INDEPENDENT MARKET OPERATOR

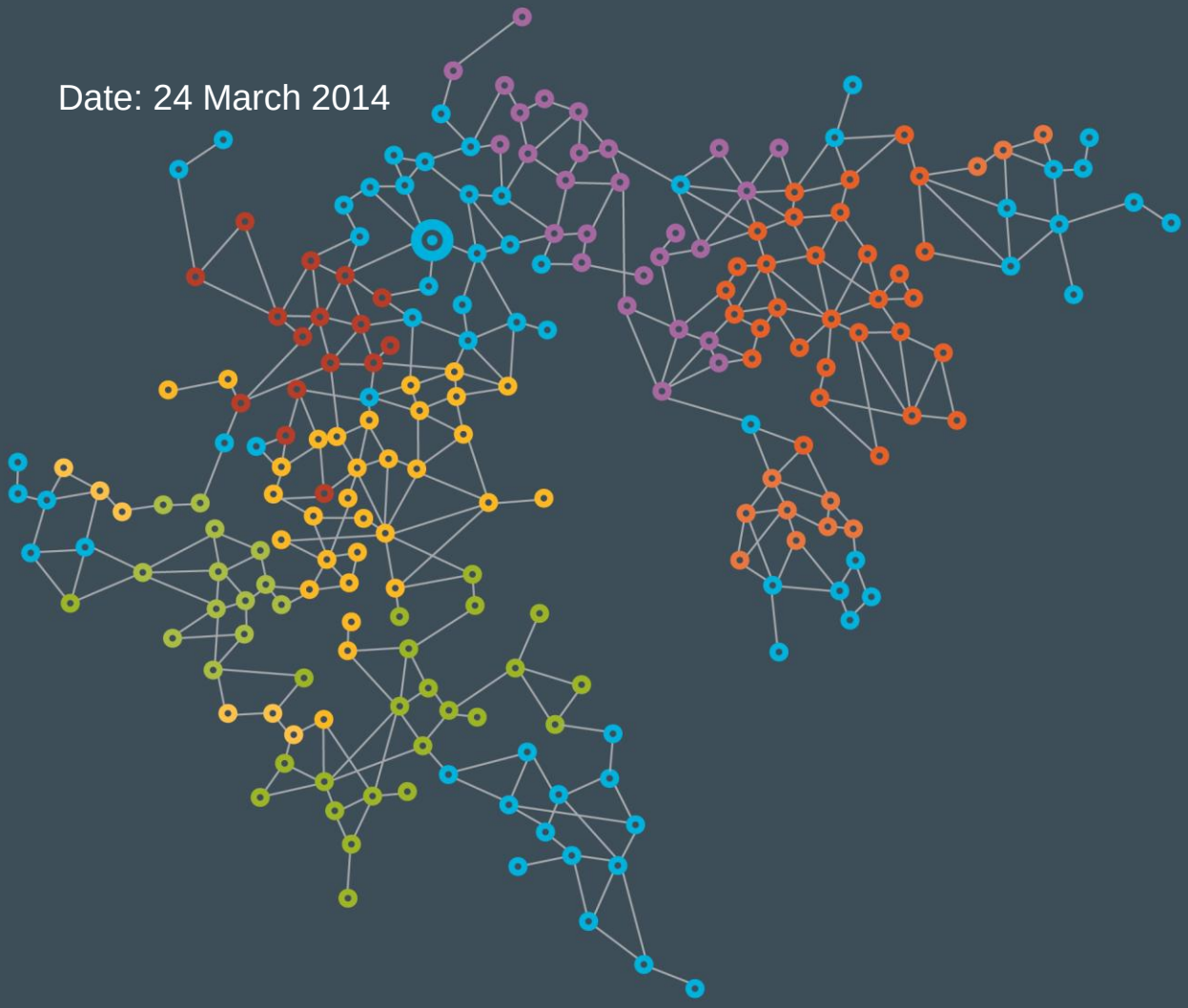
Final Rule Change Report

Title: Incentives to Improve Availability of Scheduled Generators

RC_2013_09

Standard Rule Change Process

Date: 24 March 2014



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Executive Summary

Proposed amendments

This Rule Change Proposal seeks to improve the incentives in the Market Rules for Market Participants to maximise the availability of their Scheduled Generators, by:

- allowing the IMO more flexibility in assigning a reduced quantity of Certified Reserve Capacity (between zero and full allocation) to Scheduled Generators that display excessive outage rates over a 36 month period;
- making Planned Outages taken in excess of a specified level (approximately 17.5% averaged over 1000 Trading Days) subject to Facility Reserve Capacity Deficit Refunds; and
- providing the IMO with discretion to require performance reports from a Market Participant concerning a Scheduled Generator with an excessive Planned Outage rate, regardless of the availability of total system capacity.

Consultation

A preliminary Concept Paper (CP_2013_01) was presented to the Market Advisory Committee (MAC) at its 20 March 2013 meeting and a Pre Rule Change Proposal was discussed at the 10 April 2013 and 12 June 2013 meetings. The IMO also held a discussion forum on 8 May 2013 to allow interested stakeholders to discuss the proposal in greater detail.

The Rule Change Proposal was submitted on 18 June 2013 and the first submission period was held between 19 June 2013 and 27 August 2013. During the first submission period the IMO met with both Alinta and Verve Energy to discuss their concerns that the proposed outage thresholds were too low.

Submissions were received from Alinta, Bluewaters Power, Community Electricity, Perth Energy, System Management, Tesla and Verve Energy. Community Electricity, Perth Energy and System Management supported the Rule Change Proposal, with System Management suggesting some minor enhancements to the drafting. Tesla also supported the proposal, but proposed that Planned Outages coinciding with a network outage should be classified as Consequential Outages. Bluewaters Power was supportive of the concept and the majority of the detail of the proposal, but suggested several changes to the proposed amendments.

Alinta and Verve Energy did not support the Rule Change Proposal, considering that most of the proposed amendments would impose unnecessary cost, risk and regulatory burden and potentially lead to perverse outcomes such as a decrease in reliability. Both parties however supported the inclusion of the range of factors the IMO will take into account when making decisions under clause 4.11.1(h). Alinta also supported the proposed changes to permit the IMO more flexibility in the quantity of Certified Reserve Capacity it can assign.

Both Bluewaters Power and Verve Energy proposed alternative values for some of the outage thresholds and review periods set out in the Rule Change Proposal.

The second submission period was held between 29 November 2013 and 14 February 2014. Submissions were received from Alinta, Bluewaters Power, Community Electricity, Synergy and System Management.

Community Electricity supported the Rule Change Proposal. System Management supported the proposal but indicated it would prefer a different process for including certain definitions in the Market Rules.

Alinta, Community Electricity and Synergy supported the IMO's decisions to raise the proposed cap on Refund Exempt Planned Outages and remove the IMO's ability to reduce the cap under clause 4.27.9. Alinta also supported the IMO's decision to publish Refund Exempt Planned Outage Counts for each Scheduled Generator.

However, Alinta and Synergy[1] remained opposed to the Rule Change Proposal, for the reasons stated in their first period submissions. Synergy considered that the IMO could achieve the intent of the proposal by implementing a subset of the measures outlined in the Draft Rule Change Report. Both parties specifically reiterated their concerns about the IMO's proposed ability to request performance reports. Alinta also questioned whether the three proposed measures of poor availability could be better aligned to reduce complexity.

Synergy noted its concern that the Rule Change Proposal be assessed in conjunction with other related Rule Change Proposals. Synergy again opposed the use of standard multipliers to calculate Facility Reserve Capacity Deficit Refunds, particularly as the proposed Amending Rules for the Rule Change Proposal: Changes to the Reserve Capacity Price and the dynamic Reserve Capacity refunds regime (RC_2013_20) would introduce uncertainty around what the actual multiplier would be for any Trading Interval[2]. Synergy considered that for refunds on Planned Outages the multiplier should be limited to one.

However Bluewaters Power, who had also proposed a multiplier limit of one in its first period submission, acknowledged that the IMO's intent to incentivise better outage planning by applying the standard multipliers is well founded and justified. Bluewaters Power remained generally supportive of the proposed changes but disagreed with the IMO's proposal to count Planned Outages coinciding with a network outage towards a Facility's Refund Exempt Planned Outage Count.

Assessment against Wholesale Market Objectives

The IMO considers that the proposed amendments will better address Wholesale Market Objectives (a), (b) and (d) and are consistent with Wholesale Market Objectives (c) and (e).

Practicality and Cost of Implementation

The proposed amendments will require changes to the IMO's IT systems, at an estimated cost of approximately $110,000. Changes will also be required to the Market Procedure for Certification of Reserve Capacity, the Market Procedure for Reserve Capacity Performance Monitoring and the IMO's internal procedures; however the costs of these changes can be accommodated within the IMO's normal operating budget.

Bluewaters Power and Alinta noted that some internal monitoring of outage rates by Market Participants would be required, for which Alinta estimated a minor IT system cost of

[1] Note Verve Energy merged with Synergy during the second submission period for this Rule Change Proposal and now operates under the trading name 'Synergy'.
[2] Under the proposal the multiplier could fall anywhere between 0.25 and 6, depending on the level of spare capacity in the SWIS at the time.

approximately $2000. Bluewaters did not anticipate any material impact on systems or implementation costs but noted that it was difficult to assess what the practical impact and outcomes would be at this stage.

Alinta, Bluewaters Power and Synergy all noted potential future costs associated with failures to meet the various outage thresholds specified in the proposed amendments.

The IMO's Decision

The IMO's decision is to accept the Rule Change Proposal as modified following the first and second submission periods.

Next Steps

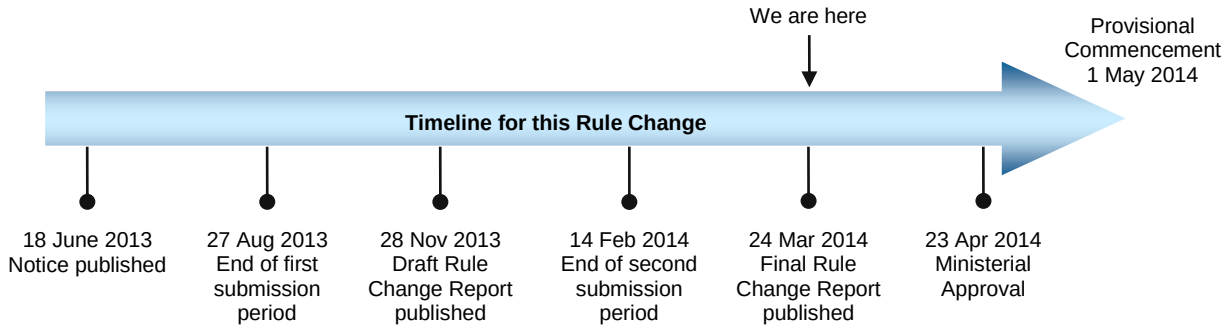
The Amending Rules will provisionally commence at **8.00 AM on 1 May 2014**.

1. Rule Change Process and Timetable

On 18 June 2013 the IMO submitted a Rule Change Proposal regarding amendments to clauses 2.17.1 and 4.9.9, sections 4.11, 4.12, 4.26 and 4.27 and the Glossary of the Wholesale Electricity Market Rules (Market Rules).

This proposal is being processed using the Standard Rule Change Process, described in section 2.7 of the Market Rules. In accordance with clause 2.5.10 of the Market Rules, the IMO decided to extend the timeframes for the first and second submission periods and the preparation of the Draft Rule Change Report and Final Rule Change Report. Further details of the extensions are available on the Market Web Site: http://www.imowa.com.au/rc_2013_09.

The key dates in processing this Rule Change Proposal, as amended in the extension notices, are:



2. Proposed Amendments

2.1. The Rule Change Proposal

The IMO sought to amend the Market Rules to improve the incentives for Market Participants to maximise the availability of their Scheduled Generators. The IMO also proposed a number of related amendments to strengthen and provide greater transparency around the certification process.

The IMO proposed the following amendments.

Amendments to section 4.11: the IMO sought to improve the practicality and effectiveness of clause 4.11.1(h) by:

- permitting the IMO more flexibility in assigning a quantity of Certified Reserve Capacity (CRC) (between zero and full allocation) to Scheduled Generators displaying excessive outage rates over 36 months;
- specifying a range of factors for the IMO to consider in making its decision, adding certainty, structure and transparency to the process; and
- progressively tightening the combined Planned Outage rate and Forced Outage rate thresholds that trigger clause 4.11.1(h), from 30% to 20% over five years, commencing in 2016, with corresponding changes to the Forced Outage rate threshold and provision for review in 2018.

Clarification of clause 4.9.9: the IMO sought to clarify the nature of the Reviewable Decision

under clause 4.9.9 by including an explicit obligation on the IMO to decide whether to assign CRC to a Facility and, if so, the quantity to assign. Currently this decision is implicit and the clause only explicitly mentions actions that the IMO must take if it assigns CRC to a Facility. This will clarify that the IMO's decisions regarding the quantity of CRC to assign to a Facility are reviewable (as clause 4.9.9 is a Reviewable Decision), including where the IMO decides to assign a lesser quantity of CRC to a Facility under clause 4.11.1(h).

