In arranging for the completion of the Acceptable Credit Criteria Form under step 3.1.7, a Market Participant is responsible for arranging for a 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 credit support provider.

3.1.9 A completed Acceptable Credit Criteria Form is one that adheres to clause 2.38.6 of the Market Rules, in that the form:

(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 from a reputable commercial law firm which is acceptable to the IMO.

3.1.10 Before submitting an Acceptable Credit Criteria Form, the Market Participant may, no later than two Business Days before the Due Date, submit a request to the IMO to confirm whether a particular firm of solicitors meets the requirements of step 3.1.9(c).

3.1.11 Where the IMO receives a request to confirm whether a particular firm of solicitors is acceptable to satisfy the requirements under the Acceptable Credit Criteria, the IMO must notify via email the Market Participant by the next Business Day, whether that firm of solicitors meets the requirements.

3.1.12 Where a Market Participant elects to provide Credit Support in a form other than a Security Deposit and the credit support provider is not included on the list of entities that meet the Acceptable Credit Criteria, the Market Participant must submit the completed Acceptable Credit Criteria Form, including any original documents to the IMO.

3.1.13 Within one Business Day of receiving an Acceptable Credit Criteria Form from a Market Participant, the IMO must assess the compliance and completeness of the Acceptable Credit Criteria Form, in accordance with step 3.1.9.

3.1.14 The IMO may, at its discretion, request a Market Participant to provide documents to support the responses to the statements in the Acceptable Credit Criteria Form.

3.1.15 Where the IMO requests further information under step 3.1.14, the Market Participant must provide all relevant documents within one Business Day, or any other timeframe as agreed with the IMO.

3.1.16 If the IMO is satisfied that the Acceptable Credit Criteria Form has been submitted and completed in accordance with the steps in this Procedure, then the IMO must deem that the entity to which the Acceptable Credit Criteria Form applies meets the Acceptable Credit Criteria for a period of 12 months.

3.1.17 Where the IMO deems an entity to meet the Acceptable Credit Criteria under step 3.1.16, the entity must be included in the list of entities that meet the Acceptable Credit Criteria and this entity must be on the list, which is available on the Market Web Site, for a period of 12 months from the date of approval of the entity by the IMO **[Clause 2.38.7].**

4 CREDIT SUPPORT

4.1 Credit Support Arrangements

4.1.1 At the same time as the IMO provides the notification specified in step 2.1.9, the IMO must notify via email the Market Participant whether it is required to provide Credit Support and the Due Date for any Credit Support required.

4.1.2 The Market Participant must ensure that the amount of Credit Support provided is no less than the Credit Limit determined for the Market Participant by the IMO.

4.1.3 The Market Participant must provide the Credit Support to the IMO by the Due Date.

4.1.4 Where at any time a Market Participant does not meet the Acceptable Credit Criteria outlined in clause 2.38.6, the Market Participant must ensure that the IMO holds the benefit of Credit Support in an amount not less than its Credit Limit **[Clause 2.38.1]**.

4.1.5 If a Market Participant has provided Credit Support which is due to expire or terminate on a given date, it must, no less than 10 Business Days prior to the expiration or termination of the existing Credit Support, provide a replacement Credit Support to the IMO 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 **[Clause 2.38.2].**

4.1.6 A Market Participant must provide replacement Credit Support, or increase their current Credit Support, to an amount not less than their determined Credit Limit in any of the following circumstances:

(a) where the IMO has increased the Market Participant's Credit Limit;

(b) where the existing Credit Support is no longer current or valid (for example credit support provider no longer meets Acceptable Credit Criteria); or

(c) where some, or all, of the Credit Support has been drawn on by the IMO **[Clause 2.38.3]**

4.1.7 The IMO must notify a Market Participant via email as soon as it determines any of the circumstances specified in step 4.1.6 are present in relation to that Market Participant.

4.1.8 Where a Market Participant wishes to change the type of Credit Support provided (for example from a Security Deposit to a bank undertaking), it must notify the IMO via email when it would do so.

4.1.9 Within one Business Day of the notification in step 4.1.7 or 4.1.8, a Market Participant must ensure that the IMO holds the benefit of the replacement Credit Support in an amount not less than the Credit Limit determined for that Participant **[Clause 2.38.3]**.

4.1.10 A Market Participant must provide Credit Support by way of:

(a) guarantee or bank undertaking, in accordance with the process detailed in Section 4.2 of this Procedure and in accordance with clause 2.38.4(a) of the Market Rules; or

(b) Security Deposit, in accordance with the process detailed in Section 4.3 of this Procedure and in accordance with clause 2.38.4(b) of the Market Rules**.**

4.1.11 On receiving documentation from a Market Participant for Credit Support, the IMO must review the Credit Support arrangement to:

(a) determine whether it is compliant with clause 2.38.4(a) of the Market Rules and section 4.2 of this Market Procedure, if the Credit Support is in the form of a guarantee or bank undertaking; or

(b) determine whether it is compliant with clause 2.38.4(b) of the Market Rules and section 4.3 of this Market Procedure, if the Credit Support is in the form of a Security Deposit.

4.1.12 Within five Business Days of receiving all documentation for Credit Support arrangements from the Market Participant, the IMO must notify the Market Participant in writing via email or letter, that the Credit Support is either:

(a) compliant with the Market Rules and this Procedure; or

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

4.2 Submitting Guarantees or Bank Undertakings

4.2.1 On receiving a notification in step 4.1.1, a Market Participant must download a copy of the following documents from the Market Web Site:

(a) Proforma deed for guarantee or bank 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 Market Web Site).

4.2.2 A Market Participant must by the Due Date, submit to the IMO:

(a) a completed proforma deed for guarantee or bank undertaking for an amount not less than the Credit Limit determined for the Market Participant; and

(b) a completed Acceptable Credit Criteria Form for the credit support provider (if applicable).

4.2.3 A completed guarantee or bank undertaking must meet the following criteria:

(a) It is in the form approved by the IMO; and

(b) It has been executed by a Treasury Corporation (in the case of a guarantee) or a bank (in the case of a bank undertaking), that meets the Acceptable Credit Criteria.

4.2.4 The Market Participant must ensure that the guarantee or bank undertaking is consistent with the most recent proforma version available on the Market Web Site and is only modified to the extent contemplated in the proforma version. The IMO must not accept any variations from the proforma version available on the Market Web Site.

4.2.5 The IMO requires that the Treasury Corporation issuing the guarantee or the bank issuing the bank undertaking must be able to provide cleared funds up to the amount of the Credit Support within 90 minutes of the IMO making a call on the Credit Support.

4.2.6 At the time of providing a guarantee or bank undertaking to the IMO, a Market Participant 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; and

(b) any special procedure that the bank or Treasury Corporation requires the IMO to follow when calling on the Credit Support.

4.2.7 A Market Participant 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 of making a call on Credit Support. Failure by the bank or Treasury Corporation to do so constitutes a breach of clause 2.38.4(a) and a suspension event under clause 9.23.1 of the Market Rules by the Market Participant.

4.2.8 When providing a guarantee or bank undertaking to the IMO, the Market Participant must agree on a place of delivery with the IMO and hand over the document to the IMO in person.

4.2.9 If the Market Participant is not able to hand over the document in person, it must be provided to the IMO by courier or registered mail, requiring a signature of receipt.

4.2.10 The IMO must provide a written receipt to the Market Participant at the time of receiving the guarantee or bank undertaking.

4.2.11 The IMO must make a determination on compliance or non-compliance of the guarantee or bank undertaking in accordance with step 4.1.11 and notify the Market Participant in accordance with step 4.1.12.

4.2.12 If a Market Participant received a notification of non-compliance in accordance with step 4.1.12(b), then the Market Participant must re-submit the Credit Support on or before the Due Date as agreed upon with the IMO, and the IMO must determine its compliance in accordance with step 4.1.11.

4.2.13 At the same time as the IMO issues confirmation to the Market Participant that the guarantee or bank undertaking is compliant with the Market Rules and this Procedure, the IMO must notify the Treasury Corporation or the bank, as applicable, that Credit Support has been provided in accordance with clause 2.38.4(a) of the Market Rules and this Market Procedure.

4.2.14 After the IMO notifies the Market Participant and the Treasury Corporation or the bank, as applicable, in step 4.2.13, the IMO must place the completed guarantee or bank undertaking in a bank safe box, as soon as practicable.

