Independent Market Operator

MRCPWG

Agenda

Meeting No.	4
Location:	IMO Board Room, Level 3, Governor Stirling Tower, 197 St Georges Terrace, Perth
Date:	Monday, 23 August 2010
Time:	Commencing at 12.00 to 2.00pm

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
	a) Comments on Scope of Works	**IMO**	15 min
4.	**REVIEW OF MRCP COMPONENTS**	**IMO**	60 min
5.	**GENERAL BUSINESS**	**IMO**	5 min
6.	**NEXT MEETING** Monday 30 August 2010 (3:00-5:00pm)	**Chair**	5 min

Independent Market Operator

MRCPWG

Minutes

Meeting No.	3
Location:	IMO Board Room Level 3, Governor Stirling Building, 197 St Georges Terrace, Perth
Date:	Friday 2 July 2010
Time:	Commencing at 2:00 to 4:00pm

Attendees	
Troy Forward	IMO (Chair)
Steve Gould	Market Customer
Patrick Peake	Market Generator
Shane Cremin	Market Generator
Brad Huppatz	Market Generator
Pablo Campillos	DSM Aggregator
Nenad Ninkov	New Investor
Neil Gibbney	Western Power
Matthew Fairclough	System Management (proxy)
Chris Brown	Economic Regulation Authority (ERA) (Observer)
Other Attendees	
Monica Tedeschi	IMO (Observer)
Rob Pullella	ERA (Observer) (3.05-4.00pm)
Apologies	
Stephen MacLean	Synergy
Alistair Butcher	System Management
Greg Ruthven	IMO

Item	Subject	Action
1.	WELCOME AND APOLOGIES / ATTENDANCE The Chair opened the 3rd meeting of the Maximum Reserve Capacity Price (MRCP) Working Group (Working Group) at 2:00pm.	

Item	Subject	Action
	Apologies were received from: x Alistair Butcher – System Management; x Stephen MacLean – Synergy; and x Greg Ruthven – IMO. The following other attendees were noted: x John Rhodes (Proxy for Stephen MacLean); x Matthew Fairclough (Proxy for Alistair Butcher); x Ben Williams (Proxy for Greg Ruthven); x Monica Tedeschi (Observer); and x Rob Pullella (Observer). The Chair introduced Monica Tedeschi as the IMO's Graduate Analyst and requested for Miss Tedeschi to attend Working Group meetings as an Observer. The Working Group agreed for Miss Tedeschi to attend meetings as an Observer.	
2.	MINUTES OF PREVIOUS MEETING The minutes of the 2nd MRCP Working Group meeting, held 22 June 2010, were circulated prior to the meeting. <u>Page 4: Section 5: Review of MRCP Components</u> Mr Brad Huppatz requested the following amendment: "Mr Brad Huppatz noted that the market is put at risk if there are no ~~components~~ <u>proponents</u> …" Mr Matthew Fairclough requested the following clarification be included: "Mr Alistair Butcher questioned whether it is premature to seek consultancy advice if the Working Group has not yet agreed whether costs should be optimised <u>or based on a real or hypothetical power station</u>." Mr Corey Dykstra requested the following sentence be amended and moved to the section of the minutes on deep connection costs: "Mr Dykstra noted that the attribution of deep connection costs ~~will~~ <u>may</u> be partially set by the Western Australian regulatory framework. Mr Dykstra also noted that the ERA is likely to be interested in an answer to this." <u>Page 5: Section 5: Review of MRCP Components</u> Mr Fairclough requested the following clarification be included: "…deep connection costs would be expected to be less than being built else where, <u>but deep connection costs may be very location specific</u>." Mr Dykstra requested the following amendment:	

Item	Subject	Action
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Item	Subject	Action
4a	SCOPE OF WORKS: CALCULATION METHODOLOGY TO BE APPLIED IN DETERMINING DEEP CONNECTION COSTS	

The IMO presented the scope of works it had prepared for the review of deep connection costs. The following points were raised by members:

- Mr Neil Gibbney noted that the outcomes and implication of New Facility Investment Test (NFIT) and the capital contributions policy is a large consideration. Mr Gibbney suggested the ERA provide further guidance on whether the Consultant should review whether the recommended calculation methodology would pass both the NFIT and capital contributions policy.
- Mr Gibbney noted that the scope of works does not state that the solution needs to be consistent with the Market Objectives. In response, Mr Shane Cremin noted that there is no direct relationship with the Wholesale Market Objectives and that the technical code may be more relevant for deep connection costs.

