Independent Market Operator

MRCPWG

Agenda

Meeting No.	3
Location:	IMO Board Room, Level 3, Governor Stirling Tower, 197 St Georges Terrace, Perth
Date:	Friday 2 July 2010
Time:	Commencing at 2.00 to 4.00pm

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.	**SCOPE OF WORKS**		
	a) Review of Deep Connection Costs	**IMO**	15 min
	b) Review of WACC methodology	**IMO**	15 min
5.	**REVIEW OF MRCP COMPONENTS**	**IMO**	60 min
6.	**GENERAL BUSINESS**	**IMO**	5 min
7.	**NEXT MEETING** Friday 17 August 2010 (3:00-5:00pm)	**Chair**	5 min

Independent Market Operator

MRCPWG

Minutes

Meeting No.	2
Location:	IMO Board Room Level 3, Governor Stirling Building, 197 St Georges Terrace, Perth
Date:	Tuesday 22 June 2010
Time:	Commencing at 1:00 to 3:00pm

Attendees	
Troy Forward	IMO (Chair)
Greg Ruthven	IMO
Fiona Edmonds	IMO (Minutes)
Corey Dykstra	Market Customer
Stephen MacLean	Market Customer
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
Alistair Butcher	System Management
Chris Brown	Economic Regulation Authority (ERA) (Observer)
Other Attendees	
Ben Williams	IMO – Observer

Item	Subject	Action
1.	**WELCOME AND APOLOGIES / ATTENDANCE** The Chair opened the 2nd meeting of the Maximum Reserve Capacity Price (MRCP) Working Group (Working Group) at 1:00pm. The chair welcomed Mr Pablo Campillos as the DSM aggregator representative.	

Item	Subject	Action
2.	**MINUTES OF PREVIOUS MEETING** The minutes of the 1st MRCP Working Group meeting, held 31 May 2010, were circulated prior to the meeting. *Page 2: Section 1: Welcome and Apologies* The Chair requested the following amendment: "The Chair noted that given the market has seen the benefit in operating through the bilateral mechanism rather than the auction there is a risk that the current mechanism may not work if required." *Page 6: Section 2: MRCP Scoping Questions* Mr Chris Brown questioned whether the reference to "30MVa" should read "30MW"? The Chair clarified that Western Power's transmission map of connection locations that would require minimal deep connection infrastructure is in MVa. The Chair requested the following amendment: ~~"The Chair noted that if an approach like this were to be adopted it would require Wester Power picking winners."~~ Subject to the agreed amendments the Working Group endorsed the minutes as a true and accurate record of the meeting. *Action Point: The IMO to amend the minutes of Meeting 1 to reflect the points raised by the Working Group and publish on the website as final.*	**IMO**
3	**ACTION POINTS** The actions arising were either complete or on the meeting agenda. The following exceptions were noted: Item 4 – Mr Greg Ruthven noted that this action item was now complete with Working Group members having not identified any additional information they require to determine the work programme. Item 5 – Mr Ruthven noted that the amended Market Procedure for determining the MRCP will be presented to the IMO Procedure Change and Development Working Group for discussion at its 8 July 2010 meeting. Item 6 – Mr Ruthven noted that this action item was now complete with Working Group members having not identified any issues with meeting times. The Chair agreed to Mr Corey Dykstra's previous request for Working Group meetings to be held at 3pm. *Action Point: The IMO to notify members of the revised meeting times for future Working Group meetings.*	**IMO**
4	**FINALISATION OF MRCP SCOPING QUESTIONS**	