Payment of capacity refunds for excessive Planned Outages: the IMO sought to impose an upper limit on the number of Trading Intervals in any 36 month period for which a generator can claim a reduction of its Reserve Capacity Obligation Quantities (RCOQs) due to Planned Outages. Under the proposed amendments:

- once a Facility reached the cap, the IMO would no longer reduce the RCOQ for that Facility to reflect the amount of capacity unavailable due to Planned Outages;
- the relevant Market Participant would be liable to pay Facility Reserve Capacity Deficit Refunds for subsequent Planned Outages taken by that Facility, as well as for its Forced Outages, until its total Planned Outage hours over the previous 36 months no longer exceeded the cap;
- the cap would be applied over a rolling 36 month period to allow Facilities to accommodate periodic major overhauls by smoothing their Planned Outage rates over a longer period;
- the cap would not apply to Planned Outage hours taken before the implementation of the rule change;
- the proposed initial cap would be 7800 Trading Intervals (3900 hours or 23.2 weeks) over 36 months, equivalent to an average annual Planned Outage Factor of 14.8%;
- the cap would be reviewed within five years of operation (by 31 December 2018); and
- Trading Intervals would not count towards the cap if no adjustment to RCOQs were made and the Market Participant was required to pay a Facility Reserve Capacity Deficit Refund in relation to that Trading Interval.

Amendments to section 4.27: the IMO sought to improve the practicality and effectiveness of section 4.27 by:

- granting the IMO discretion to require a performance report and performance improvement reports from the relevant Market Participant concerning a Scheduled Generator with an excessive Planned Outage rate, regardless of the total available system capacity;
- deleting clauses 4.27.7 and 4.27.8, which became redundant as a result of the proposed change to section 4.12 that imposes a cap on Planned Outages for which a reduction in RCOQ may be claimed; and
- permitting the IMO to temporarily adjust the cap on the number of Trading Intervals eligible for a reduction of RCOQs if the system capacity availability criterion in clause 4.27.9 is met (this was a consequential change to maintain the intent of clause 4.27.9 in the event that the total system was under extreme capacity stress due to generator unavailability).

Full details of the Rule Change Proposal are available on the Market Web Site: http://www.imowa.com.au/rc_2013_09.

2.2. The IMO's Initial Assessment of the Proposal

The IMO decided to progress the Rule Change Proposal on the basis that Rule Participants should be given an opportunity to provide submissions as part of the rule change process.

3. Consultation

The proposed amendments were discussed by the Market Advisory Committee (MAC) at its 20 March 2013, 10 April 2013 and 12 June 2013 meetings.

3.1. The Market Advisory Committee

March 2013 MAC meeting

Ms Anne Hill gave a presentation to MAC members on the IMO's Concept Paper: Incentives to Improve Availability of Scheduled Generators (CP_2013_01). A copy of Ms Hill's presentation is available on the Market Web Site: http://www.imowa.com.au/MAC_58.

Ms Hill outlined three proposals that the IMO was putting forward:

- to amend clause 4.11.1(h) to allow the IMO to assign CRC between zero and full allocation, specify factors to be considered in the decision and progressively reduce the outage threshold;
- to amend section 4.27 to grant the IMO discretion to monitor performance of individual high-outage Facilities regardless of system capacity availability, to better inform clause 4.11.1(h) decisions; and
- to introduce a performance adjustment to reduce capacity payments to high-outage Facilities.

A fourth option, to limit the hours of Planned Outages exempt from Facility Reserve Capacity Deficit Refunds, was proposed for future consideration.

The following points were noted in an extensive discussion:

- Mr Shane Cremin queried the relationship between future reliability and reliability over the previous 36 months, suggesting that trying to understand, monitor and audit a Facility to predict its future operation is irrelevant. He stated that clause 4.11.1(h) should result in the Facility not receiving any Capacity Credits since that is the penalty for breaching the 30% outage cap. The Chair noted that clause 4.11.1(h) outlined an option rather than an obligation.
- Mr Cremin and Mr Nenad Ninkov questioned whether the IMO Board felt that it was unable to make use of clause 4.11.1(h). The Chair responded that the IMO Board considered that it could use the measure but also that the clause could have quite severe consequences for the wider market. The Chair noted that the IMO Board had given great consideration to the consequences for the wider market when determining whether to make use of clause 4.11.1(h). The IMO considered there needed to be more flexibility and structure in the mechanism than was currently available.
- Mr Ninkov stated that he had an issue with the change because he considered that clause 4.11.1(h) provided a strong signal for when plant should be retired. Mr Ninkov questioned

whether the percentage of time that generation plant is available was more important than its reliability, or being available when needed. He said he felt that incentivising plant to be available 100% of the time may not be efficient. The Chair clarified that the expectation was not that Facilities be available 100% of the time but that unavailability levels of 40% to 50% over three years was excessive. He reiterated Ms Hill's analysis which showed that some of the plant in Western Australia was in the worst-performing decile of generators internationally.

- Mr Ben Tan, Mr Ninkov and Mr Cremin each suggested that the length of time for non-acceptable performance before the IMO would do something was too long. They suggested that by allowing non-performing Facilities to retain Capacity Credits, the market was effectively rewarding non-performance.

- Mr Andrew Sutherland considered that any review that considered a reduction or cancellation of Capacity Credits which could result in the premature forced closure of a Facility must consider the net effect to the market (for example in relation to energy prices) rather than considering capacity in isolation.

- Mr Tan queried the effectiveness of the proposed rolling percentage discount (performance adjustment) for capacity allocations, suggesting that it may prove ineffective.

- Ms Hill outlined the alternative proposal to limit the number of Planned Outages that could be taken without exposure to the Facility Reserve Capacity Deficit Refunds. Mr Cremin stated that he preferred this option to the others presented. He expressed concern about some of the bureaucratic and administrative issues that might arise with the other proposals and argued that the issue is that the Wholesale Electricity Market (WEM) allows Market Participants too many Planned Outages. He supported the proposal that there should be a certain amount of Planned Outages each year and beyond that Planned Outages would incur refunds. He added that recycling the refunds to available generators reinforces this message. Mr Cremin agreed that there still needed to be the ability for the IMO to refuse to allocate CRC to generators who persisted in demanding capacity revenue while not improving their plant. There was some discussion about the comparative incentive value of the gradual reduction of Capacity Credits over time and the potential cap on refund exemptions for Planned Outages.

- There was some discussion about what level of Planned Outages should be allowed. Mr Andrew Stevens raised the concern that all plant needed some minimum amount of Planned Outages. A major outage may take around 50 days every three years, and sometimes additional damage is revealed at that time which necessitates a longer outage period. Delays may be due to importing parts or other issues which could result in not being able to re-start for maybe a further 45 days. Mr Stevens noted that any Planned Outage limit needed to recognise such situations.

- The Chair and Mr Stevens agreed that a two-pronged approach could be appropriate. The Chair suggested the approach could involve a limit of around 15% over three years and then a 50 day annual limit, where both would need to be breached.

- Mr Andrew Everett said that, from a market perspective, he felt that all the proposals were an over-reaction to the issue and would increase the risk on generators and therefore increase energy prices in the market. From a Verve Energy perspective, he contended that the high outage rates on some of the Verve Energy machines did not equate to poor performance, but was a result of a large investment in extending the life of the plant,

particularly Muja, which would produce cheap electricity.

- Mr Everett stated that the high outage rates in Verve Energy plant over the last few years were a temporary aberration and Verve Energy has a plan to have lower outage rates. He believed that by the time the rule changes took effect, Verve Energy's outage rates would be at a level where the rules would not have an impact. Mr Ninkov suggested that if that were the case then no Facilities would be affected by the changes and therefore the change would not be required. Mr Tan countered that if that were the case, then the proposed change should proceed as it would protect the market if high Planned Outage rates occurred in the future.

- Ms Wana Yang emphasised the value of making the IMO's decisions transparent and suggested that naming the units with poor availability, regardless of the IMO's decision under clause 4.11.1(h), can itself be a deterrent. She pointed out that since the Economic Regulation Authority (ERA) had started publishing outage rates for individual plants, the performance had improved.

- Mr Cremin considered clause 4.11.1(h) is currently a non-reviewable decision and that people like to have some recourse if they feel a decision is not just, especially if it is meant to be a guillotine for Capacity Credit allocation.

The Chair advised MAC members that the IMO would review its proposals based on the MAC's discussion and prepare a Pre Rule Change Proposal.

April 2013 MAC meeting

Ms Hill presented the Pre Rule Change Proposal: Incentives to Improve Availability of Scheduled Generators (PRC_2013_09) and provided an update to MAC members on the changes made by the IMO since the Concept Paper CP_2013_01 was presented at the March 2013 meeting. These included replacing the proposed 'performance adjustment' with a cap on the number of refund exempt Planned Outages.

The following discussion points were noted.

- Mr Sutherland suggested the IMO's comment in the proposal that 'there is currently no direct financial consequence' in relation to excessive Planned Outages was inaccurate and did not agree that there were no current incentives in the market for availability. Ms Kate Ryan responded that the proposal described the incentives as 'inadequate' rather than not there at all.

- Mr Sutherland noted he had not seen any analysis on the net effect of a decision by the IMO to not certify a Facility and suggested that the IMO's recent decision to certify the poorly performing Verve Energy Facilities was because it had concluded that removing them from the market would lead to higher energy prices. Ms Hill responded that the IMO had been concerned by the quantity of capacity under consideration and had not considered that it could assign CRC to one of the Facilities but not another. Mr Everett disagreed with Ms Hill, considering that the IMO had the discretion to certify or not certify any of the Facilities in question and did not necessarily have to treat them all the same.

- Mr Stephen MacLean considered that allowing the IMO more flexibility in the quantity of CRC it could assign to a Facility was only going to make the decision process harder for the IMO. Mr Cremin agreed with Mr MacLean and mentioned procedural fairness might be compromised if the IMO moved away from a binary approach.

- Mr MacLean also suggested that the Pre Rule Change Proposal required more work and discussion by the market prior to its progressing into the rule change process. Mr Stevens agreed with Mr MacLean's suggestion. The MAC agreed for the IMO to hold a half-day discussion group in the following six to eight weeks to work through the proposal. *(Note: the IMO held the proposed discussion forum on 8 May 2013.)*

- Ms Yang queried if the MAC had come to a consensus that the current Market Rules result in inefficient outcomes. If that was the case then a change should occur. Both Mr Sutherland and Mr MacLean disagreed that the Market Rules result in inefficient outcomes. Specifically Mr Sutherland considered that an additional level of bureaucracy would not result in improved efficiency. Ms Hill suggested the main concern was around the limiting of refund exempt Planned Outages and questioned how this constituted an increase in bureaucracy.

- Mr Sutherland repeated his concerns about the impact of capacity leaving the market in response to decisions made under clause 4.11.1(h). Ms Hill suggested that a decision made under clause 4.11.1(h) to not certify a Facility would not necessarily result in the retirement of that Facility. Mr Sutherland and Mr Stevens considered that the IMO would be contributing to the possibility that the Facility would shut down. Ms Hill noted that the relevant clause had always been in the Market Rules.

- Mr Phil Kelloway stated that the current Market Rules place a large onus on System Management to determine the veracity of Planned Outage requests. He requested that the proposal should analyse this aspect of the issue with a view to relieve some of the current pressure on System Management. The Chair noted that Ms Hill had looked at some of the current definitions of planned and forced outages in the WEM against international standards. The Chair requested System Management to provide some details at the proposed discussion forum regarding the types and levels of outage requests System Management receive.

- Mr MacLean noted that the proposed defined term 'Equivalent Planned Outage Hours' referred to the Market Procedure. Mr MacLean considered that the definition should be set out in the Market Rules and not a subordinate procedure. Mr MacLean also noted that the words 'subject to clause 4.12.10' should be removed from proposed clause 4.12.9.

- Mr Everett noted that the Chair suggested to use 15% in calculating an average Planned Outage factor, however this had not been discussed by MAC members. Mr Stevens considered that 15% may be too low it for a Facility that has a significant major outage. Ms Hill stated she had undertaken a scenario analysis based on data from 2007 and the concern raised by Mr Stevens would have only affected the plant that had experienced Planned Outage rates of over 30% for the past three years. Mr Kelloway noted that the proposal could incorporate certain exclusions such as Facility overhauls. Ms Hill added that an appeal system could also be considered. The Chair noted this could be discussed at the half-day forum.

June 2013 MAC meeting

Ms Jenny Laidlaw presented an updated version of PRC_2013_09 and provided an update to the MAC about the changes since the April 2013 MAC meeting. The following discussion points were noted.

- Ms Laidlaw noted a concern that if the Planned Outage threshold was exceeded Market Participants may not have an incentive to apply for a Planned Outage and that this

issue was currently being addressed in phase two of the work to implement the recommendations of the Outage Planning Review.

- Mr Peter Huxtable queried, in relation to the requirement for a Market Participant to pay for a report required by the IMO for Facilities with high levels of outages, whether there were similar reports in the market or a consistent approach to payments. Ms Ryan responded that it was common to have a regulator who required a report about a certain participant's behaviour and have the participant pay for it.
- Mr Everett questioned when the IMO would be undertaking consultation with Market Participants that had indicated that the thresholds were incorrect. Ms Laidlaw replied that the IMO would be happy to start these discussions with the relevant parties by late in the following week.
- Mr Sutherland queried whether the proposed drafting in clause 4.12.6(b) was correct in stipulating that a Consequential Outage would be included in the count of RCOQ adjusted Planned Outages. Ms Laidlaw responded that the drafting only meant to apply to a Planned Outage for which the RCOQ had been reduced.

Further details are available in the MAC meeting minutes available on the Market Web Site: http://www.imowa.com.au/MAC.