Action Point: The IMO to amend the Scope of Works to include a link to the Technical Rule requirements.

- Mr Cremin questioned whether a prescriptive outcome was being sought and whether the ERA should develop a similar method to enhance transparency of the transmission process. In response, Mr Chris Brown noted that this would require a different framework to be developed.
- Mr Pablo Campillos noted that a side-by-side comparison of Wester Power's current calculation and any identified alternative methods would be beneficial. Mr Dykstra noted that any alternative approaches will need to be within the constraints of the current regulatory environment. Mr Cremin noted the difficulties in identifying the net benefits resulting from construction at different sites.
- Mr Dykstra noted that the scope of works should be more precise as to what needs to be review.21 0Dyks4c5( )]TJ lculation and any identifie1O Ch

Item	Subject	Action
	word version of the Scope of Works: Calculation Methodology to be applied in determining Deep Connection Costs Action Point: Working Group members to provide suggested amendments to the IMO on the Scope of Works: Calculation Methodology to be applied in determining Deep Connection Costs by 23 July 2010. x Mr Ninkov suggested that a definition of deep connection costs should be developed. Mr Brad Huppatz questioned if a Market Participant can appeal to the ERA or Western Power if it disagrees with Wester Power's decision of what a deep connection cost is. Mr Dykstra noted that it is a responsibility of the connecting generator to determine if the value is consistent with the regulatory requirements for determining the values when it is provided the quantum of capital contribution. Action Point: The IMO to develop a definition of deep connection costs and provide to Working Group members for review. Action Point: The IMO to include a request for details of the regulatory regime in the Scope of Works: Calculation Methodology to be applied in determining Deep Connection Costs.	Working Group IMO IMO

4b SCOPE OF WORKS: CALCULATION METHODOLOGY TO BE APPLIED IN DETERMINING THE WEIGHTED AVERAGE COST OF CAPITAL

The IMO presented the scope of works it had prepared for the review of the WACC methodology. The following points were raised by members:

- Mr Dykstra questioned why the Working Group would be asking the same questions regarding the methodology again unless the situation had changed since the last review. Mr Williams noted that during the 2009 review the Consultant had suggested new Major parameters; as a result the IMO wants the Consultant to review whether these are appropriate. Mr Williams also noted that the inclusion of debt financing costs in both the margin M and WACC variables means that there is potential double counting currently.
- The Chair noted that the construct of the Market Rules needs to be taken into account when preparing the WACC. One of the questions to be answered is whether the risk component in the WACC should take into account the risk of not going into the auction. The Chair noted that the determination by the Allen Consulting Group three years ago didn't take into account the risk of not getting the project funded at all because it does not enter the auction. Mr Dykstra noted that this is a project-specific risk and should be determined for the

Item	Subject	Action

Market (NEM) as they would not face the same risk as in the WEM (Equity Beta). Mr Pullella suggested that risk may be higher than in the NEM. Mr Cremin disagreed, stating that a Market Participant could potentially lose all its Capacity Credits in one or two months. Mr Pullella noted NEM participant are not paid an income associated with Capacity Credits.

- Mr Brown suggested that the assumption for MRCP is that a proponent is a single project. Mr Pullella considered that the equity beta should be lower in the WEM than the NEM as there is a capacity market. Mr Patrick Peake noted that difference in the WEM is that Capacity Credits could be the sole income of a generator.
- Mr Peake noted that the money that a proponent could receive from the auction needs to be enough to cover previous development work. While this is a risk to all developers in the WEM, if capacity is to be encouraged onto the market then this needs to be taken into account. Mr Peake suggested that project specific risk could be incorporated into the margin M calculation.
- Mr Campillos suggested that the risk of not getting the project up in time might be included across a proponent's entire development portfolio which would potentially inflate costs.
- The Chair questioned when the outcomes from the original review undertaken by the Allen Consulting Group should be maintained. Mr Ninkov noted the Working Group needs to decide if the WACC is based on a single stand-alone facility or one which comprises part of a portfolio.
- Mr Dykstra noted that there will be a wide range of values for