4.3 Submitting Security Deposits

4.3.1 On receiving a notification in Step 4.1.1, a Market Participant must download a copy of the following documents from the Market Web Site:

(a) Proforma deed for Security Deposit; and

(b) Security Deposit Instructions.

4.3.2 A Market Participant must by the Due Date:

(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, to the IMO in accordance with the Security Deposit Instructions.

4.3.3 A completed Security Deposit deed must meet the following criteria:

(a) It is in the form approved by the IMO; and

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

4.3.4 A Market Participant must ensure that the Security Deposit deed is consistent with the most recent proforma version available on the Market Web Site and is only modified to the extent contemplated in the proforma version. The IMO must not accept any variations from the proforma version available on the Market Web Site.

4.3.5 A Market Participant may submit a request for time beyond the Due Date specified in step 4.3.2 to provide the Security Deposit deed to the IMO. The Market Participant must submit this request in writing via email or letter.

4.3.6 The IMO may, in its absolute discretion, accept or reject a request made in step 4.3.5 and the IMO must notify the Market Participant via email of such decision as soon as practicable.

4.3.7 Failure by a Market Participant to provide both the completed Security Deposit deed and the cleared funds by the Due Date or a date agreed upon with the IMO, in accordance with step 4.3.2, constitutes a breach of clause 2.38.1of the Market Rules and the occurrence of a suspension event under clause 9.23.1 of the Market Rules.

4.3.8 The IMO must make a determination on compliance or non-compliance of the Security Deposit in accordance with step 4.1.11 and notify the Market Participant in accordance with step 4.1.12.

4.3.9 If the Market Participant received a notification of non-compliance in accordance with step 4.1.12(b), then the Market Participant must re-submit the Credit Support on or before the Due Date as agreed upon with the IMO, and the IMO must determine its compliance in accordance with step 4.1.11.

4.3.10 If a Market Participant received a notification of compliance in accordance with step 4.1.12(a), the Market Participant must provide, in cleared funds, the amount of Credit Support to the IMO in accordance with the Security Deposit Instructions by the Due Date.

4.3.11 The IMO must sign the two originals of the Security Deposit deed and return one signed original to the Market Participant.

4.3.12 In accordance with the Personal Property Securities Act 2009 (Cth) (PPSA)[2], the IMO must register its security interest in the Security Deposit deed on the Personal Property Securities Register as soon as practicable. As part of this process the IMO must deduct any fees incurred in registering the security interests from the balance of the Security Deposit, and the IMO must send a notice of the verification statement (containing the details of the registration) to the credit support provider as soon as practicable.

4.3.13 Upon completion of step 4.3.12, the IMO must place the completed Security Deposit deed in a bank safe box, as soon as practicable.

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2 The Personal Property Securities Act 2009 (Cth) (PPSA) enables any person to register its security interests on the Personal Property Securities Register (PPSR). The PPSR is a real-time electronic notice board which allows individuals and organisations to search and register security interests in personal property (see www.ppsr.gov.au for more information). For the purposes of the PPSA, any cash in a bank account (Security Deposit) under the control of the IMO pursuant to a Security Deposit Deed that is provided to the IMO for the purposes of Credit Support (Clause 2.38.4(b)) or Reserve Capacity Security (Clause 4.13), is a form of "personal property". The IMO's interest in the Security Deposit is a "security interest", and the Security Deposit Deed secures payment and performance obligations by a Market Participant.

4.4 Holding Security Deposits and Associated Costs

4.4.1 The IMO must

(a) invest any Security Deposit payments on behalf of the relevant Market Participant;

(b) maintain individual cash deposit accounts for Security Deposits separate from IMO operating funds;

(c) credit the interest earned daily at the Bank Bill Rate on the balance of the Security Deposit to the relevant Market Participant's bank account on a monthly basis; and

(d) deduct any costs and fees associated with holding the Security Deposit from the balance of the Security Deposit, including bank fees and charges. **[Clause 2.38.5]**

4.4.2 The IMO may provide written advice to a Market Participant on a monthly basis regarding the interest earned at the Bank Bill Rate and the deduction of any accrued costs and fees.

4.5 Application of Monies Drawn Down

4.5.1 The IMO may draw upon the Credit Support it holds, the benefit of:

(a) applying it to satisfy amounts owing by the relevant Market Participant, in relation to a Security Deposit; or

(b) exercising the IMO's rights under the Market Rules, which include drawing or claiming an amount to satisfy amounts owing by the relevant Market Participant, in relation to guarantees and bank undertakings.

4.5.2 The IMO may apply the monies drawn from Security Deposit or guarantees or bank undertakings in respect of any of the following:

(a) in the case of a Suspension Event, as defined in clause 9.23.1 of the Market Rules, for the amount which the IMO determines is actually or contingently owed by the Market Participant to the IMO under the Market Rules **[Clause 9.23.4];**

(b) in the case when a Market Participant fails to make a payment under the Market Rules to the IMO before it is due, for an amount to meet the payment **[Clause 9.24.1]**;

(c) in the event that insolvency laws require the IMO to disgorge or repay an amount, or pay an amount equivalent to an amount paid by a Market Participant, for the amount disgorged, paid or repaid **[Clause 9.24.2].**

5 TRADING MARGINS AND MARGIN CALLS

5.1 Calculation of Trading Margin

5.1.1 The Trading Margin for a Market Participant at any time equals the amount by which its Trading Limit exceeds its Outstanding Amount at that time **[Clause 2.41.1]**

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

5.1.3 By 5:00 PM every day, the IMO must ensure that the Outstanding Amount and the Trading Margin is available to the Market Participant through the WEMS MPI (Prudential Security report).

5.1.4 The Trading Limit is calculated as 87 percent of the total amount of Credit Support that can be drawn upon, claimed under or applied from **[Clause 2.39].**

5.1.5 In accordance with clause 2.40.1, the IMO must calculate the Outstanding Amount for a Market Participant as the total amount calculated as follows:

(a) the aggregate of the amounts payable by the Market Participant to the IMO, 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

(b) the aggregate of the amounts payable by the IMO to the Market Participant, 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

(c) any voluntary pre-payments paid by the Market Participant.

5.1.6 The IMO must calculate and monitor a reasonable estimate of a Market Participant's Net Forecast Liability **[Clause 2.40.1A]**

5.1.7 In applying step 5.1.5 and 5.1.6, the IMO must use actual amounts for which Settlement Statements have been issued and a reasonable estimation of any other amounts **[Clause 2.40.2]**. Appendix 1 details how the Outstanding Amount and net forecast liability is calculated.

5.1.8 By 5:00 PM every day, the IMO must calculate each Market Participant's Outstanding Amount and Net Forecast Liability make each Market Participant's Outstanding Amount and Net Forecast Liability available to that Market Participant through WEMS MPI (Prudential Security report) **[Clause 2.40.1B].**

5.1.9 A Market Participant may make voluntary pre-payments to the IMO in consideration for reducing the Market Participant's Outstanding Amount. The Market Participant making such payments must notify the IMO before doing so, and such payments, when cleared, will reduce that Market Participant's Outstanding Amount.

5.1.10 Notwithstanding any other analyses and considerations, a Market Participant wishing to make a submission to the IMO contemplating a transaction must take into account the factors set out in Appendix 2 to determine, whether that transaction could result in the Market Participant's Trading Margin being exceeded.

5.1.11 If a Market Participant determines that the evaluation conducted in step 5.1.10 could result in its Trading Margin being exceeded, the Market Participant must not make such a submission to the IMO **[Clause 2.41.2]**.

5.1.12 The IMO may reject a submission from a Market Participant if the IMO's evaluation, taking into account the factors listed in Appendix 2, indicates that the transaction could result in the Market Participant's Trading Margin being exceeded **[Clause 2.41.3]**.

5.2 Issuance of margin calls

5.2.1 If, at any time, a Market Participant's Trading Margin falls to zero or below, then the IMO may issue a Margin Call Notice to the Market Participant, specifying the amount of the Margin Call **[Clause 2.42.1]**.

5.2.2 The IMO must make the Margin Call for an amount that will raise the Market Participant's Trading Margin to at least zero **[Clause 2.42.3].**

5.2.3 In determining the Margin Call amount in step 5.2.2, the IMO may take into account prevailing market conditions and the Market Participant's Net Forecast Liability and any pre-payments that the Market Participant has made so that its market exposure is covered until the next Settlement Date.

5.2.4 The IMO must issue a Margin Call Notice, in writing via email or letter, in which the IMO must specify the Margin Call amount and include a deadline of one Business Day for the Market Participant to provide the Margin Call amount.

