

The background of the lower half of the page is a blue-tinted photograph. On the left side, there are several large wind turbines with their blades extending outwards. On the right side, there are several high-voltage electrical transmission towers (pylons) with power lines stretching across the frame. The overall scene is a mix of renewable energy and traditional power infrastructure.

Independent Market Operator

**Final Rule Change Report
Title: Calculation of Availability Class
Quantity Correction**

RC_2011_14

Standard Rule Change Process

Date: 5 June 2012

CONTENTS

1. RULE CHANGE PROCESS AND TIMETABLE	5
2. PROPOSED AMENDMENTS.....	5
2.1 The Rule Change Proposal.....	5
2.2 The IMO's Initial Assessment of the Proposal	5
3. CONSULTATION	6
3.1 The Market Advisory Committee	6
3.2 Submissions received during the first submission period	7
3.3 Further Consultation with Perth Energy.....	7
3.4 The IMO's response to submissions received during the first submission period.....	7
3.5 Submissions received during the second submission period.....	8
3.6 The IMO's response to submissions received during the second submission period	8
3.7 Public Forums and Workshops	9
4. THE IMO'S DRAFT ASSESSMENT.....	9
5. THE IMO'S PROPOSED DECISION	9
6. THE IMO'S ASSESSMENT	9
6.1 Additional amendments following the first submission period.....	10
6.2 Additional amendments following the second submission period	10
6.3 Wholesale Market Objectives	10
6.4 Practicality and Cost of Implementation	10
7. THE IMO BOARD'S DECISION	11
7.1 Reasons for the IMO Board's Decision	11
8. AMENDING RULES	11
8.1 Commencement.....	11
8.2 Amending Rules.....	11
APPENDIX 1: FURTHER AMENDMENTS TO THE PROPOSED AMENDING RULES	15

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EXECUTIVE SUMMARY

Proposed Amendments

System Management's Rule Change Proposal seeks to address a misalignment between clause 4.5.12(c) and Appendix 3 of the Wholesale Electricity Market Rules (Market Rules). There is an issue in the current Market Rules where the capacity requirement for Availability Class 4 may include capacity required for up to 48 hours per year, although Facilities in Availability Class 4 need only be available for 24 hours per year. A similar issue arises for Availability Classes 3 and 2.

The proposed amendments aim to correct the calculation algorithm in clause 4.5.12(c) to make it consistent with Appendix 3.

Consultation

- A Pre Rule Change Discussion Paper was discussed by the Market Advisory Committee (MAC) at its December 2011 meeting. There was some discussion on the urgency of this issue, given that the impending review of the Reserve Capacity Mechanism (RCM) was likely to include a reassessment of the Availability Classes. One member questioned whether the issue would necessarily lead to an increased risk to system security. A majority of MAC members agreed that the proposal should be progressed as it was important to bring consistency into the Market Rules before the publication of the 2012 Statement of Opportunities.
- System Management formally submitted the Rule Change Proposal on 20 January 2012. The first submission period was from 24 January 2012 to 7 March 2012. Submissions were received from Perth Energy, Landfill Gas & Power and Synergy. Two of the submissions received supported the proposed amendments. Perth Energy did not support the proposal, due mainly to its interpretation of clause 4.5.12 being different to that of System Management and the Independent Market Operator (IMO).
- The second submission period was held between 5 April 2012 and 7 May 2012. One submission was received from Synergy, which supported the proposed amendments and proposed some additional minor changes to add clarity to the capacity allocation algorithm in Appendix 3.

Assessment against Wholesale Market Objectives

The IMO has found that the proposed amendments better Wholesale Market Objective (a) and are consistent with the remaining Market Objectives.

Practicality and Cost of Implementation

No implementation costs have been identified by the IMO, System Management or any other Rule Participant. The IMO has not identified any issues with the practicality of implementing the proposed changes.