3.2. Consultation during the first submission period

During the first submission period the IMO met with Alinta and Verve Energy to discuss their concerns about the outage thresholds set by the IMO in the Rule Change Proposal. Both meetings took place on 28 June 2013.

During its meeting with the IMO, Alinta provided an overview of the current maintenance arrangements for its Scheduled Generators. The IMO concluded that that under these arrangements it was extremely unlikely that Alinta's Facilities would ever breach the thresholds specified by the IMO in the Rule Change Proposal.

Verve Energy also provided the IMO with an overview of its maintenance arrangements and timelines. In particular, Verve Energy provided some preliminary information to support its claim that the proposed 14.8% cap on refund exempt Planned Outages was inappropriately low for its thermal plant. The IMO suggested that Verve Energy provide the IMO with further details of the component tasks in its maintenance cycle for its coal fired Facilities and their associated timeframes. The IMO notes that the submission received from Verve Energy during the first submission period provided additional details of its maintenance arrangements in confidential appendices.

3.3. Submissions received during the first submission period

The first submission period for this Rule Change Proposal was held between 19 June 2013 and 27 August 2013. Submissions were received from Alinta, Bluewaters Power, Community Electricity, Perth Energy, System Management, Tesla and Verve Energy.

Community Electricity, Perth Energy and System Management all supported the Rule Change Proposal. System Management proposed some minor drafting changes to clarify that the IMO (and not System Management) was responsible for determining which Planned Outages were liable for refunds and suggested the Forced Outage rate, Planned Outage Rate, Planned Outage Hours and Equivalent Planned Derated Hours definitions be moved from the Power System Operation Procedure (PSOP): Facility Outages to a Market Procedure.

Tesla was generally supportive of the structure and intention of the rule change, but proposed that a Planned Outage coinciding with a network outage should be classified as a Consequential Outage and not be counted against the proposed percentage caps.

Bluewaters Power was supportive of the concept and the majority of the detail of the proposal, but suggested several changes to the proposed amendments. These included:

- making the provision of performance reports and performance improvement reports to the IMO under clause 4.27.5 optional;
- limiting the refund multiplier for non-refund exempt Planned Outages to one;
- conducting the reviews proposed in clauses 4.11.1E and 4.12.10 after three years rather than five years; and
- increasing the cap on refund exempt Planned Outages from 14.8% to somewhere between 16.8% and 17.5%, with a corresponding increase to the combined Planned Outage rate and Forced Outage rate thresholds prescribed in clause 4.11.1D. Bluewaters Power considered that exceedance of this range would be indicative of systematic rather than 'one-off' issues.

Alinta and Verve Energy did not support the Rule Change Proposal, considering that most of the proposed amendments would impose unnecessary cost, risk and regulatory burden on Market Participants and potentially lead to perverse outcomes such as a decrease in reliability. Alinta did not believe that the current Planned Outage rates posed a risk to system security and considered that the Market Rules already provide the IMO with an ability to address any concerns around high levels of unavailability. Verve Energy considered that the proposal was an over-reaction to a current set of circumstances in the WEM and was heavy handed and unnecessarily invasive.

Both parties however supported the inclusion in the Market Rules of the range of factors the IMO will take into account when making decisions under clause 4.11.1(h). Alinta also supported changes to permit the IMO more flexibility in the quantity of CRC it can assign.

Verve Energy was not against the proposal to reduce the combined Planned Outage rate and Forced Outage rate thresholds that trigger clause 4.11.1(h) per se, but considered the proposed glide path was too aggressive and proposed a number of alternatives. Verve Energy also proposed:

- an increase to the cap on refund exempt Planned Outages, to somewhere between 17% and 20%, to reflect the additional maintenance requirements of its thermal plant;
- several alternatives to allowing the IMO more flexibility in the quantity of CRC it assigns a Facility;
- a requirement for the reviews in clauses 4.11.1E and 4.12.10 to be undertaken every five years;
- the inclusion of additional detail about what the IMO would consider in the review under clause 4.12.10;
- the suspension of capacity payments for exceeding the proposed cap on Planned Outages, rather than the payment of Facility Reserve Capacity Deficit Refunds;
- an increase to the Equivalent Planned Outage Hours threshold in clause 4.27.3A, from 1750 hours to 2191 hours;
- the inclusion of explicit timing requirements for performance improvement reports;

- the socialisation of any costs incurred by the IMO for an opinion on a performance report or performance improvement report across all Market Participants; and
- a number of minor amendments to improve the integrity of the drafting.

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

Submitter	Wholesale Market Objective Assessment
Alinta	No specific assessment, but raises concerns around a decrease in reliability (Wholesale Market Objective (a)) and increased costs (Wholesale Market Objective (d)).
Bluewaters Power	Will better facilitate the achievement of the Wholesale Market Objectives as outlined by the IMO in the Rule Change Proposal.
Community Electricity	Considers the changes are in harmony with all the Wholesale Market Objectives, and supports the IMO's contention that they improve the achievement of Wholesale Market Objectives (a), (b) and (d).
Perth Energy	Will positively impact on the achievement of Wholesale Market Objectives (a), (b) and (d). No impacts identified on the remaining Wholesale Market Objectives.
System Management	Supports the Wholesale Market Objectives as stated in the Rule Change Proposal.
Tesla	Better facilitates the achievement of the Wholesale Market Objectives through minimisation of Outages which will therefore lead to a reduction in costs to the market.
Verve Energy	No specific assessment, but raises concerns around a decrease in reliability (Wholesale Market Objective (a)) and increased costs (Wholesale Market Objective (d)).

A copy of all submissions in full received during the first submission period (excluding the information provided by Verve Energy on a confidential basis) is available on the Market Web Site: http://www.imowa.com.au/RC_2013_09.

3.4. The IMO's response to submissions received during the first submission period

The IMO's response to submissions received during the first submission period is detailed in Appendix 2 of the Draft Rule Change Report available on the Market Web Site: http://www.imowa.com.au/RC_2013_09.

3.5. Submissions received during the second submission period

The second submission period was held between 29 November 2013 and 14 February 2014. Submissions were received from Alinta Energy, Bluewaters Power, Community Electricity, Synergy[3] and System Management.

Community Electricity and System Management supported the Rule Change Proposal. System Management expressed appreciation for the IMO's clarification in the Draft Rule Change Report that the IMO (and not System Management) will be responsible for determining whether a Planned Outage is liable for Facility Reserve Capacity Deficit Refunds.

Alinta, Community Electricity and Synergy supported the IMO's decisions to raise the proposed cap on Refund Exempt Planned Outages and to remove the IMO's ability to reduce the cap under clause 4.27.9. Alinta also supported the IMO's decision to publish Refund Exempt Planned Outages Counts for each Scheduled Generator.

However, Alinta and Synergy remained opposed to the Rule Change Proposal, for the reasons stated in their first period submissions. Synergy considered that the IMO could achieve the intent of the proposal by implementing a subset of the measures outlined in the Draft Rule Change Report. Both parties specifically reiterated their concerns about the IMO's proposed ability to request performance reports from Facilities with excessive Planned Outage rates, considering this would place obligations on the affected Market Participants that were onerous and unnecessary. Additionally, Alinta noted that the proposal used three different measures of poor availability for a Scheduled Generator, and questioned whether this complexity was necessary.

Synergy noted its concern that the Rule Change Proposal be assessed in conjunction with other related Rule Change Proposals. Synergy again opposed the use of standard multipliers to calculate Facility Reserve Capacity Deficit Refunds, particularly as the proposed Amending Rules for the Rule Change Proposal: Changes to the Reserve Capacity Price and the dynamic Reserve Capacity refunds regime (RC_2013_20) would introduce uncertainty around what the actual multiplier would be for any Trading Interval[4]. Synergy considered that for refunds on Planned Outages the multiplier should be limited to one.

However Bluewaters Power, who had also proposed a multiplier limit of one in its first period submission, acknowledged that the IMO's intent to incentivise better outage planning by applying the standard multipliers is well founded and justified. Bluewaters Power remained supportive of the overall concepts and the majority of details in the proposal, but disagreed with the IMO's proposal to count Planned Outages coinciding with a network outage towards a Facility's Refund Exempt Planned Outage Count.

System Management and Synergy again proposed that the Forced Outage rate and Planned Outage Rate definitions be moved from the Power System Operation Procedure (PSOP): Facility Outages to the Market Rules as part of this Rule Change Proposal.

Bluewaters Power and Synergy also provided a number of minor drafting suggestions, which the IMO has adopted in the preparation of this Final Rule Change Report.

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[3] Note Verve Energy merged with Synergy during the second submission period for this Rule Change Proposal and now operates under the trading name 'Synergy'.

[4] Under the proposal the multiplier could fall anywhere between 0.25 and 6, depending on the level of spare capacity in the SWIS at the time.

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

Submitter	Wholesale Market Objective Assessment
Alinta	No specific assessment, but maintains earlier concerns that amendments will result in a decrease in reliability (Wholesale Market Objective (a)) and increased costs (Wholesale Market Objective (d)).
Bluewaters Power	Will better facilitate the Wholesale Market Objectives primarily by providing incentives to improve availability and signals (to existing and potential capacity providers) around the likely viability of low-availability plant.
Community Electricity	No specific assessment, but supports the Rule Change Proposal.
Synergy	No specific assessment.
System Management	Considers the proposed amendments will better address the Wholesale Market Objectives.

A copy of all submissions in full received during the second submission period is available on the Market Web Site: http://www.imowa.com.au/RC_2013_09.

3.6. The IMO's response to submissions received during the second submission period

The IMO's responses to each of the issues identified during the second submission period are presented in Appendix 1 of this Final Rule Change Report.

3.7. Public Forums and Workshops

On 8 May 2013 the IMO held a discussion forum to allow interested stakeholders to discuss PRC_2013_09 in greater detail. The forum was attended by representatives of various Market Participants, System Management, the ERA and the Public Utilities Office (PUO).

During the forum Ms Hill provided further details of the IMO's reasons for the progression of the proposed amendments. The group then discussed each of the three main components of the proposal in greater detail.

The following points were discussed in relation to the proposed cap on refund exempt Planned Outages.

- Concerns were raised by some participants that the proposed cap of 7800 Trading Intervals over three years was too low and that as a consequence generators may undertake less preventative maintenance, which could result in more Forced Outages. It was noted that Forced Outages have a more disruptive impact on system security than Planned Outages.

- It was noted that the Forced Outage rate in the WEM is low by international standards and is understated because the criteria to qualify for a Planned Outage is much less strict in the WEM than in other jurisdictions.

- The proposed limits were questioned on the basis that, according to the statistics provided by the IMO, over 30% of the thermal plant in the United States would not meet a combined outage cap of 20%. In response it was noted that many of the electricity markets captured in that statistic were operating in energy only markets where generators can take as many outages as they wish without penalty, while in the WEM generators are being paid for capacity.

- It was proposed that breaching the proposed Planned Outage cap should not result in the relevant Market Participant paying refunds but should instead cause the participant to stop receiving capacity payments until it is able to reduce the level back below the cap.

- It was noted that the Planned Outage cap may have the perverse outcome of removing the incentive for participants who have exceeded the cap to bother requesting Planned Outages, since refunds will be payable regardless of whether the outage is logged as a Planned Outage or a Forced Outage. It was considered that the Market Rules may need to be amended to address this issue.

- Some participants suggested that there were already adequate incentives for Scheduled Generators to be available at peak times due to their bilateral contract obligations.

- One participant questioned whether a Facility taking a Planned Outage would have any impact on Balancing Prices if that Facility had a very long start-up time. In response it was noted that submissions for the Verve Energy Balancing Portfolio would be different depending on whether low cost generation within the portfolio was available or on a Planned Outage.

The following points were discussed in relation to the proposed changes to the operation of clause 4.11.1(h).

- There was some discussion as to whether it would be more appropriate for a Facility triggering clause 4.11.1(h) to be paid less for each Capacity Credit it received or to simply receive fewer Capacity Credits. It was agreed that the Facility should receive fewer Capacity Credits.

- It was agreed that clause 4.11.1(h) should be a Reviewable Decision.

- It was agreed that review of the outage thresholds should allow the values to be adjusted above or below the values prescribed in the table.

- It was agreed that the counting of outages towards the proposed thresholds should apply only to Facilities once they are in Commercial Operation.

- It was suggested that separate caps should apply for Forced Outages and Planned Outages as the former are much more disruptive than the latter.

- It was noted that the review of the outage caps would be difficult because the WEM had different outage definitions to those used in other markets. It response it was argued that a comparison could be made, although it would require a degree of judgement to be exercised. The MAC Chair noted that if the definitions of outages in the WEM were to be changed significantly then the proposed caps would be reviewed.

- There was a query as to whether it was fair for the IMO to be able to pass on the costs to a Market Participant of the IMO seeking a second opinion from a consultant. In response it

was noted that the market should not pay for the costs associated with the IMO seeking a second opinion on a poorly performing generator (which would be the case if the IMO incurred these costs).

The following points were discussed in relation to the proposed amendments to section 4.27.

- The IMO noted that the reason why it proposed to have discretion as to whether or not it requested a performance report from a Market Participant was that the IMO may know the reasons for the relevant Facility's high outage rate in a particular year (for example a periodic major outage) and therefore not need any additional information.

- There was some discussion about whether some or all of the information contained in a report requested under section 4.27 should be made public.

