

ELECTRICITY INDUSTRY ACT 2004

ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY  
MARKET) REGULATIONS 2004

WHOLESALE ELECTRICITY MARKET RULES

~~Market Procedure for:~~ Reserve  
Capacity Procedure:

Reserve Capacity Testing

Version 2

**Commencement:** This Market Procedure is to have effect from 8:00am (WST) on the same date as the Wholesale Electricity Market Rule, in accordance with which this procedure is made ~~in accordance with~~, commences.

**Market Procedures Published by the Minister**

I, FRANCIS LOGAN, Minister for Energy for the State of Western Australia, under regulation 9(2) of the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* hereby approve the publication of the Reserve Capacity Testing Procedure contained in this document.

This Market Procedure is to have effect from 8:00am (WST) on the same date as the Wholesale Electricity Market Rule, in which this procedure is made in accordance with, commences.

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Dated at Perth this ..... day of .....2006.

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## Version history

<a href="#">21 September 2006</a>	<a href="#">Market Procedure for Reserve Capacity Testing as at Market Start</a>
<del><a href="#">XX XXX</a></del> -1 June 201009	IMO amended changes resulting from the Procedure Change Proposal PC 2009 10 (Version 2) <del>Proposed changes -- Procedure Change Proposal PC 2009 10</del>

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# 1. Reserve Capacity Testing Procedure

Each year, the Independent Market Operator (IMO) is required to verify and test the operation of Facilities holding Capacity Credits to ensure that the Reserve Capacity Obligations of Market Participants are met. There are two methods by which the IMO may verify the operation of a Facility. In particular the:

- (a) first method is by ~~observation of the~~ observing the Facility can operate at the required level at least once as part of normal market operations using Mmetered Schedules; and
- (b) second method ~~of verification~~ is by System Management conducting a test on:
  - i. in the case of a generation system, the Facilities ability to operate at the required level for not less than 60 minutes; or
  - ii. in the case of a Interruptible Load, Curtailable Load or Dispatchable Load, the process and systems to activate a reduction in demand without requiring demand to actually reduce ~~the Facility~~ [MR4.25.2].

The IMO must verify the operation of each gGeneration Facility at least twice a year, and each Curtailable Load once a year, within specified time periods, but may also conduct Facility verifications on an as required basis [MR4.25.1].

If the Facility fails the second test ~~if failed~~ the IMO must reduce the number of Capacity Credits assigned to a Facility to:

- (a) in the case of a generation system, ~~reflect the maximum capabilities achieved during testing~~ in either test performed (after an adjustment to the 41°C temperature equivalent values; or
- (b) in the case of a Dispatchable Load, Curtailable Load or Interruptible Load, to zero [MR4.25.4].

In the event that the IMO reduces the number of Capacity Credits associated with a Facility, the Market Participant may, subject to certain provisions, ask to have the Facility re-tested and have the Capacity Credits reassigned in the case that the Facility performs to the relevant level. Decisions by the IMO in regard to verification by observation, and to tests, are not reviewable decisions under clause 2.17.1 of the Market Rules.

## 1.1. Relationship with the Market Rules

- (a) This procedure has been developed in accordance with, and should be read in conjunction with sections 4.25 of the Wholesale Electricity Market (WEM) Rules (Market Rules).

(b) References to particular Market Rules within the procedure in bold and square brackets [MR XX] are current as at ~~28 October 2009~~ 21 April 2010. These references are included for convenience only and are not part of this procedure.

~~(e)~~ This procedure is made in accordance with ~~Market Rule~~ clause 4.25.14 of the Market Rules.

(c)

## 1.2. Interpretation

In this procedure, unless the contrary intention is expressed:

(a) terms used in this procedure have the same meaning as those given in the ~~Wholesale Electricity~~ Market Rules (made pursuant to the Electricity Industry (Wholesale Electricity Market) Regulations 2004);

(b) to the extent that this procedure is contrary or inconsistent with the Market Rules, the Market Rules shall prevail to the extent of the inconsistency;

(c) a reference to the Market Rules or Market Procedures includes any associated forms required or contemplated by the Market Rules or Market Procedures; and

~~(d)~~ words expressed in the singular include the plural or vice versa.

