Independent Market Operator

IMO PROCEDURE CHANGE AND DEVELOPMENT GROUP

Agenda

Meeting No.	12
Location:	IMO Board Room, Level 3, Governor Stirling Tower, 197 St Georges Terrace, Perth
Date:	Tuesday, 13 August 2012
Time:	Commencing at 1.00 to 3:00pm

Item	Subject	Responsible	Time
1.	**WELCOME AND APOLOGIES / ATTENDANCE**	**Chair**	5 min
2.	**MINUTES OF PREVIOUS MEETING**	**Chair**	5 min
3.	**ACTIONS ARISING**	**Chair**	5 min
4.	**PC_2012_07: MARKET PROCEDURE FOR CERTIFICATION OF RESERVE CAPACITY**	**IMO**	20 min
5.	**PC_2012_08: MARKET PROCEDURE FOR MAXIMUM RESERVE CAPACITY PRICE** *Note that the proposed amendments are presented in tracked changes and reflect the Amending Rules resulting from RC_2011_10.*	**IMO**	10 min
6.	**PC_2012_06: MARKET PROCEDURE FOR DECLARATION OF BILATERAL TRADES AND THE RESERVE CAPACITY AUCTION**	**IMO**	20 min
7.	**PC_2011_04: MARKET PROCEDURE FOR PRUDENTIAL REQUIREMENTS**	**IMO**	45 min
8.	**GENERAL BUSINESS**	**IMO**	10 min
9.	**NEXT MEETING:** • TBA	**Chair**	2 min

Independent Market Operator

IMO Procedure Change and Development Working Group

Minutes

Meeting No.	10
Location:	IMO Boardroom Level 3, 197 St Georges Terrace, Perth
Date:	Thursday 26 May 2011
Time:	Commencing at 3.00pm – 5.00pm

Attendees		
Alasdair Macdonald	Independent Market Operator (IMO)	Chair
Fiona Edmonds	IMO	IMO/Presenter
Steve Gould	Landfill Gas & Power (LGP)	Industry Representative
Adam Lourey	Alinta	Industry Representative
Michael Frost	Perth Energy	Industry Representative
John Rhodes	Synergy	Synergy
Additional Attendees		
John Nguyen	IMO	Presenter
Monica Tedeschi	IMO	Presenter
Zoë Davies	IMO	Minutes
William Street	IMO	Observer
Jenny Laidlaw	IMO	Observer
Pablo Campillos	EnerNOC	DSM Representative
Geoff Downs	Water Corporation	DSM Representative
Matt Schultz	Energy Response	DSM Representative
Rob Rohrlach	Energy Response	DSM Representative
Katrina Burns	Energy Response	DSM Representative
Camille Kirk	Premier Power	Observer
Apologies		
Grace Tan	System Management	System Management
Andrew Everett	Verve Energy	Verve Energy

Item	Subject	Action
1.	**WELCOME AND APOLOGIES / ATTENDANCE** The Chair opened the 10th meeting of the IMO Procedure Change and Development Working Group (Working Group) at 3:05pm. The Chair welcomed the DSM representatives in attendance and noted apologies received from Andrew Everett and Grace Tan	

Item	Subject	Action
	prior to the meeting.	
2.	**MINUTES OF PREVIOUS MEETING** The minutes from Meeting 9 of the Working Group, held on 28 March 2011, were circulated for comment in April 2011. The minutes were accepted by Working Group members as a true and accurate record of the previous meeting. *Action Point: The IMO to publish the minutes of Meeting No.9 on the website as final.*	**IMO**
3.	**ACTIONS ARISING** The Chair invited Ms Fiona Edmonds to give an update on the Action Points. The following points were noted: • **Item 119:** The IMO update to the Market Procedure for Prudential Requirements is still underway. The IMO will outline the amendments in the Procedure Change Proposal when formally submitted. • **Item 121:** The proposed amendments to the Market Procedure for undertaking LT PASA and conducting a review of the planning criterion and forecasting processes is still underway. The IMO will outline the amendments in the Procedure Change Proposal when formally submitted. • **Item 126:** The proposed amendments to the Reserve Capacity Security Market Procedure will be formally submitted subject to the decision of the IMO Board on the Rule Change Proposal: Reserve Capacity Security (RC_2010_12).	
4.	**REVISED MARKET PROCEDURE FOR THE PRE-REGISTRATION OF DEMAND SIDE PROGRAMMES AND THE ASSOCIATION OF CURTAILABLE LOAD, INTERRUPTIBLE LOADS AND NON DISPATCHABLE LOADS (PC_2011_03)** The Chair invited Ms Edmonds to provide an overview of the revised transitional Market Procedure. Ms Edmonds explained that subsequent to formal submission into the Procedure Change Process the IMO had identified a number of issues with the proposed new Market Procedure. In particular as a Demand Side Programme (DSP) is not currently a registered facility the proposed process would not have worked in practice. In addition, issues were identified with the naming convention for DSPs and a number of opportunities highlighted for simplifying the process for Market Customers during the transition period.. Ms Edmonds explained that the first step of the amended Market Procedure was for the IMO to develop a transition plan for each Market Customer which outlines DSP facility name (s) to which the Market Customers Capacity Credits currently belonging to DSM assets will transfer at 8.00 AM on 1 October 2011. The next step in the process is the option for Market Customers to pre-register a DSP. Ms Edmonds noted that if a Market Customer's DSM assets have capacity obligations applying on 1 October then a DSP must be pre-registered or else capacity refunds will apply in accordance with clause 4.12.7 of the Market Rules. The	

Item	Subject	Action
	final step in the process is to apply to associate loads with a pre-registered DSP facility. Ms Edmonds confirmed that Market Participants would be involved along every step of the process and would be able to discuss their transition plan and any requirements directly with the IMO. Ms Edmonds noted that if Market Customers pre-register a DSP during this transitional phase, it will become a registered DSP on 1 October 2011. Within 20 business days of registration, the Market Customer will need to undertake a Verification Test. As such Market Customers should only be pre-registering DSPs where they will have capacity obligations applying as on 1 October 2011. Mr Rob Rohrlach questioned whether the new DSP facilities would have different names to those DSPs which are currently certified. Ms Edmonds confirmed that they would have new names and that Market Customers would be informed of the new names by the IMO. Ms Monica Tedeschi presented details of how the IMO will develop a transitional plan for each relevant Market Customer. The transitional plan will represent a default position and will detail any alternative options that the Market Customer may adopt along with any Reserve Capacity Security requirements. Mr Rohrlach questioned what would happen if a Market Customers Capacity Credits would be changing from year to year. Ms Jenny Laidlaw explained that this would be taken into account in the transition plan. Mr Matt Schultz questioned whether pre-registering a DSP facility would require a reshuffling of the existing Reserve Capacity Securities. Ms Tedeschi confirmed that where a Market Customers Reserve Capacity Security is currently held as a deed and they restructure their current portfolio structure they would need to provide new deeds, as necessary. Where a Market Customer does not restructure its portfolio (i,e, adopts the default transitional option provided by the IMO) there would most likely not be any need to replacement its Reserve Capacity Security. Ms Tedeschi noted that where Market Customers accepted the default option presented in their transitional plans, there would be no implications for held security but where Market Customers wanted to split facilities, that would attract security changes. Ms Tedeschi confirmed that the provision of new deeds would represent a legal transfer and not involve a changed amount of Reserve Capacity Security needing to be provided to the IMO. Any replacement Reserve Capacity Security would need to be provided to the IMO by 1 October 2011 in accordance with the process outlined in the Market Procedure for Reserve Capacity Security. Mr Pablo Campillos questioned whether normal registration fees would apply to pre-register a DSP. Ms Edmonds replied that no fees would apply to pre-registration of a DSP prior to 1 October 2011. Mr Schultz noted that where a Market Customer hold Capacity Credits for a Curtailable Load or Demand Side Programme for	

Item	Subject	Action
	the 2012/13 there would be no need to do anything other than accept the default position in the transitional plan. Ms Edmonds agreed. Mr Campillos clarified that after 1 October 2011 Curtailable Loads would no longer be a Facility Class and any Capacity Credits allocated to Curtailable Loads would be transferred to the new DSP facility names developed by the IMO. Ms Edmonds confirmed this was the case. Mr Schultz questioned why a Reserve Capacity Security would need to be split if the Market Customer has already shown that they can meet the required level. Ms Edmonds responded that Market Customers will not have a Reserve Capacity Security if they have already proved their ability to perform to the level of certification. Ms Tedeschi confirmed that it is only where a new facility with a Reserve Capacity Security is merged with an existing one that a new Reserve Capacity Security needs to be provided to cover the overall merged Demand Side Programme (similar to if an existing facility undertakes an upgrade). Mr John Rhodes questioned whether Market Customers who have capacity obligations in 2011/2012 should ensure they have pre-registered a DSP. Ms Edmonds confirmed that they should and that any Market Customers with Reserve Capacity Obligations later than 2011/2012 could wait and register a facility at a later point in accordance with the normal registration processes. Ms Tedeschi confirmed that in those cases, only a name change would be required. Mr John Nguyen outlined the data that would be required from Market Participants applying to pre-register DSPs and associate loads and gave an overview of the forms that would be provided to assist with the process of submitting the data. Mr Rohrlach questioned when the pre-registration form would be available. Mr Nguyen confirmed it would be made available on the IMO Web Page but would also be provided to Working Group members for their further consideration. Mr Rhodes asked whether Market Customers filled out the template and if that satisfied all the information requirements. Mr Nguyen confirmed that the template, when completed, would fulfil all data requirements for pre-registration. Mr Rohrlach asked whether the template would be hard-copy or electronic. Mr Nguyen replied that the IMO had not finalised details yet but it was likely Market Customers would be required to provide a scanned copy to the IMO. Mr Schultz questioned whether Market Customers will have to do this for existing Demand Side Programmes and Curtailable Loads as well. Mr Nguyen confirmed that this would be the case. Mr Schultz questioned if Market Customers would have to provide single line diagrams for Demand Side Programmes. Discussion ensued. *Action Point: The IMO, Energy Response, EnerNOC and System Management to meet out of session to determine the*	**IMO &**

Item	Subject	Action
	requirements for single line diagrams for Demand Side Programmes. Mr Rohrlach questioned the need for the provision of information on the minimum load of any Associated Loads. Ms Laidlaw and Ms Edmonds confirmed that minimum load information was required to calculate Facility Reserve Capacity Deficit Refunds for DSPs during each Trading Interval where a DSP does not have sufficient Loads associated with it to meet its capacity obligations. Mr Rhodes asked whether System Management were involved in the creation of DSPs. Ms Edmonds confirmed that System Management's role through the pre-registration process would be consistent with its current role in registering new facilities, Mr Rohrlach questioned whether there would be a WEMS interface in place during the interim period. Mr William Street replied that there would be and that it would be available to test from mid July and would go live in September or October. Mr Street confirmed that most fields were replicated as per the application forms. Mr Rhodes noted that on the application to associate a load Market Customers have to list a NMI. Mr Rhodes questioned whether on the form the NMI and the connection point were the same thing. Mr Nguyen confirmed that this was the case and agreed to make this clearer. *Action Point: The IMO to refine the Application to Associate a Load form to clarify that the NMI and the connection point are the same thing.* Ms Edmonds noted that the Market Procedure for Facility Registration, De-Registration and Facility Transfer would need to be updated for consistency with any Amending Rules resulting from the Rule Change Proposal: Demand Side Programmes and Curtailable Loads (RC_2010_29) prior to 1 October 2011. The Chair noted that the revised Market Procedure was out for informal consultation until Friday 10 June 2011 and that any informal submissions received during this period along with the discussion at today's meeting would be taken into account by the IMO in determining whether to approve the further amendments.	**Members** **IMO**
7	**GENERAL BUSINESS** No general business was recorded at the meeting.	
8	**NEXT MEETING** The next Working Group meeting is to be advised.	
9	**CLOSED** The Chair thanked all members for attending and declared the meeting closed at 4:00pm.	