The IMO Board's Decision

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

Next steps

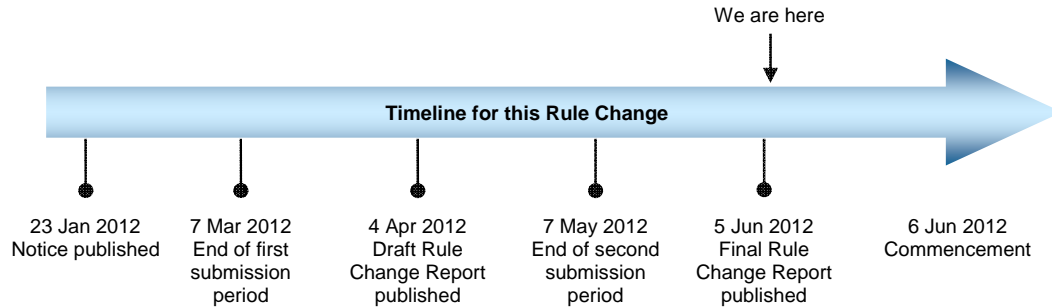
The Amending Rules resulting from RC_2011_14 will commence at 8:00 AM on 6 June 2012.

1. RULE CHANGE PROCESS AND TIMETABLE

On 20 January 2012 System Management submitted a Rule Change Proposal regarding amendments to clause 4.5.12 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.

The key dates in processing this Rule Change Proposal are:



2. PROPOSED AMENDMENTS

2.1 The Rule Change Proposal

System Management's Rule Change Proposal seeks to correct a misalignment between the IMO's calculation of the capacity associated with each Availability Class for a Capacity Year and the IMO's procurement of that capacity. Currently under clause 4.5.12(c) of the Market Rules the calculation of the quantity of capacity required in each of Availability Classes 2, 3 and 4 is inconsistent with the hours of availability prescribed for those Availability Classes in Appendix 3. For example, the capacity requirement for Availability Class 4 may include capacity required for up to 48 hours per year, although Facilities in Availability Class 4 need only be available for 24 hours per year. This may lead to an increased risk to system reliability.

For full details of the Rule Change Proposal please refer to the IMO Web Site: http://www.imowa.com.au/RC_2011_14.

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

3.1 The Market Advisory Committee

The Market Advisory Committee (MAC) discussed the proposal at its 14 December 2011 meeting. At this meeting, Mr Brendan Clarke presented the proposal as a Pre Rule Change Discussion Paper. The following points were raised by MAC members:

- Mr John Rhodes queried whether the required hours of availability per year for Availability Class 1 was being changed from 96 to 72. Ms Jenny Laidlaw confirmed that under the proposed changes to clause 4.5.12(c) the forecast of capacity required for 96 hours per year was no longer used.
- The Chair passed on some comments on the proposal sent to him by Mr Corey Dykstra prior to the meeting. Mr Dykstra had commented that it was unclear whether the issue identified by System Management would lead to increased risk to system reliability. Mr Greg Ruthven from the IMO had written correspondence with Mr Dykstra explaining that the IMO agreed with System Management's proposal and its concerns regarding system reliability and security, though noted that issues would only arise in a marginal scenario. As suggested in the Pre-Rule Change proposal, the Availability Curve calculation could result in a situation where the Rules consider the certified capacity to be sufficient, but the actual availability of that capacity would not allow the reliability criterion to be completely satisfied.
- Mr Shane Cremin noted that the proposal did not have any impact on what DSP providers can bring into the market. Mr Cremin queried whether the proposal could be varied so that a DSP was made to provide at least 48 hours of availability for certification in Availability Class 4. The Chair suggested that the upcoming review of the Reserve Capacity Mechanism (RCM) was likely to review the availability requirements for DSM. Mr Clarke advised that System Management had considered the option suggested by Mr Cremin, but had chosen the option presented in PRC_2011_14 as it believed that this would be easier to implement in the short term. Mr Clarke considered that the changes were only likely to be in effect for the next Statement of Opportunities (SOO), as they would be overtaken by the outcomes of the RCM review.
- MAC members discussed whether there was a need to progress the rule change further given that its results would be overtaken by the impending RCM review.
- Mr Ben Tan raised an issue regarding the load forecast. Mr Tan noted that System Management must use Demand Side Programmes (DSPs) at the perfect times in order to make the load forecast accurate and to do this it would need to predict the peak intervals with 100% accuracy. Mr Clarke agreed that this was true but noted the issue was not something that could be resolved easily.
- Dr Paul Biggs suggested that the effect of the change would be trivial when compared to the effect of forecast errors contained within the SOO.
- The MAC supported the progression of PRC_2011_14 into the formal rule change process.