### ~~— Glossary and Defined Terms used in this Procedure~~

~~— Relevant Reserve Capacity Test Level means the required Reserve Capacity level, in MW, net of any parasitic or embedded loads and determined by the IMO for the purposes of conducting Reserve Capacity Tests under this Procedure and Section 4.25. of the Wholesale Electricity Market Rules.~~

~~— Request to Conduct Temperature Calibration is the request made by the IMO to conduct a calibration of the Temperature Measurement Systems associated with a Facility.~~

~~— Reserve Capacity Test means a test conducted in accordance with Clause(s) 4.25 of the Wholesale Electricity Market Rules.~~

~~— Temperature Measurement Consultant means a consultant or organisation appointed by the IMO to conduct calibrations of the Temperature Measurement Systems.~~

(d) ~~Temperature Measurement Systems means the sensors, systems and data used to measure ambient temperature at a Facility where the information is provided to System Management through the SCADA system.~~

## 1.3. Purpose

~~—~~ The purpose of this procedure is:

~~To~~ to describe the steps that:

- (a) the IMO must ~~take in fulfilling~~ follow in performing the Reserve Capacity Testing functions specified under the Market Rules; and
- ~~(b) To describe the steps that~~ Market Participants and System Management must follow in fulfilling the Reserve Capacity Testing functions under the Market Rules; ~~and~~.
- (b) \_\_\_\_\_

## 1.4. Application

This procedure applies to:

- ~~1.(a)~~ The IMO in conducting Reserve Capacity verifications and ~~verifications and tests~~ Tests;
- ~~(b)~~ Market Participants in complying with Reserve Capacity Ttests.

### ~~1.1.~~ **Overview**

~~4.(b) Each year, the IMO is required to verify; and test the operation of Facilities holding Capacity Credits to ensure that the Reserve Capacity Obligations of Market Participants are met. There are two methods by which the IMO may verify the operation of a Facility. The first method is by observation of the Facility using metered schedules. The second method of verification is by conducting a test on the Facility.~~

~~The IMO must verify the operation of each Facility at least twice a year, within specified time periods, but may also conduct Facility verifications on an as required basis. Following tests, the IMO may reduce the number of Capacity Credits assigned to a Facility and/or may reduce the Reserve Capacity Obligations associated with that Facility. In the event that the IMO reduces the number of Capacity Credits associated with a Facility, the Market Participant may, subject to certain provisions, ask to have the Facility re-tested and have the Capacity Credits reassigned in the case that the Facility performs to the relevant level. Decisions by the IMO in regard to verification by observation, and to tests, are not reviewable decisions under System Management in conducting Reserve Capacity Ttests.~~

(c) \_\_\_\_\_

## 1.5. Associated Market Procedures

1 The following IMO Market Procedures are associated with this procedure:

- (a) Declaration of Bilateral Trades and the Reserve Capacity Auction;
- (b) Capacity Credit Allocation;
- (c) Reserve Capacity Security;
- (d) Reserve Capacity Performance Monitoring; and

(e) Notices and Communications.

2. The following System Management Power System Operation Procedures are associated with this procedure:

(a) Facility Outages.

## **1.6. Glossary and Defined Terms used in this pProcedure**

1 **Invalid Test** is a test the results of which will be disregarded but which for the purposes of settlement will be considered to be a Reserve Capacity Test.

2 **Relevant Reserve Capacity Test Level** means, in the case of a generation system, the required Reserve Capacity level, in MW, net of any parasitic or embedded loads and determined by the IMO for the purposes of conducting Reserve Capacity Tests under this procedure and sSection 4.25. of the Market Rules.

~~*The following rule will commence on 1 October 2010, for additional information please refer to RC 2008-20:*~~

~~**Relevant Reserve Capacity Test Level means:**~~

~~in the case of a generation system, the required Reserve Capacity level, in MW, net of any parasitic or embedded loads and determined by the IMO for the purposes of conducting Reserve Capacity Tests under this procedure and section 4.25 of the Market Rules; or~~

~~in the case of a Curtailable Load, the reduction required to meet its maximum Reserve Capacity Obligation Quantity.~~

32 **Request to Conduct Temperature Calibration** is the request made by the IMO to conduct a calibration of the Temperature Measurement Systems associated with a Facility.

43 **Reserve Capacity Test** means a test conducted in accordance with clause(s) 4.25 of the Market Rules.

54 **Temperature Measurement Consultant** means a consultant or organisation appointed by the IMO to conduct calibrations of the Temperature Measurement Systems.

65 **Temperature Measurement Systems** means the sensors, systems and data used to measure ambient temperature at a Facility where the information is provided to System Management through the SCADA system.

76 **Temperature Dependence Curve:** refers to the information provided by a Market Participant under clause 4.10.1(e)(i) of the Market Rules. If a cChange in Capacity Credits occurs over a Reserve Capacity Year, the Temperature Dependence Curve will be:

(a) scaled to reflect the change in Capacity Credits at 41°C; or

(b) changed to reflect a new temperature dependence curve supplied by the Market Participant which has been determined by an independent engineering firm.

~~87~~ **Summer Reserve Capacity Testing Cycle:** refers to 1 October to 31 March.

~~98~~ **Winter Reserve Capacity Testing Cycle:** refers to 1 April to 30 September.