Item	Subject	Action
	with a 160MW unit may not be the same as those encountered in connecting a 155MW unit and suggested the Consultant consider whether the value of 160MW be explicitly stated or if variation around this value should be allowed. Mr Steve Gould agreed that this was an issue. The Chair suggested that the sensitivity around the review of 2009 numbers would change if the 160MW basis is amended by incremental amounts. The Chair noted that this would be a scoping exercise and not undertaken each year. x Mr Cremin noted although there are likely to be large deep connection costs associated with building a 160MW unit it is unlikely that one will be connected as there are currently no appropriate sites available. As a result smaller units are more likely to enter the market. The Chair noted that problem with investing in infrastructure is a much larger issue which is outside the scope of the Working Group. x Mr Fairclough noted that the 160MW level was set in 2005 when the system had the capacity to connect new units. Mr Fairclough questioned whether this initial assumption is still relevant given system constraints. Mr Ninkov noted that the Working Group is developing a methodology for determining the MRCP to apply for the next five years during which further units are likely to enter the WEM. Mr Williams noted that the methodology should be robust to changes in circumstances. Mr Dykstra noted that the methodology should be simple and reflect a reasonable process. As size of the unit being connected to the system will drive the deep connection costs the Working Group agreed that this issue needs to be discussed and resolved prior to the Consultant undertaking the review. x Mr John Rhodes questioned the size of units which have been recently entering the WEM. The Chair clarified that these have generally been smaller units. x The Chair noted that a notional unit of 40MW is used for the purposes of the determination of the Energy Price Limits. It was noted that a 40MW unit is not inconsistent with providing load following services. Mr Cremin noted that if a proponent builds a smaller machine they will still have similar overheads associated with transmission connection. The Chair suggested that the Working Group could look at using the Statement of Opportunities for these purposes, including reserve (load) forecasting. The Chair also noted that the first MRCP review included a price/quantity curve on a megawatt basis and that the price determined fitted well with 160MW band. x Mr Campillos questioned whether the Working Group should review the likeliness of a new entrant wanting to connect a 160MW plant given the current transmission constraints. In response, Mr Williams noted that the MRCP needs to apply for the next 5 years and should therefore be dynamic. Mr Williams suggested that an optimised model should be considered as it would allow for changes in the costs of transmission for different sized generators. Mr Dykstra noted that the Working Group needs to determine what the incremental block of capacity to secure in a shortfall situation	

Agenda Item 3: MRCPWG - Action Points

Legend:

Unshaded	Unshaded action points are still being progressed.
Shaded	Shaded action points are actions that have been completed

#	Meeting Arising	Responsibility	Action	Status/Progress
5	Meeting 1			

Meeting No 4: 23 August 2010

#	Meeting Arising	Responsibility	Action	Status/Progress
15	Meeting 3	[redacted]		

#	Meeting Arising	Responsibility	Action	Status/Progress
			determining the WACC to Working Group members.	
23	Meeting 3	Working Group		

Agenda Item 3a: Scope of Works Comments

1. BACKGROUND

At the third Maximum Reserve Capacity Price (MRCP) Working Group (MRCPWG) meeting on 2 July 2010 the Working Group members agreed to provide comments on the following Scope of Works:

- Calculation Methodology to be applied in determining Deep Connection Costs; and
- Calculation Methodology to be applied in determining the Weighted Average Cost of Capital

An overview of the comments received from members is presented in section 3 below, along with the IMO's response. A copy of the updated Scope of Works is presented as an Appendix A.

2. PROCESS FROM HERE

The IMO recommends that the MAC:

- Note the IMO's response to the suggested amendments to the scope of works;and
- Agree that the IMO go out for tender for both of these pieces of work

Scope of Works	Submitter	Issue/Section	Comment/Recommendation	IMO's response
WACC	Corey Dykstra (Alinta)	General	Much of the scope seeks to revisit the work ACG has already completed. Does not seem cost effective.	The IMO agrees with the comments of both Mr Dykstra and Mr Brown, on behalf of the ERA Secretariat, that there is potentially no need for undertaking a complete review of the methodology for calculating the WACC. As a result the IMO has amended the Scope of Works to only review aspects of the methodology where a

Scope of Works	

Scope of Works	Submitter	Issue/Section	Comment/Recommendation	IMO's response
			the ~~price~~ MRCP needs to accurately reflect all of the costs ~~which~~ that are likely to be incurred ~~by the proponent~~ in constructing the power station, and making it available to the market."	
WACC	Corey Dykstra (Alinta)	Background Section	Suggests the following amendment: "As part of this review it has been identified that certain elements of the ~~the assumptions and~~ methodology..."	The Scope of Works has been updated to incorporate Mr Dykstra's suggestion.
WACC	Corey Dykstra (Alinta)	Background Section	Suggests the following amendment: "…provide a report to the IMO on these elements ~~appropriate~~ parameters, assumptions, calcu	

Scope of Works	Submitter	Issue/Section	Comment/Recommendation	IMO's response
				Ninkov's suggestion to specify that the cost include the rate of return.

