## **Independent Market Operator**

## IMO PROCEDURE CHANGE AND DEVELOPMENT GROUP

## **Minutes**

Meeting No.	5
Location:	IMO Board Room
	Level 3, Governor Stirling Building, 197 St Georges Terrace, Perth
Date:	Thursday 22 April 2010
Time:	Commencing at 10:00 to 11:30am

Attendees			
Jacinda Papps	Independent Market Operator (IMO)	Chair	
Steve Gould	Landfill Gas & Power (LGP)	Industry Representative	
Alistair Butcher	System Management	System Management Representative	
John Rhodes	Synergy	Synergy Representative	
Wendy Ng	Verve Energy	Verve Energy Representative	
Ben Williams	IMO	Presenter (10:00-11:00am)	
Greg Ruthven	IMO	Presenter	
Fiona Edmonds	IMO	Minutes	

Apologies		
Yin Heng	Perth Energy	Industry Representative
Corey Dykstra	Alinta	Industry Representative

1

Item	Subject	Action
1.	WELCOME AND APOLOGIES / ATTENDANCE	
	The Chair opened the 5 <sup>th</sup> meeting of the IMO Procedure Change and Development Working Group (Working Group) at 10:00am.	
	Apologies were received from Yin Heng and Corey Dykstra.	
	The Chair introduced Ben Williams and Greg Ruthven as the presenters and subject matter experts for the Procedure Change Proposals on the agenda for this meeting.	
2.	MINUTES OF PREVIOUS MEETING	
	The minutes from Meeting 4 of the Working Group, held on 25 March 2009, were circulated prior to this meeting.	
	The minutes were accepted by Working Group members as a true and accurate record of the previous meeting.	
	Action Point: IMO to publish the minutes of Meeting 4 on the Website.	IMO
3.	ACTIONS ARISING	
	The actions arising were either complete or on the meeting agenda. The following exceptions were noted:	
	Market Procedure for Supplementary Reserve Capacity (SRC):	
	Item 7: The IMO to review section 2.3 and report back to the Working Group on how the Maximum Availability Price is prorated.	
	The IMO noted that this was provided to members for consideration prior to the meeting. It was agreed that this action item was now complete.	
	Item 12: The IMO to investigate the inclusion of liquidated damages and limitation of liability clauses in the proforma SRC contracts:	
	The IMO noted that this would be treated outside of the Market Procedure. System Management noted that to keep any SRC contracts attractive the IMO would need to balance the risk of becoming onerous and burdensome. It was agreed that this action item was now complete.	
	Item 14: The IMO to investigate whether Eligible Services would be included in the Dispatch Merit Order (DMO) or whether a separate SRC merit order would be provided.	
	The IMO stated that the intent is for Eligible Services to be included on the DMO and noted that currently this is being confirmed as occurring in the IMO systems. System	

Item	Subject	Action
	Management requested they be provided with the conclusions from the investigation to allow them to ensure that their systems would allow for SRC to be included on the DMO.	
	Market Procedure for Reserve Capacity Testing:	
	• <b>Item 22:</b> The IMO and System Management to discuss improvements to the verification process further out of session:	
	The IMO noted that this is outstanding and stated that it will provide the Working Group with an update of the outcomes of this discussion. The IMO noted that contingent on the outcomes of the discussions it will consider starting the Procedure Change Process again to include any additional amendments. Verve Energy noted that this is an important process and agreed with the IMO's recommended approach.	
	Market Procedure for Undertaking the LT PASA:	
	Item 32: System Management's planning engineers to review procedure and provide any feedback to the IMO.	
	System Management noted that this has been completed and that there was no additional feedback.	
	Item 34: The IMO to consider defining the definition of Long duration outage:	
	The IMO noted that this is under consideration.	
	Item 36: The IMO to investigate whether there might be a number of Intermittent Loads not registered for this step:	
	The IMO noted that this is currently underway and that it would provide the Working Group with an update at the conclusion of the investigation. The IMO noted that PC_2009_11 is not contingent on the outcomes of this investigation.	
4a	POWER FACTOR AND ACCURACY OF TEMPERATURE DEPENDENT OUTPUTS (Presentation)	
	The IMO noted (at the 13 August 2009 Working Group Meeting) its intention to investigate:	
	The application of power factor to generator ratings;	
	<ul> <li>The validity of using a 0.1 ℃ gradient calculation of the temperature dependence of a generation facility; and</li> </ul>	
	<ul> <li>The physical limits on the provision of reactive power and reactive power control.</li> </ul>	
	The IMO noted that it had engaged Sinclair Knight Merz (SKM) to undertake this work. The IMO presented the outcomes of the SKM report. A copy of the presentation is attached in Appendix 1.	