~~The following rule will commence on 1 October 2010, for additional information please refer to RC 2008-20:~~

~~**9 Verification Test:** The Test that is required under clause 4.25A of the Market Rules to be undertaken for each Curtailable Load:~~

~~a) within 20 Business Days of registration of the Curtailable Load; or~~

~~b) between 1 October and 30 November of each Reserve Capacity Year~~

**1.6.1.7. Steps for the IMO and Market Participants to Process**  
~~Steps that must be undertaken by the IMO and the Market Participants to calibrate~~ **Temperature Measurement Systems used in association with the SCADA system.**

1 The IMO may require the Temperature Measurement Systems associated with any Facility subject to the testing requirements under Chapter 4 of the Market Rules be calibrated by an IMO appointed Temperature Measurement Consultant.

2 The IMO may appoint a Temperature Measurement Consultant each year to calibrate the temperature measurement systems associated with each ~~g~~ Generation Facility that nominates to use the SCADA Temperature Method.

3 If the IMO requires that the Temperature Measurement Consultant calibrate the Facility's Temperature Measurement System, the IMO must contact the relevant Market Participant in writing with a Request to Conduct Temperature Calibration.

4 The Request to Conduct Temperature Calibration must include the following information:

- a) Information detailing the time and location of the proposed calibration; and
- b) Details of the Temperature Measurement Consultant that will be conducting the calibration.

5 Within 2 Business Days of receiving the Request to Conduct Temperature Calibration, the Market Participant must contact the IMO to either:

- a) accept the proposed time; or
- b) ~~subject to step 1.7.6.6.~~ propose another time, which must be within 10 ~~business days~~ Business Days of the original request date.

6 The Market Participant must not refuse the Request to Conduct Temperature Calibration as proposed by the IMO unless the Market Participant believes the calibration may endanger person(s) or equipment at the time proposed.

7 The IMO must present the results of the temperature calibration to the Market Participant within 5 working days of receiving the results from the Temperature Measurement Consultant.

8 The Market Participant will be required to pay all costs associated with calibration of the Temperature Measurement Systems.

~~1.7.1.8. Procedure Steps that must be undertaken by~~ **for the IMO**  
~~in assessing verification of Facility output~~ **to verify facility**  
~~outputs~~

Each year the IMO must take steps to verify that each Facility providing Capacity Credits can;

~~a)1~~ **in the case of a generation system** during the ~~term~~**period** the Reserve Capacity Obligations apply, operate at its maximum Reserve Capacity Obligation Quantity at least once during each of the 6 month periods listed in procedure step ~~1.7.21.87.2~~ below. ~~(Market Rule [MR 4.25.1(a)])~~.

~~The verification referred to in Step 1.7.1 must be conducted at least once during the following periods (Market Rule 4.25.1(a)):~~

~~—— 1 October to 31 March; and~~

~~—— 1 April to 30 September.~~

~~In respect of Energy Market Commencement, *The following rule will commence on 1 October 2010, for additional information please refer to RC 2008-20:*~~

~~b)in the IMO must take steps to verify that each Facility that has been commissioned eancase of a Curtailable Load, during the six months prior toperiod the Reserve Capacity Obligations for the first Reserve Capacity Cycle taking effectapply, operate at its maximum Reserve Capacity Obligation Quantity at least once. (Market Rule 4.25.1(b)) during the period between 1 October to 31 March each Capacity Year [MR 4.25.1(c)]~~

~~Procedure Step 1.7.3 does not apply to facilities that are not commissioned prior to Energy Market Commencement. (Market Rule 4.25.1(b))~~

2 The verification referred to in ~~step 1.87.1(a)~~ must be conducted at least once during each of the following periods [MR 4.25.1(a)]:

- a) 1 October to 31 March (The Summer Reserve Capacity Testing Cycle); and
- b) 1 April to 30 September (The Winter Reserve Capacity Testing Cycle).

3 The verifications conducted in accordance with ~~Steps 1.7.1 and 1.7.3 above~~ step 1.87.1(a) must be conducted on each type of fuel available to that Facility as notified in the information provided in respect of Certification of Reserve Capacity required under ~~Market Rule clause 4.10.1(e)(v).~~ (i) of the Market Rule Rules [MR 4.25.1].

~~4.25.1)~~

The verification referred to in ~~Procedure Steps 1.7.1~~ steps 1.87.1 through ~~1.7.5~~ 1.87.2 can be achieved:

- a) ~~by the IMO observing the Facility operate~~ operating at the required level for at least ~~once~~ one interval during the six month period as part of normal operations in Metered Schedules specific to the Facility; or
- b) by the IMO:
  - ~~(i)~~ (i) ~~in the case of a generation system, requiring System Management in accordance with Market Rule clause 4.25.7 to test the Facility's ability to operate at the required level for not less than 60 minutes and the Facility successfully passing that test; and~~
  - (ii) in the case of Interruptible Loads, Curtailable Loads and Dispatchable Loads, requiring System Management in accordance with clause 4.25.7, to test the process and systems to activate a reduction in demand without requiring demand to actually reduce, and the Facility successfully passing that test.