IMO Procedure Change and Development Working Group - Action Points

Legend:

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

#	Procedure arising	Section	Action	Status/Progress
107			When there is a long break between Working Group meetings, the minutes are to be ratified by email.	Ongoing.
119	Market Procedure for Prudential Requirements		The IMO to update the Market Procedure for Prudential Requirements to include: • The amendments agreed to at the Working Group meeting; and • Any additional amendments forwarded to the IMO out of session (if appropriate).	Completed. The amended Market Procedure was provided to MAC members during the Dec 2011 meeting as an appendix to the Pre Rule Change Proposal: Prudential Requirements (PRC_2011_09). The MAC noted that the proposed amended Market Procedure for Prudential Requirements would be presented to the IMO Procedure Change and Development Working Group for further comment on the additional changes resulting from PRC_2011_09 prior to progression of the rule and procedure change in tandem into the formal consultation processes.
121	Market Procedure for undertaking LT PASA and conducting a review of the	3.5.1	The IMO to consider reinstating the timing of the submissions in step 3.5.1 of the Market Procedure for undertaking LT PASA and conducting a review of the	Underway.

#	Procedure arising	Section	Action	Status/Progress
	planning criterion and forecasting processes		planning criterion and forecasting processes.	
122	Market Procedure for undertaking LT PASA and conducting a review of the planning criterion and forecasting processes	3.2	The IMO to consider including a note that the Working Group was in addition to public submissions in the Market Procedure for undertaking LT PASA and conducting a review of the planning criterion and forecasting processes.	Underway.
123	Market Procedure for undertaking LT PASA and conducting a review of the planning criterion and forecasting processes	3	The IMO to consider updating the Market Procedure to provide separate sections for procedure steps in conducting a review of the planning criterion and forecasting processes.	Underway.
126	Market Procedure for Reserve Capacity Security		The IMO to update the Market Procedure to reflect the agreed changes and the Working Group's comments.	Completed and formally submitted into the Procedure Change Process on 18 January 2012 (PC_2012_01)
130	Minutes from previous meeting		The IMO to publish the minutes of Meeting No 9 on the website as final.	Completed
131	Market Procedure for the Pre-Registration of Demand Side Programmes and the Association of Curtailable Load, Interruptible Loads and Non Dispatchable Loads		The IMO, Energy Response, Enernoc and System Management to meet out of session to determine the requirements for single line diagrams for Demand Side Programmes	Completed via email resolution prior to the publication of the Final Rule Change Report for the Rule Change Proposal Curtailable Loads and Demand Side Management (RC_2010_29).
132	Market Procedure for the Pre-Registration of Demand Side Programmes and the Association of Curtailable Load, Interruptible Loads and Non Dispatchable Loads		The IMO to refine the 'Application to Associate a Load' form to clarify that the NMI and the connection point are the same thing	Completed. Note that the Market Procedure provided transitional arrangements to support the Amending Rules resulting from the Rule Change Proposal Curtailable Loads and Demand Side Management (RC_2010_29). As such this Market Procedure was revoked on 1 December 2011.

Agenda Item 4: Reserve Capacity Procedure for Certification of Reserve Capacity (PC_2012_07)

1. BACKGROUND

The Reserve Capacity Procedure for Certification of Reserve Capacity (Procedure) outlines the processes to be followed by the IMO and Market Participants with respect to applications for Certified Reserve Capacity or Early Certified Reserve Capacity. The Procedure also provides details of the process the IMO follows in approving Capacity Credits associated with Early Certified Reserve Capacity and specifies the format of data required to be submitted in application of certification of Reserve Capacity.

2. AMENDED MARKET PROCEDURE

The IMO has updated the Procedure to:

- reflect the IMO's new format arising from its Market Procedure project. Note that a substantive rewrite of the Procedure has been undertaken by the IMO to improve the structure and level of detail provided in the Procedure. This is intended to ensure greater usability by Market Participants (and potential investors) when applying for certification of Reserve Capacity and Early Certified Reserve Capacity;
- ensure consistency with the Amending Rules that commenced since the Procedure was last updated on 15 December 2010, including the following Rule Change Proposals:
    - Certification of Reserve Capacity (RC_2010_14);
    - Curtailable Loads and Demand Side Programmes (RC_2010_29);
    - Calculation of the Capacity Value of Intermittent Generation – Methodology 1 (IMO) (RC_2010_25); and
    - Competitive Load Following and Balancing Market (RC_2011_10).

Note that given the substantive restructuring and rewrite of this Procedure the IMO has not shown its proposed changes in tracked changes.

3. RECOMMENDATIONS

The IMO recommends that the IMO Procedure Change and Development Working Group (Working Group):

- **Discuss** the amendments made to the Procedure; and
- **Note** that the IMO will formally submit these changes into the Procedure Change Process, subject to any comments from the Working Group.

RESERVE CAPACITY PROCEDURE: CERTIFICATION OF RESERVE CAPACITY

VERSION 4

ELECTRICITY INDUSTRY ACT 2004

ELECTRICITY INDUSTRY

(WHOLESALE ELECTRICITY MARKET)

REGULATIONS 2004

WHOLESALE ELECTRICITY MARKET RULES

COMMENCEMENT:

This Market Procedure took effect from 8:00am (WST) on the

same date as the Wholesale Electricity Market Rules.

VERSION HISTORY

VERSION	EFFECTIVE DATE	NOTES
1	21 Sep 2006	Market Procedure for Certification of Reserve Capacity
2	27 Jun 2008	Amendments to Market Procedure resulting from PC_2008_04.
3	15 Dec 2010	Amendments to Market Procedure resulting from PC_2009_04.
4	Xx Xx 2012	Amendments to Market Procedure resulting from PC_2012_XX

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1 PROCEDURE OVERVIEW

1.1 Relationship with the Market Rules

1.1.1 This Reserve Capacity Market Procedure (Procedure) has been developed in accordance with clauses 4.9.10 and 4.28C.15 of the Wholesale Electricity Market (WEM) Rules (Market Rules) and should be read in conjunction with chapter 4 of the Market Rules.

1.1.2 Reference to particular Market Rules within the Procedure, which are in bold and square brackets **[Clause XX]** are current as at 1 July 2012. These references are included for convenience only and are not part of this procedure.

1.2 Purpose of this Procedure

1.2.1 This Procedure describes the processes that:

(a) Market Participants must follow when applying for Certified Reserve Capacity **[Clause 4.9.10]** or Early Certified Reserve Capacity **[Clause 4.28C.15]**;

(b) the IMO must follow in processing an application for Certified Reserve Capacity, including how:

i. Certified Reserve Capacity is assigned; and

ii. Reserve Capacity Obligation Quantities are set **[Clause 4.9.10]**; and

(c) the IMO must follow in approving Capacity Credits associated with Early Certified Reserve Capacity **[Clause 4.28C.15]**.

1.2.2 This Procedure also specifies the format of data required to be submitted by a Market Participant applying for certification of Reserve Capacity **[Clause 4.9.3(a)]**.

1.3 Application of this Procedure

1.3.1 This Procedure applies to:

(a) Market Participants whenever making an application for Early Certified Reserve Capacity or Certified Reserve Capacity; and

(b) The IMO whenever processing an application for Early Certified Reserve Capacity or Certification of Reserve Capacity.

1.4 Associated Market Procedures

1.4.1 The following IMO Market Procedures are associated with this Procedure:

(a) Declaration of Bilateral Trades and the Reserve Capacity Auction;

(b) Reserve Capacity Security;

(c) Reserve Capacity Performance Monitoring;

(d) Facility Registration, De-Registration and Facility Transfer;

(e) Registration and De-Registration of Rule Participants;

(f) Balancing Facility Requirements; and

(g) Notices and Communications.

1.4.2 The following Power System Operation Procedures are associated with this Procedure:

(a) Facility Outages.

1.4.3 The following market documents are associated with this Procedure:

(a) Information for Applicants for Certification of Reserve Capacity;

(b) WEMS user guide; and

(c) Load for Scheduled Generation – help guide.

1.5 Conventions Used

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

1.6 Terminologies and Definitions

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

Term	Definition
Temperature Dependence Curve	The information provided by a Market Participant under clause 4.10.1(e)(i) of the Market Rules, as determined by an independent engineering firm.
WEMS	Wholesale Electricity Market System

Table 1:Terminologies and Definitions

2 APPLICATIONS FOR CERTIFICATION OF RESERVE CAPACITY

2.1 Submission of Applications

2.1.1 A Market Participant may lodge, and the IMO must accept lodgement of, applications for Certified Reserve Capacity for the current Reserve Capacity Cycle between:

(a) 9 AM on the first Business Day falling on or following 1 May of Year 1 of the Reserve Capacity Cycle; and

(b) 5 PM on the last Business Day falling on or before 1 July of Year 1 of the Reserve Capacity Cycle. **[Clauses 4.1.7, 4.1.11 & 4.9.1(a)]**

2.1.2 A Market Participant may lodge, and the IMO must accept lodgement of, applications for Conditional Certified Reserve Capacity for a future Reserve Capacity Cycle at any time prior to 9 AM on the first Business Day falling on or following 1 May of Year 1 of the Reserve Capacity Cycle to which the application relates. **[Clauses 4.1.7 & 4.9.1(b)]**

2.1.3 A Market Participant with a Facility that meets the criteria outlined in clause 4.28C.1 of the Market Rules may lodge an application for Early Certified Reserve Capacity at any time before 1 January of Year 1 of the Reserve Capacity Cycle to which the application relates. **[Clause 4.28C.2]**

2.1.4 Before submitting an application for a Facility under step 2.1.1, 2.1.2 or 2.1.3, an applicant must ensure that:

(a) it is registered as a Market Participant; and

(b) the Facility name is registered in the WEMS for the purposes of Certified Reserve Capacity in accordance with the Market Procedure for Facility Registration, Facility De-Registration and Facility Transfer. Note that this is not the same as being a Registered Facility under the Market Rules.

2.1.5 A Market Participant may apply for certification of the amount of Reserve Capacity which can be provided by a Facility if the Facility meets the requirements outlined in clause 4.8.1 of the Market Rules.

2.1.6 A Market Participant who lodges an application for certification of Reserve Capacity for a Facility must provide to the IMO the information specified in clause 4.9.3 of the Market Rules. This information provided must be consistent with the Reserve Capacity Cycle for which the application is being made and must be provided for each Facility. Further details of the data and information required to be submitted in support of an application is provided in the 'Information for Applicants for Certification of Reserve Capacity' document on the IMO Website (http://www.imowa.com.au/crc).

2.1.7 A Market Participant must lodge an application for certification of Reserve Capacity through the WEMS. Any supporting documentation for an application required under clause 4.9.3 of the Market Rules may be delivered to the IMO in hard copy or emailed to system.capacity@imowa.com.au in any of the following formats:

(a) compressed ZIP files (where the files in the archive must be in any of the formats listed below);

(b) MS Office 2007 (.xlsx, .xls, .docx, doc, pptx or .ppt); or

(c) Adobe PDF.

2.2 Specific Requirements for Early Certified Reserve Capacity

2.2.1 In addition to the requirements of step 2.1.6, an application for Early Certified Reserve Capacity must:

(a) relate to a single future Reserve Capacity Cycle **[Clause 4.28C.3]**; and

(b) state that the applicant intends to trade all assigned Certified Reserve Capacity bilaterally **[Clause 4.28C.4]**.

2.2.2 An applicant for Early Certified Reserve Capacity must ensure that the IMO holds the benefit of a Reserve Capacity Security equal to the amount specified in clause 4.28C.9 of the Market Rules, within 30 Business Days of receiving notification of the amount of Early Certified Reserve Capacity assigned to the Facility under step 3.8.3 **[Clause 4.28C.8]** For further details of the process for providing a Reserve Capacity Security refer to the Market Procedure for Reserve Capacity Security.

3 PROCESSING OF APPLICATIONS FOR CERTIFICATION OF RESERVE CAPACITY

3.1 Acknowledgement of application

3.1.1 The IMO must notify each applicant for certification of Reserve Capacity that its application has been received within one Business Day **[Clause 4.9.6]**. This notification may be provided through the WEMS.