5.2.5 A Market Participant must respond to a Margin Call Notice by 11:00 AM on the Business Day following the Business Day the IMO issued the Margin Call Notice.

5.2.6 A Market Participant must within one Business Day from the date of issue of the Margin Call Notice, respond to the Margin Call by either:

(a) providing a Security Deposit, in cleared funds, to the IMO equivalent to the amount of the Margin Call. The Security Deposit must be made in accordance with clause 2.38.4(b) and step 4.3 of this Market Procedure; or

(b) providing additional Credit Support in the form of a guarantee or bank undertaking equivalent to the amount of the Margin Call. The guarantee or bank undertaking must be made in accordance with clause 2.38.4(a) and step 4.2 of this Market Procedure. **[Clause 2.42.4]**

5.2.7 If a Market Participant fails to comply with clause 2.42.4, then the IMO must apply clause 9.23 to that Market Participant **[Clause 2.42.6]**.

5.2.8 The IMO may 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 Margin Call Notice **[Clause 2.42.5]**.

5.2.9 Where the IMO issues a Margin Call Notice, it must review the Credit Limit of the Market Participant within 30 Business Days from the date on which the Margin Call Notice was issued **[Clause 2.42.7].** The IMO must review the Credit Limit using step 2.2 or step 2.3 of this Procedure.

6 OTHER MATTERS

6.1 Amendments to Proforma Documents

6.1.1 The IMO may, in its absolute discretion, amend and publish on the Market Web Site any market documents listed in step 1.4.2.

6.1.2 If the IMO amends and publishes a market document prior to a Market Participant's provision of Credit Support under this Procedure, the IMO must apply the amended and published version of that market document to assess compliance of the Credit Support.

APPENDIX 1: OUTSTANDING AMOUNT AND NET FORECAST LIABILITY

In accordance with clauses 2.40.1 and 2.40.1A and steps 5.1.5 and 5.1.6 of this Procedure, the IMO must calculate the Outstanding Amount and Net Forecast Liability as follows:

1. Outstanding Invoices (OI): net sum of all STEM and Non-STEM invoices that have been issued to the Market Participant and remain unpaid on the current date

2. Net Current Liability (NCL): net sum of all STEM and Non-STEM estimated exposure representing transactions that have occurred but have not yet been invoiced to the Market Participant, less any voluntary pre-payments that the Market Participant may make under step 5.1.9

*Net Current Liability= STEM Daily Trade Imbalance * DP + Non-STEM Daily Trade Imbalance * DP + Capacity Cost Refund (p) − X*

3. Outstanding Amount (OA)= OI+NCL

4. Net Forecast Liability (NFL): sum of all STEM and Non-STEM estimated forecast exposure for the period from the Trading Day on which NCL was calculated up to and including the next Non-STEM Settlement Date

*Net Forecast Liability= STEM Daily Trade Imbalance*DF + (Non-STEM Daily Trade Imbalance)*DI + Capacity Cost refund(p,f)*

Where;

STEM Daily Trade Imbalance is the average of all STEM transactions, STEMSA, for Market Participant p that have occurred over the past 30 days from the day this calculation is performed:

$$\frac{\sum_{d=1}^{30} STEMSA(p,d)}{30}$$

Non-STEM Daily Trade Imbalance is the average of the most recent initial Non-STEM invoiced amount (excluding the invoiced Capacity Cost Refund amount) over n days, n being the number of Trading Days in Trading Month m

$$\frac{[(RCSA(p,m) + Capacity\ Cost\ Refund(p,m)) + BSA(p,m) + ASSA(p,m) + COCSA(p,m) + RSA(p,m) + MPFSA(p,m)]}{n}$$

Capacity Cost Refund(p) is the actual Capacity Cost Refund payable to the IMO by Market Participant p from the most recent Non-STEM Settlement Statement Date up to the day on which NCL is calculated;

DP is the number of days since last invoice;

X is the dollar amount of voluntary pre-payments made by a Market Participant to reduce its Outstanding Amount;

Capacity Cost Refund(p,f) is the expected Capacity Cost Refund payable to the IMO by Market Participant p from the Trading Day on which the NCL is calculated up to the next Non-STEM Settlement Statement Date;

Capacity Cost Refund(p,m) is a component of RCSA(p,m) and is the Capacity Cost Refund payable to the IMO by Market Participant p as calculated in the most recent initial Non-STEM invoice;

DF is the number of days till the next STEM Settlement Date, up to a maximum of 15 days;

DI is the number of days till the next Non-STEM Settlement Date, up to a maximum of 70 days;

RCSA(p,m) is the Reserve Capacity settlement amount for Market Participant p for Trading Month m, as calculated in clause 9.7.1;

BSA(p,m) is the sum of all balancing settlement amounts for Market Participant P as calculated in clause 9.8.1, for all Trading Days in Trading month m;

ASSA(p,m) is the Ancillary Service settlement amount for Market Participant p for Trading Month m, as calculated in clause 9.9.1;

COCSA(p,m) is the Outage Compensation settlement amount for Market Participant p for Trading Month m, as calculated in clause 9.10.1;

RSA(p,m) is the Reconciliation Settlement amount for Market Participant p for Trading Month m, as calculated in clause 9.11.1; and

MPFSA(p,m) is the applicable Market Participant Fee settlement amount for Market Participant p for Trading Month m, as calculated in clause 9.13.1.

Figure 1 shows a snapshot of the prudential monitoring table (with Market Participant information removed):

Outstanding Invoices	STEM Daily Trade Imbalance	Non-STEM Daily Trade Imbalance	Capacity Cost Refund(p)	Capacity Cost Refund (p,f)	Net Current Liability (b)*DP +(c)*DP+ (d) -X	Net Forecast Liability (b)*DF +(c)*DI + (e)	Outstanding Amount (a) + (f)	Trading Limit 0.87* Credit Support	Trading Margin (i)-(h)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)

APPENDIX 2: FACTORS TO BE TAKEN INTO ACCOUNT IN DETERMINING THE EXPECTED VALUE OF A TRANSACTION

These factors are intended to provide guidance that would enable a Market Participant or the IMO to determine the expected value of a transaction that would, were the transaction to be valued taking into account to the expected value factors:

(1) enable a Market Participant to ascertain that a contemplated transaction could result in the Market Participant's Trading Margin being exceeded and therefore that the submission must not be made (clause 2.41.2); or

(2) enable the IMO to ascertain that a contemplated transaction could result in the Market Participant's Trading Margin being exceeded and therefore that the submission may be rejected (clause 2.41.3).

Where a Market Participant or the IMO is assessing whether a transaction contemplated by a submission could result in a Market Participant's Trading Limit being exceeded, Market Participants and the IMO must:

a. take into account all information that is reasonably available, making reasonable assumptions and estimations where necessary, taking into account the Market Participant's normal commercial position and trading activities and any unusual circumstances that may exist at the time; and

b. arrive at a value using reasonable estimates of the Market Participant's current and forecast STEM and Non-STEM exposure, taking into account relevant prevailing, recent and/or anticipated:

   I. Outstanding Amounts;

   II. Unpaid settlement invoices;

   III. STEM and Non-STEM trading activities and invoiced amounts;

   IV. STEM, Balancing and Reserve Capacity prices;

   V. Ancillary Services charges;

   VI. Reconciliation charges;

   VII. Forced Outages and the Refund Table; and

   VIII. Material changes in market conditions.

In terms of assessing whether a proposed transaction contemplated by a submission could result in a Market Participant's Trading Limit being exceeded, the IMO would consider it reasonable if, for example:

- A Market Participant used actual Outstanding Amounts and unpaid settlement invoices when considering the contemplated submission in terms of assessing current and expected liabilities arising from trading activities;
- A Market Participant used recent actual or average daily, weekly or monthly prices over the preceding three month period when considering the contemplated submission in terms of assessing current and expected liabilities arising from STEM, Balancing and Reserve Capacity prices;
- A Market Participant used recent actual or average Ancillary Services and Reconciliation charges over the preceding three month period when considering the contemplated submission in terms of current and expected Ancillary Services and Reconciliation charges;
- A Market Participant used prevailing Forced Outage refund rates and actual time on Forced Outage when considering the contemplated submission in terms of current and expected Forced Outage refunds; and
- A Market Participant took reasonable account of changes in market conditions, including but not limited to fuel availability, system demand, market prices, or any circumstance that was having or could reasonably be expected to have a material effect on market conditions.