Further details are available in the MAC meeting minutes available on the IMO Web Site: http://www.imowa.com.au/MAC_45

3.2 Submissions received during the first submission period

The first submission period for this Rule Change Proposal was between 24 January 2012 and 7 March 2012. Submissions were received from Landfill Gas & Power (LGP), Perth Energy and Synergy.

LGP and Synergy supported the Rule Change Proposal and its “high” urgency classification, with Synergy recommending its progression via the Fast Track Rule Change Process. Synergy also suggested some amendments to the Availability Class table in Appendix 3.

Perth Energy considered that clause 4.5.12 was ambiguous, but did not agree with System Management’s assessment that there was a misalignment between that clause and Appendix 3. Perth Energy considered that the proposed changes would introduce inconsistencies between clause 4.5.12 and Appendix 3 and could result in no capacity being assigned to Availability Class 4. Perth Energy raised a separate concern with the wording of clauses 4.5.12(c)(iii) and 4.5.12(c)(iv).

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

Submitter	Wholesale Market Objective Assessment
LGP	Better address Wholesale Market Objective (a) and consistent with the remaining Wholesale Market Objectives
Synergy	None provided
Perth Energy	RC_2011_14 would have a marginally detrimental impact on achieving Wholesale Market Objectives (a) and (d)

A copy of all submissions in full received during the first submission period is available on the IMO Web Site: http://www.imowa.com.au/RC_2011_14.

3.3 Further Consultation with Perth Energy

After reviewing Perth Energy’s submission, the IMO requested clarification from Perth Energy regarding its interpretation of clause 4.5.12. Perth Energy provided an addendum to its original submission that clarified its interpretation of the relevant clause. The full text of this addendum is available on the IMO Web Site.

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

In response to the issues raised by Perth Energy regarding the interpretation of clause 4.5.12, the IMO provided further details of its application in section 4.5 of the Draft Rule Change Report. Perth Energy also raised an issue with the wording of clauses 4.5.12(c)(iii) and 4.5.12(c)(iv). The IMO made amendments to the wording of these clauses to clarify their intent.

In response to Synergy’s suggestions for Appendix 3, the IMO proposed some amendments to clarify the rules for the assignment of capacity offers to Availability Classes. Synergy also suggested that this Rule Change Proposal should be fast-tracked in response to which the IMO

noted that the proposal was initially submitted under the Standard Rule Change Process and that the current timeline allowed for the Amending Rules to commence before the publication of the 2012 Statement of Opportunities (SOO).

The IMO's responses to submissions received during the first submission period are detailed in Section 4.4 of the Draft Rule Change Report available on the IMO Web Site: http://www.imowa.com.au/RC_2011_14

3.5 Submissions received during the second submission period

Following publication of the Draft Rule Change Report, the second submission period was between 5 April 2012 and 7 May 2012.

The IMO received one submission from Synergy. Synergy supported the Rule Change Proposal and agreed with the amendments proposed in the Draft Rule Change Report to both clause 4.5.12(c) and Appendix 3.

Synergy suggested an additional amendment to the Appendix 3 preamble, to clarify that accepted capacity offers that exceed the capacity requirement of a particular Availability Class can be used to meet the capacity requirement of the next Availability Class.

Synergy considered that the proposed amendments would allow the Market Rules to better achieve Wholesale Market Objective (a) by ensuring that the potential for mismatch between capacity requirements and Facility availability in each Availability Class is removed and there is adequate capacity available in each Availability Class to cover the Availability Curve.

A copy of Synergy's submission in full received during the second submission period is available on the IMO Web Site: http://www.imowa.com.au/RC_2011_14

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

The IMO notes that in its submission, Synergy supported the Rule Change Proposal and the proposed amendments presented in the Draft Rule Change Report.