3.1.2 An applicant must contact the IMO and arrange to resubmit its application for certification of Reserve Capacity where it has not received a notification of receipt of the application within the timeframes outlined in step 3.1.1. The resubmission of an application must be made during the applicable lodgement period specified in step 2.1.1, 2.1.2 or 2.1.3 **[Clause 4.9.7]**

3.2 Data accuracy and sufficiency assessment

3.2.1 The IMO must check all data provided in the application to check whether:

(a) All required information has been provided;

(b) The information provided is of sufficient detail; and

(c) Information has been specifically provided to support the applicant's claims in respect to the capacity of the Facility.

3.2.2 Where the information provided by the applicant is considered by the IMO to be insufficient or incomplete following its assessment in step 3.2.1:

(a) the IMO must request:

i. a clarification of the information provided originally; and/or

ii. further information to be provided to assist the IMO in processing the application; and

(b) the applicant must respond to the request as soon as practicable.

3.3 Assessment of application where Facility has previously been assigned Conditional Certified Reserve Capacity

3.3.1 Where a Market Participant is re-lodging an application for Certified Reserve Capacity for a Facility that has already been assigned Conditional Certified Reserve Capacity, the IMO must check:

(a) whether the application is consistent with the information upon which the Conditional Certified Reserve Capacity was assigned; and

(b) whether the information has remained correct **[Clause 4.9.5]**.

3.3.2 A re-lodged application for Certified Reserve Capacity must include evidence of an Arrangement of Access or evidence that the Market Participant has accepted an Access Proposal from the relevant Network Operator made in respect of the Facility. **[Clause 4.10.1(bA)]**

3.3.3 Where the IMO determines that a re-lodged application for Certified Reserve Capacity is:

(a) consistent with the information upon which the Conditional Certified Reserve Capacity was assigned;

(b) the information is accurate; and

(c) details of network access have been provided under step 3.3.2,

the IMO must confirm the Certified Reserve Capacity, Reserve Capacity Obligation Quantity and the Reserve Capacity Security levels, subject to re-calculation of the level of Certified Reserve Capacity for an Intermittent Generator. **[Clause 4.9.5(c)]**

3.3.4 Where a re-lodged application does not include details of network access as required under step 3.3.2, the IMO must deem the application to be inconsistent with the information upon which the Conditional Certification of Reserve Capacity was assigned on the basis that the Facility assigned would be unable to be a

Registered Facility prior to the date its Reserve Capacity Obligations for the relevant Reserve Capacity Cycle would take effect. **[Clause 4.11.1(f)]**

3.3.5 Where the IMO determines that a re-lodged application is:

(a) inconsistent with the information upon which the Conditional Certified Reserve Capacity was assigned; or

(b) the information is inaccurate,

the IMO must not take the Conditional Certified Reserve Capacity into account when processing the application. **[Clause 4.9.5(d)]**

3.4 Timing assessment

3.4.1 The IMO must not assign Certified Reserve Capacity to a Facility where the Facility:

(a) is not scheduled to first commence operation by 1 October of Year 3 of the relevant Reserve Capacity Cycle, being the date that Reserve Capacity Obligations will apply for that Facility **[Clause 4.11.1(c)(ii)]**; or

(b) will cease operation permanently, and hence cease to meet Reserve Capacity Obligations, from a time earlier than 1 August of Year 4 of the relevant Reserve Capacity Cycle **[Clause 4.11.1(c)(iii)]**; or

(c) is not expected to be a Registered Facility by the time its Reserve Capacity Obligations for the relevant Reserve Capacity Cycle would take effect. **[Clause 4.11.1(f)]**

3.5 Outage assessment

3.5.1 The IMO must identify:

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

(b) each Facility that has operated for less than 36 months, or is yet to commence operation, where the IMO has cause to believe that over a period of 36 months the Facility is likely to have a Forced Outage rate of greater than 15% or a combined Planned Outage rate and Forced Outage rate of greater than 30%. **[Clause 4.11.1(h)]**

3.5.2 For the purpose of step 3.5.1, the IMO must calculate the Planned Outage rate and Forced Outage rate for each Facility in accordance with the Power System Operation Procedure: Facility Outages. **[Clause 4.11.1 (h)]**

3.5.3 For each Facility identified in step 3.5.1, the IMO may seek information from the applicant in respect to the present and future performance of the Facility, including:

(a) the causes of the outages;

(b) the steps being taken, or that have been taken, to reduce the level of outages ; and

(c) the expected level of future outages.

3.5.4 The IMO may consult with System Management in relation to the outage rates of any Facility identified in step 3.5.1.

3.5.5 The IMO may decide not to assign Certified Reserve Capacity to a Facility identified in step 3.5.1 **[4.11.1(h)]**. In making this determination, the IMO may consider any information gathered in steps 3.5.3 and 3.5.4 and may also consider, amongst other factors:

(a) the actions being taken by the Market Participant to reduce the level of outages at the Facility;

(b) the likelihood that these actions will reduce the level of outages of the Facility; and

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

3.5.6 Where the IMO determines under step 3.5.5 to not assign Certified Reserve Capacity to a Facility, it must notify the applicant of its decision and the reasons for its decision in accordance with the process in section 3.8, otherwise the IMO must continue to process the application in accordance with the steps outlined in this Procedure.

3.6 Balancing Facility Requirements

3.6.1 The IMO must not assign Certified Reserve Capacity to a Balancing Facility with a rated capacity greater than or equal to 10 MW unless the IMO is satisfied the Facility is likely to be able to meet the Balancing Facility Requirements, as described in the Market Procedure: Balancing Facility Requirements **[Clause 4.11.12]**.

3.7 Facility-specific assessment

3.7.1 In addition to the assessments above, the IMO must further assess applications for Certified Reserve Capacity in accordance with:

(a) section 4, for generation facilities that have nominated the use of the methodology described in clause 4.11.1(a);

(b) section 5, for generation facilities that have nominated the use of the methodology described in clause 4.11.2(b), including Intermittent Generators; and

(c) section 6, for Demand Side Programmes, Dispatchable Loads and Interruptible Loads.

3.8 Notifications of assigned Certified Reserve Capacity

3.8.1 The IMO must provide each applicant for certification of Reserve Capacity with a notification that includes the information listed in step 3.8.2:

(a) by 5 PM of the last Business Day on or before 19 August of Year 1 of that Reserve Capacity Cycle, for applications for the current Reserve Capacity Cycle **[Clause 4.9.8(a) & 4.1.12]**; or

(b) within 90 days of the IMO receiving the application, for applications for a future Reserve Capacity Cycle **[Clause 4.9.8(b)]**.

3.8.2 The notification in step 3.8.1 must include the information specified in clause 4.9.9. **[Clause 4.11.1(i)]** Note that some of this notification to applicants may be provided through the WEMS.

3.8.3 The IMO must notify each applicant for Early Certified Reserve Capacity of the quantity of Early Certified Reserve Capacity, the initial Reserve Capacity Obligation Quantity and, provided that the Reserve Capacity Security has been provided to the IMO, the quantity of Capacity Credits assigned to the Facility within 90 days of the application having been received. **[Clauses 4.28C.6, 4.28C.7 & 4.28C.10]**

4 ASSESSMENT FOR GENERATION FACILITIES BEING ASSESSED UNDER CLAUSE 4.11.1(a)

4.1 Plant capability assessment

4.1.1 The IMO must determine its reasonable expectation of the maximum sent out capacity for each Facility from 1 October of Year 3 of the Reserve Capacity Cycle until the end of July of Year 4 of the Reserve Capacity Cycle, after netting off capacity required to serve Intermittent Loads, embedded loads and Parasitic Loads, assuming an ambient temperature of 41^0C. **[Clause 4.11.1(a)]**

4.1.2 The maximum sent out capacity determined in step 4.1.1 must not exceed the sum of the capacities specified by the Market Participant under clauses 4.10.1(e)(ii) and 4.10.1(e)(iii) of the Market Rules. **[Clause 4.11.1(b)]**

4.1.3 In determining the maximum sent out capacity in step 4.1.1, the IMO must have regard to the following information, as applicable:

(a) the historical sent out generation of the Facility, as observed from Meter Data Submissions;

(b) the results of Reserve Capacity Tests that have been conducted during the previous twelve months;

(c) technical specifications for the Facility, as provided by an original equipment manufacturers or an engineering contractor; and

(d) the Temperature Dependence Curve for the Facility.

4.2 Network access assessment

4.2.1 The IMO must assess the evidence of network access provided by the applicant under clause 4.10.1(bA) of the Market Rules, including the level of unconstrained access and details of any constraints that may apply.

4.2.2 In respect of a Facility that will be subject to a Network Control Service contract, the IMO must not assign Certified Reserve Capacity in excess of the capacity that the IMO believes that Facility can usefully contribute given its location and any network constraints that are likely to occur. **[Clause 4.11.1(g)]**

4.2.3 Where the IMO requests information from a Network Operator in relation to an application for Certified Reserve Capacity, in accordance with clause 4.11.5, it must not provide information to any Network Operator that was provided to it as part of an application for Certified Reserve Capacity, except with the permission of the applicant.

4.3 Assessment of fuel supply, staffing constraints and other restrictions

4.3.1 The IMO must assess:

(a) the details and evidence of firm and non-firm fuel supplies provided by the applicant under clause 4.10.1(e)(v) of the Market Rules; and

(b) any restrictions on the availability of the Facility due to staffing constraints or other restrictions, as specified by the applicant under clause 4.10.1(g) of the Market Rules,

to determine whether it reasonably expects that the Facility is likely to be available at the level of capacity determined in step 4.1.1 for Peak Trading Intervals on Business Days. **[Clause 4.11.1(a)]**

4.3.2 If the IMO reasonably expects in step 4.3.1 that the Facility is not likely to be available for Peak Trading Intervals on Business Days at the level of capacity determined in step 4.1.1, it may determine that the Facility is likely to be available for Peak Trading Intervals on Business Days at a lower level of capacity.

4.3.3 If an applicant provides details and evidence that the Facility can operate on an alternative fuel source, the IMO must assess this information to determine whether it reasonably expects that the Facility is likely to be available at the level of capacity determined in step 4.1.1 for 12 hours of continuous operation.

4.3.4 If the IMO reasonably expects in step 4.3.3 that the Facility is not likely to be available for 12 hours of continuous operation at the level of capacity determined in step 4.1.1, the Facility will not be considered to be a dual fuel Facility for the purpose of Certified Reserve Capacity.

4.3.5 The IMO may also review the water requirements for the Facility to determine whether it reasonably expects that the Facility is likely to be available at the level of capacity determined in step 4.1.1 for Peak Trading Intervals on Business Days.

4.4 Environmental approval assessment

4.4.1 Where a Facility, or part of the Facility, has yet to enter service, the IMO must assess the evidence of Environmental Approvals, or evidence that the necessary Environmental Approvals will be granted in time to meet its Reserve Capacity Obligations, to ensure that:

(a) the Environmental Approvals that have been granted or are being applied for will allow operation at the level of capacity determined in step 4.1.1; and

(b) it reasonably expects that the Environmental Approvals will be in place in time for the Facility to meet its Reserve Capacity Obligations.

4.4.2 If the IMO reasonably expects that the Environmental Approvals that have been granted or are being sought are insufficient to support availability for Peak Trading Intervals on Business Days at the level of capacity determined in step 4.1.1, it may determine that the Facility is likely to be available for Peak Trading Intervals on Business Days at a lower level of capacity.

4.5 Assignment of Certified Reserve Capacity

4.5.1 Based on the outcome of assessments in sections 4.1, to 4.4, the IMO must assign a quantity of Certified Reserve Capacity to a Facility according to its reasonable expectation of the amount of Reserve Capacity likely to be available from the Facility during daily peak demand times from 1 October in Year 3 to 31 July in Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41^0C **[Clause 4.11.1(a)]**. This will be set to the minimum of:

(a) the level nominated by the applicant in its application;

(b) the maximum sent out capacity of the Facility as determined in step 4.1.1;

(c) the level of unconstrained access as assessed in step 4.2.1;

(d) a lower level of capacity as determined in step 4.3.2, if applicable; and

(e) a lower level of capacity as determined in step 4.4.2, if applicable.

4.5.2 The IMO may consult with System Management as required in assigning Certified Reserve Capacity to a Facility under clause 4.11.1(a).