*~~The following rule will commence on 1 October 2010, for additional information please refer to RC 2008 20:~~*

~~(ii) in the case of Interruptible Loads, Curtailable Loads and Dispatchable Loads, requiring System Management, in accordance with Market Rule clause 4.25.7, to test the process and systems to activate a reduction in demand without requiring demand Facility's ability to actually reduce, demand to the required level for not less than one Trading Interval and the Facility successfully passing that test. [MR 4.25.2].~~

5 Relevant Reserve Capacity Test Level will be set:

- (a) in the case of a generation system, to the output required to meet the Reserve Capacity Obligation Quantity at 41°C using the Temperature Dependence Curve and the temperature measurement method specified in ~~standing data~~ Standing Data.;

*~~The following rule will commence on 1 October 2010, for additional information please refer to RC 2008 20:~~*

~~in the case of a Curtailable Load assigned Capacity Credits in accordance with clause 4.10.1(f)(i)(1), to the relevant demand minus the Reserve Capacity Obligations held by that Facility;~~

~~in the case of a Curtailable Load assigned Capacity Credits in accordance with clause 4.10.1(f)(i)(2), to the Stipulated Default Load plus the Reserve Capacity Obligations held by that Facility~~

6 For the purposes of Reserve Capacity Testing, the term Relevant Reserve Capacity Test Level will be used to describe the required level referred to in ~~Procedure Step 1.7.6 step 1.87.54~~ above. – The Relevant Reserve Capacity Test Level will be determined by the IMO and may be different for different Trading Intervals. – For example, the Relevant Reserve Capacity Test Level may vary with ambient temperature at the Facility. The Facility will be deemed to have:

- a) ~~The Facility will be deemed to have~~ passed a Reserve Capacity Test if the output is above the output specified in the Temperature Dependence Curve for the ambient temperature measures at the site;
- b) ~~The Facility will be deemed to have~~ passed a Reserve Capacity Test if the output of the Facility is at or above the output required at the highest point of the temperature dependence curve where the ambient temperature measured at the site exceeds the largest value supplied in the Temperature Dependence Curve;
- c) ~~The Facility will be deemed to have~~ failed a Reserve Capacity Test if the ambient temperature is below the lower bound of the Temperature Dependence Curves submitted as part of the Certification of Reserve Capacity for the Facility; and
- d) ~~The Facility will be deemed to have~~ failed a Reserve Capacity Test if the output is below the output specified in the Temperature Dependence Curve for the ambient temperature measures at the site.

7 A Market Participant may update the Temperature Dependence Curve associated with a Facility at any time before they have been tested by observation in respect of a Reserve Capacity Testing Cycle by submitting a new Temperature Dependence Curve determined by an independent engineering firm.

8 The IMO must not subject a Facility to a test of Reserve Capacity if that Facility is ~~(Market Rule [MR 4.25.3A]-):~~

- a) undergoing a Scheduled Outage or Opportunistic Maintenance which has been approved in accordance with ~~Clause~~clause 3.19 of the Market Rules, or
- b) if the ~~facility~~Facility has advised System Management of a Forced Outage or Consequential Outage in accordance with clause 3.21.4 of the Market Rules; or
- c) if the Facility is undergoing Commissioning Test approved in accordance with ~~Clause~~clause 3.21A of the Market Rules.

9 If a Facility fails a Reserve Capacity Test when the temperature measured by the temperature method specified in the relevant facilities standing data is outside of the range 0 -45 °C, then the IMO will consider that test to be invalid.

- 10 If a test is deemed ~~invalid~~ under step ~~X.X.X~~1.8.9 then the IMO must request System Management re-conduct the test as soon as is practicable, with consideration to the timelines in clause 4.25.1, 4.25.4, 4.25.5 and 4.25.6 of the Market Rules.
- 11 If a ~~t~~Test is deemed to be ~~an Invalid Test~~invalid by the IMO under step 1.8.9 ~~then the IMO and another test has already been completed in accordance with 1.10.12 or 1.10.16e steps X.X.X and X.X.X~~, then the IMO must:
- ~~if the Invalid test is still required, the IMO must use the results of the latest test in place of the Invalid Test~~invalid test, if the invalid test is still required; or
  - ~~if the Invalid Test is deemed to have not been required, the IMO will ignore the results of the latest test, if the invalid test is no longer required. and~~
- 12 If a Facility cannot be tested due to ~~to potential breaches of the~~restrictions imposed by the timelines in clauses 4.25.1, 4.25.4, 4.25.5 and 4.25.6 of the Market Rules, the IMO will:
- in the case of ~~t~~the first Reserve Capacity Ttest not being able to be completed within the relevant Reserve Capacity Testing cycle, conduct the tests as soon as ~~possible~~practicable in the next Reserve Capacity Ttesting cycle;
  - in the case of the second Rreserve Capacity Ttest not being able to be completed within 14-28 days after the first test, request Ssystem Management to re-conduct the first test. ~~In which case the IMO will be required to follow~~, in accordance with steps ~~Sections 1.98 and 1.109~~ of this Procedure; or
  - in the case of the third Rreserve Caapacity Ttest not being able to be completed within 7 days, ~~inform the Market Participant to re-request the third Reserve capacity Test~~liaise with the Market Participant to determine a period during which the third Reserve Capacity Test can be conducted.

