

Independent Market Operator

MRCPWG

Agenda

Meeting No.	2
Location:	IMO Board Room, Level 3, Governor Stirling Tower, 197 St Georges Terrace, Perth
Date:	Tuesday 22 June 2010
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.	FINALISATION OF MRCP SCOPING QUESTIONS	IMO	20 min
5.	REVIEW OF MRCP COMPONENTS	IMO	60 min
6.	GENERAL BUSINESS	IMO	5 min
7.	NEXT MEETING Friday 2 July 2010 (1:00-3:00pm)	Chair	5 min

Independent Market Operator

MRCPWG

Minutes

Meeting No.	1
Location:	IMO Board Room Level 3, Governor Stirling Building, 197 St Georges Terrace, Perth
Date:	Monday 31 May 2010
Time:	Commencing at 2:00 to 4:15pm

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 Huppertz	Market Generator
Nenad Ninkov	New Investor
Neil Gibbney	Western Power
Alistair Butcher	System Management
Apologies	
Chris Brown	Economic Regulation Authority (ERA) (Observer)
Other Attendees	
Rob Püllella	ERA - Proxy for Chris Brown
Ben Williams	IMO – Observer

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

Item	Subject	Action
	<p>The Chair noted that an apology had been received from Chris Brown of the ERA. The following other attendees were noted:</p> <ul style="list-style-type: none"> • Rob Pullella (Observer); and • Ben Williams (Observer) <p>The Chair noted that the Working Group had a large job ahead of it and provided a brief background to the required review of the Market Procedure and use of MRCP in setting the Reserve Capacity price cap.</p> <p>The Chair noted that the Working Group would not be reviewing the whole RCM as this is outside its Terms of Reference.</p> <p>Mr Corey Dykstra noted that it is arguable that the Reserve Capacity Mechanism (RCM) is achieving its intended outcomes, in particular stating that the Reserve Capacity Auction is designed to be a last resort mechanism for security capacity. In response, Mr Rob Pullella and the Chair both noted the objective of the MRCP is to encourage investment in peaking generation in the market.</p> <p>Mr Dykstra noted that if mechanism does not work as intended then the IMO has the ability to request an investor to build a peaker in the SWIS. The Chair noted that there is a risk that the current mechanism may not work if required. In particular, the Chair noted that the IMO had only received bids into the auction during the first year of the operation of the market. Mr Patrick Peake noted that there is a danger that the reserve margin may not be contracted for.</p> <p>Mr Shane Cremin noted that the previous MRCP Working Group had not discussed the intent and/or philosophical questions around the MRCP. The Chair clarified that the Working Group will need to balance the need to discuss the intent of MRCP against the requirements to review the Market Procedure, as defined in the Working Group's scope of work.</p> <p>The Chair requested constructive input from the Working Group when developing the amendments to the Market Procedure. In particular, the Chair noted that any solution needs to be fit for purpose, robust, transparent, repeatable and result in an appropriate answer.</p> <p>Mr Cremin noted that a "building block approach" would be appropriate for the Working Group and that towards the end of the process a reassessment of any necessary amendments to this approach could be undertaken.</p>	
2.	<p>MRCP Scoping Questions</p> <p>Discussion of the MRCP Scoping Questions ensued. The following main points were raised:</p> <p><i>Is there a need to define the MRCP Objectives in the Market Procedure?</i></p>	