4.6 Initial Reserve Capacity Obligation Quantity

4.6.1 The IMO must determine whether there are periods of time during which staffing or other factors will limit the Facility's ability to operate at full output.

4.6.2 The IMO must set the initial Reserve Capacity Obligation Quantity for the Facility at a level equal to the Certified Reserve Capacity except for those periods of time

determined at step 4.6.1, in which case the IMO may set the initial Reserve Capacity Obligation at a lower level for those periods **[Clause 4.12.4]**.

5 ASSESSMENT FOR GENERATION FACILITIES BEING ASSESSED UNDER CLAUSE 4.11.2(b)

5.1 Consideration of nomination to use the methodology under clause.11.2(b)

5.1.1 Where an applicant nominates for a Facility to be assessed under the methodology described in clause 4.11.2(b), the IMO may reject that nomination if it reasonably believes that the capacity of the Facility has permanently declined, or is anticipated to permanently decline prior to or during the Reserve Capacity Cycle to which the Certified Reserve Capacity relates. **[Clause 4.11.2(a)]**

5.1.2 If the IMO rejects a nomination under step 5.1.1, it must process the application as if the application had nominated to use the methodology described in clause 4.11.1(a). This methodology is detailed in section 4. **[Clause 4.11.2(aA)]**

5.2 Network access assessment

5.2.1 The IMO must assess the evidence of network access provided by the applicant under clause 4.10.1(bA) of the Market Rules, including the level of unconstrained access and details of any constraints that may apply.

5.2.2 In respect of a Facility that will be subject to a Network Control Service contract, the IMO must not assign Certified Reserve Capacity in excess of the capacity that the IMO believes that Facility can usefully contribute given its location and any network constraints that are likely to occur. **[Clause 4.11.1(g)]**

5.2.3 Where the IMO requests information from a Network Operator in relation to an application for Certified Reserve Capacity, in accordance with clause 4.11.5, it must not provide information to any Network Operator that was provided to it as part of an application for Certified Reserve Capacity, except with the permission of the applicant.

5.3 Assessment of independent expert report

5.3.1 Where an applicant provides an independent expert report under clause 4.10.3 of the Market Rules, the IMO must assess the accuracy of the report. This assessment may consider the following factors:

(a) the configuration of the Facility that was considered in developing the report;

(b) the level of network access available, or expected to be available, to the Facility as assessed in step 5.2.1;

(c) the observed sent out generation of similar Facilities, if applicable;

(d) any restrictions on the availability of the Facility due to staffing constraints or other restrictions, as specified by the applicant under clause 4.10.1(g) of the Market Rules; and

(e) any other factors that the IMO considers relevant.

5.3.2 If the IMO considers the independent expert report to be inaccurate in step 5.3.1, it may determine alternative estimates of the expected energy that would have been sent out by the Facility had it been in operation with the configuration proposed in the application for Certified Reserve Capacity to be used in the Relevant Level Methodology. **[Appendix 9 Step 10].**

5.4 Assignment of Certified Reserve Capacity

5.4.1 The IMO must assign a quantity of Certified Reserve Capacity equal to the Relevant Level, determined in accordance with the Relevant Level Methodology prescribed in Appendix 9 of the Market Rules. **[Clause 4.11.2(b)]**

5.5 Initial Reserve Capacity Obligation Quantity

5.5.1 The IMO must set the initial Reserve Capacity Obligation Quantity to zero for an Intermittent Generator. **[Clause 4.12.4(aA)]**

5.5.2 For a generation system that is not an Intermittent Generator that has sought to be certified under clause 4.11.2(b), the IMO must:

(a) identify whether there are periods of time during which staffing or other factors will limit the Facility's ability to operate at full output; and

(b) set the initial Reserve Capacity Obligation Quantity for the Facility at a level equal to the Certified Reserve Capacity except for those periods of time determined at step 5.5.2(a), in which case the IMO may set the initial Reserve Capacity Obligation at a lower level for those periods. **[Clause 4.12.4]**

6 ASSESSMENT FOR DEMAND SIDE PROGRAMMES, INTERRUPTIBLE LOADS OR DISPATCHABLE LOADS

6.1 Assessment of availability restrictions

6.1.1 The IMO must assess the availability limits specified by the applicant under clause 4.10.1(f) of the Market Rules and must reject any application where the specified availability limits are less than the minimum requirements specified in that clause.

6.1.2 The IMO must allocate each Facility to an Availability Class where:

(a) Facilities that are available for at least 24 hours but less than 48 hours are allocated to Availability Class 4;

(b) Facilities that are available for at least 48 hours but less than 72 hours are allocated to Availability Class 3; and

(c) Facilities that are available for at least 72 hours but less than 96 hours are allocated to Availability Class 2. **[Clauses 4.11.4 & Appendix 3]**

6.2 Facility capability assessment

6.2.1 The IMO must determine the quantity of capacity that it reasonably expects to be available from the Facility during the periods specified in clause 4.10.1(f)(vi) of the Market Rules, after netting off capacity required to serve minimum loads. **[Clause 4.11.1(j)]**

6.2.2 In determining the capacity in step 6.2.1, the IMO must have regard to the following information, as applicable:

(a) the previous performance of the Facility, where applicable, including the results of Reserve Capacity Tests;

(b) evidence of contracts with end users provided by the applicant ;

(c) evidence that loads are being actively pursued to be associated with a Demand Side Programme, if applicable;

(d) the Relevant Demand for the Facility, or loads that are expected to be associated with the Facility, determined in accordance with clause 4.26.2C of the Market Rules;

(e) any restrictions on the availability of the Facility due to staffing constraints or any other restrictions, as specified by the applicant under clause 4.10.1(g) of the Market Rules;

(f) the past history of the applicant in procuring DSM capacity; and

(g) any other factors that the IMO considers relevant.

6.3 Assignment of Certified Reserve Capacity

6.3.1 Unless it has rejected the application under step 6.1.1, the IMO must assign Certified Reserve Capacity to a Facility equivalent to the quantity determined in step 6.2.1.

6.4 Initial Reserve Capacity Obligation Quantity

6.4.1 The IMO must set the initial Reserve Capacity Obligation Quantity for the Facility at:

(a) a level equal to the Certified Reserve Capacity during the periods of availability specified by the applicant under clause 4.10.1(f) of the Market Rules; and

(b) zero for periods outside the periods of availability specified by the applicant under clause 4.10.1(f) of the Market Rules, accounting for staffing and other restrictions on the ability of the Facility to curtail energy upon request. **[Clause 4.12.4(c)]**

MARKET PROCEDURE: Maximum Reserve Capacity Price

VERSION 5

ELECTRICITY INDUSTRY ACT 2004

ELECTRICITY INDUSTRY (WHOLESALE ELECTRICITY MARKET) REGULATIONS 2004

WHOLESALE ELECTRICITY MARKET RULES

COMMENCEMENT:

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

VERSION HISTORY

VERSION	EFFECTIVE DATE	NOTES
1	13 October 2008	Market Procedure for Determination of the Maximum Reserve Capacity Price resulting from PC_2008_06
2	4 December 2008	Amended Market Procedure for Determination of the Maximum Reserve Capacity Price resulting from PC_2008_14
3	1 April 2010	Amendments to the Procedure resulting from Procedure Change Proposal PC_2009_12
4	11 October 2010	Amendments to the Procedure resulting from Procedure Change Proposal PC_2010_04
5	24 October 2011	Amendments to the Procedure resulting from Procedure Change Proposal PC_2011_06

CONTENTS

1 PROCEDURE FOR DETERMINING THE MAXIMUM RESERVE CAPACITY PRICE

1.1 Relationship with the Market Rules

1.1.1 This Procedure should be read in conjunction with clause 4.16 of the Wholesale Electricity Market (WEM) Rules (Market Rules) and is made in accordance with clause 4.16.3 of the Market Rules.

1.1.2 References to particular Market Rules within this Procedure in bold and square brackets **[MR XX}** are current as of 17 October 2011. These references are included for convenience only, and are not part of this Procedure.

1.2 Purpose

1.2.1 This Procedure describes the methodology that the IMO must use and the steps that the IMO must undertake in determining the Maximum Reserve Capacity Price in each Reserve Capacity Cycle.

1.3 Application

1.3.1 This procedure applies to:

(a) The IMO in conducting any review of the Maximum Reserve Capacity Price, including necessary consultations **[MR4.16.3]**; and

(b) Western Power in developing estimates of the costs associated with connecting a notional Power Station to the 330 kV transmission systems.

1.4 Associated Market Procedures

1.4.1 There are no other Market Procedures associated with this Procedure.

1.5 Interpretation

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

(a) "Access Offer" has the same meaning as in the *Electricity Networks Access Code 2004*.

(b) "Contribution Policy" has the same meaning as in the *Electricity Networks Access Code 2004*.

(c) "Declared Sent Out Capacity" has the same meaning as in the *Electricity Networks Access Code 2004*.

(d) "Power Station" means the theoretical power station upon which the Maximum Reserve Capacity Price is based, described in step 2.1.

(e) "Total Transmission Costs" are the costs to directly connect a generator to the transmission network and to augment the shared transmission network to accommodate the capacity of that generator, which are estimated in step 2.4.

2 PROCEDURE STEPS

This section outlines the methodology the IMO must apply in determining the Maximum Reserve Capacity Price and the procedures steps the IMO must follow in conducting its annual review of the Maximum Reserve Capacity Price.

2.1 Definition of Power Station

2.1.1 The Power Station upon which the Maximum Reserve Capacity Price is based must:

(a) be representative of an industry standard liquid-fuelled Open Cycle Gas Turbine (OCGT) power station;

(b) have a nominal nameplate capacity of 160 MW prior to the addition of any inlet cooling system;

(c) operate on distillate as its fuel source;

(d) have a capacity factor of 2%;

(e) include low Nitrous Oxide (NOx) burners or associated technologies as would be required to demonstrate good practice in power station development; and

(f) include an inlet air cooling system and water receival and storage facilities to allow 14 hours of continuous operation, where in the opinion of the IMO this would be cost effective;

(f)(g) include the minimum level of equipment or systems required to satisfy the Balancing Facility Requirements. .

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2.2 Scope of the Factors to Maximum Reserve Capacity Price

2.2.1 The Maximum Reserve Capacity Price must include all reasonable costs expected to be incurred in the development of the Power Station, which must include estimation and determination of:

(a) Power Station balance of plant costs, which are those other ancillary and infrastructure costs that would normally be experienced when developing a project of this nature;

(b) land costs;

(c) costs associated with the development of liquid fuel storage and handling facilities;

(d) costs associated with the connection of the Power Station to the bulk transmission system;

(e) allowances for legal costs, insurance costs, financing costs and environmental approval costs;

(f) reasonable allowance for a contingency margin; and

(g) estimates of fixed operating and maintenance costs for the Power Station, fuel handling facilities and the transmission connection components.

2.3 Development of Costs for the Power Station

2.3.1 The IMO must engage a consultant to provide:

(a) an estimate of the costs associated with engineering, procurement and construction of the Power Station as at April in Year 3 of the Reserve Capacity Cycle;

(b) a summary of any escalation factors used in the determination; and

(c) likely output at 41°C which will take into account available turbine and inlet cooling technology, likely humidity conditions and any other relevant factors, which represents the expected Capacity Credit allocation for the Power Station.

2.3.2 The Power Station costs must be determined with specific reference to the use of actual project-related data and must take into account the specific conditions under which the Power Station will be developed. This may include direct reference to:

(a) Existing power stations, or power station projects under development, in Australia and more particularly Western Australia.

(b) Worldwide demand for gas turbine engines for power stations.

(c) The engineering, design and construction, environment and cost factors in Western Australia.

(d) The level of economic activity at the state, national and international level.

2.3.3 Development of the Power Station costs must include components for the gas turbine engines, and all Balance of Plant costs that would normally be applicable to such a Power Station. This must include, but will not be limited to the following items:

(a) Civil Works.

(b) Mechanical Works.

(c) Electrical Works.

(d) Buildings and Structures.

(e) Engineering and Plant Setup.

(f) Miscellaneous and other costs.

(g) Communications and Control equipment.

(h) Commissioning Costs.