Item	Subject	Action
	The IMO noted SKM's recommendation, that to remain consistent with the requirements of the Technical Rules, the following power factors should be applied:	
	<ul> <li>Synchronous generators – most dispatchable generators: 0.8;</li> </ul>	
	<ul> <li>Induction generators – some smaller generators: 0.95; and</li> </ul>	
	Inverter generators – most wind-farms: 0.95	
	LGP queried the basis for the IMO's interest in the applicable power factor. The IMO responded that in past participants have applied for certification in MVars rather than MWs. The IMO noted that the proposed amendments to the Market Procedure for Certification of Reserve Capacity will provide the IMO a conservative option if details are not provided. The IMO noted its proposal to amend the procedure to include:	
	"If no power factor is provided, the IMO will use a power factor of 0.8 when determining the capacity of the Facility." [Appendix 2]	
	The IMO noted that while the SKM report is able to determine a 0.1 ℃ gradient calculation of the temperature dependence of generation facilities, the report also raises questions as to the accuracy of using such a fine gradient given other possible derating factors other than temperature. The IMO noted that a number of de-rate curves provided to it by Market Participants recently have been at this level. The IMO stated the three options available to ensure reliability are:	
	<ul> <li>Reduce all output by 3% to ensure Generator can reliably produce Capacity Credit level in extreme circumstances – complex;</li> </ul>	
	<ul> <li>Design rule changes to include 3 or 4 (or more) dimensional de-rate curves to account for changes in pressure and temperature – Very complex; and</li> </ul>	
	Allow Market Participants to set their own risk levels when applying for CRC – current methodology.	
	Action Point: Working Group members to provide any comments on the proposed power factors by 20 May 2010.	Working Group
	Verve Energy noted that the use of 0.1 ℃ would not capture metering errors. In response, the IMO noted that the Metering Code requires meter errors to be within a certain tolerance. The IMO noted that it needs to either:	·
	allow Market Participant to take this risk into account in the level of capacity credits they apply for; or	
	<ul> <li>assume that the Meter Data is erroneous and add this tolerance onto the required level when performing Reserve Capacity testing.</li> </ul>	

Item	Subject	Action
	Verve Energy noted that the use of 0.1 ℃ would not take into account any degradation etc experienced with older facilities. Temperature dependence curves based on 0.1 ℃ increments would be difficult to provide to the IMO unless a facility gets an independent consultant to test for each increment. Verve Energy noted that to test at this level of detail would be impracticable. The IMO suggested that testing a few points and interpolating these to develop the temperature dependence curves could be considered.	
	Action Point: Verve Energy to consider whether interpolating points (to 0.1 °C) or rounding values would be most practicable for developing a temperature dependence curve.	Verve Energy
	LGP stated that the notion of measuring a temperature to 0.1 °C is unnecessary and would result in larger calculation errors. The IMO noted that it currently uses Bureau of Meteorology data and SCADA temperature data (for a number of Verve Facilities) as this is available at 0.1 °C. The IMO noted that the alternative is to not use 0.1 °C but to rather round to a higher temperature (conservative approach) which would simply making passing a test harder.	
	Action Point: Working Group members to consider whether:	Working
	use of 0.1 ℃ data; or	Working Group
	<ul> <li>rounding values to a higher required MW level for all temperatures</li> </ul>	
	is the most appropriate option for determining the temperature dependence curve for a facility and provide the IMO with comments by 20 May 2010.	
4b	MARKET PROCEDURE FOR CERTIFICATION OF RESERVE CAPACITY	
	The Chair noted that the Market Procedure for Certification of Reserve Capacity has been further updated to:	
	<ul> <li>incorporate the comments of the Working Group at the 13 August 2009 meeting;</li> </ul>	
	<ul> <li>incorporate the Amending Rules resulting for RC_2009_10 which introduced the concept of Early Certified Reserve Capacity (ECRC); and</li> </ul>	
	<ul> <li>ensure consistency with the style and format adopted by both the IMO and System Management for Market Procedures.</li> </ul>	
	The following points (along with any agreed action points) were raised by the Working Group regarding the amended Market Procedure for Certification of Reserve Capacity:	IMO
	Step 1: The IMO agreed to review the introduction to ensure	