INDEPENDENT MARKET OPERATOR

Wholesale Electricity Market
Rule Change Proposal

Rule Change Proposal ID: **PRC_2013_01**
Date received: **TBA**

Change requested by:

Name:	Allan Dawson
Phone:	(08) 9254 4333
Fax:	(08) 9254 4399
Email:	allan.dawson@imowa.com.au
Organisation:	IMO
Address:	Level 17, 197 St Georges Terrace, Perth WA 6000
Date submitted:	TBA
Urgency:	High – Fast Track Rule Change Process
Change Proposal title:	Clarification of Dispatch Compliance Obligations
Market Rule(s) affected:	Clauses 2.13.9, 7.10.6, 7.10.6A and 7.10.7

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, Development and Capacity
PO Box 7096
Cloisters Square, Perth, WA 6850
Fax: (08) 9254 4339
Email: market.development@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 Rule Change

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

Background

Clause 7.10.1 of the Market Rules, which outlines the requirement for a Market Participant to comply with Dispatch Instructions, Operating Instructions and Dispatch Orders, was updated as part of the Rule Change Proposal: Competitive Balancing and Load Following Market (RC_2011_10)[1]. Due to an unintentional oversight, clauses 7.10.6, 7.10.6A, and 7.10.7 were not updated to accurately reflect these changes and now result in small manifest errors with nonsensical outcomes.

These manifest errors were presented at the September 2012 Market Advisory Committee (MAC) meeting in a Discussion Paper on Dispatch Tolerance Ranges. The MAC agreed to progress the issue and requested the IMO prepare the Rule Change Proposal and present to a future MAC meeting.

[1] Further details available at: http://www.imowa.com.au/RC_2011_10

Issues

1. Requirement for an explanation for not providing an explanation

In the event of a breach under clause 7.10.1, clause 7.10.5 outlines System Management's obligations and clauses 7.10.6 and 7.10.6A require a Market Participant to comply with System Management's directions following that breach.

Clauses 7.10.6A and 7.10.7 refer to "a request under clause 7.10.5." Prior to the commencement of the Amending Rules for RC_2011_10 this meant that System Management had to request a Market Participant provide both an explanation for the non-compliant deviation and for the Market Participant to cease the non-compliant behaviour. This aspect of clause 7.10.5 was clarified under the new Balancing Market arrangements and the two obligations separated into two clauses (7.10.6A(a) and 7.10.6A(b)).

The oversight in the drafting of Amending Rules in RC_2011_10 now results in clause 7.10.6A(b) requiring a Market Participant to provide an explanation of why it cannot provide an explanation.

2. Reporting on deviations by System Management

Clause 7.10.7 outlines System Management's reporting obligations in the event that a Market Participant does not comply with clause 7.10.5 (following a deviation from an instruction issued under clause 7.10.1).

The drafting of this clause appears to exempt System Management from telling the IMO about a deviation if the Market Participant has provided an explanation for that deviation. The intended outcome was that System Management reports all deviations from instructions (beyond the defined Tolerance Range or Facility Tolerance Range) to the IMO regardless of whether an explanation is provided.

3. References to a Facility Tolerance Range

The use and setting of tolerance levels by System Management was initially formalised in RC_2009_22[2] and then further clarified and extended to include both Tolerance Ranges and Facility Tolerance Ranges in RC_2011_10.

References to a 'Facility Tolerance Range' were unintentionally omitted from the drafting of clause 7.10.7 such that the current Market Rules now require System Management to report to the IMO deviations from the Tolerance Range set for all Facilities. This does not acknowledge that the Facility in question may be subject to a Facility Tolerance Range.

Proposal

Market Rules amendments

To correct the identified issues the IMO proposes to make the following changes to the

[2] Further details available at: http://www.imowa.com.au/RC_2009_22

drafting of section 7.10 and clause 2.13.9:

- delete the reference to clause 7.10.6 in clause 2.13.9 so that System Management is not required to monitor Rule Participants for the breach of a deleted clause;
- delete clause 7.10.6;
- amend clause 7.10.6A to reflect that if a Market Participant receives a warning and a request for an explanation from System Management under clause 7.10.5(c), then the Market Participant must as soon as practicable provide to System Management an explanation for the deviation;
- modify clause 7.10.7 to reflect that where System Management has issued a warning about a deviation to a Market Participant under clause 7.10.5(c), System Management must report the deviation to the IMO;
- remove from clause 7.10.7 the references to a failure to comply with the "request referred to in clause 7.10.5"; and
- modify clause 7.10.7 to include references to a 'Facility Tolerance Range'.

Regulation amendments

The IMO notes that Category C civil penalties apply to clauses 7.10.6 and 7.10.6A(a) of the Market Rules. The amendments proposed in this Rule Change Proposal would result in the reference to clause 7.10.6 in the Regulations being made redundant.

The proposed amendments to the Market Rules correct manifest errors. When considering the drafting, the IMO sought to ensure that the intention and incentives provided by the civil penalties in the Regulations remain unchanged.

The penalty under clause 7.10.6 refers to the Market Participant's non-compliance with request from System Management under clause 7.10.5. This refers to the provision of an explanation for the deviation from a Dispatch Instruction or Operating Instruction and in relation to a new Dispatch Instruction, Operating Instruction or Dispatch Order issued following the deviation.

The redrafting of 7.10.6A ensures that the intention of the civil penalty in relation to providing an explanation following a deviation is retained. The penalty under clause 7.10.6A(a) currently results in a civil penalty applying when a Market Participant does not provide an explanation for why it didn't provide an explanation. The proposed drafting requires only an explanation for the deviation. Failure to provide this explanation would still attract a civil penalty.

Notes the new Dispatch Instructions, Operating Instructions or Dispatch Orders issued following the deviation are already covered by civil penalty by virtue of the link to clause 7.6 and subsequently the requirement in 7.10.1 to comply with 'the most recently issued' instructions.

The IMO does not consider that the proposed amendments change the intention or the

incentives provided by the civil penalties in the Regulations and will work with the Public Utilities Office regarding the required update to the Regulations.

2. Explain the reason for the degree of urgency:

Clause 2.5.9 states:

The IMO may subject a Rule Change Proposal to the Fast Track Rule Change Process if, in its opinion, the Rule Change Proposal:

a. is of a minor or procedural nature; or
b. is required to correct a manifest error; or
c. is urgently required and is essential for the safe, effective and reliable operation of the market or the SWIS.

The IMO submits that this Rule Change Proposal should be fast tracked, on the basis that it satisfies the criterion in clause 2.5.9(b) of the Market Rules.

The necessary amendments to clauses 7.10.6, 7.10.6A and 7.10.7 were unintentionally overlooked at the time of the introduction of the new Balancing Market in RC_2011_10 and the subsequent results were not intended. The amendments in this Rule Change Proposal will align the Market Rules with the outcomes intended in the previous Rule Change Proposal.

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)*

2.13.9. System Management must monitor Rule Participants for breaches of the following clauses:

(a) [Blank]

(b) clauses 3.4.6 and 3.4.8;

(c) clauses 3.5.8 and 3.5.10;

(d) clauses 3.6.5 and 3.6.6B;

(e) clauses 3.16.4, 3.16.7, and 3.16.8A;

(f) clauses 3.17.5 and 3.17.6;

(g) clause 3.18.2(f);

(gA) clauses 3.21A.2, 3.21A.12, and 3.21A.13(a);

(gB) clauses 3.21B.1 and 3.21B.2;

(h) clause 4.10.2, where System Management is instructed by the IMO under clause 4.25.13;

(hA) clause 7.2.5;

(hB) clause 7.5.5;

(i) clause 7.7.6(b);

(j) clauses 7.10.1, 7.10.3~~, 7.10.6~~ and 7.10.6A; and

(k) clause 7.11.7.

7.10.6. ~~A Market Participant must comply with a request under clause 7.10.5.~~ [Blank]

7.10.6A. If a Market Participant receives a warning and a request for an explanation from System Management under clause 7.10.5(c), the Market Participant must as soon as practicable: ~~A Market Participant that cannot comply with a request under clause 7.10.5 must notify System Management as soon as practicable and must:~~

(a) provide to System Management an explanation for the deviation ~~include an explanation in that notification~~; and

(b) ensure it has complied with the requirements of clause 7A.2 in relation to the Market Participant's Balancing Submission.