The MAC Chair noted that after considering the views expressed during the forum the IMO would prepare an updated version of the Pre Rule Change Proposal for presentation at the next MAC meeting. The IMO welcomed any informal submissions from participants, in particular where a participant had an alternative practical option to the proposals outlined in PRC_2013_09. *(Note: three Market Participants (Alinta, Community Electricity and Verve Energy) provided informal submissions to the IMO, which the IMO took into consideration when updating the Pre Rule Change Proposal for presentation to the June 2013 MAC meeting.)*

No other public forums or workshops have been held with regard to this Rule Change Proposal.

4. The IMO's Draft Assessment

The IMO's draft assessment, against clauses 2.4.2 and 2.4.3 of the Market Rules, and analysis of the Rule Change Proposal can be viewed in the Draft Rule Change Report available on the Market Web Site: http://www.imowa.com.au/RC_2013_09.

5. The IMO's Proposed Decision

The IMO's proposed decision was to accept the Rule Change Proposal as modified following the first submission period. The wording of the relevant Amending Rules was presented in section 7 of the Draft Rule Change Report.

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

- will allow the Market Rules to better achieve Wholesale Market Objectives (a), (b) and (d);
- are consistent with Wholesale Market Objectives (c) and (e); and
- have the support of the majority of submissions received during the first submission period.

Additional detail outlining the analysis behind the IMO's decision is outlined in section 5 of the Draft Rule Change Report available on the Market Web Site: http://www.imowa.com.au/RC_2013_09..

6. The IMO's Final Assessment

In preparing its Final Rule Change Report, the IMO must assess the Rule Change Proposal in light of clauses 2.4.2 and 2.4.3 of the Market Rules.

Clause 2.4.2 outlines that the IMO *"must not make Amending Rules unless it is satisfied that the Market Rules, as proposed to be amended or replaced, are consistent with the Wholesale Market Objectives"*. Additionally, clause 2.4.3 states, when deciding whether to make Amending Rules, the IMO must have regard to the following:

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

The IMO notes that there has not been any applicable policy direction from the Minister or any technical studies commissioned in respect of this Rule Change Proposal. A summary of the views expressed in submissions and by the MAC is available in section 3 of this report.

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

6.1. Additional Amendments to the Amending Rules following the first submission period

Following the first submission period the IMO made some additional changes to the proposed Amending Rules. A summary of these changes is provided below. The additional amendments are shown in detail in Appendix 1 of the Draft Rule Change Report available on the Market Web Site: http://www.imowa.com.au/RC_2013_09.

Amendments to the methodology used to impose the cap on refund exempt Planned Outages

In its Rule Change Proposal, the IMO sought to impose a cap on refund exempt Planned Outages by preventing the reduction under clause 4.12.6(b) of a Scheduled Generator's RCOQ for a Planned Outage if this would cause the Facility to exceed its refund exempt cap. If the RCOQ was not reduced for a Planned Outage then the Facility would be charged Facility Reserve Capacity Deficit Refunds under clause 4.26.1A.

The cap was defined in terms of a Facility's 'RCOQ Reduced Planned Outage Count', effectively a count of the Trading Intervals in a period for which the RCOQ had been reduced to reflect Planned Outages. The RCOQ Planned Outage Count for the 36 months up to and including the relevant Trading Interval was not permitted to exceed 7800.

The IMO identified several issues with the proposed methodology during the preparation of the Draft Rule Change Report.

- The reduction of RCOQs under clause 4.12.6 is based on the outage schedules provided by System Management to the IMO on the Scheduling Day under clause 7.3.4. This means that the RCOQ of a Facility is never reduced for Opportunistic Maintenance requests approved after the transfer of the ex-ante outage schedule for the relevant Trading Day.

- It is not actually necessary to prevent the reduction of a Facility's RCOQ in order to charge Facility Reserve Capacity Deficit Refunds for excessive Planned Outages, as the adjusted RCOQ value is only used in the Net STEM Shortfall calculation in clause 4.26.2.

- The proposed timeframe for the threshold test (36 months up to and including the relevant Trading Interval) would create unnecessary complexities in the IMO's settlement systems, due to the need to store measures by Trading Interval and account correctly for leap years.

To address these issues the IMO modified the proposed Amending Rules to:

- reverse the proposed changes to the calculation of RCOQs for Scheduled Generators in clause 4.12.6 (as they are not required);

- use the ex-post outage schedules provided by System Management under clause 7.13.1A(b) to source the Planned Outages for assessment; and

- amend the timeframes for the threshold test, so that the status of Planned Outages occurring in a given Trading Day will depend on the "Refund Exempt Planned Outage Count" for the previous 1000 Trading Days.

Changes to the cap on refund exempt Planned Outages

After consideration of the of the submissions received during the first submission period and the historical performance of thermal plant in other jurisdictions the IMO decided to increase the proposed cap on refund exempt Planned Outages from 14.8% (averaged over 36 months) to 17.5% (averaged over 1000 Trading Days). This equates to a limit of 8400 Trading Intervals or 25 weeks over any 1000 Trading Day period.

The revised cap is consistent with the ranges suggested by Verve Energy (17%-20%, averaged over 36 months) and Bluewaters Power (16.8%-17.5% averaged over 36 months) in their submissions on the Rule Change Proposal. The cap will allow a generator, for example, to take twelve weeks for a major overhaul, eight weeks for a minor overhaul and an additional five weeks for other maintenance in any 1000 Trading Day period.

Removal of clause 4.27.9

The IMO reviewed its proposed amendments to clause 4.27.9 in response to a number of concerns raised in submissions by Alinta and Verve Energy. The IMO concluded that clause 4.27.9 and its related provisions should be removed altogether from the Market Rules, for the following reasons:

- the proposed cap on refund exempt Planned Outages is already set to an appropriate level and further reductions could be potentially counter-productive or discriminate against some generator types;

- the IMO agrees that the ability to reduce the Planned Outage cap by an arbitrary amount for all Scheduled Generators could impose a regulatory risk on Market Participants;

- the current regime in the Market Rules, under which Facilities can be restricted to individual Planned Outage caps set up to two years in advance, also risks treating Market Participants unfairly, for example if there are changes to the timing of their scheduled outages due to system constraints;

- the trigger events (40 or 80 days in the previous 12 months exceeding the available capacity criterion in clause 4.27.2) have not occurred since market start and the chance of them occurring in the future is negligible;

- if the trigger events did ever occur then it is likely that Planned Outages would already be severely restricted by System Management due to insufficient system reserve; and

- it is extremely unlikely that the IMO would need to undertake the monitoring prescribed in clause 4.27.1 and 4.27.2 to notice a capacity shortage sufficient to trigger clause 4.27.9.

The IMO also made a number of other minor changes to the proposed Amending Rules in the Draft Rule Change Report.

6.2. Additional Amendments to the Amending Rules following the second submission period

Following the second submission period the IMO has made some additional changes to the proposed Amending Rules to:

- remove the references in clauses 4.11.1E(a) and 4.27.4A(b) to 'Industry Standard Generation Performance Indicators', as after further consideration the IMO has concluded that the existing Planned Outage rate and Forced Outage rate measures are sufficient to assess and benchmark the availability of generators in the WEM;
- amend clause 4.27.2 to restrict the calculation requirement to Scheduled Generators and Non-Scheduled Generators, as these are the only Facility Classes for which the monitoring of Equivalent Planned Outage Hours is required;
- amend the defined term 'Non-Refund Exempt Planned Outages' to 'Refund Payable Planned Outages', to improve clarity and avoid the use of a double negative;
- clarify that the Market Procedure referred to in clauses 4.9.3(a), 4.9.10 and 4.28C.15 is called the Market Procedure for Certification of Reserve Capacity;
- clarify that the Market Procedure referred to in clauses 4.27.5 and 4.27.12 is called the Market Procedure for Reserve Capacity Performance Monitoring;
- amend the start date specified in the Glossary definition of Refund Exempt Planned Outage Count to 1 May 2014, to reflect the provisional commencement date of the proposed Amending Rules;
- create defined terms 'Reserve Capacity Performance Report' and 'Reserve Capacity Performance Improvement Report' and incorporate them into clauses 4.27.3, 4.27.4, 4.27.4A and 4.27.5 to improve the readability of these clauses; and
- incorporate a number of minor and typographical amendments to improve the overall integrity of the Amending Rules;

The changes the IMO has made to the Amending Rules presented in the Draft Rule Change Report are outlined in detail in Appendix 2 of this Final Rule Change Report.

6.3. Wholesale Market Objectives

The IMO considers that the Market Rules as a whole, if amended as presented in section 8 of this report, will not only be consistent with the Wholesale Market Objectives but also allow the Market Rules to better address Wholesale Market Objectives (a), (b) and (d).

The IMO's assessment is presented below:

(a) to promote the economically efficient, safe and reliable production and supply of electricity and electricity related services in the South West interconnected system:

The IMO considers that the proposed amendments would better address Wholesale Market Objective (a) by:

- providing the IMO with the discretion to value frequently unavailable capacity lower than high-availability capacity when assigning Certified Reserve Capacity to a Scheduled Generator;
- ensuring that Scheduled Generators with outage rates that exceed specified limits do not receive a higher effective Reserve Capacity Price per available hour than Scheduled Generators with low outage rates;
- reducing incentives for Market Participants to retain inefficient, high-maintenance Scheduled Generators with poor availability;
- improving the economic efficiency of dispatch by increasing the range of capacity available from Scheduled Generators in the Balancing Merit Order;
- improving accountability for unavailability by limiting the number of Planned Outage hours that can be taken by a Facility without exposure to Facility Reserve Capacity Deficit Refunds;
- establishing a mechanism for the IMO to independently monitor the performance of individual Scheduled Generators with high outage rates, and consider that performance in assigning Certified Reserve Capacity; and
- improving the information available to the IMO in making Certified Reserve Capacity decisions under clause 4.11.1(h).

(b) to encourage competition among generators and retailers in the South West interconnected system, including by facilitating efficient entry of new competitors:

The IMO considers that the proposed amendments would better address Wholesale Market Objective (b) by:

- better matching nominal Reserve Capacity to reliably available capacity;
- increasing the transparency of the IMO's decisions under clause 4.11.1(h); and
- reducing incentives for retention of unreliable, high-maintenance Scheduled Generators, providing greater opportunities for investment in more efficient and reliable generation plant.

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

The IMO considers that the proposed amendments would better address Wholesale Market Objective (d) by:

- enabling a lower allocation of Certified Reserve Capacity to frequently unavailable capacity;
- increasing the competitive pressure on energy prices by increasing the availability of registered Scheduled Generators bidding into the energy markets;
- requiring Scheduled Generators with excessive Planned Outage rates to compensate the market for their unavailability through payment of Facility Reserve Capacity Deficit Refunds;
- closer scrutiny of the efficiency and effectiveness of Market Participants in improving the availability of their low-availability Scheduled Generators; and

- encouraging the replacement of inefficient, unreliable and high-maintenance Scheduled Generators with more efficient and reliable generating Facilities.

6.4. Practicality and Cost of Implementation

6.4.1. Cost:

The proposed amendments will require changes to the IMO's IT systems, at an estimated cost of $110,000. Changes will also be required to the Market Procedure for Certification of Reserve Capacity, the Market Procedure for Reserve Capacity Performance Monitoring and the IMO's internal procedures; however the costs of these changes can be accommodated within the IMO's normal operating budget.

System Management has confirmed that the proposed amendments do not require any changes to its systems and processes.

Bluewaters Power and Alinta noted that some internal monitoring of outage rates by Market Participants would be required. Alinta estimated a minor cost to develop its IT systems to enable automated monitoring of approximately $2000, assuming that the data feed is provided via web services. Bluewaters did not anticipate any material impact on systems or implementation costs but noted that it was difficult to assess what the practical impact and outcomes would be at this stage.

Alinta, Bluewaters Power and Verve Energy (now Synergy) all noted potential future costs associated with failures to meet the various outage thresholds specified in the proposed amendments.

6.4.2. Practicality:

No issues were identified with the practicality of implementation of the proposed changes.

6.5. Protected Provisions

The proposed amendments include a change to clause 2.17.1 of the Market Rules, which is a Protected Provision under clause 2.8.13. The proposed Amending Rules therefore require approval by the Minister under clause 2.8.3 of the Market Rules.

The IMO notes that the proposed commencement date for the Amending Rules allows the Minister the required 20 Business Days to make a decision on the Rule Change Proposal. However, if the Minister requests an extension to this period the commencement of the Amending Rules may need to be delayed.

6.6. Impact on the Regulations

The IMO notes that under the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* (WEM Regulations):

- clauses 4.9.9 (to be amended) and 4.27.7 (to be deleted) are Reviewable Decisions; and
- clause 4.27.5 is subject to Category B civil penalties.

The IMO considers that under the proposed Amending Rules it is still appropriate for clause 4.9.9 to be a Reviewable Decision and clause 4.27.5 to remain a Category B civil penalty provision. The IMO is continuing to work with the PUO to progress the necessary amendments to the WEM Regulations to remove clause 4.27.7 as a Reviewable Decision.

During discussions with the IMO on the proposed amendments to the WEM Regulations, the PUO queried whether decisions made in relation to the capping of Refund Exempt Planned Outages (under amending clauses 4.12.6(b) or 4.26.1C) should be Reviewable Decisions. In response the IMO noted that the cap on Refund Exempt Planned Outages was deliberately designed to be non-discretionary, and that Facility Reserve Capacity Deficit Refunds for Planned Outages taken in excess of the proposed threshold would be incurred automatically, as they are for Forced Outages. The IMO also noted that the proposed threshold, which was increased from 14.8% (averaged over 36 months) to 17.5% (averaged over 1000 Trading Days) in the Draft Rule Change Report, is very generous, and that regardless of the circumstances, a Facility that exceeds this level has not provided the capacity service for which it has been paid, and so the payment of capacity refunds would always be appropriate. The IMO also noted that any 'special' circumstances would be considered in making any future certification decisions under clause 4.11.1.