2.4 Transmission Connection Works

2.4.1 Western Power must provide an estimate of the Total Transmission Costs in accordance with the methodology herein to connect the generator and deliver the output to loads consistent with the relevant planning criteria in the Technical Rules.

The estimated Total Transmission Costs must be derived from capital contributions (either paid historically or expected to be paid to Western Power under Access Offers and Western Power's Contribution Policy as approved by the ERA) only for generators that are capable of being gas or liquid fuelled. The calculation must exclude any facility where, in the opinion of Western Power:

- the significant driver for the location of the facility is the access to source energy (fuel or renewable) or the need to embed the generation with a load

(electrical or heat). For clarity, this includes but is not limited to coal, renewable and embedded (including waste heat capture) generators;

- the facility is connected on a shared distribution feeder; or
- the capital contribution does not relate to a significant increase in the Declared Sent Out Capacity associated with the facility.

Western Power may seek clarification from the IMO with regard to the inclusion or exclusion of specific projects in line with the above criteria.

For the purpose of the calculation, the un-escalated dollar value of the capital contribution for a facility must be attributed to the Capacity Year for which the facility is first assigned, or expected to be assigned, Capacity Credits and must be assumed to be in the dollars as at 1 October of that Capacity Year.

The estimate of Total Transmission Costs must use the following process:

(a) Historic and forecast capital contribution data must be collated for all works required to connect relevant generators to the transmission network including:

- all transmission connection works required to connect from the high voltage (HV) bus bar (or in the absence of a HV bus bar, the HV circuit breaker or terminals of generator step-up transformers) to the shared transmission network (including all miscellaneous costs such as procuring land easements etc.); and
- all transmission works to reinforce the shared transmission network where required in accordance with the Access Code and the Technical Rules.

Capital contributions paid or forecast to be paid to Western Power may not have been calculated to cover the cost of all connection assets required to connect from the HV bus bar (or in the absence of a HV bus bar, the HV circuit breaker or terminals of generator step-up transformers) to the shared transmission network. In this case, Western Power must identify the connection assets that have not been covered in the capital contribution and must add to the capital contribution its estimate of the cost to construct the assets based on:

- the actual length and route of transmission or distribution lines;
- the actual line voltage;

- sufficient capacity to allow for transmission of the Certified Reserve Capacity (actual or anticipated) of the facility;
- the terrain described in step 2.4.2(e); and
- an estimate of the easement costs described in step 2.4.2(h).

(b) For years for which no historic capital contribution data or Access Offers for relevant generators are available, a connection cost must be calculated on the basis defined in step 2.4.2. For this purpose it is assumed that the costs of the works described in step 2.4.2 are fully borne by the connecting generator and the cost to reinforce the shared transmission network is assumed to be zero.

(c) The sum of connection costs for each Capacity Year must be divided by the sum of the generators' Certified Reserve Capacity to provide an "average per unit capacity" connection cost for each year. The quantity of Certified Reserve Capacity for a facility will be the level most recently assigned to that facility that is attributable to that capital contribution. Western Power may consult with the IMO to confirm the appropriate quantity of Certified Reserve Capacity for each facility.

The average per unit capacity cost must be determined for the "Latest Offer Year", being the year which is the later of:

- the latest Capacity Year for which a capital contribution has been determined or an Access Offer has been made; and
- the Capacity Year commencing in Year 1 of the relevant Reserve Capacity Cycle.

The average per unit capacity cost must also be determined for each of the 4 Capacity Years immediately preceding the Latest Offer Year.

(d) The five average per unit capacity costs determined in (c) must be escalated to 1 April of Year 3 of the relevant Reserve Capacity Cycle.

The basis of escalation must be the average change over 5 years in the estimates calculated consistent with step 2.4.2. Where 5 years of data calculated on a common basis is not available the escalation rate must be averaged over the period for which equivalent data is available.

(e) The escalated per unit capacity costs from (d) must be multiplied by the corresponding weighting factors in the table below:

Year	Weighting
Latest Offer Year	7
Latest Offer Year - 1	5
Latest Offer Year - 2	3
Latest Offer Year - 3	1
Latest Offer Year – 4	1

The sum of the 5 years of weighted, escalated, average per unit capacity costs for the 5 years under consideration must be divided by 17 to provide a weighted escalated average per unit connection cost.

(f) The weighted escalated average per unit cost must be scaled up by 15% as an allowance for forecasting error margin to provide the forecast connection cost.

(g) Western Power must appoint a suitable auditor to review the application of the process in step 2.4.1 on an independent and confidential basis. Western Power must provide the advice of the auditor to the IMO together with its estimate of Total Connection Costs, and the IMO must publish the auditor's advice on the Market Web-site.

2.4.2 For the purposes outlined in step 2.4.1, Western Power must also estimate the cost of transmission connection works required to connect from the HV bus bar to the shared transmission network using the following process:

(a) The capital cost (procurement, installation and commissioning, excluding land cost) of a generic, industry standard 330kV substation that facilitates the connection of the Power Station must be estimated.

(b) The estimate must include all the components and costs associated with a standard substation.

(c) The estimated cost must be based on a generic three breaker mesh substation configured in a breaker and a half arrangement.

(d) It must be assumed that the substation is located adjacent to an existing transmission line and include an allowance for 2km of 330kV overhead single circuit line to the power station that will have one road crossing.

(e) It must be assumed that the transmission connection to the Power Station will be located on 50% flat - 50% undulating land, 50% rural - 50% urban location and that there will be no unforeseen environmental or civil costs associated with the development.

(f) It must be assumed that the connection of the substation into the existing transmission line is turn-in, turn-out and is based on the most economical (i.e. least cost) solution. It must be assumed that the existing transmission line will not require modification to allow the connection with the exception of one new tower located at the substation to allow a point of connection.

(g) Costs associated with any staging works must not be considered.

(h) Shallow connection easement costs will be included and must be estimated and provided by the IMO.

2.5 Fixed Operating and Maintenance Costs

2.5.1 The IMO must determine Fixed Operating and Maintenance (O&M) costs for the Power Station and the associated transmission connection works. The IMO may engage a consultant to assist the IMO in this process.

2.5.2 The Fixed O&M costs may be separated into those costs associated with the Power Station, those costs associated with the transmission connection infrastructure and any other major components that are considered likely to be of sufficient magnitude so as to require separate determination.

2.5.3 Fixed O&M costs must also include:

(a) fixed network access and/or ongoing charges, which are to be provided by Western Power; and

(b) an estimate of annual insurance costs as at 1 October in Year 3 of the relevant Reserve Capacity Cycle in respect of power station asset replacement, business interruption and public and products liability insurance as required under network access arrangements with Western Power.

2.5.4 To assist in the computation of annualised Fixed O&M costs, the costs associated with each major component will be presented for each 5 year period up to 60 years.

2.5.5 The Fixed O&M costs must be converted into an annualised Fixed O&M cost as required under the determination methodology in section 1.14.

2.5.6 Fixed O&M costs must be determined as at 1 October in Year 3 of the Reserve Capacity Cycle. Where Fixed O&M costs have been determined at a different date, those costs must be escalated using the following escalation factors which must be applied to relevant components within the Fixed O&M cost:

(a) a Generation O&M Cost escalation factor for Generation O&M costs;

(b) a Labour cost escalation factor for transmission and switchyard O&M costs; and

(c) CPI for fixed network access and/or ongoing charges determined with regard to the forecasts of the Reserve Bank of Australia and, beyond the period of any such forecasts, the mid-point of the Reserve Bank's target range of inflation.

2.6 Fixed Fuel Cost

2.6.1 The IMO must engage a consultant to determine an estimate of the costs for the Liquid Fuel storage and handling facilities including:

(a) A fuel tank of 1,000 t (nominal) capacity including foundations and spillage bund.

(b) Facilities to receive fuel from road tankers.

(c) All associated pipework, pumping and control equipment.

2.6.2 The estimate should be based on the following assumptions:

(a) Land is available for use and all appropriate permits and approvals for both the power station and the use of liquid fuel have been received.

(b) Any costing components that may be time-varying in nature must be disclosed by the IMO. Such components might be the cost of the liquid fuel, which will vary over time and as a function of exchange rates etc.

2.6.3 The costing must only reflect fixed costs associated with the Fixed Fuel Cost (FFC) component and must include an allowance to initially supply fuel sufficient to allow for the Power Station to operate for 14 hours at maximum capacity.

2.6.4 Fixed Fuel Costs (FFC) must be determined as at April in Year 3 of the Reserve Capacity Cycle. Where Fixed Fuel Costs have been determined at a different date, those costs must be escalated using the annual CPI cost escalation factor determined in step 2.5.6(c).

2.7 Land Costs

2.7.1 The IMO must retain Landgate under a consultancy agreement each year to provide valuations on parcels of industrial land. The regions for which the analysis is to be conducted will include:

(a) Collie Region

(b) Kemerton Industrial Park Region

(c) Pinjar Region

(d) Kwinana Region

(e) North Country Region

(f) Kalgoorlie Region

These areas represent the regions within the South West interconnected system (SWIS) where generation projects are most likely to be proposed and should provide a broad cross-section of options. The IMO may include additional locations if it considers appropriate.

2.7.2 The IMO must contract with Landgate to conduct the valuations on the same land parcel size, so as to provide a consistent method of valuing the cost of purchase of the land. The IMO will provide an indication as to the size of land required, which should be limited to the following options:

(a) One 3ha parcel of land in an industrial area of a standard size with consideration given to any requirements for a buffer zone in that specific location. Where the minimum land size available in any specific location is greater than 3ha, for the purpose of calculating the land cost for that specific location, the minimum available land size at that location shall be used.

(b) The summation of multiple smaller parcels of land as appropriate to meet the requirements above.

2.7.3 Where the IMO is unable to contract with Landgate to provide the valuations described in steps 2.7.1 and 2.7.2, the IMO may seek valuations from an alternative provider of similar services.

2.7.4 The IMO must determine the average cost of the land parcels described in steps 2.7.1 and 2.7.2.

2.7.5 The average Land Cost, LC, must be determined as at April in Year 3 of the Reserve Capacity Cycle. Where the average Land Cost has been determined at a different date this cost must be escalated using the CPI escalation factor determined in step 2.5.6(c).

2.8 Legal, Financing, Insurance, Approvals, Other Costs and Contingencies (margin M)

2.8.1 The IMO must engage a consultant to determine the value of margin M, which shall constitute the following costs associated with the development of the Power Station project:

(a) legal costs associated with the design and construction of the power station.

(b) financing costs associated with equity raising.

(c) insurance costs associated with the project development phase;

(d) approval costs including environmental consultancies and approvals, and local, state and federal licensing, planning and approval costs;

(e) other costsreasonably incurred in the design and management of the power station construction; and

(f) contingency costs.

2.9 Weighted Average Cost of Capital (WACC)

2.9.1 The IMO must determine the cost of capital to be applied to various costing components of the Maximum Reserve Capacity Price. This cost of capital must be an appropriate WACC for the generic Power Station project considered, where that project is assumed to receive Capacity Credits through the Reserve Capacity Auction and be eligible to receive a Long-Term Special Price Arrangement through the Reserve Capacity Mechanism.

2.9.2 The WACC will be applied directly:

(a) in the annualisation process used to convert the Power Station project capital cost into an annualised capital cost; and

(b) to account for the cost of capital in the time period between when the Reserve Capacity Auction is held (i.e. when capital is raised), and when the payment stream is expected to be realised. To maintain computational simplicity it is assumed that the total investment cost of the generic power station will be incurred in even incremental amounts over the 12 month period immediately preceding the first Reserve Capacity Year. As a result the effective compensation period for the total investment cost for the generic power station will be six months as detailed in the CAPCOST formula in step 2.10.1.

2.9.3 The methodology adopted by the IMO to determine the WACC will involve a number of components that require review. These components are classed as those which require review annually (called Annual components) and those structural components of the WACC which require review less frequently (called 5 Yearly components) as detailed in step 2.9.8.

2.9.4 In determining the WACC, the IMO:

(a) must annually review and determine values for the Annual components; and

(b) may review and determine values for the 5 Yearly components that differ from those in step 2.9.8 if, in the IMO's opinion, a significant economic event has occurred since undertaking the last 5 yearly review of the Maximum Reserve Capacity Price in accordance with clause 4.16.9 of the Market Rules.