7.10.7. Where System Management has issued a warning about a deviation to a Market Participant under clause 7.10.5(c) regarding a failure to comply with clause 7.10.1, ~~the request referred to in clause 7.10.5~~, System Management:

(a) unless the deviation is within the applicable Tolerance Range or Facility Tolerance Range, must, in the time, form and manner prescribed in the IMS Interface Market Procedure, report the ~~failure to comply with the request referred to in clause 7.10.5,~~ deviation to the IMO. System Management must include in the report:

i. the circumstances of the failure to comply with clause 7.10.1~~and the request referred to in clause 7.10.5~~;

ii. any explanation provided by the Market Participant in accordance with clause 7.10.6A(a);

iii. whether System Management issued instructions to the Registered Facilities of Verve Energy or Registered Facilities covered by any Ancillary Service Contract or issued Dispatch Instructions or Operating Instructions to other Registered Facilities as a result of the failure; and

iv. an assessment of whether the failure threatened Power System Security or Power System Reliability; and

(b) if the deviation is within the applicable Tolerance Range or Facility Tolerance Range, may provide a report to the IMO containing the same information as specified in clause 7.10.7(a).

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

The IMO considers that the proposed amendments correct a manifest error in the Market Rules and are consistent with the Wholesale Market Objectives.

The amendments will also improve the integrity and clarity of the Market Rules.

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

Costs:

No costs associated with implementing these proposed changes have been identified.

IMO also considers that there should be no operational impacts as System Management already identifies and reports all relevant deviations (beyond Tolerance Ranges and Facility Tolerance Ranges as applicable) to the IMO regardless of whether or not an explanation for the deviation is provided.

Benefits:

- Correction of manifest errors in the Market Rules.
- Clarification of clauses that currently result in nonsensical outcomes.

INDEPENDENT MARKET OPERATOR

Wholesale Electricity Market
Pre Rule Change Proposal

Rule Change Proposal ID: **PRC_2013_03**
Date received: **TBA**
Change requested by:

Name:	Allan Dawson
Phone:	9254 4333
Fax:	9254 4399
Email:	allan.dawson@imowa.com.au
Organisation:	IMO
Address:	Level 17, 197 St Georges Tce, Perth 6000
Date submitted:	TBA
Urgency:	Fast Track
Change Proposal title:	LFAS Facility definition
Market Rules affected:	7B.1.6, 7B.2.10 and the Glossary.

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: market.development@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 Rule Change

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

Background

Under the new LFAS Market arrangements, LFAS may be provided by the Verve Energy Balancing Portfolio (VEBP) or any Verve Energy Stand Alone Facility or Independent Power Producer (IPP) Facility that meets the LFAS Facility Requirements. Verve Energy remains the primary supplier of LFAS for the Wholesale Electricity Market (WEM), and must provide an LFAS Submission for each Trading Interval that covers the full LFAS Requirement determined by System Management. For other Market Participants participation in the LFAS Market is optional.

Under normal circumstances LFAS is provided in accordance with the LFAS Merit Order, determined by the IMO from the LFAS Submissions received from Market Participants for the relevant Trading Interval. However, where a selected LFAS Facility fails to provide its requested capacity or additional LFAS is required, System Management may use the VEBP or an appropriate Stand Alone Facility to meet an LFAS shortfall.

For LFAS selected through the LFAS Merit Order, each provider (including Verve Energy) is paid for the MW capacity from its facilities that was activated to provide LFAS at the end of the relevant Trading Interval (Ex-post Downwards LFAS Enablement and Ex-post Upwards LFAS Enablement). Verve Energy is also paid for any further backup capacity activated by System Management during the Trading Interval (Downwards Backup LFAS Enablement and Upwards Backup LFAS Enablement).

Under clauses 7.13.1(e), (eA), (eB) and (eC) of the Market Rules, System Management must

provide these quantities to the IMO for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends. This data is then used by the IMO to calculate the LFAS payments to Market Participants in accordance with clause 9.9.2.

Clause 7B.2.15 prohibits a Market Participant with market power from offering LFAS prices in excess of the Market Participant's reasonable expectation of the incremental change in short run marginal cost incurred by the relevant Facilities.

Issue

The defined term "LFAS Facility" is used throughout the Market Rules. In most cases it is clear that the term is intended to cover the VEBP in addition to any applicable Stand Alone Facilities or IPP Facilities. However, the definition of LFAS Facility in the Glossary specifically excludes the VEBP, which leads to a number of absurd outcomes.

For example, clauses 7.13.1(e), (eA), (eB) and (eC) require System Management to provide the IMO with LFAS enablement quantities for "each LFAS Facility". Further, the definitions of the LF_Up(p,t) and LF_Down(p,t) parameters in clause 9.9.2 also refer to quantities (Ex-post Upwards LFAS Enablement and Ex-post Downwards LFAS Enablement) provided for LFAS Facilities. Taken literally, this would mean that System Management was not required to provide any LFAS enablement quantities to the IMO for the VEBP, and that any Ex-post Upwards LFAS Enablement or Ex-post Downwards LFAS Enablement quantities provided for the VEBP should be excluded from the calculation of LFAS payments. This would prevent Verve Energy from receiving any LFAS payment for the VEBP, even though it is the default supplier of LFAS in the WEM.

A similar problem exists with the obligation on the ERA to monitor LFAS Submission prices for breaches of clause 7B.2.15. The relevant clauses (2.16.9(b)(iii), 2.16.9B(b) and 2.16.9G(c)) all refer to "LFAS Facility". It would be absurd to exclude the VEBP from this monitoring.

The IMO considers the exclusion of the VEBP from the definition of LFAS Facility is a manifest error in the Market Rules. It should be noted that clause 7B.1.6 already extends the definition of LFAS Facility to include the VEBP, but only for the purposes of Chapter 7B.

Proposal

The IMO proposes to amend the Glossary definition of LFAS Facility to include the VEBP. The IMO also proposes a number of minor amendments to related definitions and clauses to ensure they align with the extended definition.

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2. Explain the reason for the degree of urgency:

The IMO considers that this Rule Change Proposal corrects a manifest error in the Market Rules. The current definition of LFAS Facility has a number of absurd implications, for example that Verve Energy should receive no payment for providing LFAS through the VEBP, and that VEBP LFAS Submission prices should not be subject to ERA monitoring. As such, the IMO considers that this proposal should be progressed using the Fast Track Rule Change Process, on the grounds that it satisfies the criterion in clause 2.5.9(b) of the Market Rules.

Clause 2.5.9 states:

The IMO may subject a Rule Change Proposal to the Fast Track Rule Change Process if, in

its opinion, the Rule Change Proposal:

(a) is of a minor or procedural nature; or

(b) is required to correct a manifest error; or

(c) *is urgently required and is essential for the safe, effective and reliable operation of the market or the SWIS.*

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

~~7B.1.6. For the purposes of this Chapter 7B only, unless otherwise indicated, the Verve Energy Balancing Portfolio is to be treated as a single LFAS Facility and references in this Chapter 7B to an LFAS Facility are to be read as including a reference to the Verve Energy Balancing Portfolio.~~

7B.2.10. A Market Participant with an LFAS Facility~~, and Verve Energy in respect of the Verve Energy Balancing Portfolio,~~ must ensure that any LFAS Submission for a Trading Interval in an LFAS Horizon for which LFAS Gate Closure has not occurred accurately reflects:

(a) all information reasonably available to it;

(b) the Market Participant's reasonable expectation of the capability of the LFAS Facility to provide the LFAS to the LFAS Market; and

(c) the price at which the Market Participant intends to have the LFAS Facility provide LFAS.

LFAS Downwards Price-Quantity Pair: Means for an LFAS Facility~~ and for the Verve Energy Balancing Portfolio~~:

(a) the specified non-Loss Factor adjusted capacity, in MW, by which a Market Participant is prepared to have its LFAS Facility~~, or the Verve Energy Balancing Portfolio, as applicable,~~ activated downwards within a Trading Interval; and

(b) the non-Loss Factor Adjusted Price, in $/MW, the Market Participant wants to be paid to have that capacity available within that Trading Interval.

LFAS Facility: Means:

~~(a) a Facility that a Market Participant has indicated in Appendix 1(j)(i) of Standing Data is intended to participate in the LFAS Market; and~~

~~(b) either:~~

~~i. for a Market Participant other than Verve Energy, each Scheduled Generator and Non-Scheduled Generator for which LFAS Standing Data has been accepted by the IMO; or~~

~~ii. each Stand Alone Facility for which LFAS Standing Data has been accepted by the IMO.~~

(a) a Scheduled Generator or a Non-Scheduled Generator registered to a Market Participant other than Verve Energy or a Stand Alone Facility for which:

i. the relevant Market Participant has indicated in Appendix 1(j)(i) of Standing Data is intended to participate in the LFAS Market; and

ii. LFAS Standing Data has been accepted by the IMO; and

(b) the Verve Energy Balancing Portfolio.