The IMO notes that the commencement of the Amending Rules for this Rule Change Proposal is not contingent upon the implementation of the proposed amendments to the WEM Regulations.

7. The IMO's Decision

Based on the matters set out in this report, the IMO's decision is to accept the Rule Change Proposal as modified following the first and second submission periods.

7.1. Reasons for the decision

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

- will allow the Market Rules to better achieve Wholesale Market Objectives (a), (b) and (d);
- are consistent with Wholesale Market Objectives (c) and (e); and
- have the support of the majority of submissions received during the first and second submission periods.

Additional detail outlining the analysis behind the IMO decision is outlined in section 6 of this Final Rule Change Report.

8. Amending Rules

8.1. Commencement

The amendments to the Market Rules resulting from this Rule Change Proposal will provisionally commence at **8.00 am** on **1 May 2014**.

8.2. Amending Rules

The IMO has decided to implement the following Amending Rules (~~deleted text~~, added text):

1.4.1. In these Market Rules, unless the contrary intention appears:

…

(r) (**Headings and comments**): headings and comments appearing in boxes in these Market Rules (other than the Refund Table in clause 4.26 and the Outage

Rate Limit Table in clause 4.11.1D) are for convenience only and do not affect the interpretation of these Market Rules.

2.17.1. Decisions by the IMO or System Management, as applicable, made under the following clauses are Reviewable Decisions:

(a) clause 2.3.8;

(b) clauses 2.5.6(c) and 2.5.9;

(c) clause 2.6.3A(a);

(d) clause 2.7.7A(a);

(e) clause 2.10.2A(a);

(f) clause 2.10.13;

(g) clause 2.10.14;

(h) clause 2.13.28;

(i) clause 2.28.16;

(j) clauses 2.30.4 and 2.30.8;

(k) clause 2.31.10;

(l) clause 2.32.7E(b);

(m) clause 2.34.7;

(n) clause 2.34.7A(b)(ii);

(o) clause 2.34.7C(c);

(p) clause 2.34.11;

(q) clauses 2.37.1 to 2.37.3;

(r) clause 4.9.9;

(s) clause 4.15.1;

(sA) clause 4.20.11;

(t) ~~clause 4.27.7;~~[Blank]

(u) clause 4.28.7;

(v) clause 7A.1.11; and

(w) clause 10.2.1.

4.9.3. A Market Participant applying for certification of Reserve Capacity must provide to the IMO:

(a) the data specified in clause 4.10.1, in the format specified in the Market Procedure for Certification of Reserve Capacity ~~Procedure~~;

…

4.9.9. The IMO must decide whether or not to assign Certified Reserve Capacity to a Facility in respect of a Reserve Capacity Cycle, and if so, the quantity to be assigned. If the IMO decides to assign~~s~~ Certified Reserve Capacity to a Facility in respect of a Reserve Capacity Cycle, the IMO must advise the applicant:

(a) of the amount of Certified Reserve Capacity assigned to the Facility in respect of the Reserve Capacity Cycle, as determined in accordance with clause 4.11 or clause 4.9.5(c) (as applicable);

(b) of the initial Reserve Capacity Obligation~~s~~ Quantity set for the Facility, as determined in accordance with clause 4.12 or clause 4.9.5(c) (as applicable);

(c) of any Reserve Capacity Security required as a condition of a Market Participant holding the Certified Reserve Capacity, as determined in accordance with clause 4.13.2 or clause 4.9.5(c) (as applicable);

(d) in the case of Conditional Certified Reserve Capacity, that the certification is subject to the conditions in clause 4.9.5(a) and (b);

(e) upon the request of the applicant, of the calculations upon which the IMO's determinations are based; and

(f) whether the IMO accepted or rejected a proposed alternative value to be used in the calculation of the Required Level for a Facility for which a Market Participant nominated to use the methodology described in clause 4.11.2(b) in its application for certification, as determined in accordance with clause 4.11.2A, if applicable.

4.9.10. The IMO must document the procedure that:

(a) Market Participants must follow in the process of applying for Certified Reserve Capacity; and

(b) the IMO must follow in processing applications for Certified Reserve Capacity, including how Certified Reserve Capacity is assigned and Reserve Capacity Obligation Quantities are set,

in the Market Procedure for Certification of Reserve Capacity ~~Procedure~~. The IMO and Market Participants must follow that documented Market Procedure when Market Participants are applying for Certified Reserve Capacity and when the IMO is processing those applications.

4.11.1. Subject to clauses 4.11.7 and 4.11.12, the IMO must apply the following principles in assigning a quantity of Certified Reserve Capacity to a Facility for the Reserve Capacity Cycle for which an application for Certified Reserve Capacity has been submitted in accordance with clause 4.10:

…

(h) subject to clauses 4.11.1B and 4.11.1C, the IMO may decide not to assign any Certified Reserve Capacity to a Facility, or to assign a lesser quantity of Certified Reserve Capacity to a Facility than it would otherwise assign in accordance with this clause 4.11.1, if:

i. the Facility has ~~operated~~ been in Commercial Operation 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%~~ the applicable percentage specified in the Outage Rate Limit Table over the preceding 36 months; or

ii. the Facility has ~~operated~~ been in Commercial Operation for less than 36 months, or is yet to commence Commercial Operation~~operation~~, and the IMO has cause to believe that over ~~a period of~~ the first 36 months of Commercial Operation 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%,~~ the applicable percentage specified in the Outage Rate Limit Table,

where the Planned Outage rate and the Forced Outage rate for a Facility for a period ~~will be~~ are 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)~~;

…

4.11.1A. The IMO must publish the reasons for a decision made under clause 4.11.1(h) on the Market Web Site to the extent those reasons do not contain any confidential information.

4.11.1B. In making a decision under clause 4.11.1(h), the IMO may:

(a) seek such additional information from the relevant Market Participant that the IMO considers is relevant to the exercise of its discretion;

(b) use information provided in reports related to the Facility submitted by:

i. the Market Participant under clause 4.27.3; and

ii. another person under clause 4.27.6; and

(c) consult with:

i. System Management; and

ii. any person the IMO considers suitably qualified to provide an opinion on issues relevant to the exercise of the IMO's discretion.

4.11.1C. In making a decision under clause 4.11.1(h), the IMO:

(a) must be satisfied that its decision under clause 4.11.1(h) would not, on balance, be contrary to the Wholesale Market Objectives;

(b) may:

i. consider the extent to which the Reserve Capacity that can be provided by the Facility is necessary to meet the Reserve Capacity Target;

ii. consider whether the Reserve Capacity provided by the Facility is of material importance to the SWIS, having regard to:

1. the size of the Facility;

2. the operational characteristics of the Facility;

3. the extent to which the Facility contributes to the security of the system through fuel diversity or location; and

4. the demonstrated reliability of the Facility;

iii. assess the effectiveness of strategies undertaken by the applicant in the previous three years to reduce outages, and consider the likelihood that strategies proposed by the applicant to maximise the availability of the Facility in the relevant Capacity Cycle will be effective;

iv. consider whether a decision to not assign Certified Reserve Capacity to the Facility is likely to result in a material decrease in competition in at least one market;

v. consider any positive or negative impacts on the long term price of electricity supplied to consumers that might arise if Certified Reserve Capacity was not assigned to the Facility; and

vi. consider any other matter the IMO determines to be relevant.

4.11.1D. The relevant outage criteria to apply under clause 4.11.1(h) in a particular Capacity Year is as set out in the following table:

OUTAGE RATE LIMIT TABLE

For IMO decisions related to the Capacity Year	Forced Outage rate greater than	Combined Planned Outage rate and Forced Outage rate greater than
Prior to 2016/17	15%	30%
2016/17	14%	28%
2017/18	13%	26%
2018/19	12%	24%
2019/20	11%	22%
2020/21 onwards	10%	20%

4.11.1E. The IMO must undertake a review, to be completed by 31 December 2018, of the operation of clause 4.11.1(h) in which it must consider the appropriate thresholds under clause 4.11.1D for Capacity Years after 2020/2021. The review must include, at a minimum, an assessment of:

(a) the availability performance of the generation sector in the Wholesale Electricity Market compared with analogous generating plant in other markets;

(b) the number of Facilities in the SWIS to which the criteria in clause 4.11.1(h) have applied in each of the previous five Capacity Years; and

(c) the impact on the Wholesale Electricity Market of decisions made by the IMO under clause 4.11.1(h) in the previous five Capacity Years.

4.12.6. Subject to clause 4.12.7, any initial Reserve Capacity Obligation Quantity set in accordance with clauses 4.12.4, 4.12.5, 4.28B.4, or ~~4.28C.4~~ 4.28C.11 is to be reduced once the Reserve Capacity Obligations take effect, as follows:

…

(b) where System Management notifies the IMO under clause 7.3.4 of a Consequential Outage or a Planned Outage in respect of a Facility and a Trading Interval, ~~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 and that Trading Interval, after taking into account any adjustments in accordance with ~~paragraph (a)~~ clause 4.12.6(a), to reflect the amount of capacity unavailable due to that outage; and

…

4.26.1A. The IMO must calculate the Reserve Capacity Deficit refund for each Facility ("**Facility Reserve Capacity Deficit Refund**") for each Trading Month m as the lesser of:

(a) the sum over all Trading Intervals t in Trading Month m of the product of:

i the Off-Peak Trading Interval Rate or Peak Trading Interval Rate determined in accordance with the Refund Table applicable to Trading Interval t; and

ii the Reserve Capacity Deficit in Trading Interval t,

where the Reserve Capacity Deficit for a Facility is equal to whichever of the following applies:

iii. if the Facility is required to have submitted a Forced Outage under clause 3.21.4, or is a Scheduled Generator that has taken a Refund Payable Planned Outage, the total Forced Outage and Refund Payable Planned Outage in that Trading Interval measured in MW; or

…

4.26.1C. Where System Management notifies the IMO under clause 7.13.1A(b) of the Planned Outage of a Scheduled Generator in a Trading Interval, the IMO must determine that Planned Outage to be:

(a) if the Refund Exempt Planned Outage Count for the Facility, calculated over the 1000 Trading Days preceding the Trading Day in which the Trading Interval falls, is less than 8400 – a Refund Exempt Planned Outage; or

(b) otherwise – a Refund Payable Planned Outage.

4.26.1D. The IMO must undertake a review, to be completed by 31 December 2018, of whether the limit for the Refund Exempt Planned Outage Count referred to in clause 4.26.1C should be modified to better address the Wholesale Market Objectives. The review must include, at a minimum, an assessment of:

(a) variations in Planned Outage rates and Forced Outage rates of Scheduled Generators since the introduction of the limit on Refund Exempt Planned Outages;

(b) for each Scheduled Generator and each year since the introduction of the limit on Refund Exempt Planned Outages:

i. the number of Equivalent Planned Outage Hours for which Facility Reserve Capacity Deficit Refunds were payable; and

ii. the total amount of Facility Reserve Capacity Deficit Refunds associated with Refund Payable Planned Outages; and

(c) the level of participation by Scheduled Generators in the Reserve Capacity Mechanism in each year since the introduction of the limit on Refund Exempt Planned Outages; and

(d) changes in the mix of Scheduled Generators that have participated in the Reserve Capacity Mechanism in each year since the introduction of the limit on Refund Exempt Planned Outages.

4.26.2. The IMO must determine the net STEM shortfall ("Net STEM Shortfall") in Reserve Capacity supplied by each Market Participant p holding Capacity Credits associated with a generation system in each Trading Interval t of Trading Day d and Trading Month m as:

SF(p,m,d,t) = Max(~~RTFO~~RCDF(p,d,t), RCOQ(p,d,t) - A(p,d,t)) - ~~RTFO~~RCDF(p,d,t)

Where:

A(p,d,t) = Min(RCOQ(p,d,t), CAPA(p,d,t));

RCOQ(p,d,t) for Market Participant p and Trading Interval t of Trading Day d is equal to:

(a) the total Reserve Capacity Obligation Quantity of Market Participant p's unregistered facilities that have Reserve Capacity Obligations, excluding Loads that can be interrupted on request; plus

(b) the sum of the product of:

i. the factor described in clause 4.26.2B as it applies to Market Participant p's Registered Facilities; and

ii. the Reserve Capacity Obligation Quantity for each Facility,

for all Market Participant p's Registered Facilities, excluding Demand Side Programmes,

CAPA(p,d,t) is for Market Participant p and Trading Interval t of Trading Day d:

(c) equal to RCOQ(p,d,t) for a Trading Interval where the STEM Auction has been suspended by the IMO in accordance with clause 6.10;

(d) subject to clause 4.26.2(c), for the case where Market Participant p is not Synergy, the sum of:

i. the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads; plus

ii. the MW quantity calculated by doubling the net MWh quantity of energy sent out by Facilities registered by that Market Participant during that Trading Interval calculated as the Net Contract Position less the shortfall as indicated by the applicable Resource Plan; plus

iiA. if a STEM submission does not exist for that Trading Interval, the MW quantity calculated by doubling the total MWh quantity of energy to be consumed by that Market Participant including demand associated with any Interruptible Load, but excluding demand associated with any Dispatchable Load during that Trading Interval as indicated by the applicable Resource Plan; plus

iii. the MW quantity calculated by doubling the total MWh quantity covered by the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by the IMO for that Market Participant under clause 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

iv. double the total MWh quantity to be provided as Ancillary Services as specified by the IMO in accordance with clause 6.3A.2(e)(i) for that Market Participant corrected for Loss Factor

adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

v. the greater of zero and (BSFO(p,d,t) – RTFO(p,d,t)); and

(e) subject to clause 4.26.2(c), for the case where Market Participant p is Synergy, the sum of:

i. the sum of the Reserve Capacity Obligation Quantities in Trading Interval t of that Market Participant's Interruptible Loads; plus

ii. the MW quantity calculated by doubling the total MWh quantity of energy that Synergy is selling to other Market Participants as indicated by the Net Contract Position for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

iii. the MW quantity calculated by doubling the total MWh quantity of the STEM Offers which were not scheduled and the STEM Bids which were scheduled in the relevant STEM Auction, determined by the IMO for that Market Participant under clause 6.9 for Trading Interval t, corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

iv. double the total MWh quantity to be provided as Ancillary Services as specified by the IMO in accordance with clause 6.3A.2(e)(i) for Synergy corrected for Loss Factor adjustments so as to be a sent out quantity in accordance with clause 4.26.2A; plus

v. the greater of zero and (BSFO(p,d,t) – RTFO(p,d,t)).