However, Synergy raised an issue with the interpretation of the algorithm mentioned in Appendix 3 to assign various capacity offers to different Availability Classes. Synergy is of the opinion that Step 2A can be interpreted to mean that once an offer in an Availability Class is accepted, it cannot, given it has been removed from the set of active offers, be applied to meet the capacity requirement of a lower Availability Class. Synergy proposed additional amendments to the Appendix 3 preamble to make it clear that capacity offers from an Availability Class with higher availability can be used to satisfy the capacity requirement of an Availability Class with lower availability.

The IMO notes that in practice the algorithm is applied as it is intended, which is to use excess capacity offers from a higher Availability Class to fulfil the requirements of a lower Availability Class. The IMO considers that the current Market Rules support this approach and that Synergy's suggested interpretation of Appendix 3 is not one a reasonable person would make given the purpose of the Appendix. However, the IMO agrees with Synergy that greater clarity would be beneficial and has decided to include an example in the Amending Rules to clarify the

intention in the Appendix 3 preamble. Details of this amendment are provided in Appendix 2 of this Final Rule Change Report.

3.7 Public Forums and Workshops

No public forums or workshops were held in relation 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 IMO's Web Site).

5. THE IMO'S PROPOSED DECISION

The IMO's proposed decision was to accept the Rule Change Proposal as modified in section 5.1 and Appendix 1 of the Draft Rule Change Report.

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

- will allow the Market Rules to better address Wholesale Market Objective (a);
- are consistent with the remaining Wholesale Market Objectives;
- have the support of the majority of MAC members; and
- have the support of two of the three submissions received during the first submission period.

6. THE IMO'S ASSESSMENT

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

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

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

The IMO notes that there has not been any applicable policy direction from the Minister in respect of this Rule Change nor has it commissioned a technical review in respect of this Rule Change Proposal. A summary of the views expressed in submissions and by the MAC is available in section 3 of this Final Rule Change Report.

Details of the additional amendments to the Amending Rules made following the first and second submission periods are presented in sections 6.1 and 6.2 below. The IMO's assessment of the Rule Change Proposal, inclusive of further amendments made following the first and second submission periods, is outlined in the following sub-sections.

6.1 Additional amendments following the first submission period

Following the first public submission period the IMO made some additional changes to the proposed Amending Rules to reflect suggestions received in submissions.

The changes the IMO made to the Amending Rules presented in the Rule Change Proposal are outlined in section 5.1 and Appendix 1 of the Draft Rule Change Report.

6.2 Additional amendments following the second submission period

Following the second public submission period the IMO has made some additional changes to the proposed Amending Rules to reflect suggestions received during the second submission period.

The changes the IMO made to the Amending Rules presented in the Draft Rule Change Report are outlined in detail in Appendix 1 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, will not only be consistent with the Wholesale Market Objectives but also allow the Market Rules to better achieve Wholesale Market Objective (a).

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 will promote reliability of electricity supply by ensuring that the hours of availability of Facilities are equal to or greater than the load which they are meant to serve.

The IMO also considers that the proposed amendments will improve the integrity of the overall Market Rules by clarifying their application and are consistent with the other Wholesale Market Objectives.

6.4 Practicality and Cost of Implementation

Cost:

The IMO considers that the proposed amendments do not have any cost implications associated with them. The proposed amendments do not require any changes to the IMO's or System Management's systems or procedures. In addition, there are no identified costs for Rule Participants.

Practicality:

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

7. THE IMO BOARD'S DECISION

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

7.1 Reasons for the IMO Board's Decision

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

- will allow the Market Rules to better address Wholesale Market Objective (a);
- are consistent with the remaining Wholesale Market Objectives;
- have the support of the majority of MAC members; and
- have the support of the majority of the submissions received during the first and second submission periods.

Additional detail outlining the analysis behind the IMO Board's 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 commence at **8.00 am** on 6 June 2012.