LFAS Upwards Price-Quantity Pair: Means for an LFAS Facility ~~and for the Verve Energy Balancing Portfolio~~:

(a) the specified non-Loss Factor adjusted capacity, in MW, by which a Market Participant is prepared to have its LFAS Facility~~, or the Verve Energy Balancing Portfolio, as applicable,~~ activated upwards within a Trading Interval;

(b) the non-Loss Factor Adjusted Price, in $/MW, the Market Participant wants to be paid to have that capacity available within that Trading Interval.

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

The IMO considers that the proposed amendments correct a manifest error in the Market Rules and are consistent with the Wholesale Market Objectives.

Further, the IMO considers that the proposed amendments will allow the Market Rules to better address Wholesale Market Objective (c). The current definition of an LFAS Facility implies that Verve Energy should not be paid for providing LFAS through the VEBP, which clearly discriminates against Verve Energy. The IMO therefore considers that correction of the manifest error will better achieve Wholesale Market Objective (c).

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

Costs:
No costs associated have been identified with implementing these proposed changes. Likewise the IMO considers that there will be no operational impacts.

Benefits:

- Correction of a manifest error in the Market Rules.
- Ensures appropriate treatment of the VEBP relating to the provision of LFAS.

INDEPENDENT MARKET OPERATOR

Wholesale Electricity Market
Pre Rule Change Proposal

Rule Change Proposal ID: **PRC_2013_05**
Date received: **TBA**
Change requested by:

Name:	Allan Dawson
Phone:	9254 4333
Fax:	9254 4399
Email:	allan.dawson@imowa.com.au
Organisation:	IMO
Address:	Level 17, 197 St Georges Tce, Perth 6000
Date submitted:	TBA
Urgency:	Medium
Change Proposal title:	LoadWatch, EOI and RDQ provision
Market Rules affected:	3.23.1 and 7A.3.7

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: market.development@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 Rule Change

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

Background

In accordance with the Market Rules and the IMS Interface Procedure, System Management (SM) and the IMO are obligated to provide each other with specific data. Through consultation between the IMO and SM it has been identified that some key data provided in accordance with the IMS Interface Procedure, is not currently specified in the Market Rules. However, the Market Rules do not specify that the information should not be provided.

LoadWatch data: For the previous four years, weekly during the Hot Season, the IMO has prepared and published on the Market Web Site a report called LoadWatch.[1] LoadWatch provides a weekly snapshot of the forecast level of available capacity, Outages, maximum and minimum temperatures, electrical load and capacity cushion (difference between the total capacity credits in the market and the forecasted load) for the Business Days of the coming week.

LoadWatch was first introduced in the summer of 2008/09 following the Varanus Island incident and subsequent gas curtailment, as a means of providing information for stakeholders and the public in general, about the coming week's forecast temperatures and their possible impact on system load. The report has now evolved to compare the coming week with the prior week and also to retrospectively analyse the corresponding week to the previous Hot Season.

[1] http://imowa.com.au/load-watch

RDQ and EOI data: In accordance with the IMS Interface Procedure, within five minutes of the end of each Trading Interval, SM must transfer Provisional Relevant Dispatch Quantity (RDQ) and provisional resource End Of Interval (EOI) data from the previous trading interval to the IMO. The Provisional RDQ quantity data is the basis for the Provisional and Final Balancing Price calculations for the Balancing Market.

The Provisional EOI quantity data is required to determine the Minimum and Maximum Theoretical Energy Schedules (TES) used for calculating Out of Merit quantities. EOI values are also used to determine the starting point for a Facility ramp rate constraining the pricing BMO.

Issue

LoadWatch data: The production of LoadWatch relies on input data from SM, in particular the daily forecasted maximum temperature, minimum temperature and maximum load (MW) for the upcoming week's Business Days, and normally commences on the first Monday of each Hot Season.

To date SM has provided the necessary input data voluntarily, based on its other load forecasting activities, to assist the IMO in its efforts to provide general and accessible information to wider stakeholders and consumers about anticipated system load.

In light of this, the IMO and SM wish to formalise LoadWatch within the Market Rules so that the delivery of input data and the calculation and publication of LoadWatch becomes an obligation on the respective organisations to ensure consistent delivery and publication.

RDQ and EOI data: The current drafting of the Market Rules does not explicitly place an obligation on SM to provide the IMO with Provisional RDQ and/or EOI data within 5 minutes after the end of each Trading Interval. However, the IMS Interface Procedure does place an obligation on SM to provide the aforementioned quantity data. This should stem from an obligation in the Market Rules. As RDQ and EOI quantities are required by the IMO to complete daily activities the Market Rules should be amended to reflect this.

Proposal

The IMO and SM believe the Market Rules should be amended to reflect obligations dictated in the IMS Interface Procedure.

The IMO proposes to create clauses 7A.3.7 and 3.23 in the Market Rules to ensure the obligations on SM to provide Loadwatch, RDQ and EOI data are specified in the Market Rules.

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2. Explain the reason for the degree of urgency:

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

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

3.23 LoadWatch Data

3.23.1. System Management must, by 11:59 AM on each Monday within the Hot Season, provide to the IMO for each Business Day of that week, System Management's estimate of:

(a) daily maximum temperature;

(b) daily minimum temperature;

(c) daily maximum load in MW; and

(d) other data agreed between the IMO and SM for the purpose of Loadwatch.

3.23.2. The IMO must, within one Business Day of receipt of the information in clause 3.23.1, prepare and publish on the Market Web Site the LoadWatch report for the relevant week within the Hot Season.

3.23.4. The IMO must ensure that the LoadWatch report includes the estimates in clause 3.23.1 and, where available, the prior week's Business Days daily:

(a) total procured capacity;

(b) total Outages;

(c) available capacity;

(d) maximum and minimum temperatures;

(e) maximum operational system load; and

(f) capacity cushion.

7A.3.7A. System Management must, no later than five minutes after the end of the Trading Interval, provide the IMO with provisional data of:

(a) the SOI Quantity and the EOI Quantity for each Balancing Facility; and

(b) the Relevant Dispatch Quantity, which is the sum of the EOI Quantities for each Balancing Facility, in MW, at the end of a Trading Interval

for the Trading Interval, determined in accordance with the Power System Operation Procedure.

11 Glossary

LoadWatch: A report compiled and published weekly during the Hot Season that provides general estimates of Business Day maximum and minimum temperatures, maximum system load and available capacity in accordance with clause 3.23.4.

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

The IMO considers that the proposed amendments will provide clarity and consistency between the Market Rules and the IMS Interface Procedure.

Furthermore, the IMO considers that the proposed amendments will allow the Market Rules to better address Wholesale Market Objective (d) and (a). By providing transparency to SM regarding the data requirements of the IMO, SM will be better equipped to manage their budget and resourcing.

Through better defined data requirements the IMO and SM will achieve greater efficiencies in information management. In turn minimising the long-term cost of electricity supplied to customers.

This Rule Change will also better achieve Wholesale Market Objective (a) through formalising the publication of Loadwatch and improving the design of the Market Rules.

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

Costs: None identified.

Benefits:

- Formalise and define the obligations to be followed by SM and the IMO;
- Formalise the routine publication of LoadWatch report during the Hot Season;
- Provide simple and accessible market information to wider stakeholders and electricity consumers.

INDEPENDENT MARKET OPERATOR

Wholesale Electricity Market
Pre Rule Change Proposal

Rule Change Proposal ID: **PRC_2013_06**
Date received: **TBA**
Change requested by:

Name:	Allan Dawson
Phone:	9254 4333
Fax:	9254 4399
Email:	allan.dawson@imowa.com.au
Organisation:	IMO
Address:	Level 17, 197 St Georges Tce, Perth 6000
Date submitted:	TBA
Urgency:	Fast Track
Change Proposal title:	Exclusion of LFAS Quantities from Daily Ancillary Service Files
Market Rules affected:	7.2.3A

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: market.development@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 Rule Change

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

Background

Pursuant to clause 7.2.3A System Management must by 8:30 AM on each Scheduling Day determine, for each Market Participant that is a provider of Ancillary Services, an estimate of the Loss Factored adjusted MWh of energy that could be potentially called upon by System Management to meet Ancillary Service requirements for the following Trading Day.