Item	Subject	Action
	Mr Ben Williams noted that the issues register had been developed by Future Effect based on issues identified in previous submissions, reports and various correspondence received by the IMO in relation to the MRCP and its associated Weighted Average Cost of Capital (WACC). Mr Alistair Butcher questioned the basis for the issue identified regarding whether there was any evidence of market power being held in the capacity market. Mr Williams clarified that this had been raised at the previous MRCP Working Group and related to a Market Participant being able to force an auction. Mr Corey Dykstra suggested that the issues register could be grouped into the following main issues: • The cost of connecting an Open Cycle Gas Turbine (OCGT); and • The use of the MRCP in other parts of the Market Rules (penalties, auction and for capacity). Mr Dykstra noted that the issues associated with this second group might fall outside of scope of the Working Group but are still of importance to consider. The Chair suggested the Working Group focus on the second (MRCP Determination) and third (Cost Components) sections of the MRCP Scoping Questions and will consider the first section (MRCP High Level) at a later stage. The Working Group agreed. Mr Williams noted that there may be some overlap between the streams of work which will need to be taken into account. Mr Nenad Ninkov noted that the focus of the Working Group is to review the MRCP Market Procedure and not any other secondary external issues.	
5	**REVIEW OF MRCP COMPONENTS** To ensure the Working Group could maintain its strict timeframes for the review, Mr Ruthven requested members to identify any MRCP components that may require the input of consultants. Mr Ninkov questioned whether the MRCP should be determined for a real or hypothetical peaking power station. Mr Williams responded that the 2009 MRCP review had been based around a hypothetical situation while for the 2010 review it was based on the costs at which a real project would have been expected to be able to source components. Mr Williams noted that one of the questions for the Working Group's consideration was whether costs should be optimised across all cost types. Mr Dykstra noted that the MRCP should be based on a reasonable estimate of costs for delivering a project otherwise there would be the risk that a project would not be online within the required timeframe. Mr Ninkov noted that if the Working Group chooses an optimised approach input from consultants may be required. The Chair noted that the IMO had used costs based on the cheapest of six land sites, as indicatively determined by Landgate, for the 2010 MRCP review. Mr Cremin noted that cheapest land site may not take into account higher construction costs associated with some	

Item	Subject	Action
	locations. The Chair noted that reasonable costs need to be captured and stated that construction costs do not currently provide any scope for the inclusions of difficult build sites. The Chair noted that if the MRCP is to be determined across a range of locations then a consultant may be required to provide a spread of the complexity of the other components, e.g. construction costs. Mr Campillos questioned whether the consultant could provide a range of values so a sensitivity analysis could be undertaken. The Chair clarified that previously the IMO has just requested one value but could get a range of values if required. Mr Ninkov questioned whether the average, median or higher/lower range values should be used for this purpose. Mr Brad Huppatz noted that the market is put at risk if there are no components developing a least cost option and suggested that maybe a profit margin should be included to incentivise this. Mr Cremin noted that the price is determined for a specific machine. Mr Dykstra stated that the overarching question is what level the costs for developing this specific machine are. The Working Group agreed that costs should be realistic and noted that the band of costs may need to be revisited at a later date if rule changes are required. Mr Dykstra suggested that advice from a consultant on the transmission costs and around the WACC would be useful given the technical nature of these components. Dr Steve Gould agreed. 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. Mr Dykstra noted that consistency of approach in future years is important and stated that the need for advice is around the process. ***Transmission connection – source of valuation.*** Mr Butcher questioned whether a consultant is likely to have as much knowledge as Western Power on transmission connection costs. Mr Cremin noted experience with non-real costs being included in its assessment of deep connection costs as a result of Western Power not applying the new facilities investment test. Mr Neil Gibbney noted that the application of the new connection test is a grey area with significant regulatory uncertainty. The Chair suggested getting advice on what is good regulatory practice. *Shallow connection Costs:* Mr Patrick Peake noted the benefit in getting Western Power to provide the cost estimate is that they will be building the transmission line. Mr MacLean noted that the drivers for Western Power differ from those of a consultant who could be set a strict criterion to take into account. Mr Dykstra noted that the attribution of deep connection costs will 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. Mr Butcher noted that the assumed value to be levied to the access seeker is determined on where they connect. If the	