Item	Sub	pject	Action
		no duplicated information is contained in steps $1.1-1.5$ and amend accordingly.	
		Step 1.3: LGP queried whether the purpose of the procedure should be stated at the outset. System Management noted that the IMO's approach of providing this in a separate step is consistent with the Power System Operation Procedures.	
		Step 1.4.1(a): The IMO agreed to include a reference to Interruptible Loads.	
		Step 1.4.1(a)(i) & (ii): The IMO agreed to amend to refer to Intermittent Generator . The IMO noted the potential difficulties in providing additional details of whether it is a Non-Scheduled Generator as they only grant capacity to Intermittent Generators.	
	•	Step 1.6: The IMO agreed to include sub-section headings, in particular relating to accreditation of independent experts (step 1.6.2-4).	
	•	Step 1.6.8: The IMO noted that the screen shot is generic.	
	•	Step 1.8.3: The IMO agreed to remove any duplication between the statements made in this step and clarify that registration in WEMS for the purposes of certified capacity does not mean that an applicant is required to be registered as a Market Participant.	
	•	Step 1.8.6: The IMO agreed to delete.	
		Step 1.8.8: The IMO agreed to amend as follows "Additional clarification of the some of the"	
	•	Step 1.8.11: The IMO agreed to amend to refer to the same period as for certification.	
	•	Step 1.8.12: The IMO agreed to amend to refer to Market Participants that require credits for that cycle.	
	•	Step 1.9.4: The IMO agreed to amend as follows " details of this the process for becoming committed can be found"	
	•	Step 1.9.6: LGP noted that this section is a repetition. The IMO agreed to consider including in the Market Procedure a:	
		<ul> <li>more general section to apply for both Certification of Reserve Capacity and ECRC; and</li> </ul>	
		o glossary section.	
	•	Step 1.9.10: The IMO agreed to amend to refer to Market Participants that require credits for that cycle.	
	•	Step 1.9.12: The IMO agreed to amend to refer to step 1.8 and 1.9 of the procedure.	
	•	Step 1.10.2: LGP noted that when a facility is considered to	

Item	Subject	Action
	be registered needs to be taken into account. The IMO agreed to consider.	
	Step 1.10.14: The IMO agreed to remove any duplication between the statements made in this step.	
	<ul> <li>Step 1.10.17: The IMO agreed to consider separating this step into two separate steps.</li> </ul>	
	<ul> <li>Step 1.10.25: System Management suggested that the other factors for consideration should be delineated. The IMO agreed to review the drafting of this step.</li> </ul>	
	<ul> <li>Step 1.11.1. The IMO agreed to amend as follows "         existing non-intermittent or intermittent generating         Facilities"</li> </ul>	
	<ul> <li>Step 1.11.4: System Management stated that this step will need amending following any changes to the Network Control Services (NCS) tendering arrangements as the IMO's transparency of existing contracts might be reduced. LGP recommended amending to refer to network constraints rather than transmission constraints. The IMO clarified that this was a requirement under clause 4.11.1(g) of the Market Rules and agreed to put this on the Rules Change Log.</li> </ul>	
	<ul> <li>Section 1.11.15: The IMO agreed to amend as follows " from 1 December up to an including 2009 or 1 October from 2010 onwards in Year 3".</li> </ul>	
	Step 1.12: The IMO agreed to include Interruptible Loads.	
	• Step 1.13.3: System Management noted the same comments as provided under step 1.11.4 around any changes to NCS.	
	Step 1.13.4: The IMO agreed to consider the inclusion of a consultation step with System Management.	
	<ul> <li>Step 1.13.8: The IMO agreed to amend as follows " from 1         December up to an including 2009 or 1 October from 2010         onwards in Year 3".</li> </ul>	
	Step 1.13.14: The IMO agreed to remove any duplication between the statements made in this step.	
	<ul> <li>Step 1.14.3: The IMO to consider including a step stating a Market Participant must submit a report in either section 1.8 or 1.9.</li> </ul>	
	<ul> <li>Step 1.14.4 &amp; 5: The IMO to consider whether there should be step referring to NCS included (similar to step 1.11.4).</li> </ul>	
	<ul> <li>Step 1.14.12: The IMO agreed to amend as follows " for a new Intermittent Generator is zero."</li> </ul>	
	Step 1.15: The IMO agreed to include Interruptible Loads.	

Item	Subject	Action
	<ul> <li>Step 1.15.7: The IMO agreed to amend to "Reserve Capacity Rreduction" and include a cross reference to the registration requirements.</li> </ul>	
	<ul> <li>Appendix A: Generator Capability: The IMO agreed to consider amending to apply for only new facilities (contingent on the further comments received by Working Group members on the appropriate power factor).</li> </ul>	
5	MARKET PROCEDURE FOR SUPPLEMENTARY RESERVE CAPACITY	
	The Chair noted that the Market Procedure for Supplementary Reserve Capacity (SRC) has been updated to incorporate the comments of the Working Group at the 13 August 2009 meeting. The Chair noted that there are a number of areas of the Market Rules regarding SRC which members may not necessarily agree with, however the mandate of the Working Group precludes review of the Market Rules. In particular, the Chair noted that Working Group members are required to discuss whether the Market Procedure is consistent with the Market Rules.	
	The Chair noted that the further issues surrounding SRC, as agreed by the MAC at the February 2010 meeting, will be presented back to the MAC for further reconsideration in October 2010.	
	The IMO presented an overview of the further updates to the Working Group. The following points were noted:	
	Step 2.1: Synergy noted that there was no obligation on the IMO to publish the shortfall. The IMO clarified that this would be provided in the call for tender.	
	Step 2.3.2: System Management queried why the Value of Lost Load (VoLL) was linked to the National Electricity Market (NEM). The IMO responded that capacity may need to be encouraged from the Eastern States and would need to be competitive with NEM prices.	
	Synergy noted that the VoLL needs to only be high enough to generate a reallocation of existing capacity in Western Australia to achieve an outcome. This contrasts with the approach required in the NEM where VoLL prices need to be high enough to encourage new capacity.	
	LGP noted that the maximum price offered to providers of SRC need to reflect the value of the additional capacity to the market. Additionally, LGP noted that the maximum is likely to be the price which providers offer in to the IMO at. System Management queried whether the NEM's VoLL would be too high a price.	
	Verve Energy noted that theoretically the appropriate price would be our maximum energy price as all existing capacity would have already been paid for by the market.	
	The Working Group agreed that there is not a sufficient link	