These quantities are provided to the IMO under clause 7.2.3B and are used by the IMO to limit the Maximum Supply Capability for each Market Participant under clause 6.3A.2. Subsequently, each Market Participant must exclude these quantities from its Short Term Energy Market (STEM) Portfolio Supply Curves. Market Participants must also include these quantities in their Ancillary Service Declaration in accordance with clause 6.6.2A(c).

The estimate determined by System Management currently includes Ancillary Services consisting of Spinning Reserve, Upwards LFAS and, when required, Dispatch Support Services.

Issue

The current drafting of clause 7.2.3A was appropriate when the only provider of LFAS was Verve Energy. However, under the new LFAS Market arrangements there may be numerous Independent Power Producers (IPP's) LFAS Facilities able to provide this service.

Clause 7.2.3A requires System Management to estimate the Loss Factor adjusted MWh of

energy that could potentially be called upon for each Market Participant providing LFAS. At the time in which this estimate is made System Management does not know which Facilities (with the exception of the VEBP) will be providing LFAS to the market. Under the current drafting of clause 7.2.3A System Management could potentially estimate that all LFAS Facilities will provide their full upwards LFAS Capacity.

If System Management includes the full potential upwards LFAS capacity of each such Facility in its estimate then Market Participants will be unable to include this capacity in their STEM submissions. By removing such capacity from STEM submissions it is likely that the market will be required to draw on additional energy from another STEM submission(s) and/or tranche(s) at a higher price.

Market Participants may also be subjected to indirect costs, such as IT changes, if they are obligated to remove their LFAS capacity from any capacity traded in the STEM.

Proposal

The IMO proposes to re-draft clause 7.2.3A. The IMO proposes to remove the obligation on System Management to include LFAS in the Ancillary Service estimate each Scheduling Day in order to treat every Market Participant equally, regardless of whether they participate in the LFAS Market and/or the STEM.

The proposed amendment by the IMO is intended to have the "least effect" on the STEM as a whole. In accordance with the Market Rules Evolution Plan published by the IMO in November 2012[1], market stakeholders voiced concerns with the STEM and its impact on the Balancing Market. As there may be future changes to the STEM as a whole, the "least effect" approach is considered by the IMO the most appropriate avenue to resolve the issue identified.

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2. Explain the reason for the degree of urgency:

The IMO considers that this Rule Change Proposal corrects a manifest error in the Market Rules. The current obligation on System Management is untenable and not practical within the conceptual design of the LFAS market. Leaving the drafting of clause 7.2.3A extant will most likely result in an unnecessary amount of capacity being removed from the STEM, potentially resulting in a higher STEM clearing price.

The IMO deems the drafting of clause 7.2.3A as a legacy issue prior to the evolution of the Balancing and LFAS Markets.

As such, the IMO considers that this proposal should be progressed using the Fast Track Rule Change Process, on the grounds that it satisfies the criterion in clause 2.5.9(b) of the Market Rules.

Clause 2.5.9 states:

The IMO may subject a Rule Change Proposal to the Fast Track Rule Change Process if, in its opinion, the Rule Change Proposal:

(a) is of a minor or procedural nature; or

(b) is required to correct a manifest error; or

(c) *is urgently required and is essential for the safe, effective and reliable operation of the market or the SWIS*

[1] http://www.imowa.com.au/f5592,3200469/Market_Rules_Evolution_Plan_2013-2016_FINAL.pdf

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)*

7.2.3A. By 8:30 AM on the Scheduling Day, System Management must determine for each Market Participant that is a provider of Ancillary Services (excluding LFAS):

(a) an estimate of the Loss Factor adjusted MWh of energy that could potentially be called upon by System Management after 1:00 PM on the Scheduling Day to meet Ancillary Service R~~r~~equirements (excluding LFAS) for each Trading Interval of the Trading Day where these estimates must reflect the Ancillary Service standards described in clause 3.10; and

(b) a list of Facilities that it might reasonably expect to call upon to provide the energy described in clause 7.2.3A(a).

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

The IMO considers that the proposed amendments correct a manifest error in the Market Rules and are consistent with the Wholesale Market Objectives.

Further, the IMO considers that the proposed amendments will allow the Market Rules to better address Wholesale Market Objective (b) and (d).

Removing a potential or perceived barrier to entry for an IPP to participate in the LFAS Market will inevitably encourage competition among generators.

Without this amendment to clause 7.2.3A System Management may be obligated to include the full potential upwards LFAS capacity of each such LFAS Facility in its estimates. This may result in Market Participants not including this capacity in their STEM submissions, which is likely to lead to higher STEM prices.

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

Costs:
No costs have been identified with implementing these proposed changes. Likewise the IMO considers that there will be no operational impacts.

Benefits:

- Correction of a manifest error in the Market Rules.
- Removal of a potential or perceived barrier to entry into the LFAS Market for Market Participants, specifically IPP's.

Agenda Item 7a: 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.
Red Text	Red text indicates any updates to information

IMO Procedure Change Proposals

ID	Summary of Changes	Status	Next Step	Date
PC_2011_04 **Prudential Requirements**	The proposed updates are to: • 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 o RC_2010_36 Acceptable Credit Criteria; and o RC_2011_04 List of entities meeting Acceptable Credit Criteria	• The IMO rejected this Rule Change Proposal on 19 November 2012. • Modified Rule Change Proposal and updated Market Procedure to be presented to the February 2013 MAC.	• Modified Rule Change Proposal and updated Market Procedure to be presented to the March 2013 MAC.	20/03/2013

ID	Summary of Changes	Status	Next Step	Date
PC_2012_06 **Declaration of Bilateral Trades and the Reserve Capacity Auction**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Ensure consistency with the Amending Rules from the following Rule Change Proposals: o Curtailable Loads and Demand Side Programmes (RC_2010_29); o Removal of Network Control Services Expression of Interest and Tender Process from the Market Rules (RC_2010_11); and o Certification of Reserve Capacity (RC_2010_14).	• The IMO published the Procedure Change Report on 22 February 2013 and the Amended Market Procedure commencement date.	• Commenced	25/02/2013
PC_2012_07 **Certification of Reserve Capacity**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Ensure consistency with the Amending Rules under the following Rule Change Proposals: o Certification of Reserve Capacity (RC_2010_14); o Curtailable Loads and Demand Side Programmes (RC_2010_29), Including the proposed Amending Rules under the Rule Change Proposal: Competitive Balancing and Load Following Market (RC_2011_10)	• The submission period has closed and the IMO is preparing the Procedure Change Report.	• IMO to publish Procedure Change Report.	TBA

ID	Summary of Changes	Status	Next Step	Date
PC_2012_08 **Maximum Reserve Capacity Price**	The proposed updates are to ensure consistency with the proposed Amending Rules under the Rule Change Proposal: Competitive Balancing and Load Following Market (RC_2011_10).	• The IMO published the Procedure Change Report on 11 January 2013 and the Amended Market Procedure commencement date.	• Commenced	15/01/2013
PC_2012_09 **Loss Factors**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; and • Better clarify the processes in the Market Procedure. • Ensure consistency with amendments to the Market Rules which have occurred since Market Start; and • Reflect proposed changes under PRC_2012_07: Determination of Loss Factors	• The revised Market Procedure was presented at the September 2012 MAC and also discussed at the IMO Procedure Working Group held on 27 November 2012.	• Market Procedure to be updated to reflect the amendments agreed at the November 2012 IMOWG and submit into the formal process in line with the publication of the Draft Rule Change Report for RC_2012_07.	25/02/2013
PC_2012_10 Amendments to Market Procedure for IMS Interface	The proposed updates are to: • Clarify and amend the Market Procedure to ensure transparency and improve overall integrity and to address a number of minor technical inconsistencies in the practical implementation of the procedure.	• This Procedure Change Proposal went out for a further round of consultation which closed on 18 February 2013. The IMO is currently preparing the Procedure Change Report.	• Publish Procedure Change Report	TBA

ID	Summary of Changes	Status	Next Step	Date
PC_2012_11 **Notices and Communications**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project. • Reflect the IMO's updated contact details.	• The Procedure was presented and discussed at the 27 November 2012 IMOWG.	• The Market Procedure to be updated to reflect the amendments agreed by the IMOWG and submit into the formal process.	TBA
TBC **Undertaking the LT PASA and conducting a review of the Planning Criterion**	The proposed updates are to: • 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).	• As advised at the August 2012 working group meeting, the IMO is currently undertaking the five yearly review of the IMO's forecasting processes. Following the completion of the review the IMO may make further changes to the Market Procedure.	• Updated procedure to be presented back to the Working Group for discussion	TBA