### **1.8.1.9. Procedures Steps to be undertaken by the ~~for the~~ IMO to Verify by Observation**

- 1 In accordance with ~~Procedure~~procedure step ~~1.7.6~~1.8.7.1, the IMO may use information gathered through the Wholesale Electricity Market System (WEMS) to observe ~~the~~a generation Facility operating at the required level as part of normal operations.
- 2 To verify by observation, the IMO must use temperature ~~dependence~~ information ~~obtained through using the methodology selected~~submitted by the Market Participant under ~~Clause~~clause 4.10.1 ~~(iv) e~~ (i) of the Market Rules.
- 3 The IMO must refer to the temperature measurement source specified by the Market Participant under clause 4.10.1 (e)(iv) when determining the ambient temperature at the site of the generation Facility. Where no temperature source is specified the Market Participant must notify the IMO of a Temperature source before the start of the Reserve Capacity Year.
- 4 To verify that ~~the~~a generation Facility has operated at its ~~operated at~~ Relevant Reserve Capacity Test Level the IMO must use the information contained in the WEMS, together with the temperature information, to determine the operating output and ambient temperature relationship of the Facility.

~~5~~ The IMO must assess the results obtained through ~~Procedure Steps 1.8.1 through 1.8.3~~procedure steps 1.98.1 through 1.98.3 and determine if the generation Facility achieved its Relevant Reserve Capacity Test Level through the temperature range observed.

~~The IMO may be required to adjust the results to the equivalent values at a temperature of 41°C.~~

~~6~~ Following verification by observation the IMO may request a Reserve Capacity Test if:

~~The~~ the IMO determines ~~is unable to determine in accordance with this Procedure~~ that the Facility ~~failed~~ was able to operate at its Relevant Reserve Capacity Test Level for part or all of the by observation verification process; ~~or,~~

~~The IMO makes the determination that the results of the test were inconclusive.~~

*The following rule will commence on 1 October 2010, for additional information please refer to RC 2008-20:*

~~7~~ The IMO must between 1 October and 31 March request a Reserve Capacity Test of each Curtailable Load **[MR4.25.1]**.

~~78~~ If the IMO requests a Reserve Capacity Test ~~as a result of this Procedure Step 1.8,~~ the IMO must conduct the Reserve Capacity Test in accordance with Procedure Step 1.9.

~~If the IMO requests a Reserve Capacity Test in accordance with Procedure Step 1.8.6,~~procedure step 1.98.6 the IMO must provide the Market Participant with a summary of results obtained ~~Procedure Step 1.8.4~~ in procedure step 1.98.4.

~~89~~ The IMO must compile and maintain a list of Facilities whose operation have ~~been~~ undergone the verification by observation process and must keep records of outcome of the verification process.

### ~~1.9.1.10. Procedure Steps to be Undertaken by~~ for the IMO and System Management to Conduct a Reserve Capacity Test

~~1~~ Reserve Capacity Tests may be conducted ~~by the IMO~~ if:

a) The IMO determines the most appropriate course of action is to request System Management ~~is~~ to test the ~~facility~~ Facility in accordance with Market Rule clause 4.25.2(b) ~~of the Market Rules~~;

b) The IMO determines that the operation of the Facility ~~failed~~ has not passed the Verification by Observation process detailed at ~~Procedure Step~~ procedure step 1.81.9;

~~(c) The IMO believes, or has been made aware of any potentially limiting factors which may impact, or have impacted on the ability of the Facility to meet any or all of its Reserve Capacity obligations;~~

~~d)~~ c) The IMO requires that a Reserve Capacity Test be conducted by System Management in respect of any Network Control Service Contract, Ancillary

Service Contract ~~or other requirement~~ as ~~determined by the IMO~~ required under the Market Rules;

~~e)d)~~ The IMO ~~is~~ requires System Management ~~ed~~ to conduct a re-test in accordance with ~~Market Rule~~ clause 4.25.4 of the Market Rules; or

~~f)e)~~ A Market Participant requests a re-test in accordance with ~~Market Rule~~ clause 4.25.5 of the Market Rules.

2 In the case that the IMO requires a Reserve Capacity Test to be conducted on a Facility, the IMO must contact System Management requesting that the test be conducted.

3 In requesting System Management to conduct a test, the IMO must provide System Management with the following information:

- a) the Facility to be tested;
- b) the fuel to be used by the Facility during the test where applicable; and
- c) the time interval during which the test is proposed to be conducted, where this interval must begin not less than two Business Days after the time the IMO issues the request to System Management [MR4.25.7].