Item	Subject	Action
	between the VoLL in the NEM and the prices required to encourage the provision of SRC in Western Australia.	
	Action Point: The IMO to consider an appropriate alternative to the use of the VoLL from the NEM for determining the Maximum Contract Value.	IMO
	The IMO noted that the decision over which methodology would be utilised would be escalated to the IMO Board. Additionally, the IMO clarified that it would retain the option of specifying a cap on the availability price.	
	Synergy noted that to get a better feel for whether the methodology for determining the Maximum Contract Value is appropriate it would need to consider the details of the SRC contract.	
	Action Point: The IMO to consider whether it would be appropriate to provide Working Group members with a copy of the standard form contract for SRC.	IMO
	Synergy noted that decisions to run DSM are influenced by the differential between the availability and activation price. In particular, Synergy noted that the proposed methodology is more heavily weighted towards availability payments. The more that is paid via the availability price the lower the activation price will be and subsequently there will be less incentive to actually provide SRC when it is called. LGP stated that the maximum availability price could be potentially set at zero to provide more flexibility. The IMO noted that step 2.3.4 has been included to ensure the correct incentives are provided to SRC suppliers.	
	Action Point: The IMO to update section 2.3.4 to provide greater flexibility in specifying the notional availability price.	IMO
	Synergy also questioned the applicable penalty arrangements should the SRC supplier fail to respond to a request for capacity to be provided. Synergy noted that any imposable penalties will have an important role in encouraging commitment and that this level of detail would be expected in any contracts. The IMO noted that any punitive arrangements to be included in contracts need to still represent a commercially desirable contract. System Management requested that prior to the IMO entering into any SRC contract it is consulted on the dispatch arrangements for calling that capacity to be provided.	
	<ul> <li>Step 2.9: Synergy queried the reasons for deleting the publication of outcomes section. The IMO noted that the Market Rules which do not expressly allow for publication of this information. The IMO noted that it will be further considering changes to Chapter 10 of the Market Rules to allow for the publication of the outcomes of any call for SRC. Synergy noted that a mechanism is required to provide transparency of the costs of SRC so that these can be appropriately apportioned.</li> </ul>	

Item	Subject	Action
	Action Point: The IMO to further consider any changes to Chapter 10 of the Market Rules to allow for the publication of the outcomes of any call for SRC and report back to the Working Group.	IMO
6	GENERAL BUSINESS	
	Maximum Reserve Capacity Price Working Group (MRCPWG)	
	The IMO noted that it would be sending out the list of MRCP Scoping Questions to be covered by the MRCPWG along with the Terms of Reference to Market Advisory Committee (MAC) members on 22 April 2010. Once comments from MAC members have been received the IMO will issue a call for membership of the MRCPWG to all of industry.	
	MRCP Market Procedure (PC_2009_12)	
	The Chair noted that Alinta had requested the Working Group discuss the appropriateness of the changes approved under the Procedure Change Proposal: Market Procedure for the determination of the MRCP (PC_2009_12). In particular, the removal of the values of the major components from the Market Procedure, with the intention to derive these values from the 2007 Allen Consulting Group report unless a significant change has occurred (as specified in the Market Procedure). LGP noted that it maintains its support of PC_2009_12. The Working Group did not make any further comments on PC_2009_12. The Chair noted that any major concerns with the approach of not specifying the major components in the Market Procedure will be within the scope of work for the MRCP Working Group.	
7	NEXT MEETING	
	The Chair noted that the next Working Group meeting (time and date TBA) will discuss the IMO's:	
	further revised SRC Market Procedure; and	
	proposed changes to the Monitoring Protocol.	
8	CLOSED	
	The Chair thanked all members for attending.	Chair
	The Chair declared the meeting closed at 11.55 am.	