2.9.5 The IMO may engage a consultant to assist the IMO in reviewing the CAPM components of the WACC listed under step 2.9.8.

2.9.6 The IMO shall compute the WACC on the following basis:

(a) The WACC shall use the Capital Asset Pricing Model (CAPM) as the basis for calculating the return to equity.

(b) The WACC shall be computed on a Pre-Tax basis.

(c) The WACC shall use the standard Officer WACC method as the basis of calculation.

2.9.7 The pre-tax real Officer WACC shall be calculated using the following formulae:

$$WACC_{real} = \left(\frac{\left(1 + WACC_{no\min al}\right)}{\left(1 + i\right)} \right) - 1 \text{ and}$$

$$WACC_{no\min al} = \frac{1}{\left(1 - t\left(1 - \gamma\right)\right)} R_e \frac{E}{V} + R_d \frac{D}{V}$$

Where:

(a) R_e is the nominal return on equity (determined using the Capital Asset Pricing Model) and is calculated as:

$$R_e = R_f + \beta_e \times MRP$$

Where:
R_f is the nominal risk free rate for the Capacity Year;
β_e is the equity beta; and
MRP is the market risk premium.

(b) R_d is the nominal return on debt and is calculated as:

$$R_d = R_f + DM$$

Where:
R_f is the nominal risk free rate for the Capacity Year;

DM is the debt margin, which is calculated as the sum of the debt risk premium (DRP) and debt issuance cost (d).

(c) *t* is the benchmark rate of corporate income taxation, established at either an estimated effective rate or a value of the statutory taxation rate;

(d) γ is the value of franking credits;

(e) *E/V* is the market value of equity as a proportion of the market value of total assets;

(f) *D/V* is the market value of debt as a proportion of the market value of total assets;

(g) The nominal risk free rate, R_f, for a Capacity Year is the rate determined for that Capacity Year by the IMO on a moving average basis from the annualised yield on Commonwealth Government bonds with a maturity of 10 years:

- using the indicative mid rates published by the Reserve Bank of Australia; and
- averaged over a 20-trading day period; and

(h) The debt risk premium, *DRP*, for a Capacity Year is a margin above the risk free rate reflecting the risk in provision of debt finance. This will be estimated by the IMO as the margin between the observed annualised yields of Australian corporate bonds which have a BBB (or equivalent) credit rating from Standard and Poors and the nominal risk free rate.

The IMO must determine the methodology to estimate the *DRP*, which in the opinion of the IMO is consistent with current accepted Australian regulatory practice.[1]

[1] Given observed issues with Bloomberg data, the ERA adopted an alternative 'Bond-Yield Approach' to establishing the DRP in its Final Decision on revisions proposed by WA Gas Networks (WAGN) to the access arrangement for the Mid West and South West gas distribution systems. It is understood that WAGN is appealing the use of this method to the Australian Competition Tribunal. Pending the outcome of the appeal, and if the 'Bond-Yield Approach' were to become accepted Australian regulatory practice, the IMO intends to amend this Market Procedure.

(i) If there are no Commonwealth Government bonds with a maturity of 10 years on any day in the period referred to in step 2.9.7(g), the IMO must determine the nominal risk free rate by interpolating on a straight line basis from the two bonds closest to the 10 year term and which also straddle the 10 year expiry date.

(j) If the methods used in step 2.9.7(i) cannot be applied due to suitable bond terms being unavailable, the IMO may determine the nominal risk free rate by means of an appropriate approximation.

(k) *i* is the forecast average rate of inflation for the 10 year period from the date of determination of the WACC. In establishing a forecast of inflation, the IMO must have regard to the forecasts of the Reserve Bank of Australia and, beyond the period of any such forecasts, the mid-point of the Reserve Bank's target range of inflation.

2.9.8 The CAPM must use the following parameters as variables each year.

CAPM Parameter	Notation/Determination	Review Frequency	Value
Nominal risk free rate of return (%)	R_f	Annual	TBD
Expected inflation (%)	*i*	Annual	TBD
Real risk free rate of return (%)	R_{fr}	Annual	TBD
Market risk premium (%)	*MRP*	5-Yearly	6.00
Asset beta	β_a	5-Yearly	0.5
Equity beta	B_e	5-Yearly	0.83
Debt risk premium (%)	*DRP*	Annual	TBD
Debt issuance costs (%)	d	5-Yearly	0.125
Corporate tax rate (%)	*t*	Annual	TBD
Franking credit value	γ	5-Yearly	0.5
Debt to total assets ratio (%)	*D/V*	5-Yearly	40
Equity to total assets ratio (%)	*E/V*	5-Yearly	60

2.10 Determination of the Maximum Reserve Capacity Price

2.10.1 The IMO must use the following formulae to determine the Maximum Reserve Capacity Price:

MRCP = (ANNUALISED_FIXED_O&M + ANNUALISED_CAPCOST / CC)

Where:

MRCPis the Maximum Reserve Capacity Price to apply in a Reserve Capacity Auction;

ANNUALISED_CAPCOST is the CAPCOST, expressed in Australian dollars, annualised over a 15 year period, using a Weighted Average Cost of Capital (WACC) as determined in step 2.9;

CC is the expected Capacity Credit allocation determined in conjunction with Power Station costs in step 2.3.1 (c);

CAPCOST is the total capital cost, expressed in million Australian dollars, estimated for an open cycle gas turbine power station of capacity CAP; and

ANNUALISED_FIXED_O&M is the annualised fixed operating and maintenance costs for a typical open cycle gas turbine power station and any associated electricity transmission facilities determined in step 2.5 and expressed in Australian dollars, per MW per year.

The value of CAPCOST must be calculated as:

$$CAPCOST = ((PC \times (1 + M) + TC) \times CC + FFC + LC) \times (1+ WACC)^{\wedge 1/2}$$

Where:

PC is the capital cost of an open cycle gas turbine power station, expressed in Australian dollars per MW as determined in step 2.3 for that location;

M is a margin to cover legal, approval, financing and other costs and contingencies as detailed in step 2.8;

TC is the estimate of Total Transmission Costs as determined in step 2.4;

CC is the expected Capacity Credit allocation determined in conjunction with Power Station costs in step 2.3.1 (c);

FFC is the Fixed Fuel Cost as determined in step 2.6;

LC is the Land Cost as determined in step 2.7; and

WACC is the Weighted Average Cost of Capital as determined in step 2.9.

2.10.2 Once the IMO has determined a revised value for the Maximum Reserve Capacity Price, the IMO must publish a draft report describing how it has arrived at the proposed revised value and undertake consultation in accordance with clause 4.16.6 of the Market Rules. In preparing the draft report, the IMO must include details of how it has arrived at any proposed revised values for the Annual and 5 Yearly components used in calculating the WACC.

2.10.3 The IMO must publish any supporting consultant reports with the draft report on the Market Web-Site.

2.10.4 After considering any submissions on the draft report the IMO must propose a final value for the Maximum Reserve Capacity Price and submit the report to the Economic Regulation Authority (ERA) of Western Australia for its approval under clause 2.26.1 of the Market Rules.

2.10.5 Once the final value for the Maximum Reserve Capacity Price, with any updates, has been approved by the ERA, the IMO must publish the final report and submissions as required by clause 4.16.7 of the Market Rules.

2.10.6 The IMO must include the Maximum Reserve Capacity Price in the Request for Expressions of Interest document which must be published by the date and time specified in clause 4.1.4 of the Market Rules.

2.11 Major Review

2.11.1 In accordance with clause 4.16.9, the IMO must conduct a review of this Market Procedure containing the methodology used to determine the Maximum Reserve Capacity Price at least once every five years ("Major Review"). This process will include a review of the basis for determining the Maximum Reserve Capacity Price, the structural methodology by which the Maximum Reserve Capacity Price is computed each year and the method the IMO uses to estimate each of the constituent components of the Maximum Reserve Capacity Price.

2.11.2 In conducting the annual review of the WACC, where the IMO considers that any of the comparator companies used in the most recent Major Review are no longer available or that their characteristics have significantly changed, the IMO may select a different set of comparator companies for determination of relevant WACC parameters, applying the following criteria:

(a) the company must be a power generator, energy transmitter or distributor;

(b) market capitalisation must be more than $200m AUD; and

(c) the company must be listed on Bloomberg.

Agenda Item 6: Reserve Capacity Procedure for Declaration of Bilateral Trades and Reserve Capacity Auction (PC_2012_06)

1. BACKGROUND

The Reserve Capacity Procedure for Declaration of Bilateral Trades and Reserve Capacity Auction (Procedure) outlines the processes to be followed by Market Participants with respect to submitting Bilateral Trade Declarations and Reserve Capacity Offers. The Procedure also details the process that the IMO follows in assessing Bilateral Trade declarations, determining if a Reserve Capacity Auction will be required and clearing the Auction.

2. AMENDED MARKET PROCEDURE

The IMO has updated the Procedure to:

- reflect the IMO's new format arising from its Market Procedure project. Note that a substantive rewrite of the Procedure has been undertaken by the IMO to improve the structure and level of detail provided in the Procedure. This is intended to ensure greater usability by Market Participants when submitting Bilateral Trade Declarations and/or Reserve Capacity Offers; and
- ensure consistency with the Amending Rules that commenced since the Procedure was last updated on 1 January 2010, including the following Rule Change Proposals:
    - Certification of Reserve Capacity (RC_2010_14);
    - Curtailable Loads and Demand Side Programmes (RC_2010_29); and
    - Competitive Load Following and Balancing Market (RC_2011_10).

Note that given the substantive restructuring and rewrite of this Procedure the IMO has not shown its proposed changes in tracked changes.

3. RECOMMENDATIONS

The IMO recommends that the IMO Procedure Change and Development Working Group (Working Group):

- **Discuss** the amendments made to the Procedure; and
- **Note** that the IMO will formally submit these changes into the Procedure Change Process, subject to any comments from the Working Group.

RESERVE CAPACITY PROCEDURE: DECLARATION OF BILATERAL TRADES AND THE RESERVE CAPACITY AUCTION

VERSION 2

ELECTRICITY INDUSTRY ACT 2004

ELECTRICITY INDUSTRY

(WHOLESALE ELECTRICITY MARKET)

REGULATIONS 2004

WHOLESALE ELECTRICITY MARKET RULES

COMMENCEMENT:

This Market Procedure took effect from 8:00am (WST) on 1 January 2010.

VERSION HISTORY

VERSION	EFFECTIVE DATE	NOTES
1	01 January 2010	New Market Procedure for Declaration of Bilateral Trades and the Reserve Capacity Auction following PC_2009_05
2	Xx xxx 2012	Amendments to Market Procedure resulting from PC_2012_06

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LIST OF TABLES

1 PROCEDURE OVERVIEW

1.1 Relationship with the Market Rules

1.1.1 This Bilateral Trade Declaration and Reserve Capacity Auction Procedure (Procedure) should be read in conjunction with clauses 4.14, 4.15, 4.17, 4.18 and 4.19 of the Wholesale Electricity Market (WEM) Rules (Market Rules).

1.1.2 Reference to particular Market Rules within the Procedure, which are in bold and square brackets **[Clause XX]** are current as of 1 July 2012. These references are included for convenience only and are not part of this Procedure.

1.1.3 This Procedure is made in accordance with clauses 4.14.11 and 4.17.9 of the Market Rules.

1.2 Purpose of this Procedure

1.2.1 This Procedure outlines the processes that Market Participants holding Certified Reserve Capacity must follow to:

(a) submit a Bilateral Trade Declaration; and

(b) submit a Reserve Capacity Offer into the Reserve Capacity Auction

1.2.2 This Procedure describes the processes that the IMO must follow to:

(a) assess and process Bilateral Trade Declarations;

(b) determine if a Reserve Capacity Auction will be required and if so, how much Reserve Capacity will be required in the Reserve Capacity Auction; and

(c) clear the Reserve Capacity Auction.

1.3 Associated Market Procedures and Market Documents

1.3.1 The following IMO Market Procedures are associated with this Procedure:

(a) Certification of Reserve Capacity;

(b) Maximum Reserve Capacity Price; and

(c) Reserve Capacity Security.