RCDF(p,d,t) = RTFO(p,d,t) + RTNREPO(p,d,t);

RTNREPO(p,d,t) = Sum (f∈F, Max(0, NREPO(f,d,t) – BSPO(f,d,t));

NREPO(f,d,t) is the total MW quantity of Refund Payable Planned Outage associated with Facility f for Trading Interval t of Trading Day d;

BSPO(f,d,t) is the total MW quantity of Planned Outage associated with Facility f before the STEM Auction for Trading Interval t of Trading Day d, as provided to the IMO by System Management in accordance with clause 7.3.4;

F denotes the set of Scheduled Generators registered by Market Participant p, where "f" is used to refer to a member of that set;

BSFO(p,d,t) is the total MW quantity of Forced Outage associated with Market Participant p before the STEM Auction for Trading Interval t of Trading Day d, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as

provided to the IMO by System Management in accordance with clause 7.3; and

RTFO(p,d,t) is the total MW quantity of Forced Outage associated with Market Participant p in real-time for Trading Interval t of Trading Day d, where this is the sum over all the Market Participant's Registered Facilities of the lesser of the Reserve Capacity Obligation Quantity of the Facility for Trading Interval t and the MW Forced Outage of the Facility for Trading Interval t as provided to the IMO by System Management in accordance with clause 7.13.1A(b).

4.27.1. ~~The IMO must monitor the total availability of capacity in the SWIS on a daily basis. The total available capacity should equal:~~[Blank]

~~(a) the total Capacity Credits held by Market Participants on that day; less~~

~~(b) the maximum amount of capacity unavailable at any time due to Planned Outages.~~

4.27.2. By the twenty-~~-~~fifth day of each month, the IMO must assess the number of ~~days in the preceding 12 calendar 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 on the day~~ Equivalent Planned Outage Hours taken in the preceding 12 Trading Months by each Scheduled Generator and Non-Scheduled Generator assigned Capacity Credits for the current Capacity Year.

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~~ Equivalent Planned Outage Hours for a Facility, as determined under clause 4.27.2, exceeds 1750 hours for the preceding 12 Trading Months, the IMO may require the Market Participant holding Capacity Credits for that Facility to provide to the IMO:

(a) a Reserve Capacity Performance Report as described in clause 4.27.4~~has been unavailable due to Planned Outages for more than 1000 hours during the preceding 12 calendar months~~; and

(b) a Reserve Capacity Performance Improvement Report as described in clause 4.27.4A, to be provided at specified intervals, but not more frequently than once per quarter~~has not been included in such a report during the preceding 12 calendar months~~.

4.27.3A. In making its decision whether to require a report under clause 4.27.3, the IMO must assess whether the number of Equivalent Planned Outage Hours taken by the Facility in the previous 12 Trading Months was attributable to specific, infrequent events or is indicative of an underlying performance deficiency, and may consider any matters it deems relevant in making this assessment. The IMO may consult System Management in deciding whether or not to require a report.

4.27.4. A Reserve Capacity Performance Report ~~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~~ Trading 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~~ 36 ~~months~~ Trading Months commencing from the ~~month~~ Trading Month in which the report is requested, including adequate explanation to make clear the reason for each Planned Outage; ~~and~~

(bA) the relationship of the Planned Outages to the long term asset management strategy and established maintenance plan for the Facility;

(c) measures being undertaken or proposed by the Market Participant to increase the availability of the Facility~~.~~, and their actual and anticipated effect on the frequency of Planned Outages; and

(d) any other information concerning the availability of the Facility that the IMO may request.

4.27.4A. A Reserve Capacity Performance Improvement Report must include:

(a) descriptions of the measures proposed, being undertaken or already undertaken by the Market Participant to increase the availability of the Facility;

(b) details of any changes to the expected maximum number of days of Planned Outages to be taken by the Facility for a Trading Month previously provided by the Market Participant under clause 4.27.4(b) or this clause 4.27.4A(b), including adequate explanations for each change; and

(c) explanation of any variation between expected and actual improvement of the availability of the Facility as a result of the measures taken.

4.27.5. A Market Participant must:

(a) provide a Reserve Capacity Performance Report ~~report described in clause 4.27.3~~ to the IMO in a format specified in the Market Procedure for Reserve Capacity Performance Monitoring ~~Procedure~~ within 20 Business Days of being requested to do so~~.~~; and

(b) provide a Reserve Capacity Performance Improvement Report to the IMO in a format specified in the Market Procedure for Reserve Capacity Performance Monitoring by the date specified by the IMO under clause 4.27.3(b).

4.27.6. The IMO may ~~must~~ consult with System Management on the implications of ~~the~~ a report provided under clause 4.27.5, and may also consult, at the Market Participant's expense, with any person the IMO considers suitably qualified to provide an opinion on the report. The IMO may ask the person to provide an opinion on the report generally, or to limit the scope of the opinion to specified matters covered in the report.

4.27.7. ~~If the IMO considers the number of days reported in accordance with clause 4.27.4(b) to be unjustified based on good industry practice it may, at its sole discretion, limit the number of days on which Planned Outages are to be taken by the Facility in each of the next 24 months for the purposes of clause 4.27.8 and 4.27.9 and must notify the Market Participant who filed the report described in clause 4.27.3 of the limit.~~ [Blank]

4.27.8. ~~If the IMO limits the number of days in accordance with clause 4.27.7 then the modified value is to supersede the corresponding value specified in the report described in clause 4.27.4.~~[Blank]

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

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

~~(b) during 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.~~

4.27.12. The IMO must document the procedure to be followed in performing Reserve Capacity monitoring in the Market Procedure for Reserve Capacity Performance Monitoring ~~Procedure~~, and the IMO, System Management, and Market Participants must follow that documented Market Procedure in the performance of Reserve Capacity monitoring. Amongst other things, the Market Procedure must list the documents and other items that may be required by the IMO as supporting evidence in accordance with clause 4.27.11D.

4.28C.15. The IMO must document the process for applying for and approving Capacity Credits in accordance with this clause 4.28C in the Market Procedure for Certification of Reserve Capacity ~~Procedure~~, and the IMO and Market Participants must follow that documented Market Procedure.

10.5.1. The IMO must set the class of confidentiality status for the following information under clause 10.2.1, as Public and the IMO must make each item of information available from the Market Web Site after that item of information becomes available to the IMO:

…

(zG) documentation of the functionality of:

i. any software used to run the Reserve Capacity Auction;

ii. the STEM Auction software; and

iii. the Settlement System software; ~~and~~

(zH) information relating to Commissioning Tests which is supplied under clause 3.21A.16 by System Management~~.~~; and

(zI) the Refund Exempt Planned Outage Count for each Scheduled Generator for each of the 1000 Trading Days up to and including the most recent Trading Day for which System Management has provided a schedule to the IMO in accordance with clause 7.13.1A(b).

Glossary

Equivalent Planned Outage Hours: Means, in respect of a Facility, the sum of the "Planned Outage Hours" and the "Equivalent Planned Derated Hours" for the Facility as calculated in accordance with the Power System Operation Procedure.

Outage Rate Limit Table: The table titled "Outage Rate Limit Table" and set out in clause 4.11.1D.

Refund Exempt Planned Outage: Means a Planned Outage of a Scheduled Generator for which a Facility Reserve Capacity Deficit Refund is not payable, as determined by the IMO under clause 4.26.1C.

Refund Exempt Planned Outage Count: Means, in respect of a Scheduled Generator and a period of time, the sum over all Trading Intervals in that period of:

(a) zero, if the Trading Interval occurs before 8:00 AM on 1 May 2014 or if no Capacity Credits were associated with the Facility in the Trading Interval; or

(b) the MW quantity of Refund Exempt Planned Outage for the Facility in the Trading Interval, divided by the number of Capacity Credits associated with the Facility in the Trading Interval.

Refund Payable Planned Outage: Means a Planned Outage of a Scheduled Generator for which a Facility Reserve Capacity Deficit Refund is payable, as determined by the IMO under clause 4.26.1C.

Reserve Capacity Performance Improvement Report: A report including the information specified in clause 4.27.4A of the Market Rules, provided by a Market Participant to the IMO under clause 4.27.5(b) in response to a request made under clause 4.27.3(b).

Reserve Capacity Performance Report: A report including the information specified in clause 4.27.4 of the Market Rules, provided by a Market Participant to the IMO under clause 4.27.5(a) in response to a request made under clause 4.27.3(a).

Appendix 1. Responses to issues raised in the second submission period

	Submitter	Comment/Change Requested	IMO's Response
1.	Synergy	Synergy notes that the IMO is undertaking a significant review of the definition of a Forced Outage, which will in turn impact on the definition of a Planned Outage. Synergy is concerned that should there be a significant change to those definitions, then the proposed caps may no longer be appropriate. Synergy recognises that the IMO committed, at the 8 May 2013 public workshop, to undertake a further review if needed. Synergy would like to reiterate the importance of that further review on the proposed caps once the definitions of outages are complete.	Noted. If any significant changes are made to the definitions of Forced Outage and Planned Outage then the IMO will assess at that time whether, as a consequence, any changes are required to the caps outlined in this proposal.
2.	Alinta	The proposed amendments will result in three separate percentage measures of poor availability of a Scheduled Generator, set at differing levels, in the Market Rules: • Reserve Capacity Performance Monitoring - Equivalent Planned Outage Hours of greater than 20% (i.e. exceeds 1750 hours during the preceding 12 Trading Months); • Reserve Capacity Certification – From 2020/21 onwards a Forced Outage rate of 10% and combined Forced and Planned Outage rate of 20% (as reflected in the Outage Rate Limit Table); and • Capacity Refunds – Refund Exempt Planned Outage Count of 17.5% (calculated over the 1000 Trading Days preceding the relevant Trading Day). It is unclear whether it would be possible to better align these measures given that all relate to incentivising availability of Scheduled Generators. Alinta notes that as currently proposed this will potentially require monitoring of three different streams of information thereby creating additional complexity. It is acknowledged that the current rules require potential monitoring of two streams of information (for the purposes of performance monitoring and certification) however it would be advantageous to consider whether this could be simplified as part of this rule change process.	While it is desirable to avoid unnecessary complexity and obligations in the Market Rules, in this instance the IMO considers the level of complexity is justified. The three measures are complementary with each performing a specific function for which a different measure is appropriate. For example: • the threshold used for Reserve Capacity performance monitoring is expressed in Equivalent Planned Outage Hours rather than as a Planned Outage rate to avoid selecting new Facilities that often experience a comparatively high Planned Outage rate over the first few months of operation; • the Refund Exempt Planned Outage Count is designed to ignore Planned Outages taken prior to the commencement of the Amending Rules and to ensure Planned Outages that incur Facility Reserve Capacity Deficit Refunds do not also contribute to the rolling cap; and • the effective Planned Outage rate for the Refund Exempt Planned Outage Count (17.5%) is lower than the effective rate used in Reserve Capacity performance monitoring (20%) as it applies over a longer period (1000

	Submitter	Comment/Change Requested	IMO's Response
			Trading Days versus 12 months), which reduces the potential impact of major outages and other one-off events. The IMO also notes that all three measures are derived from the same information stream (the outage history of a Facility), and are either very simple to calculate or (for the Refund Exempt Planned Outage Count) published by the IMO.
3.	Alinta	Alinta maintains the view that the ability for the IMO to request performance reports will create regulatory burden and is not required to address the core issue under consideration by the IMO.	The IMO notes that these reports provide the IMO with valuable information (potentially spanning a period of time) to assist it in making decisions under clause 4.11.1(h). This information cannot be obtained through the other aspects of the proposal. Additionally, the IMO considers that the regulatory burden associated with performance reporting will not be excessive or unnecessary because: • unless a Market Participant has a Facility with a very high Planned Outage rate it will be completely unaffected by this aspect of the proposal; and • the IMO retains the discretion not to request performance reports for Facilities which have breached the proposed threshold, and must assess whether the excessive outage rate is "attributable to specific, infrequent events or is indicative of an underlying performance deficiency".
4.	Synergy	Synergy considers that Reserve Capacity Performance Reports and Reserve Capacity Performance Improvement Reports are not needed as they create unnecessary regulatory burden and the incentives created by the other aspects of this Rule Change proposal are sufficient. Synergy refers the IMO to the high level analysis of historic compliance of Verve Energy thermal facilities against the proposed Performance Report threshold of 1750 hours of Planned Outage per year, based on data from 1980 to 2013 provided in the confidential submission to the	Please refer to the IMO's response to issue 3. The IMO has reviewed the analysis provided by Verve Energy during the first submission period but does not consider it provides any convincing evidence that the threshold is too low. Some of the Facilities included in the analysis have shown excessively high Planned Outage rates for some time, and it appears quite appropriate that performance reports might be required for them. The IMO notes that even assuming the alternative threshold