4 All information regarding the request for the test must be treated ~~as by~~ System Management as Confidential.

5 If the IMO requests System Management to conduct a Reserve Capacity Test ~~in accordance with this procedure~~, System Management must conduct the test in accordance with the ~~Power System Operation Procedure~~ requirements as outlined in clause 4.25.9 of the Market Rules.

6 System Management must notify the IMO within one Business Day as to whether it is possible to conduct a test requested under step 1.10.5 with out endangering Power System Security and Power System Reliability. [MR4.25.8]

7 System Management must provide the IMO with:

- (a) justification as to why the test cannot be conducted; and
- (b) an alternative time interval during which the test will be conducted, where this must be the earliest time that the test can be performed without endangering Power System Security and Power System Reliability. [MR4.25.8]

~~86~~ When the IMO receives the results of the test from System Management, the IMO must, within 510 Business Days, determine whether the Facility has operated at the Relevant Reserve Capacity Test Level(s) and make a determination that the Facility has either pPassed or fFailed the Reserve Capacity Test in accordance with clause 4.25.3A.

~~97~~ The IMO must record the results of the test including:

- a) Information regarding the conduct of the Reserve Capacity Test;
- b) Information regarding the results of the Reserve Capacity Test;

c) The determination of the outcome of the Reserve Capacity Test (~~p~~Passed or ~~f~~Failed); and

~~d) Reasons as to why the IMO believes the Facility has ~~p~~Passed or ~~F~~ailed the Reserve Capacity Test; and~~

~~e)d) Information regarding any action taken in accordance with ~~Procedure Steps steps 1.9.9 and 1.9.111.109.11,9 and 1.9.131.109.13+ and 1.109.153~~, as applicable.~~

~~108~~ In the event that the IMO determines the Facility has ~~Passed~~passed the Reserve Capacity Test, the IMO must inform the Market Participant that the Facility has ~~Passed~~passed, and provide the Market Participant with a copy of the results produced. This must be completed within ~~5~~10 Business Days of the date ~~at which the Market Participant is notified under Step 1.9.6~~the IMO receives notification of this Procedure~~the test results from System Management.~~

~~119~~ In the event that the IMO determines the Facility has ~~f~~Failed the Reserve Capacity Test, the IMO must

a) inform the Market Participant that the Facility has ~~f~~Failed the Reserve Capacity Test;

b) provide the Market Participant with a copy of the results produced;

c) require System Management re-test the Facility in accordance with ~~Procedure Step~~step 1.9.101.109.120 below.

~~120~~ In the event that a re-test is required in accordance with ~~Procedure Step 1.9.9(c); procedure-step 1.109.119(c)~~, System Management must ~~to~~ re-test that Facility (~~Market Rule~~[MR 4.25.4]):

a) not earlier than 14 days after the first test; and

b) not later than 28 days after the first test.

~~The IMO must record the results of the second Reserve Capacity Test and determine if the Facility Passed or Failed the second Reserve Capacity Test in accordance with Procedure Steps 1.9.6 and 1.9.7 and notify the Market Participant in accordance with Procedure Step 1.9.8, and 1.9.9(a) and 1.9.9(b) as appropriate.~~

~~The following rule will commence on 1 October 2010, for additional information please refer to RC 2008-20:~~

~~11 If a Curtailable Load fails a Reserve Capacity test and is activated prior to a second Reserve Capacity test being undertaken then the activation shall be deemed to be the second Reserve Capacity test. [MR4.25.3B].~~

~~132~~ If a Facility fails the second Reserve Capacity Test (the re-test) outlined in ~~Procedure Steps 1.9.9~~procedure steps 1.109.119 and ~~1.9.101.109.120~~ then, in accordance with ~~Market Rule~~clause 4.25.4, ~~the~~ from the next Trading Day the IMO must:

- a) if the test related to a generation system, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to reflect the maximum ~~capabilities~~ capability achieved in either test of the tests performed (after adjusting these results to the equivalent values at a temperature of 41°C and allowing for the capability provided by operation on different types of fuels if the test related to a generation system; or
- b) if the test related to a Dispatchable Load, Curtailable Load or Interruptible Load, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to zero. **[MR4.25.4]**

~~b) reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to zero. The following rule will commence on 1 October 2010, for additional information please refer to RC 2008-20:~~

~~b) if the test related to a Dispatchable Load, Curtailable Load or Interruptible Load, reduce the number of Capacity Credits held by the relevant Market Participant for that Facility to the maximum level of reduction achieved in the two tests **[MR4.25.4]**.~~

143 In the case that the Capacity Credits are reduced in accordance with ~~Procedure Step 1.9.12, procedure step 1.109.132~~, a Market Participant may apply to the IMO to have the Facility re-tested (the third test) subject to the following conditions:

- a) The Facility may only be re-tested once in accordance with ~~this Procedure Step 1.9.13 procedure step step 1.109.124~~ during the remaining Reserve Capacity Cycle **[MR 4.25.5]**.
- b) The IMO must request System Management to conduct the re-test within seven days from receiving the request from the Market Participant. ~~(Market Rule **[MR 4.25.5]**)~~.
- c) System Management must undertake the re-test in accordance with ~~these~~ this procedures , and ~~in accordance with the~~ Power System Operation Procedure ~~Market Rules~~.
- d) The IMO must set the number of Capacity Credits held by the relevant Market Participant for that Facility to reflect the maximum capabilities achieved in the re-test (after adjusting these results to the equivalent values at a temperature of 41°C and allowing for the capability provided by operation on different types of fuel), but not to exceed the number of Capacity Credits originally confirmed by the IMO for that Facility under Clause ~~clause~~ 4.20 of the Market Rules in respect of the relevant Reserve Capacity Cycle. ~~(Market Rule **[MR 4.25.6]**)~~.

154 If a ~~third~~ Reserve Capacity ~~Test~~ re-test is conducted in accordance with ~~Procedure Step 1.9.13 procedure step 1.109.123~~, the IMO must determine the outcome (step 1.109.86), record the results (step 1.109.97) and notify the Market Participant in accordance with ~~Procedure Steps 1.9.6, 1.9.7, 1.9.8, and 1.9.9(a) and 1.9.9(b) procedure steps 1.109.119(a) and 1.109.119(b)~~, as appropriate.

165 Where a Facility is tested ~~in accordance with this clause 4.25~~, the Dispatch Schedule for that Facility during the period of the test is to reflect the energy scheduled in the test. ~~(Market Rule **[MR 4.1525.10]**)~~.

176 The IMO will deem a Reserve Capacity Test invalid if:

a) ~~If a Facility fails a Reserve Capacity Test when the temperature measured by the temperature method specified in the standing data for the Facility tested is outside of the range 0 -45 °C, then that test will be deemed to be an Invalid Test;~~ or

b) ~~17 ——— If the IMO considers that an error was made in the determination of the results of any Reserve Capacity Test, then that test will be deemed to be an Invalid Test.~~

~~18-18~~ If a test is deemed to be ~~an Invalid Test~~invalid under ~~Procedure~~step 1.109.177 then the IMO must request System Management to conduct the test again as soon as is practicable, taking into account the timelines in clauses 4.25.1, 4.25.4, 4.25.5 and 4.25.6 of the Market Rules.

~~19-19~~ If a test is deemed to be ~~an Invalid Test~~invalid under step 1.10.17 and ~~a subsequent test~~another test has already been completed in accordance with ~~procedure~~steps 1.109.120 or 1.109.164 then the IMO must::

a) ~~if a further test is required, the IMO must use the results of the latest subsequent test instead of carrying out a further test~~n place of the invalid test results; or

b) ~~if the Invalid Test is deemed to have not been required, the IMO will ignore the results of the subsequent test.~~if the invalid test is no longer required, ignore the results of the latest test.

~~200~~ If a Facility cannot be tested due to restrictions imposed by the timelines in clauses 4.25.1, 4.25.4, 4.25.5 and 4.25.6 of the ~~Market Rules~~Market Rules., ~~for example as a result of a test being deemed an Invalid Test or System Management informing the IMO that the test cannot be conducted under clause 4.25.8,~~ the IMO will:

a) ~~in the case of the first Reserve Capacity Test not being able to be completed within the relevant Reserve Capacity Testing cycle, conduct the tests as soon as practicable in the next Reserve Capacity Testing cycle;~~

b) ~~in the case of the second Reserve Capacity Test not being able to be completed within 14-28 days after the first test, request System Management to repeatre-conduct the first test. In that case the IMO must follow,~~ in accordance with ~~Sections~~steps 1.98 and 1.109 of this Procedure; or

c) ~~in the case of the third Reserve Capacity Test not being able to be completed within 7 days, liaise with the Market Participant to determine a period during which the third Reserve Capacity Test can be repeated.~~

### ~~1.10.1.11.~~ **Procedure Steps to be undertaken byfor the Market Participant**

~~1~~ If the Market Participant is contacted by the IMO with results of a Reserve Capacity Test that indicate that the IMO determined ~~thea facility~~Facility to have ~~Failed~~failed ~~thea Test~~test, the Market Participant can expect a second test be conducted between 14 and 28 days from the first test [\[MR4.25.4\]](#).

2 If the Market Participant is contacted by the IMO with the results of the second Reserve Capacity Test, which indicate that the IMO determined ~~the a Facility~~ to have ~~Failed~~ failed the a Reserve Capacity Test, the Market Participant may also expect notification that the Capacity Credits in respect of that Facility have been reduced.