Scope of Works	Submitter	Issue/Section	Comment/Recommendation	IMO's response
			"Value of parameters to be included in the WACC and Capital Asset Pricing Model: The review will need to consider: o The parameters for which values should be specified in the Market Procedure, the values that should be adopted for these parameters and the basis for these values. For these parameters, the review will need to consider: o how frequently the specified values for these parameters should be reviewed (e.g. every five years); o whether there are defined	

Scope of Works	Submitter	Issue/Section	Comment/Recommendation	

Agenda Item 3: Appendix 1

Scope of Works: Calculation Me thodology to be applied in determining Deep Connection Costs

BACKGROUND

The Wholesale Electricity Market Rules (Market Rules)[1] and the Market Procedure for: Determination of the Maximum Reserve Capacity Price[2] (the Market Procedure) require the IMO to calculate a Maximum Reserve Capacity Price (MRCP) each year. The MRCP sets the maximum offer that can be made in a Reserve Capacity Auction and is used as the basis for determining an administered Reserve Capacity Price if no auction is required and capacity refunds.

The purpose of the MRCP is to incentivise an

- x analyse any assumptions made by Western Power and the IMO in the estimation of the deep connection costs used in the MRCP calculation for the 2010 Reserve Capacity Cycle and recommend adopting or replacing those assumptions. Where an assumption is recommended to be replaced the Consultant will be required to propose a different assumption. The Consultant will be expected to comment on both stated and implied assumptions; and

- x if appropriate, propose an alternative methodology for estimating the deep connection costs used in the MRCP, explicitly stating all assumptions made in the methodology.

The main deliverable for this project will be a report comprising the following:

1. A document which plainly states each parameter that should be used by Western Power in calculating an estimate of deep connection costs under both the Western Power methodology (including details of any amended assumptions and assumptions associated with the Western Australian regulatory regime) and the alternative

Agenda Item 3: Appendix 2

Scope of Works: Calculation Methodology to be appli ed in determining the Weighted Average Cost of Cc7551( )0.3872978( )278]T0 0 cm BT

- the basis on which a set of comparator companies used to derive such an estimate was established;
- the number of comparator companies to include in the set of comparator companies;
- whether the set of comparator companies used to derive such an estimate should remain fixed; and
- whether there would be circumstances under which the set of comparator companies may be changed.

In conducting this assessment the Consultant will be required to:

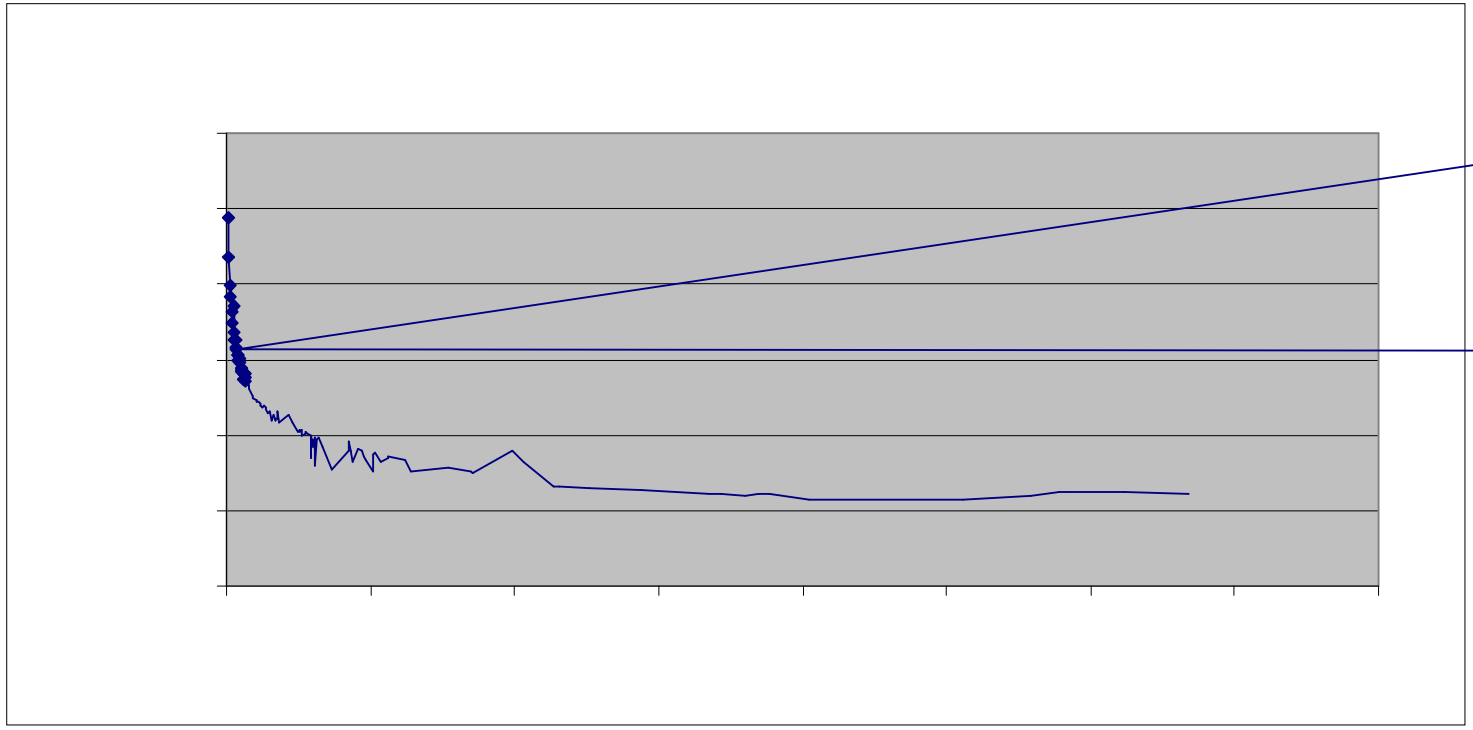
- analyse other parameters included by the IMO in the calculation of the MRCP, especially in regards to the calculation of the margin M parameter. The Consultant will be expected to make a recommendation on whether debt issuance costs are more appropriately included as part of the WACC or as part of Margin M;
- provide a recommendation detailing if any of the parameters should include a risk margin to incorporate the risk that no Reserve Capacity Auction will be held; and the rationale for inclusion or exclusion of this risk;
- provide a rationale for any proposed changes to the methodology, parameters, assumptions, calculation and the application of the WACC in determining the MRCP.

The key deliverable for this part of the project will be a report comprising the following:

1. A section which plainly states the recommendations regarding:
   - each parameter;
   - the calculation methodology for each parameter;
   - when each parameter should be updated; and
   - the assumptions inherent in each calculation.

   This section of the report will need to be worded such that it can either be incorporated directly into the Market Procedure or be used as a subsidiary document to the Market Procedure;
2. A section detailing the analysis undertaken in determining the recommendations (as presented above); and
3. A section detailing the results of the calculation.

· Any other considerations the Consultant deems should be taken into account.



Agenda Item 4: Review of MRCP Components

[redacted] Capacity Price (MRCP) Working Group (MRCPWG) meeting [redacted] Group members agreed that the current construct of the MRCP [redacted]

[redacted] bers begin reviewing the components of the MRCP at the 22 [redacted] ned in Sections 1.5 to 1.13 of the Market Procedure for [redacted] Reserve Capacity Price. It was agreed that the remainder of [redacted] overed during subsequent meetings.

[redacted] elow, along with information to guide the Working Group's [redacted]

Liquid fuel storage and handling facilities	x Current specifications x Alternative specifications	Section 1.9
Transmission connection – source of valuation	x Western Power x Alternative provider	Section 1.8
Transmission connection – location	x Linked to land valuation locations x Alternative location(s) x Optimisation of land & connection costs	Section 1.8
Transmission connection – other elements	x Capital Contribution Policy x Tariffs	Section 1.8
Fixed O&M	x Current methodology x Alternative methodology	Section 1.10
Land – source of valuation	x Landgate x Alternative valuer	Section 1.11
Land – location	x Current list x Alternative location(s)	Section 1.11
Land – size	x 3 ha (no buffer zone) x 30 ha (with buffer zone)	Section 1.11