Item	Subject	Action
	assumption is based on a site where there is currently a strong network then the deep connection costs would be expected to be less than being built else where. Mr Peake noted that if network is operating at 98% of its capacity then costs are likely to be high even if the plant is being built at a site with a currently strong network. The Working Group agreed that Western Power is the appropriate party to determine shallow connection costs. Mr MacLean however noted the benefits of getting a consultant to estimate transmission connection costs. Mr Peake questioned whether Western Power was adequately resourced to complete this estimation. Mr Gibbney agreed that Western Power is, in particular noting that the estimation of shallow connection costs is relatively straight forward. Mr Cremin questioned if there would be merit in paying Western Power to provide these estimates? Mr Gibbney considered this was not necessary. Mr Butcher noted that access applications would have to take precedence over any estimation of shallow connection costs. The Chair requested Western Power to consider whether it could meet this obligation to provide shallow connection costs. Mr Gibbney agreed this was achievable within the required timeframes. *Agreed Outcome: Western Power is the appropriate party to determine shallow connection costs.* *Deep connection costs:* Mr Gibbney noted that if the Working Group determines to maintain the approach adopted previously of determining six sites then there is likely to be volatility in the results. Mr Gibbney noted that investors in the network would prefer stability even if it cost a little bit more. Mr Gibbney noted that determining an average deep connection cost might be a good idea. The Chair questioned how this would fit into the regulatory environment. Mr Gibbney noted that Western Power could employ a consultant to determine the average cost. Mr Ruthven and Mr Ninkov both noted a smoothing approach may be appropriate. Mr Gibbney agreed noting that members of the Working Group have previously indicated the need for smoothing. Mr Gibbney agreed that it is important to address the issue of volatility as a whole and stated that Western Power is concerned around volatility of transmissions costs outside of the MRCP process. Mr Gibbney noted that there will be uncertainty around the costings for transmission no matter which party undertakes the assessment. The Chair questioned what benefit a consultant could provide in determining the costings. Mr MacLean noted that a consultant might give additional information that Western Power may not consider. Mr Brown noted that the deep connection charges are determined by a set methodology for each individual scenario. Mr Dykstra noted last year the methodology was to determine the gross costs and then apportion these. The Chair questioned whether Western Powers previous approach for estimation of deep connection costs has been reasonable and, if not, what areas may require further external advice. Mr Dykstra suggested Western Power's process to determine these should be reviewed to determine if it is	

Item	Subject	Action
	reasonable or if refinements are required. The Chair agreed. *Action Point: The IMO to develop a scope of work for a consultant to review Western Power's approach to estimating deep connection charges, including a review of the regulatory regime and distribute to Working Group members for comment.* ***WACC:*** The Chair noted that last year the IMO had advised the Allen Consulting Group to develop the WACC based on a facility that comes through the auction and has a 10 year Special Price Arrangement. The Chair noted that this does not reflect the current operation of the market. The Chair noted that the assumptions made around the revenue streams take into account the existence of a 10 year price guarantee. The Chair noted that the Working Group needs to determine what the basis for the WACC should be for the MRCP. Mr Dykstra noted that while the market has not been working this way doesn't the requirement for a project developer to have to supply capacity at short notice entitle them to a 10 year Special Price Arrangement? Mr Dykstra did not consider there is an issue with the current basis for determining the WACC. Mr Nenkov noted that there are other methods to get capacity into the system and noted that a merchant plant would have a different price profile associated with it. The Chair noted that the alternative approach is to take into account actual market conditions for capacity entering market and stated that if the Working Group were to adopt this view then it needs to be clear why it is doing so. Mr Peake noted that while the auction would give certainty of the price an investor will get it does not give any idea of whether the project will become operational. Mr Dykstra noted that an efficient level of investment needs to be encouraged. Mr Cremin noted that there is less risk associated with bilaterally trading than entering into the auction. Mr Peake noted that the only way Perth Energy could convince their financiers that they should enter the auction is if they could be certain of being cleared. Mr Cremin noted that they would only enter the auction if they knew as a fall back they could bilaterally trade and therefore ensure they receive Capacity Credits. Mr Ruthven noted that these issues relate to the timing of the mechanism which is much broader than the Working Group's Terms of Reference. *Action Point: The IMO to confirm the price which will apply if no participants bid into the auction (e.g. 85% of MRCP or 100% of MRCP).* The Chair queried whether the Working Group considered the WACC should continue to be determined based on the assumption that an auction is held or whether this should be revised. Mr Ninkov questioned whether it was likely that an auction would be held in the next five years. In response, the Chair noted that it has not occurred yet. Mr Cremin and Mr Ruthven both agreed that there was no issue with continuing to determine the WACC based on the assumption that an auction is held. The Chair suggested that the determination of the WACC	**IMO** **IMO**