3 In the event that the Market Participant is notified by the IMO that the Capacity Credits in respect of ~~the a Facility~~ has ~~ve~~ been reduced ~~(either in all or in part)~~ as a result of the Reserve Capacity Testing process, then the Market Participant may request that the IMO conduct ~~one further Reserve Capacity Test (the third Test). re-test~~ a re-test [\[MR 4.25.5\]](#).

4 The Market Participant may only request ~~the third Reserve Capacity Test~~ a re-test once during the remaining Reserve Capacity Cycle. [\[MR4.25.5\]](#)

5 The ~~third Reserve Capacity Test, re-test~~ is performed at the request of the Market Participant in accordance with ~~Procedure Step 1.10.3~~ [procedure step 1.110.3](#) and ~~1.10.4~~ [1.110.4](#) should be performed by System Management within seven days of the IMO receiving the request, subject to the provisions of this Procedure ~~and subject to the provisions of the Power System Operation Procedure.~~

6 If the Market Participant considers an error has been made by the IMO in the calculation of the Relevant Reserve Capacity test level of a Facility in either a test or by observation, it can request the IMO to review the results of the test. If the IMO determines that an error has been made then the test will be deemed to be an Invalid Test.

### **1.11.1.12. Procedure ~~s~~ Steps to be undertaken by for the IMO to publish the results of Reserve Capacity Tests**

1 Every three months the IMO must publish details of ~~(Market Rule~~ [\[MR 4.25.11\]](#) ~~);~~:

~~(a)~~ a Facilities tested during the preceding three months; and

~~(b)~~ b whether any of those tests were delayed by System Management and the reasons for the delay as given by System Management.

2 The details published in accordance with ~~Procedure Step 1.11.2~~ [procedure step 1.124.12](#) must be published on the IMO Website ([www.imowa.com.au](http://www.imowa.com.au)) or in the WEMS as appropriate.

### **1.12.1.13. Procedure ~~Steps~~ Steps to be undertaken by for the IMO when setting the level of Certified Reserve Capacity and Reserve Capacity Obligation Quantities ~~in respect of Facilities that have been tested under this Market Procedure~~**

Each year, Market Participants are required to ~~Re~~re-certify the capacity of their Facilities (apply for Certification of Reserve Capacity). ~~Under~~ ~~Market Rule~~ [clause 4.11 of the Market Rules](#) and the Market Procedure: Certification of Reserve Capacity, the IMO is required to set the ~~Level~~ level of Certified Reserve Capacity assigned to a Facility for facilities that have been tested in accordance with this Market Procedure. This decision is not a reviewable decision under the Market Rules.

1 Each year, the IMO must use the information, data and results obtained from Reserve Capacity Tests and Verification by Observation when considering the level of Certified Reserve Capacity assigned to a Facility.

2 The IMO may reduce, ~~either in part or in total~~, the level of Certified Reserve Capacity in respect of an application for Certification of Reserve Capacity ~~under~~ if the IMO believes the results obtained through the Reserve Capacity Tests in conjunction with the level of Certified Reserve Capacity being applied for ~~(Market Rule 4.25.12)~~:

~~1.a)~~ constitutes a ~~p~~Potentially ~~l~~Limiting ~~f~~Factor in accordance with the Reserve Capacity Procedure: Certification of Reserve Capacity; and/or

~~2.b)~~ if the IMO believes the level of Certified Reserve Capacity being applied for exceeds the IMO's reasonable expectation that the amount of capacity likely to be available in accordance with ~~Market Rule clause 4.11.1(a)~~ of the Market Rules.

3 The IMO may use the information, data and results obtained from Reserve Capacity Tests and Verification by Observation when setting the Reserve Capacity Obligation Quantities in respect of that Facility in subsequent Reserve Capacity Cycles. ~~(Market Rule [MR 4.25.12])~~.

*The following rule will commence on 1 October 2010, for additional information please refer to RC 2008-20:*

### **Procedure Steps to be undertaken by the IMO for Verification of a Curtailable Load**

~~1 A Rule Participant must undertake a Verification Test of each Curtailable Load registered by the Rule Participant:~~

~~a) within 20 Business Days of registration of the Curtailable Load, or~~

~~b) between 1 October and 30 November of each Reserve Capacity Year [MR4.25A.1].~~

~~2 To undertake a Verification Test the Rule Participant will activate the Curtailable Load and advise the IMO of the Trading Intervals during which the Verification Test was conducted [MR4.25A.2].~~

~~3 The Verification Test is failed if a reduction in demand equal to at least 10% of the Capacity Credits is not identified from the Curtailable Load meter data [MR4.25A.3].~~

~~4 Where a Verification Test is failed the IMO must reduce the Capacity Credits assigned to the Curtailable Load to zero [MR4.25A.4].~~

~~5 Where the Verification Test is failed the Rule Participant may request a second Verification Test be undertaken. If the Curtailable Load fails this second Verification Test then the Capacity Credits assigned are to remain at zero until the end of the relevant Reserve Capacity Year [MR4.25A.5].~~