1.3.2 The following Market Documents are associated with this Procedure:

(a) MPR User Guide

1.4 Application of this Procedure

1.4.1 This Procedure applies to both the IMO and Rule Participants who have been assigned Certified Reserve Capacity for the current Reserve Capacity Cycle.

1.5 Conventions Used

1.5.1 In this Procedure the conventions specified in clauses 1.4 and 1.5 of the Market Rules apply.

1.5.2 The Appendices contained within this Procedure form part of the Procedure and are legally enforceable.

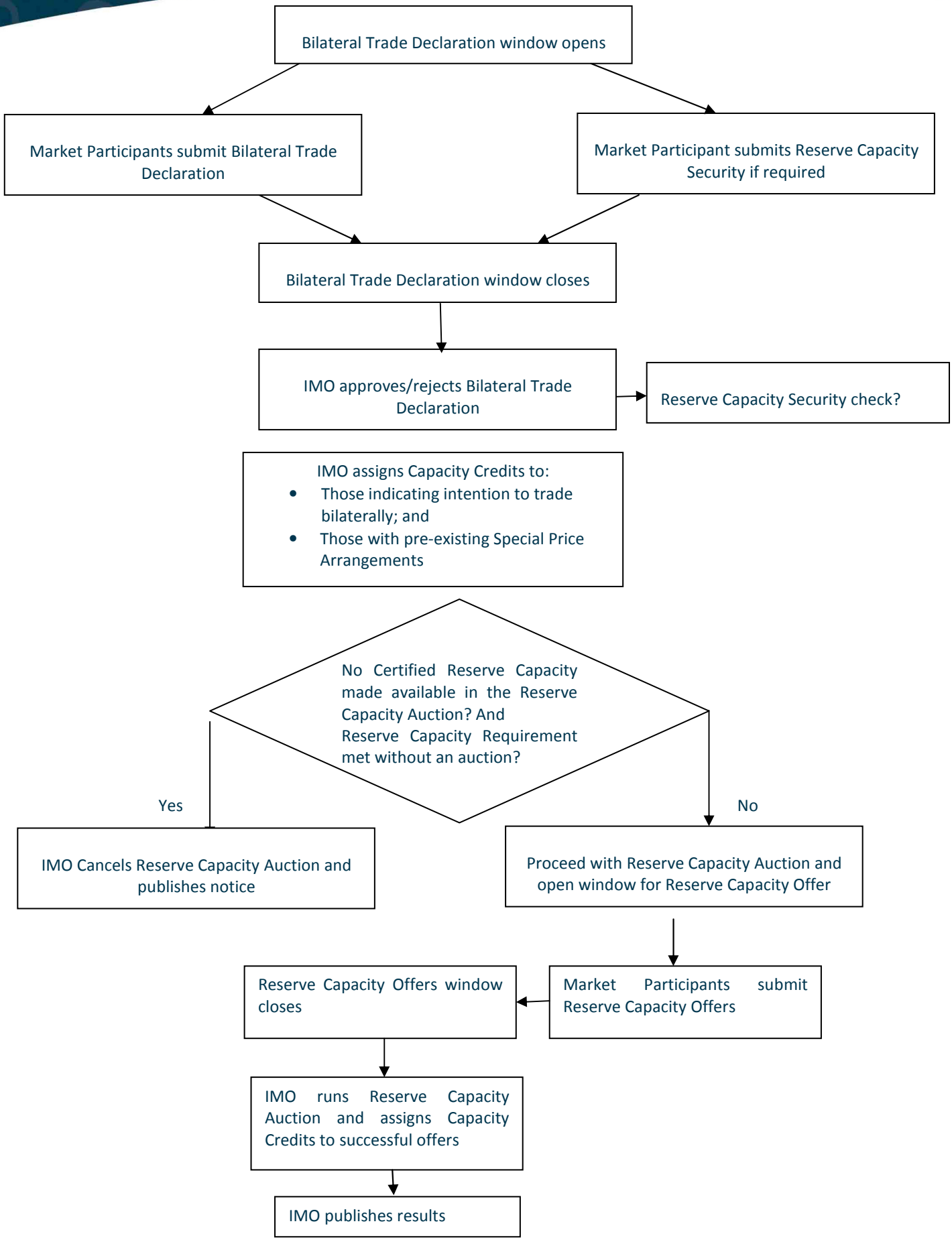
1.6 Terminologies and Definitions

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

Table 1 – Terms and Definitions

Term	Definition
Bilateral Trade Declaration	A declaration of the amount of Reserve Capacity submitted by a Market Participant for a Facility in accordance with clause 4.14.1(c).
WEMS (Wholesale Electricity Market System)	An interface system that the IMO uses to administer/operate the Wholesale Electricity Market
Reserve Capacity Facility Status	The status of a Facility for the purposes of the Reserve Capacity Mechanism, being “Proposed”, “Committed” or “In-Service”.

Figure 2 – Bilateral Trade Declaration and Reserve Capacity Auction Process


Bilateral Trade Declaration window opens
Market Participants submit Bilateral Trade Declaration
Market Participant submits Reserve Capacity Security if required
Bilateral Trade Declaration window closes
IMO approves/rejects Bilateral Trade Declaration
Reserve Capacity Security check?
IMO assigns Capacity Credits to:
Those indicating intention to trade bilaterally; and
Those with pre-existing Special Price Arrangements
No Certified Reserve Capacity made available in the Reserve Capacity Auction? And Reserve Capacity Requirement met without an auction?
Yes
No
IMO Cancels Reserve Capacity Auction and publishes notice
Proceed with Reserve Capacity Auction and open window for Reserve Capacity Offer
Reserve Capacity Offers window closes
Market Participants submit Reserve Capacity Offers
IMO runs Reserve Capacity Auction and assigns Capacity Credits to successful offers
IMO publishes results

2 BILATERAL TRADE DECLARATIONS

2.1 Submission of Bilateral Trade Declarations

2.1.1 The IMO must:

(a) open the window for Bilateral Trade Declarations in the WEMS at 8:00 AM on the first Business Day following the date specified in Clause 4.1.12(b); and

(b) close the window for Bilateral Trade Declarations in WEMS at 5:00 PM on the last Business Day falling on or before 2 September of Year 1 of the relevant Reserve Capacity Cycle **[Clause 4.1.14].**

2.1.2 A Market Participant must submit a Bilateral Trade Declaration in respect of each of its Facilities assigned Certified Reserve Capacity for the current Reserve Capacity Cycle by no later than 5:00 PM of the last Business Day falling on or before 2 September of Year 1 of the relevant Reserve Capacity Cycle. **[Clauses 4.14.1 and 4.1.14]**

2.1.3 A Market Participant must submit Bilateral Trade Declarations through the WEMS, unless an alternative format is specified by the IMO.

2.1.4 If a Market Participant has not received confirmation of receipt of its application from the IMO within one Business Day, the Market Participant must:

(a) contact the IMO to determine whether there has been an issue with the application; and

(b) arrange for resubmission of the application, or part of the application, to the IMO, if required.

2.1.5 If a Market Participant is required under clause 4.13.1 of the Market Rules to provide a Reserve Capacity Security for a Facility, the Market Participant must provide the relevant Reserve Capacity Security to the IMO in accordance with the process outlined in the Market Rules and the Market Procedure: Reserve Capacity Security.

2.1.6 Where a Market Participant which:

(a) specifies under clause 4.14.1(c) of the Market Rules to trade its Certified Reserve Capacity bilaterally; and

(b) is required under clause 4.13.1 of the Market Rules to provide a Reserve Capacity Security for a Facility,

does not provide in full the required amount of Reserve Capacity Security by 2 September of Year 1 of the relevant Reserve Capacity Cycle **[Clause 4.1.13(b)(i)]**, the Certified Reserve Capacity for the Facility will lapse **[Clause 4.13.9]**. This will invalidate the Bilateral Trade Declaration in respect of that Facility.

2.1.7 For the purpose of accepting Bilateral Trade Declarations, the IMO must use the Reserve Capacity Facility Status for a Facility that is recorded in the Registration system at the time that the Bilateral Trade Declaration is submitted. Further information on the Reserve Capacity Facility Status and the process for applying for Committed status is included within Appendix 1.

2.2 Information to be Included in Bilateral Trade Declarations

2.2.1 The information to be included by a Market Participant in a Bilateral Trade Declaration must be consistent with the Reserve Capacity Cycle for which the application is being made.

2.2.2 A Market Participant must specify the following quantities for each Facility (expressed in MW to a precision of 0.001 MW) in the Bilateral Trade Declaration:

(a) the total amount of Reserve Capacity intended to be made available in a Reserve Capacity Auction for the current Reserve Capacity Cycle (if held) where the amount to be made available is not to include Reserve Capacity covered by a pre-existing Special Price Arrangement;

(b) the total amount of Reserve Capacity covered by a pre-existing Special Price Arrangement that the Market Participant intends will not be traded bilaterally;

(c) the total amount of Reserve Capacity the Market Participant intends will be traded bilaterally; and

(d) the total amount of Reserve Capacity that will not be made available to the market, where this amount cannot include Reserve Capacity covered by a pre-existing Special Price Agreement. **[Clause 4.14.1]**

2.2.3 The sum of the quantities in step 2.2.2 for a Facility must equal the Certified Reserve Capacity for that Facility for the current Reserve Capacity Cycle **[Clause 4.14.1]**.

2.2.4 The amount of Reserve Capacity that Verve Energy intends to trade bilaterally, specified at procedure step 2.2.2(c), must be made in accordance with the requirements outlined in clause 4.14.4 and 4.14.5 of the Market Rules.

2.3 Assessment and Processing of Bilateral Trade Declaration Submissions

2.3.1 The IMO must review the information provided in a Bilateral Trade Declaration for a Facility within one Business Day of receipt of the Bilateral Trade Declaration.

2.3.2 In reviewing the information under step 2.3.1, the IMO must check all data provided in a Bilateral Trade Declaration to confirm that:

(a) the applicant is a Market Participant;

(b) the Facility referred to in the Bilateral Trade Declaration has been assigned Certified Reserve Capacity;

(c) all information required under clause 4.14 of the Market Rules has been provided;

(d) the total quantity of Certified Reserve Capacity held by the Market Participant is equal to that included in the Bilateral Trade Declaration **[Clause 4.14.1]**; and

(e) the Facility to which the submission refers is not subject to a Network Control Service Contract. **[Clause 4.14.3]**

2.4 Resolution of Discrepancies

2.4.1 The IMO must endeavour to resolve, with the Market Participant, any discrepancy in the consistency of the information provided in a Bilateral Trade Declaration, within one Business Day of receipt. **[Clause 4.14.7(a)]**

2.4.2 In seeking to resolve a discrepancy under step 2.4.1, the IMO may request additional or clarifying information from a Market Participant. The request should outline the information that is needed by the IMO to proceed with its consideration of the Bilateral Trade Declaration.

2.4.3 Upon receiving a request for additional information under step 2.4.2, the Market Participant must respond to the IMO by making necessary adjustments to its Bilateral Trade Declaration and providing other information as necessary.

2.4.4 If the IMO cannot establish what a Market Participant's intentions are with respect to all or part of its Certified Reserve Capacity within the time specified for resolving discrepancies in clause 4.14.7(a) of the Market Rules the IMO must determine that the:

(a) Market Participant's Certified Reserve Capacity corresponding to pre-existing Long Term Special Price Arrangements cannot be traded bilaterally; and

(b) Market Participant's Certified Reserve Capacity not covered by pre-existing Long Term Special Price Arrangements will be treated as being unavailable to the market

and the IMO must notify the Market Participant of this outcome within one Business Day of the deadline for resolving discrepancies specified in clause 4.14.7(a) **[Clause 4.14.7(c)]**.

2.5 Mutually Exclusive Facilities

2.5.1 The IMO must review the information submitted to it in Bilateral Trade Declarations (via the WEMS) and identify any Facilities that cannot exist simultaneously.

2.5.2 Where the IMO identifies under step 2.5.1 that two or more Facilities cannot simultaneously exist then the IMO cannot accept a non-zero value provided under

step 2.2.2(c) in respect of more than one of these Facilities and must reject all but one Facility based on the criteria outlined in clause 4.14.6 of the Market Rules.