	Submitter	Comment/Change Requested	IMO's Response
		IMO during the first submission period. Notwithstanding the IMO's proposed discretion with regards to requesting the performance reports, this analysis showed that, on average, Verve Energy would have submitted three to four performance reports a year with each unit reporting around once every four years. This exceedance rate indicates that the IMO's threshold is too low.	suggested by Verve Energy in the first submission period (2191 hours instead of 1750 hours), Verve Energy would still have been required to submit multiple reports per year on average, due to the poor availability record of its thermal plant.
5.	Bluewaters Power	With regard to clause 4.27.5(a), Bluewaters considers that reports which may require technical analysis or specialist input, and particularly when requested by the IMO (i.e. they are not already underway or available) can take longer than 20 Business Days. Depending on the nature of the report requested the IMO should be able to afford some reasonable flexibility to the 20 day requirement or perhaps be prepared to accept a less technical scope of work to accommodate the 20 days requirement.	The IMO considers that 20 Business Days is a sufficient period for a Market Participant to provide a report under proposed clause 4.27.5(a), because for this clause to be activated an excessive level of Planned Outages would have already been taken for a Facility, which the relevant Market Participant should be aware of and monitoring. The IMO therefore considers that a Market Participant in this position should have sufficient knowledge and awareness of the issues facing its Facility for it to be able to provide the report within 20 Business Days.
		Note: Issues 6-9 relate to an issue (No 19 in the Draft Rule Change Report) raised by Tesla in the first submission period and the IMO's response to that submission. Tesla's issue and the IMO's response are reproduced below for convenience.	
19	*Tesla*	*Now that a "limit" on Planned Outages has been proposed, it would not be correct to count Planned Outages (that would otherwise be Consequential Outages had the generator not submitted a Planned Outage request) against the percentage caps proposed.* *Tesla proposes that the Network Operator be given the ability to lodge Consequential Outage requests to both the generator and System Management, and if accepted, then the generator would be classified as being on "Consequential Outage" for that period of time. This Consequential Outage should not be counted against either the Forced or Planned Outage allowances proposed in clause 4.11.1D.*	*The IMO does not support Tesla's suggestion for the following reasons.* • *System Management needs to know whether a Facility is undertaking maintenance during an outage, as this may affect how quickly the Facility can be brought back into service if the associated network outage is cancelled or ends early due to system security issues.* • *Any maintenance undertaken by a generator during a network outage would presumably reduce the maintenance that needed to be undertaken at other times, and so it is reasonable that these outages should be counted towards the Facility's Refund Exempt*

	Submitter	Comment/Change Requested	IMO's Response
			Planned Outage Count. • *A Network Operator may not always have the details required to log a Consequential Outage for a generator, in particular where the exact timing and impact on specific generators is not known in advance.*
6.	Bluewaters Power	Bluewaters strongly disagrees with the IMO's stance on issue 19 for the following reasons: • A network Outage causing a Consequential Outage for a generation facility is not always forecast and can be acknowledged ex-post of trading nominations (e.g. a faulty transformer causes a localised outage for 2-3 days) - thus the opportunity to perform maintenance is almost completely lost. • A scheduled network outage (causing a Consequential Outage for a generation facility) may not actually give enough notice for a participant to plan any maintenance of significance. • The IMO's presumption that any outage performed would presumably negate or reduce the duration of some future planned outage or maintenance is absolutely incorrect. In the case of annual outages a participant will likely have a much longer critical path (unless the Consequential Outage is particularly long, e.g. over 14 days) and such long outages require months of planning and lead-time. As such the facility is simply seeking to get some value from an outage that is forced due to third party activities and that is otherwise going to be an unplanned expense. • Furthermore, performing some preventative maintenance during a CO may improve near-term reliability, however that same maintenance may still need to be performed at the next outage or in fact may subsequently misalign that maintenance with the asset management plan.	The IMO acknowledges that: • a Market Participant may incur costs as a result of a Consequential Outage; • the timing of the network outage may prevent a Market Participant from being able to undertake any useful maintenance on its Facility; and • in some cases, maintenance to a Facility during a Consequential Outage may not reduce future maintenance requirements for that Facility, yet may improve the short term reliability of that Facility. The IMO however notes that since the commencement on 1 September 2012 of the Amending Rules for the Rule Change Proposal: Consequential Outage Correction (RC_2012_04) a Market Participant can choose whether to take a Planned Outage or claim a Consequential Outage when impacted by a network outage. If the Market Participant is able to undertake useful maintenance on its Facility (which may need to extend beyond the duration of the network outage) then it can take a Planned Outage; otherwise it can claim a Consequential Outage that will have no impact on its Refund Exempt Planned Outage Count. The IMO also notes that the various Planned Outage caps are quite generous and so a Market Participant is likely to be able to take advantage of a network outage to undertake some additional maintenance on its Facility without risking a breach of its Planned Outage caps.
7.	Bluewaters	If System Management requires a Consequential Outage of a	The IMO notes that if a Market Participant decides to take a

	Submitter	Comment/Change Requested	IMO's Response
	Power	generation facility and that network outage is shorter than planned, but the generation unit outage runs longer than the network outage, the IMO should consider that at the least, only the overrun days should count towards the Refund Exempt Planned Outage Count. A Consequential Outage can have some significant costs to a participant (particularly a synchronised facility) → shutdown and restart costs, additional unplanned maintenance (equivalent operating) hours, and potentially energy purchases to satisfy bilateral obligations. Bluewaters believes adding additional Planned Outage hours to the Refund Exempt Planned Outage Count is frankly adding insult to injury.	Planned Outage to coincide with a network outage (rather than claim a Consequential Outage) then the Facility will be unavailable and the maintenance work will be undertaken regardless of the duration of the network outage, unless there is an emergency and the Facility is recalled. In these situations the IMO sees no reason to treat the Planned Outage any differently to any other Planned Outage for the purposes of calculating the Refund Exempt Planned Outage Count and the other relevant Planned Outage caps.
8.	Bluewaters Power	The point that a 'Network Operator may not always have the details required to log a Consequential Outage for a generator' is not a reason to include those Consequential Outage days in the Facility's Refund Exempt Planned Outage Count. The Participant can simply lodge a Consequential Outage request after the event (as is the case now), there is no need to put any obligation on a third party.	The IMO notes that the quoted portion of its response to issue 19 was made in response to Tesla's suggestion that the Network Operator should be given the opportunity to lodge Consequential Outage requests to both the generator and System Management.
9.	Bluewaters Power	It appears the IMO's current Rule Change Proposal in this regard is simply trying to deny the participant/generator any 'consequential benefit' as a result of a Consequential Outage; however it is difficult to see what benefit this imposition provides to the market or the SWIS itself. The costs of a genuine Consequential Outage are likely to outweigh the 'benefits' of that outage and as noted earlier a Consequential Outage is in practice unlikely to reduce any future outage requirements for the Facility.	Please refer to the IMO's response to Tesla's original issue and to issue 6 above.
10.	Bluewaters Power	In regard to Comment 30, Appendix 2 of the Draft Rule Change Report, the IMO noted two reasons for not implementing a cap on Planned Outage Refund rates; i. Difficulty/expense to implement; and ii. the IMO aims to incentivise participants to adequately plan outages to times of highest availability. In this case Bluewaters is not satisfied that cost/difficulty is a justification for not considering the proposal. However, Bluewaters otherwise acknowledges that the IMO's intent to incentivise better (perhaps best practice) outage planning is well founded and justified.	The IMO agrees that the additional cost associated with limiting the refund multiplier to one is not likely to be substantial, and therefore agrees that in this situation cost considerations alone should not prevent the implementation of the most correct long-term solution. However, the IMO considers that the most correct long-term solution in this situation is for the Facility Reserve Capacity Deficit Refund calculations to be based upon the prevailing refund multipliers. As acknowledged by Bluewaters, this

	Submitter	Comment/Change Requested	IMO's Response
		There is no doubt that if Planned Outages can be approved when the refund multiplier is less than one that a participant should be incentivised to seek an alternate time to conduct their Planned Outage if possible.	provides a sharper incentive to Market Participants with Facilities which have poor availability to undertake discretionary maintenance when reserve levels are high, than would be the case if the refund multiplier was limited to one. The lower cost of this solution is simply an additional benefit, rather than a justification in itself.
11.	Synergy	Synergy is concerned that under the dynamic Reserve Capacity refund regime outlined in the Rule Change Proposal: Changes to the Reserve Capacity Price and the dynamic Reserve Capacity refund regime (RC_2013_20), there may now be additional, undue risk for Market Generators that have Facilities above the Refund Exempt Planned Outage cap and make a decision to undertake further Planned Outages. The IMO has noted that the proposed dynamic refund regime is 'expected to strengthen the incentives for maximising the availability of capacity in the energy market through *efficient scheduling of maintenance*… and reducing the risk of price spikes in the event of *unforseen supply interruptions'*. A Market Participant that schedules its maintenance appropriately (i.e. a planned supply interruption), and has the necessary approval to undertake that maintenance at that time, could be penalised at a higher rate due to other Planned Outages and other *unforseen* supply interruptions. Synergy can accept that there will be a penalty for taking Planned Outages over the proposed cap, but it cannot accept that this penalty be applied anywhere from a 0.25 refund factor to a maximum of 6 refund factor. Synergy notes that, in its first submission, Bluewaters Power suggested that where a Facility is granted a Planned Outage by System Management but is over the proposed cap then that Market Participant should not pay a refund greater than the 1x multiplier. Synergy does not agree with the IMO's rationale for not considering this change. As Synergy notes above, when a Market Participant has scheduled its maintenance when the reserve levels are highest (i.e. up to 2 years in advance) and other participants schedule maintenance	The IMO notes that in the Draft Rule Change Report it increased the cap on Refund Exempt Planned Outages, to within the limits suggested by Verve Energy and Bluewaters Power. Unless a Market Participant has a Facility with an excessive Planned Outage rate it will not have to pay *any* refunds for the Planned Outages it takes. The IMO considers that where a Facility has breached its Refund Exempt Planned Outage cap and then schedules a Planned Outage for a period when, due to an unforeseen circumstance, refund multipliers spike, the affected Market Participant should either reschedule its discretionary maintenance (and bid into an energy market which is likely to clear at high prices) or take the Planned Outage and pay the prevailing outage rate multiplier. The IMO considers that a higher refund rate is appropriate in these circumstances as it correctly reflects the adverse impacts of the Facility's poor availability. Please also refer to issue 10 above.

	Submitter	Comment/Change Requested	IMO's Response
		closer to real time or there are Forced Outages in real time, the Market Participant who scheduled its outage well in advance should not be liable for up to a 6x multiplier Facility Reserve Capacity Deficit Refund.	
12.	Synergy	Clause 4.11.1 currently notes that "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". In its Pre Rule Change Proposal "PRC_2013_16: Outages and the Application of Availability and Constraint Payments to Non-Scheduled Generators" the IMO recognises that, given the increasing significance of the Planned Outage and Forced Outage rate calculations, the outage rate calculation methodology should be transferred from the Facility Outages Power System Operation Procedure into an Appendix of the Market Rules. Synergy agrees with this sentiment, however suggests that this occur as part of this Rule Change Proposal. Synergy considers that this will provide greater certainty and rigour in the calculation of Planned Outage and Forced Outage rates, which is vital to support this Rule Change Proposal.	As noted in the Draft Rule Change Report, the IMO considers it more practical to bundle these changes into PRC_2013_16 with other, related changes that also require updates to System Management's IT systems (and specifically the proposed changes to allow the provision of appropriate Outage details for Non-Scheduled Generators, to support the calculation of meaningful Planned Outage rates and Forced Outage rates for this Facility Class). The IMO notes that the implementation of this Rule Change Proposal is not dependent on the changes outlined in PRC_2013_16. The PSOP: Facility Outages already contains the appropriate calculations for Scheduled Generators. Any changes to the PSOP are subject to the formal Procedure Change Process, which the IMO considers provides sufficient certainty and rigour to support this Rule Change Proposal.
13.	System Management	System Management reiterates its view that the Planned and Forced Outage Rate calculations contained within Appendix 1 of the Facility Outages Power System Operation Procedure should be removed from the PSOP as it is not responsible for undertaking these calculations. In the Draft Rule Change Report the IMO proposed to insert these calculation methodologies into an appendix of the Market Rules as part of future Proposed Rule Change PRC_2013_16. However, System Management does not see any significant impediments to inserting these calculation methodologies as they currently stand as part of RC_2013_09.	Please refer to the IMO's response to issue 12.
14.	Synergy	This Rule Change Proposal defines Equivalent Planned Outage Hours (a new concept) as "calculated in accordance with the Power System Operation Procedure". PRC_2013_16 proposes to change this definition to refer to as "calculated ....in accordance with Appendix 10" of the Market Rules, but these changes cannot be in place in time for	The IMO notes that this proposal defines Equivalent Planned Outage Hours for a Facility as "the sum of the 'Planned Outage Hours' and the 'Equivalent Planned Derated Hours' for the Facility as calculated in accordance with the Power