Item	Subject	Action
	on the basis that an auction has been held be provided back to the MAC for consideration in the Market Rules Evolution Plan. *Action Point: The IMO to prepare scope of works for a consultant to review the current determination of the WACC (based on the assumption that an auction is held), including which parameters to include, the adjustment process and application of the WACC and distribute to Working Group members for comment.* *Action Point: The IMO to provide back to the MAC for consideration the Working Group's suggestion that a review of the assumption that an auction is held for the purposes of the determination of the WACC be included in the Market Rules Evolution Plan.* Mr Butcher questioned whether the WACC should be calculated by the ERA. In response the Chair noted that that if the determination of the WACC is well defined in the Market Procedure then any party could complete it. The Chair noted that the ERA's involvement in approving MCAP means there is a level of governance over the IMO's determination. Mr Butcher noted that if the ERA is determining the WACC for other activities then to determine it for the MRCP would ensure consistency. Mr Dykstra noted that there is no issue with the current methodology and that key issue is around the major parameters changing. The Chair agreed and noted that provided robust processes are captured in the Market Procedure a good outcome should result. *Agreed Outcome: The IMO to continue to calculate the WACC with ERA approval of revised value for the MRCP in accordance with clause 2.26.1 of the Market Rules.* ***Land:*** The IMO noted it currently uses LandGate to provide a valuation of land for the purposes of calculating the MRCP. Mr Dykstra suggested that LandCorp may be more appropriate to provide information on the determined sites. *Action Point: The IMO to organise for LandCorp to present to the Working Group on what services it can offer for the purposes of determining the MRCP* *Action Point: Working Group members to consider out of session if consultancy work is required on any further components identified in Agenda Item 5.*	**IMO** **IMO** **IMO** **Working Group**
6	**GENERAL BUSINESS** There was no general business raised.	
7	**NEXT MEETING** The next Working Group meeting will be held Friday 2 July 2010 (2:00-4:00pm).	
8	**CLOSED** The Chair declared the meeting closed at 3.00 pm.	

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	IMO	The IMO to amend Market Procedure for determining the MRCP to reinstate the 2009 MRCP Major Component values.	Outstanding. Due for completion before 1 Nov 2010.
7	Meeting 2	IMO	The IMO to amend the minutes of Meeting 1 to reflect the points raised by the Working Group and publish on the website as final.	Completed.
8	Meeting 2	IMO	The IMO to notify members of the revised meeting times for future Working Group meetings.	Completed.
9	Meeting 2	IMO	The IMO to develop a scope of work for a consultant to review Western Power's approach to estimating deep connection charges, including a review of the regulatory regime, and distribute to Working Group members for comment.	Completed. On the agenda for discussion at today's meeting.

#	Meeting Arising	Responsibility	Action	Status/Progress
10	Meeting 2	IMO	The IMO to confirm the price which will apply if no participants bid into the auction (e.g. 85% of MRCP or 100% of MRCP)	Completed: The outcomes of the IMO's investigation are presented below: • Clause 4.15.1 states that if no capacity is made available for the auction through the bilateral trade declaration, then the auction is cancelled. • Clause 4.29.1(b)(ii) states that when no auction is held, the Reserve Capacity Price is 85% of the MRCP. • Clause 4.29.1(c) confirms that no Excess Capacity Adjustment is made (no upward adjustment is possible if there is negative excess).
11	Meeting 2	IMO	The IMO to prepare scope of works for a consultant to review the current determination of the WACC (based on the assumption that an auction is held), including which parameters to include, the adjustment process and application of the WACC, and distribute to Working Group members for comment.	Completed: On the agenda for discussion at today's meeting.
12	Meeting 2	IMO	The IMO to provide back to the MAC for consideration the Working Group's suggestion that a review of the assumption that an auction is held for the purposes of the determination of the WACC be included in the Market Rules Evolution Plan.	Underway: The IMO will table this suggestion to the MAC for consideration as part of its regular MRCPWG update at the August MAC meeting.
13	Meeting 2	IMO	The IMO to organise for LandCorp to present to the Working Group on what services it can offer for the purposes of determining the MRCP	Outstanding. The IMO will organise for LandCorp to present during the 4th Working Group meeting (17 August 2010).

#	Meeting Arising	Responsibility	Action	Status/Progress
14	Meeting 2	Working Group members	Working Group members to consider out of session if consultancy work is required on any further components identified in Agenda Item 5.	

Agenda Item 4a: Scope of Works: Calculation Methodology 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) requires 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 the determination of an administered Reserve Capacity Price if no auction is required.

The purpose of the MRCP is to incentivise an investor to propose to build a 160 MW Open Cycle Gas Turbine (OCGT) and enter the proposed power station into a Reserve Capacity Auction. As such the price needs to accurately reflect all of the costs which are likely to be incurred by the proponent in constructing the power station.

In particular, section 1 of the Market Procedure outlines the principles to be applied and the steps to be taken by the IMO in order to develop and propose the MRCP. Section 1.8 details the methodology that Western Power must follow in determining the cost of connecting the Power Station to the SWIS.

Section 1.8.2(i) specifies that "An estimate of deep connection costs must be included". However, the Market Procedure does not include a detailed methodology for how this should be calculated.