ID	Summary of Changes	Status	Next Step	Date
TBC **Participant Registration and Deregistration**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Revise the Market Procedure to provide more details of the relevant processes, including restructuring the Market Procedure to better present the process; • Reflect the new MPR system; • Ensure consistency with the Amending Rules from the Rule Change Proposal: Change of Review Board Name (RC_2010_18)	• Underway.	• To be discussed by IMO Procedures Working Group	TBA

ID	Summary of Changes	Status	Next Step	Date
TBC **Facility Registration, Deregistration and Transfer**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Reflect the new MPR system; • Revise the Market Procedure to provide more details of the relevant processes including: o restructuring the Market Procedure to better present the process; o providing further details of the consultation processes with System Management; o clarifying that there should not be any restriction on the ability to provide notifications in a manner outlined in the Market Procedure for Notifications and Communications; and o reflect the new processes for digital certificates • Ensure consistency with the Amending Rules from the following Rule Change Proposals; o Curtailable Loads and Demand Side Programmes (RC_2010_29); and o Change of Review Board Name (RC_2010_18), Including the proposed Amending Rules under the Rule Change Proposal: Competitive Balancing and Load Following Market (RC_2011_10)	• Underway.	• To be discussed by IMO Procedures Working Group	TBA

ID	Summary of Changes	Status	Next Step	Date
TBC **Settlement**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Ensure consistency with the Amending Rules from the following Rule Change Proposals: o Settlement in Default Situations (RC_2010_04) o Change of Review Board Name (RC_2010_18); o Minor and typo (RC_2010_26) o Settlement Cycle Timelines (RC_2010_19) o Acceptable Credit Criteria (RC_2010_36)	• Underway.	• To be discussed by IMO Procedures Working Group	TBA
TBC **Meter Data Submission**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Clarify that the Procedure is part of the Settlement Market Procedures; • Ensure consistency with amendments to the Market Rules which have occurred since Market Start	• Underway.	• To be discussed by the IMO Procedures Working Group	TBA
TBC **Capacity Credit Allocation**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Clarify that the Procedure is part of the Settlement Market Procedures; • Ensure consistency with amendments to the Market Rules which have occurred since Market Start	• Underway.	• To be discussed by IMO Procedures Working Group	TBA

ID	Summary of Changes	Status	Next Step	Date
TBC **Intermittent Load Refund**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Ensure consistency with amendments to the Market Rules which have occurred since Market Start	• Underway.	• To be discussed by IMO Procedures Working Group	TBA
TBC **Individual Reserve Capacity Requirements**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Ensure consistency with amendments to the Market Rules which have occurred since Market Start	• Underway.	• To be discussed by IMO Procedures Working Group	TBA
TBC **Reserve Capacity Performance Monitoring**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Ensure consistency with the Amending Rules from the Rule Change Proposal: Reserve Capacity Performance Monitoring (RC_2009_19)	• Underway.	• To be discussed by IMO Procedures Working Group	TBA
TBC **Treatment of Small Generators**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Ensure consistency with amendments to the Market Rules which have occurred since Market Start	• Underway.	• To be discussed by IMO Procedures Working Group	TBA

ID	Summary of Changes	Status	Next Step	Date
TBC **Reserve Capacity Testing**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Reflect the new Temperature Dependence Curve • Ensure consistency with the proposed Amending Rules under the Rule Change Proposal: Competitive Balancing and Load Following Market (RC_2011_10)	• Underway.	• To be discussed by IMO Procedures Working Group	TBA
TBC **Information Confidentiality**	The proposed updates are to: • Reflect the IMO's new format arising from its Market Procedures project; • Ensure consistency with the proposed Amending Rules under the Rule Change Proposal: Competitive Balancing and Load Following Market (RC_2011_10) along with all other rule changes which have occurred since Market Start.	• Underway.	• To be discussed by IMO Procedures Working Group	TBA

Agenda Item 8a: Working Group Overview

Working Group (WG)	Status	Date commenced	Date concluded	Latest meeting date	Next scheduled meeting date
System Management Procedures WG	Active	Jul 07	Ongoing	12/12/2011	TBA
IMO Procedures WG	Active	Dec 07	Ongoing	27/11/2012	TBA
Reserve Capacity Mechanism WG	Closed	Feb 12	28/02/2013	28/02/2013	-

INDEPENDENT MARKET OPERATOR OPERATOR

Agenda Item 8b: RCMWG Outcomes

Scope of Work

The Reserve Capacity Mechanism Working Group (RCMWG) was 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).

The RCMWG's Scope of Work included 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* which was presented and discussed at the MAC in 2011.

Specifically, the RCMWG was 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 to be presented to the MAC.

Outcomes and Next Steps

The RCMWG met on 10 occasions between 15 February 2012 and 28 February 2013. The RCMWG focussed on four work streams:

1. Reserve Capacity Price;
2. Harmonisation of Demand Side and Supply Side Resources;
3. Reserve Capacity Refunds; and
4. Individual Reserve Capacity Requirement (IRCR).

Following the work of the RCMWG, the following proposals will be progressed to the Pre Rule Change Proposal development phase. While the proposals received general support from the RCMWG, the proposals related to work streams 1, 2, and 3 were not unanimously accepted.

A] Individual Reserve Capacity Requirement (Work stream 4)

The IMO will develop a Pre Rule Change Proposal to:

- Modify the selection of IRCR Trading Intervals to select the 4 days of highest peak demand, not highest daily demand.

The IMO proposes to submit the Pre Rule Change Proposal including proposed amendments to Market Rules, to the MAC meeting on 10 April.

B] Harmonisation of Demand Side and Supply Side Resources (Work stream 2)

The IMO proposes to develop a Pre Rule Change Proposal on the following recommendations as a package:

- The IMO to relax its requirement for Facilities to have firm fuel supply contracts in place if the capacity refund mechanism is assessed to provide sufficient commercial incentives for Facilities to be available when required.
- The revised Demand Side Management (DSM) availability requirements for the 2014 Reserve Capacity Cycle will be as follows:

Days of Availability	All Business Days
Dispatch events per year	Unlimited
Hours per day	6 hours
Total hours available	Unlimited
Earliest Start	10:00 AM
Latest Finish	8:00 PM
Minimum notice period of dispatch	2 hours + day before notice (best endeavours) of probable dispatch

- All DSPs to provide a telemetry service that enables real time information on availability and performance to be recorded for the 2014 Reserve Capacity Cycle onwards (noting a period of transition to apply for existing DSPs, up to mid-2015)
- Removal of the 'third-day rule' from the 2014 Reserve Capacity Cycle onwards — whereby a DSP dispatched for a third continuous day is not subject to capacity refunds.
- Incorporate into the Market Rules the ability for DSP's to be dispatched outside of nominated availability limitations on a best efforts basis (i.e. with no implications for capacity refunds for non-performance).
- The rank based on load size rule in the Non-Balancing Dispatch Merit Order be removed and replaced with a ranking based on time since last dispatch.
- The IMO to implement the principle that a Load may not sell more capacity (through DSM) that it buys (through IRCR).

The IMO proposes to develop the Pre Rule Change Proposal including proposed amendments to Market Rules, and bring it to the MAC in May or June 2013.

C] Reserve Capacity Price (Work stream 1) and Reserve Capacity Refunds (Work stream 3)

The IMO proposes to combine the outcomes of work stream 1 and 3 into a package and develop a Pre Rule Change Proposal addressing the following recommendations:

- Slope of Reserve Capacity Price (RCP) formula to be increased to -3.75 so as to reduce the RCP at a faster rate as excess capacity increases.

- RCP to be allowed to move above the Maximum Reserve Capacity Price (MRCP) as capacity supply and demand approach balance (110% of the MRCP at the point of a 3% shortfall in supply).
- MRCP to be renamed an expected or a benchmark RPC.
- A dynamic Reserve Capacity refund regime to be implemented, where the refund factor is determined from the capacity margin available in each Trading Interval.
- Refund factor to be capped at 6, as per current arrangements. A minimum refund factor of 1 to be adopted.
- Refund revenue under the new regime to be recycled to all eligible available capacity.
- A set of transitional arrangements to be adopted allowing Market Participants to become ready for the new regime.

The IMO proposes to develop the Pre Rule Change Proposal including proposed amendments to Market Rules, for submission to MAC in the second half of 2013.