8.2 Amending Rules

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

- 4.5.12. An Availability Curve for a Capacity Year is to contain the following information:
- (a) the forecast capacity, in MW, required for more than 24 hours per year, 48 hours per year, and 72 hours per year ~~and 96 hours per year~~;
 - (b) the minimum capacity required to be provided by generation capacity if Power System Security and Power System Reliability is to be maintained. This minimum capacity is to be set at a level such that if:
 - i all Demand Side Management capacity (excluding Interruptible Load used to provide Spinning Reserve to the extent that it is anticipated to provide Certified Reserve Capacity), were activated during the

Capacity Year so as to minimise the peak demand during that year;
and

- ii the Planning Criterion and the criteria for evaluating Outage Plans set out in clause 3.18.11 were to be applied to the load scenario defined by clause 4.5.12(b)(i), then

it would be possible to satisfy the Planning Criterion and the criteria for evaluating Outage Plans set out in clause 3.18.11, as applied in ~~paragraph~~ clause 4.5.12(b)(ii), using, to the extent that the capacity is anticipated to provide Certified Reserve Capacity, the anticipated installed generating capacity, the anticipated Interruptible Load capacity available as Spinning Reserve and, to the extent that further generation capacity would be required, an appropriate mix of generation capacity to make up that shortfall; and

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

- i. the capacity quantity associated with Availability Class 4 is the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under ~~paragraph~~ clause 4.5.12(b) and the quantity specified under ~~paragraph~~ clause 4.5.12(a) as being required for more than ~~48~~ 24 hours per year;

- ii. the capacity quantity associated with Availability Class 3 is:

- 1. the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under ~~paragraph~~ clause 4.5.12(b) and the quantity specified under ~~paragraph~~ clause 4.5.12(a) as being required for more than ~~72~~ 48 hours per year; less

- 2. the capacity quantity associated with Availability Class 4;

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

- 1. the Reserve Capacity Target for the Capacity Year less the greater of the quantity specified under ~~paragraph~~ clause 4.5.12(b) and the quantity specified under ~~paragraph~~ clause 4.5.12(a) as being required for more than ~~96~~ 72 hours per year; less

- 2. the ~~total~~ sum of the capacity quantity quantities associated with ~~each of~~ Availability Class 3 or and Availability Class 4;

- iv. the capacity quantity associated with Availability Class 1 is:

- 1. the Reserve Capacity Target for the Capacity Year; less

2. the ~~total~~ sum of the capacity quantity quantities associated with each of Availability Class 2, Availability Class 3 ~~or~~ and Availability Class 4;

Appendix 3: Reserve Capacity Auction & Trade Methodology

...

The parameter “a” denotes the active Availability Class where “a” can have a value of {1, 2, 3, 4}. Availability Class 1 has the highest availability requirement, followed by Availability Class 2, Availability Class 3 and then Availability Class 4. All Certified Reserve Capacity is assigned an Availability Class. For the purpose of identifying which capacity can be applied to satisfying capacity requirements the minimum availability of each Availability Class is set to the maximum availability of the next Availability Class. However the algorithms in this appendix allow capacity from an Availability Class with higher availability to be used in place of capacity from an Availability Class with lower availability. For example, any capacity accepted from Availability Class 1 that is in excess of the capacity requirement for Availability Class 1 will be available to meet the capacity requirement for Availability Class 2. The following table indicates the required availability of capacity offered for each Availability Class:

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

All Certified Reserve Capacity associated with Interruptible Loads, Demand Side Programmes or Dispatchable Loads is ~~explicitly~~ assigned an Availability Class according to the following table, where “Hours of Availability” is the maximum number of hours of availability per year specified for the relevant Facility under clause 4.10.1(f)(ii).

<u>Hours of Availability</u>	<u>Availability Class (i.e. value of “a”)</u>
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<u>≥ 72</u>	<u>2</u>
<u>≥ 48 and < 72</u>	<u>3</u>
<u>≥ 24 and < 48</u>	<u>4</u>

~~whereas all~~ All other Certified Reserve Capacity is automatically in Availability Class 1.

...

APPENDIX 1: 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):

Appendix 3: Reserve Capacity Auction & Trade Methodology

...

The parameter “a” denotes the active Availability Class where “a” can have a value of {1, 2, 3, 4}. Availability Class 1 has the highest availability requirement, followed by Availability Class 2, Availability Class 3 and then Availability Class 4. All Certified Reserve Capacity is assigned an Availability Class. However the algorithms in this appendix allow capacity from an Availability Class with higher availability to be used in place of capacity from an Availability Class with lower availability. For example, any capacity accepted from Availability Class 1 that is in excess of the capacity requirement for Availability Class 1 will be available to meet the capacity requirement for Availability Class 2.

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