As part of the 2010 MRCP determination, Western Power provided an analysis in support of their calculation of transmission costs associated with the proposed power station. The estimates provided, and the methodology which supported them was a recurring topic in a number of the submissions the IMO received in response to the draft report. These submissions can be found on the IMO website[3].

In accordance with clause 4.16.9 of the Market Rules, the IMO is currently reviewing the Market Procedure[4]. As part of this review it has been identified that the assumptions and methodology behind the calculation of the deep connection costs may need to be reviewed.

To guide this review the IMO wishes to engage a Consultant to provide a report to the IMO on the appropriate parameters, assumptions and calculation of estimates of deep connection charges associated with connecting a power station to the SWIS. This report will need to be

[1] Available on the IMO website: http://www.imowa.com.au/market-rules

[2] Available on the IMO website: http://www.imowa.com.au/f711,482994/482994_Market_Procedure_for_Maximum_Reserve_Capacity_Price.pdf

[3] Available on the IMO website: http://www.imowa.com.au/mrcp

[4] For the 2010 review the IMO commissioned the Allan Consulting Group (ACG) to review the calculation and application of the Weighted Average Cost of Capital in the determination of the MRCP f. This review has been provided as Appendix 2 of this Request for Quotation

in the context of the Western Australian Wholesale Electricity Market and be able to be followed by Western Power in calculating an estimate of deep connection charges.

The IMO anticipates that the outcomes of this work will feed into its wider five year review of the determination of the MRCP.

SCOPE OF WORK

The IMO is seeking the services of a Consultant with a strong knowledge of the Western Australian regulatory environment to assist the IMO in determining an appropriate deep connection cost estimate calculation. The final calculation will be conducted by Western Power.

The Consultant will be expected to deliver a specific calculation methodology for Western Power to follow when estimating the deep connection costs associated with the connection a power station to the South West interconnected system in accordance with the Market Procedure.

The calculation methodology will be required to take into account:

- Western Power's Capital Contributions Policy;
- Outcomes and implications of the application of the New Facilities Investment Test (NFIT);
- The appropriateness of applying an escalation for locations outside the metropolitan area;
- Appropriate tariff charges to include, i.e. the most up to date tariffs are in the 2010 Western Power Price List[5] should Western Power scale these up when applying the Capital Contributions policy, if so how;
- Application of GST;
- Any relevant regulatory consideration; and
- Any other considerations the Consultant deems should be taken into account.

Specifically, the Consultant will be required to:

- analyse any assumptions made by Western Power 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

[5] Available on the Western power website: http://www.westernpower.com.au/mainContent/workingWithPower/NetworkAccessServices/NetworkAccessPrices/NetworkAccessPrices.jsp

- 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 any amended assumptions) and the alternative methodology, the calculation methodology for each parameter, and the assumptions inherent in each calculation. This document 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; and

2. Details of the relevant recommendations and analysis undertaken in determining the information provided in the document referred to above.

Agenda Item 4b: Scope of Works: Calculation Methodology to be applied in determining the Weighted Average Cost of Capital

BACKGROUND

The Wholesale Electricity Market Rules (Market Rules)[1] and the Market Procedure for: Determination of the Maximum Reserve Capacity Price (MRCP)[2] (the Market Procedure) requires the IMO to calculate a 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 the determination of an administered Reserve Capacity Price if no auction is required.

The purpose of the MRCP is to incentivise an investor to propose to build a 160 MW Open Cycle Gas Turbine (OCGT) and enter the proposed power station into a Reserve Capacity Auction. As such the price needs to accurately reflect all of the costs which are likely to be incurred by the proponent in constructing the power station.

In particular, section 1 of the Market Procedure outlines that the principles to be applied and the steps to be taken by the IMO in order to develop and propose the MRCP. Section 1.13 details the calculation and application of the Weighted Average Cost of Capital (WACC) in determining the cost of developing the power station.

In accordance with clause 4.16.9 of the Market Rules the IMO is currently reviewing the Market Procedure[3]. As part of this review it has been identified that the assumptions and methodology behind the calculation and application of the WACC may need to be reviewed.

To guide this review the IMO wishes to engage an Economic Consultant to provide a report to the IMO on the appropriate parameters, assumptions, calculation and application of the WACC in determining the MRCP. This report will need to be in the context of the Western Australian Wholesale Electricity Market.

The IMO anticipates that the outcomes of this work will feed into its review of the determination of the MRCP.