2.5.3 The IMO may request supporting information from a Market Participant to support any assessment required under clause 4.14.6 of the Market Rules.

2.6 Acceptance and Rejection of Bilateral Trade Declaration Submissions

2.6.1 If the information provided by the Market Participant is consistent with that required in clause 4.14 of the Market Rules, the IMO must notify the Market Participant within one Business Day of receipt that the information is accepted **[Clause 4.14.7(b)]**. This notification may take the form of an automated response within WEMS stating that the Bilateral Trade Declaration submission was accepted.

2.6.2 The IMO must reject any Bilateral Trade Declarations that are deemed invalid from the bilateral trade process and the subsequent Capacity Credit assignment process.

2.7 Confirmation of Certified Reserve Capacity that may be Traded Bilaterally

2.7.1 Where a Market Participant specified a non-zero amount under step 2.2.2(c) the IMO must determine the quantity of Certified Reserve Capacity that may be traded bilaterally for each Facility in accordance with the methodology described in Appendix 3 of the Market Rules. **[Clause 4.14.9(b)]**

2.7.2 The quantity for each Facility in step 2.7.1 must exclude Certified Reserve Capacity that is associated with pre-existing Long Term Special Price Arrangements or that is not to be made available to the market. **[Clause 4.14.9(a)]**

2.7.3 Following the completion of its determination under step 2.7.1 the IMO must notify each Market Participant of the quantity of Certified Reserve Capacity that may be traded bilaterally for each of its Facilities by the date and time specified in clause 4.1.15 of the Market Rules. **[Clause 4.14.9]**

3 RESERVE CAPACITY AUCTION

3.1 Confirmation or Cancellation of the Reserve Capacity Auction

3.1.1 The IMO must run a Reserve Capacity Auction if:

(a) in applying the methodology described in Appendix 3 of the Market Rules, the IMO determines that a shortfall exists for any Availability Class; and

(b) one or more Market Participants specified a non-zero quantity provided under step 2.2.2(a) of this Procedure.

3.1.2 If the information provided under clauses 4.14 and 4.28C indicates that no Certified Reserve Capacity is to be made available in the Reserve Capacity Auction for a Reserve Capacity Cycle, or, based on the information received under clause 4.14, the IMO considers that the Reserve Capacity Requirement for the Reserve Capacity Cycle will be met without an auction, then, by the date and time specified in clause 4.1.16, the IMO must publish a notice specifying for that Reserve Capacity Cycle:

(a) that the Reserve Capacity Auction has been cancelled;

(b) the Reserve Capacity Requirement;

(c) the total amount of Certified Reserve Capacity;

(cA) the Capacity Credits assigned, by Facility, under clause 4.28C;

(d) the total amount of Certified Reserve Capacity that would have been made available in the Reserve Capacity Auction had one been held; and

(e) the total amount of Certified Reserve Capacity covered by pre-existing Special Price Arrangements **[Clause 4.15.1]**

3.1.3 Where the IMO determines under step 3.1.12 that a Reserve Capacity Auction is not required for a Reserve Capacity Cycle, the IMO must, by the date and time specified in clause 4.1.16 of the Market Rules, publish a notice containing the information required under clause 4.15.1 of the Market Rules.

3.1.4 Where the IMO determines under step 3.1.1 that a Reserve Capacity Auction is required for a Reserve Capacity Cycle, the IMO must, by the date and time specified in clause 4.1.16 of the Market Rules, publish a notice containing:

(a) the information required under clause 4.15.2 of the Market Rules:

(b) the dates during which the IMO will accept Reserve Capacity Offers; and

(c) the date on which the Reserve Capacity Auction results will be published.

3.2 Submission of Reserve Capacity Offers

3.2.1 Where the IMO accepted a Bilateral Trade Declaration submission from a Market Participant that specified a non-zero quantity of Certified Reserve Capacity under step 2.2.2(a), the Market Participant must submit a Reserve Capacity Offer in respect of that Certified Reserve Capacity.

3.2.2 A Market Participant submitting a Reserve Capacity Offer must submit the information:

(a) during the time period specified in clause 4.1.17 of the Market Rules; and

(b) through the WEMS, unless an alternative Reserve Capacity Auction form is specified by the IMO and published on the Market Web Site. **[Clause 4.17.2]**

3.2.3 The IMO may not accept a Reserve Capacity Offer submitted outside the period specified in clause 4.1.17 of the Market Rules **[Clause 4.17.8].**

3.2.4 A Market Participant must provide the information specified in:

(a) clause 4.18.1 in its Reserve Capacity Auction Offer; and

(b) clause 4.18.2 in respect of each Reserve Capacity Price-Quantity Pair.

3.2.5 For the purpose of the Reserve Capacity Auction, the IMO must use the Reserve Capacity Facility Status for a Facility that is recorded in the Registration system at the time that the Reserve Capacity Offer is submitted. Further information on the Reserve Capacity Facility Status and the process for applying for Committed status is included within Appendix 1.

3.2.6 Upon receipt of a Reserve Capacity Offer, the IMO must determine whether it:

(a) is consistent with the requirements of the Market Rules, including clause 4.14.10;

(b) contains all of the information required under clause 4.18 of the Market Rules; and

(c) is in the form required by clause 4.17.2 of the Market Rules. **[Clause 4.17.4]**

3.2.7 The IMO must accept the Reserve Capacity Offer as valid if it meets the criteria specified in step 3.2.6, and may reject the Reserve Capacity Offer if one or more of the criteria are not met.

3.2.8 Upon receipt of a Reserve Capacity Offer, the IMO must within one Business Day:

(a) contact the Market Participant to confirm receipt of the Reserve Capacity Offer, and

(b) advise whether the Reserve Capacity Offer has been accepted as valid or rejected as invalid, with reasons for the rejection provided **[Clause 4.17.3]**.

3.2.9 Advice by the IMO to a Market Participant under step 3.2.8(b) may be provided by an automated response within WEMS or an email

3.2.10 Where a Reserve Capacity Offer is rejected as being invalid under step 3.2.8(b) the IMO must provide reason for the rejection.

3.2.11 If a Market Participant has not been advised by the IMO within one Business Day that its Reserve Capacity Offer has been received, it must contact the IMO and arrange for resubmission of the Reserve Capacity Offer **[Clause 4.17.5].**

3.2.12 A Market Participant may not revise or resubmit a Reserve Capacity Offer after the IMO has confirmed receipt of the Reserve Capacity Offer in accordance with clause 4.17.3 of the Market Rules **[Clause 4.17.6].**

3.2.13 A Market Participant may only submit a revised Reserve Capacity Offer if:

(a) the IMO has advised the Market Participant that its Reserve Capacity Offer is invalid, or

(b) the IMO fails to acknowledge receipt of a Reserve Capacity Offer **[Clause 4.17.7]**.

3.2.14 A Market Participant must resubmit a Reserve Capacity Offer during the time period specified in clause 4.1.17 of the Market Rules.

3.3 Reserve Capacity Auction Clearing

3.3.1 The IMO must determine whether Reserve Capacity Offers have been received for two or more Facilities that were identified in step 2.5.1 as being unable to be simultaneously scheduled.

3.3.2 The IMO may only consider a Reserve Capacity Offer from a Facility identified under step 3.3.1 where in applying clause 4.14.6, the IMO has accepted a non-zero value for that Facility **[Clause 4.19.3(a)]**.

3.3.3 The IMO must process the Reserve Capacity Offers:

(a) by the time and date specified in clause 4.1.18 of the Market Rules; and

(b) by applying the methodology described in Appendix 3 of the Market Rules. **[Clause 4.19.1]**

3.3.4 The IMO may use the WEMS to complete this process of clearing the Reserve Capacity Auction.

3.4 Publication of the Reserve Capacity Auction outcome

3.4.1 By the date and time specified in clause 4.1.18 of the Market Rules, the IMO must publish:

(a) the Reserve Capacity Price included in the Reserve Capacity Auction results, determined in accordance with clause 4.19.1 of the Market Rules **[Clause 4.19.5(a)];**

(b) the quantity of Certified Reserve Capacity scheduled from each Facility registered by each Market Participant in the Reserve Capacity Auction

results, determined in accordance with clause 4.19.1 of the Market Rules **[Clause 4.19.5(b)]**; and

(c) the capacity shortfall in any Availability Class determined at Step 10 of Appendix 3 of the Market Rules.

APPENDIX 1 GUIDELINES FOR ASSESSING RESERVE CAPACITY FACILITY STATUS

The methodologies for accepting Bilateral Trade Declarations and clearing the Reserve Capacity Auction consider the Reserve Capacity Facility Status for a Facility. In particular, Facilities that have a Reserve Capacity Facility Status of In-Service or Committed will be ranked higher in some circumstances than Facilities that have a Reserve Capacity Facility Status of Proposed.

The Reserve Capacity Facility Status is recorded in the Registration System within WEMS. The status for a Facility can be located on the Reserve Capacity tab of the Facility Details page.

Due to its relevance to the Bilateral Trade Declaration and Reserve Capacity Auction processes, the process of application for Committed status is described in this Appendix.

A1.1 Application for Committed Status

A1.1.1 A Market Participant that wishes to raise its Facility Status from Proposed to Committed must submit to the IMO an application to change its Facility Status. The application must be completed by clicking the "Create Change Request" link on the Reserve Capacity tab of the Facility Details page in the WEMs.

A1.1.2 A Market Participant must make any applications under step A1.1.1 at least 10 Business Days prior to the date on which it intends to submit a Bilateral Trade Declaration or Reserve Capacity Offer. Note that any applications made after this time may not be able to be fully assessed by the IMO by the time required for the Bilateral Trade Declaration or Reserve Capacity Auction processes.

A1.1.3 Following submission of an application under step A1.1.1, a Market Participant must submit supporting information to the IMO, in writing or by email to system.capacity@imowa.com.au, demonstrating that the Facility is Committed. Supporting information will vary for each Facility but may include:

a) formal commitment, including financial approval, on behalf of the company in respect to the project (for example, Board approval);

b) evidence of funding arrangements for the Facility;

c) financial commitment by the Market Participant to a primary equipment supplier (this would usually take the form of a signed contract indicating purchase of the main plant equipment, including penalty clauses associated with non-compliance of the purchase agreement);

d) details of planning, construction and environmental applications, approvals and licences;

e) access to land, either through ownership or an appropriate leasing agreement;

f) a signed contract for civil works (or appropriate alternative), including contractual delivery times;

g) where a Facility is being built primarily to supply energy to one or more foundation customers, evidence that relevant power supply contracts are in place; and

h) for Demand Side Programmes, evidence of capacity already procured (for example, contracts for load curtailment) or evidence of capacity procurement activity (for example, letters of intent or memoranda of understanding); and

A1.1.4 The IMO may consult directly with a Market Participant prior to approving 'Committed' status.

A 1.1.5 Any information provided by a Market Participant to the IMO under stepA.1.1.3 must be treated by the IMO as confidential, if so designated by the Market Participant.

A1.1.6 A Market Participant must respond promptly to any requests for information under step A1.1.4 so as to allow the assessment to be completed by the time required for the Bilateral Trade Declaration or Reserve Capacity Auction processes.

A1.2 Assessment of Applications for Committed Status

A1.2.1 Upon receipt of an application to change the Reserve Capacity Facility Status for a Facility, the IMO must:

a) consider the supporting information provided by the Market Participant; and

b) make a determination as to whether to approve Committed status for the Facility.

A1.2.2 If under step A1.2.1 the IMO determines that the Facility is Committed, the IMO must

a) approve the change request; and

b) advise the Market Participant of the outcome and the date from which the change will be effective. A.1.2.3

A.1.2.3 Once the change is effective (as specified in step A1.2.2(b)), a Bilateral Trade Declaration or Reserve Capacity Offer submitted for the Facility will reflect Committed status.

A1.2.4 If the IMO rejects the change request or is unable to approve the change request before the Bilateral Trade Declaration or Reserve Capacity Offer submission window closes, the Facility will be considered as 'Proposed' for the purposes of the Bilateral Trade Declaration or Reserve Capacity Auction process.