	Submitter	Comment/Change Requested	IMO's Response
		the proposed commencement of RC_2013_09 on 1 May 2014. Synergy considers that the PSOP: Facility Outages should also be updated to include the calculation methodology for Equivalent Planned Outage Hours as it is likely that any PSOP changes could be completed and able to commence by the proposed commencement date for RC_2013_09. Synergy provided this feedback to System Management during its recent informal submission on the Facility Outages PSOP. However, System Management did not include this in its Procedure Change Proposal published on 10 February 2014.	System Operation Procedure". The current version of the PSOP: Facility Outages provides definitions for each of these terms (on page 17). The definitions are also included in the proposed amended PSOP for the Procedure Change Proposal: Changes to PSOP: Facility Outages as a result of RC_2012_11: Transparency of Outage Information (PPCL0026). The IMO does not consider that any further explanation of the terms is required in the PSOP.
15.	Synergy	In the Procedure Change Proposal: Changes to Market Procedure for Reserve Capacity Performance Monitoring (PC_2013_09) the IMO outlined some additional proposed changes to the Amending Rules for this Rule Change Proposal, which it intends to include in the Final Rule Change Report. This included the removal of the reference to "the target and actual availability and reliability of the Facility as measured by Industry Standard Generation Performance Indicators" in clause 4.27.4A(b). Accordingly the IMO noted that it intends to replace clause 4.27.4A(b) with a requirement for the Market Participant to provide details of any changes to the expected maximum number of days of Planned Outages previously provided by the Market Participant for a Trading Month, including adequate explanations for each change. Synergy notes that clause 4.11.1E of the proposed Amending Rules also includes a reference to Industry Standard Generation Performance Indicators.	Noted. The IMO has removed the reference to Industry Standard Generation Performance Indicators from clause 4.11.1E, as after further consideration it has concluded that the existing Planned Outage rate and Forced Outage rate measures are sufficient to benchmark the availability performance of the generation sector in the WEM against other markets.
16.	Synergy	Notes that the definition of Refund Exempt Planned Outage Count excludes Planned Outages that occurred prior to 1 March 2014 and suggests that this date be amended to reflect the new proposed commencement date of 1 May 2014.	Agreed. The proposed Amending Rules have been updated accordingly.
17.	Bluewaters Power	Suggests a minor insertion in clause 4.26.1D(b)(ii): '…the total amount of Facility Reserve Capacity Deficit Refunds associated…'	Agreed. The proposed Amending Rules have been updated accordingly.
18.	Bluewaters Power	Suggests that rather than calling a Planned Outage where a refund is payable a 'Non-Refund Exempt Planned Outage' it would be clearer to	Agreed. The proposed Amending Rules have been updated accordingly.

	Submitter	Comment/Change Requested	IMO's Response
		call this a 'Refund Payable Planned Outage' (i.e. remove the double negative).	

Appendix 2. Further Amendments to the Proposed Amending Rules

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

4.9.3. A Market Participant applying for certification of Reserve Capacity must provide to the IMO:

(a) the data specified in clause 4.10.1, in the format specified in the Market Procedure for Certification of Reserve Capacity ~~Procedure~~;

…

4.9.10. The IMO must document the procedure that:

(a) Market Participants must follow in the process of applying for Certified Reserve Capacity; and

(b) the IMO must follow in processing applications for Certified Reserve Capacity, including how Certified Reserve Capacity is assigned and Reserve Capacity Obligation Quantities are set,

in the Market Procedure for Certification of Reserve Capacity ~~Procedure~~. The IMO and Market Participants must follow that documented Market Procedure when Market Participants are applying for Certified Reserve Capacity and when the IMO is processing those applications.

4.11.1E. The IMO must undertake a review, to be completed by 31 December 2018, of the operation of clause 4.11.1(h) in which it must consider the appropriate thresholds under clause 4.11.1D for Capacity Years after 2020/2021. The review must include, at a minimum, an assessment of:

(a) the availability performance of the generation sector in the Wholesale Electricity Market compared with analogous generating plant in other markets~~, using Industry Standard Generation Performance Indicators for benchmarking~~;

(b) the number of Facilities in the SWIS to which the criteria in clause 4.11.1(h) have applied in each of the previous five Capacity Years; and

(c) the impact on the Wholesale Electricity Market of decisions made by the IMO under clause 4.11.1(h) in the previous five Capacity Years.

4.26.1A. The IMO must calculate the Reserve Capacity Deficit refund for each Facility ("**Facility Reserve Capacity Deficit Refund**") for each Trading Month m as the lesser of:

(a) the sum over all Trading Intervals t in Trading Month m of the product of:

i the Off-Peak Trading Interval Rate or Peak Trading Interval Rate determined in accordance with the Refund Table applicable to Trading Interval t; and

ii the Reserve Capacity Deficit in Trading Interval t,

where the Reserve Capacity Deficit for a Facility is equal to whichever of the following applies:

iii. if the Facility is required to have submitted a Forced Outage under clause 3.21.4, or is a Scheduled Generator that has taken a ~~Non-~~Refund Payable ~~Exempt~~ Planned Outage, the total Forced Outage and ~~Non-~~Refund Payable ~~Exempt~~ Planned Outage in that Trading Interval measured in MW; or

…

4.26.1C. Where System Management notifies the IMO under clause 7.13.1A(b) of the Planned Outage of a Scheduled Generator in a Trading Interval, the IMO must determine that Planned Outage to be:

(a) if the Refund Exempt Planned Outage Count for the Facility, calculated over the 1000 Trading Days preceding the Trading Day in which the Trading Interval falls, is less than 8400 – a Refund Exempt Planned Outage; or

(b) otherwise – a ~~Non-~~Refund ~~Exempt~~ Payable Planned Outage.

4.26.1D. The IMO must undertake a review, to be completed by 31 December 2018, of whether the limit for the Refund Exempt Planned Outage Count referred to in clause 4.26.1C should be modified to better address the Wholesale Market Objectives. The review must include, at a minimum, an assessment of:

…

(b) for each Scheduled Generator and each year since the introduction of the limit on Refund Exempt Planned Outages:

…

ii. the total amount of Facility Reserve Capacity Deficit Refunds associated with ~~Non-~~Refund ~~Exempt~~ Payable Planned Outage; and

…

4.26.2. The IMO must determine the net STEM shortfall (“Net STEM Shortfall”) in Reserve Capacity supplied by each Market Participant p holding Capacity Credits associated with a generation system in each Trading Interval t of Trading Day d and Trading Month m as:

SF(p,m,d,t) = Max RCDF(p,d,t), RCOQ(p,d,t) - A(p,d,t)) - RCDF(p,d,t)

Where:

A(p,d,t) = Min(RCOQ(p,d,t), CAPA(p,d,t));

RCOQ(p,d,t) for Market Participant p and Trading Interval t of Trading Day d is equal to:

…

(e) subject to clause 4.26.2(c), for the case where Market Participant p is Synergy, the sum of:

…

v. the greater of zero and (BSFO(p,d,t) – RTFO(p,d,t)).

RCDF(p,d,t) = RTFO(p,d,t) + RTNREPO(p,d,t);

RTNREPO(p,d,t) = Sum (f∈F, Max(0, NREPO(f,d,t) – BSPO(f,d,t));

NREPO(f,d,t) is the total MW quantity of ~~Non-~~Refund ~~Exempt~~ Payable Planned Outage associated with Facility f for Trading Interval t of Trading Day d;

…

4.27.2. By the twenty-fifth day of each month, the IMO must assess the number of Equivalent Planned Outage Hours taken in the preceding 12 Trading Months by each ~~Facility~~ Scheduled Generator and Non-Scheduled Generator assigned Capacity Credits for the current Capacity Year.

4.27.3. If the number of Equivalent Planned Outage Hours for a Facility, as determined under clause 4.27.2, exceeds 1750 hours for the preceding 12 Trading Months, the IMO may require the Market Participant holding Capacity Credits for that Facility to provide to the IMO:

(a) a Reserve Capacity Performance Report ~~report~~ as described in clause 4.27.4; and

(b) a Reserve Capacity Performance Improvement Report ~~report~~ as described in clause 4.27.4A, to be provided at specified intervals, but not more frequently than once per quarter

4.27.3A. In making its decision whether to require a report under clause 4.27.3, the IMO must assess whether the number of Equivalent Planned Outage Hours taken by the Facility in the previous 12 Trading Months was attributable to specific, infrequent events or is indicative of an underlying performance deficiency, and may consider any matters it ~~considers~~ deems relevant in making this assessment. The IMO may consult System Management in deciding whether or not to require a report.

4.27.4. A Reserve Capacity Performance Report ~~report provided to the IMO under clause 4.27.3(a)~~ must include:

(a) explanations of all Planned Outages taken by the Facility in the preceding 12 Trading 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 36 Trading Months commencing from the Trading Month in which the report is requested, including adequate explanation to make clear the reason for each Planned Outage;

(bA) the relationship of the Planned Outages to the long term asset management strategy and established maintenance plan for the Facility;

(c) measures being undertaken or proposed by the Market Participant to increase the availability of the Facility, and their actual and anticipated effect on the frequency of Planned Outages; and

(d) any other information concerning the availability of the Facility that the IMO may request.

4.27.4A. A Reserve Capacity Performance Improvement Report ~~report provided to the IMO under clause 4.27.3(b)~~ must include:

(a) descriptions of the measures proposed, being undertaken or already undertaken by the Market Participant to increase the availability of the Facility;

(b) details of any changes to the expected maximum number of days of Planned Outages to be taken by the Facility for a Trading Month previously provided by the Market Participant under clause 4.27.4(b) or this clause 4.27.4A(b), including adequate explanations for each change ~~the target and actual availability and reliability of the Facility as measured by Industry Standard Generation Performance Indicators~~; and

(c) explanation of any variation between expected and actual improvement of the availability of the Facility as a result of the measures taken.

4.27.5. A Market Participant must:

(a) provide a Reserve Capacity Performance Report ~~report described in clause 4.27.3(a)~~ to the IMO in a format specified in the Market Procedure for Reserve Capacity Performance Monitoring ~~Procedure~~ within 20 Business Days of being requested to do so~~.~~; and

(b) provide a Reserve Capacity Performance Improvement Report ~~report described in clause 4.27.3(b)~~ to the IMO in a format specified in the Market Procedure for Reserve Capacity Performance Monitoring ~~Procedure~~ by the date specified by the IMO under clause 4.27.3(b).

4.27.12. The IMO must document the procedure to be followed in performing Reserve Capacity monitoring in the Market Procedure for Reserve Capacity Performance Monitoring

~~Procedure~~, and the IMO, System Management, and Market Participants must follow that documented Market Procedure in the performance of Reserve Capacity monitoring. Amongst other things, the Market Procedure must list the documents and other items that may be required by the IMO as supporting evidence in accordance with clause 4.27.11D.

4.28C.15. The IMO must document the process for applying for and approving Capacity Credits in accordance with this clause 4.28C in the Market Procedure for Certification of Reserve Capacity ~~Procedure~~, and the IMO and Market Participants must follow that documented Market Procedure.

Glossary

Equivalent Planned Outage Hours: ~~means~~ Means, in respect of a Facility, the sum of the "Planned Outage Hours" and the "Equivalent Planned Derated Hours" for the Facility as calculated in accordance with the Power System Operation Procedure.

~~**Industry Standard Generation Performance Indicators**: means the most recent edition of the IEEE Standard Definitions for Use in Reporting Electric Generating Unit Reliability, Availability, and Productivity (IEEE 762), as published by the Institute of Electrical and Electronics Engineers, or appropriate equivalent.~~

~~**Non-Refund Exempt Planned Outage**: means a Planned Outage of a Scheduled Generator for which a Facility Reserve Capacity Deficit Refund is payable, as determined by the IMO under clause 4.26.1C.~~

Reserve Capacity Performance Improvement Report: A report including the information specified in clause 4.27.4A of the Market Rules, provided by a Market Participant to the IMO under clause 4.27.5(b) in response to a request made under clause 4.27.3(b).

Reserve Capacity Performance Report: A report including the information specified in clause 4.27.4 of the Market Rules, provided by a Market Participant to the IMO under clause 4.27.5(a) in response to a request made under clause 4.27.3(a).

Refund Exempt Planned Outage: ~~means~~ Means a Planned Outage of a Scheduled Generator for which a Facility Reserve Capacity Deficit Refund is not payable, as determined by the IMO under clause 4.26.1C.

Refund Exempt Planned Outage Count: ~~means~~ Means, in respect of a Scheduled Generator and a period of time, the sum over all Trading Intervals in that period of:

(a) zero, if the Trading Interval occurs before 8:00 AM on 1 May ~~March~~ 2014 or if no Capacity Credits were associated with the Facility in the Trading Interval; or

(b) the MW quantity of Refund Exempt Planned Outage for the Facility in the Trading Interval, divided by the number of Capacity Credits associated with the Facility in the Trading Interval.

Refund Payable Planned Outage: Means a Planned Outage of a Scheduled Generator for which a Facility Reserve Capacity Deficit Refund is payable, as determined by the IMO under clause 4.26.1C.