SCOPE OF WORK

The IMO is seeking the services of an Economic Consultant to assist the IMO in reviewing the current WACC calculation and assumptions in the Market Procedure. The review will need to include the following considerations:

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[1] Available on the IMO website: http://www.imowa.com.au/market-rules

[2] Available on the IMO website: http://www.imowa.com.au/f711,482994/482994_Market_Procedure_for_Maximum_Reserve_Capacity_Price.pdf

[3] Note that the first review of the calculation and application of the WACC in the determination of the MRCP was undertaken by the Allan Consulting Group (ACG) in 2007. This review has been provided as Appendix 1 of this Request for Quotation.

- Appropriate WACC equation: The review will need to recommend an appropriate WACC equation.

- Application of the WACC: The Consultant is to consider how the WACC should be applied to the cost of building the OCGT. Currently the WACC is applied to the entire cost of the project two years before the project is due to be completed.

  As a deliverable the Consultant should provide to the IMO an appropriate application equation to be included in the Market Procedure.

- Parameters to be included in the WACC: The review will need to include:

  - Which parameters should be included as major and minor components and also if two categories (major and minor) are sufficient to described the possible scenarios which may impact the WACC;

  - For each of the components:

  - Detailed analysis of the minor components to be included in the WACC. 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 the information is more appropriate to be calculated as part of the WACC or as part of Margin M.

  - Which major components to include in the calculation of WACC;

  - The methodology to calculate each component, where this methodology must be repeatable and have alternative positions if some data is potentially unavailable;

  - The assumptions underlying the calculation of each parameter;

  - When each component should be updated; this must include whether it is appropriate to update parameters between the draft and final report (e.g. for the minor components) and also if the parameter should be updated on an annual basis or on a less regular basis. If a less regular basis is recommended, the Consultant will be expected to make a recommendation of how often the parameter should be updated and under what, if any, circumstances the values should be updated; and

  - 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.

  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 5: Review of MRCP Components

At the first Maximum Reserve Capacity Price (MRCP) Working Group (MRCPWG) meeting on 31 May 2010 the Working Group members agreed that the current construct of the MRCP remains fit for purpose.

The IMO proposed that members begin reviewing the components of the MRCP at the 22 June 2010 meeting, as outlined in Sections 1.5 to 1.13 of the Market Procedure for Determination of the Maximum Reserve Capacity Price. It was agreed that the remainder of outstanding issues would be covered during subsequent meetings.

The components are listed below, along with information to guide the Working Group's decision-making process.

Component	Options	Market Procedure Reference
Power station – type	• OCGT, low NOx burners • Other	Sections 1.5 to 1.7
Power station – capacity	• 160 MW • 40 MW • Another value linked to forecast demand growth	Section 1.5
Power station – fuel type	• Distillate only • Dual fuel	Section 1.5
Power station – capacity factor	• 2% • Other value	Section 1.5
Liquid fuel storage and handling facilities	• Current specifications • Alternative specifications	Section 1.9
Transmission connection – source of valuation	• Western Power • Alternative provider	Section 1.8
Transmission connection – location	• Linked to land valuation locations • Alternative location(s) • Optimisation of land & connection costs	Section 1.8
Transmission connection – other elements	• Capital Contribution Policy • Tariffs	Section 1.8
Fixed O&M	• Current methodology • Alternative methodology	Section 1.10
Land – source of valuation	• Landgate • Alternative valuer	Section 1.11
Land – location	• Current list • Alternative location(s)	Section 1.11
Land – size	• 3 ha (no buffer zone) • 30 ha (with buffer zone)	Section 1.11

	• Alternative size	
Margin M (legal, insurance, financing, environmental approval costs)	• Current methodology • Removal of debt/equity issuance costs (part of WACC) • Alternative methodology	Section 1.12
Contingency margin	• Factor of 0.15 • Alternative value	Section 1.12
Weighted Average Cost of Capital (WACC) - source	• Determined by IMO • Determined by ERA • Alternative source	Section 1.13.4
WACC - basis	• Auction and Long-Term Special Price Arrangement • Alternative basis	Section 1.13
WACC – period from auction to payment stream	• 2 years • Split over multiple years • Alternative	Section 1.13.2
WACC – determination of Minor and Major components, review schedule	• Current methodology • Alternative methodology	Section 1.13
WACC – basic calculation method	• Current methodology (CAPM, pre-tax, Officer WACC method) • Alternative	Section 1.13.7
WACC – equation	• Current equation • Alternative equation	Section 1.13.8