Item	Subject	Action
	<p>Mr Steve Gould questioned whether the Working Group needs to state the objectives or develop them? In response Mr Ben Williams noted that the intent is for the Working Group to develop these, taking into account mechanisms to ensure that if there is uncertainty a solution pathway can be developed easily.</p> <p>Mr Cremin noted that as the MRCP is a regulated price schedule, the Working Group might want to be prescriptive in developing any solutions to ensure volatility is minimised. The Chair agreed that the Working Group would need to discuss the costs and benefits of any identified approaches to determining the MRCP. For example price fixing vs. reflective of market conditions.</p> <p>Mr Stephen MacLean noted that the objectives should not be placed in a Market Procedure as they would not have a heads of power and therefore have no legal basis.</p> <p>Mr Dykstra noted that the Market Procedure should be clear and not discretionary. Further, Mr Dykstra noted that the MRCP is an administratively determined price and as such is neither dynamic nor reflective of the market price.</p> <p><i>What is the best way to give a price signal to achieve the MRCP objectives?</i></p> <p>The Chair clarified that this scoping question relates to whether the MRCP should be a fixed price or reflective of market conditions. Further, whether the MRCP is meant to reflect market conditions at the time the capital is delivered or when capital is purchased. Mr MacLean noted that prices should represent a range of competing prices for various generation types. The Chair noted that the Working Group would need to consider the financial and settlement based outcomes of any amendments.</p> <p>Mr Dykstra noted that the Working Group needs to understand what is permissible under the Market Procedures.</p> <p>Mr Cremin noted that the RCM attempts to incentivise generation to enter into the South West interconnected system (SWIS) in order to maintain power system security and reliability. The commercial implications of capacity for the various types of generators differ considerably. In particular, Mr Cremin noted that peaking generation investment decisions are driven by the MRCP (with a limited impact on refunds) and vice versa for base load generation.</p> <p><i>Action Item: Mr Cremin to provide copy of his assessment of the impacts of MRCP on the various types of investors in the market to the IMO by Friday 18 June 2010.</i></p> <p><i>Are the MRCP assumptions still correct and appropriate?</i></p> <p>The Chair noted that the issues around the inclusion of transmission costing in the MRCP calculation will require further consideration by the Working Group.</p> <p>Mr MacLean noted that there is an inherent inefficiency in the market regarding the MRCP comparative to costs for existing</p>	<p>Mr Cremin</p>

Item	Subject	Action
	<p>plant and suggested that an alternative might be to use multiple prices (for both new and existing plants). Mr Gould noted that a feedback mechanism between over capacity and new capacity is also required to send the right signals to investors. In response, Mr Dykstra noted that these issues relate to the Market Rules and not the Market Procedure. The Chair noted there may be scope to explore these other features and report back to the MAC as recommended amendments to the Market Rules, if deemed appropriate.</p> <p><i>Action Point – The IMO to provide all Working Group members with a copy of the comprehensive issues register.</i></p> <p>The Working Group members discussed and noted the following wider issues around the determination of the MRCP:</p> <ul style="list-style-type: none"> Mr MacLean suggested that forcing an auction to occur each year to get a market based price should be considered. Mr MacLean noted that this may not however lead to an efficient or competitive outcome. In particular, Mr MacLean noted that if an auction is forced and there was sufficient capacity in the market the clearing price may be zero. This would constitute a risk to existing Market Generators which would need to be mitigated. Mr MacLean noted that this would not be a problem for new generators who enter into a Special Price Arrangement. <p>The Chair noted that the current administrative mechanism caps the cost of contracted capacity but not the price. The excess capacity adjustment limits the total pool of money in the market which is uncontracted but does not limit the volume. Mr MacLean noted that this self correcting mechanism would therefore not result in further cost exposure. Further, Mr MacLean noted that whether the plant is merchant or bilateral would not matter in making these decisions as the default basis for a decision would always be least cost.</p> <p>Mr Cremin noted that if an investor chooses to be merchant financed they will still be able to bilaterally trade. If some of the volatility can be removed regarding the MRCP then investment will be enabled. The Chair noted that these considerations would flow through into the determination of the Weighted Average Cost of Capital. Mr Cremin noted that the market evolution process for the capacity mechanism is interrelated with the price which is under consideration by the Working Group.</p> <ul style="list-style-type: none"> Mr Dykstra noted the Working Group’s focus should initially be on the current deficiencies in the Market Procedure. Mr Dykstra also noted that there is an issue of how the cost associated with bringing new capacity into the market is converted into a price and used in the market. Mr Dykstra stated that this issue would be outside the scope of the Working Group. The Chair noted that the Working Group may need to consider the reference to a 160MW plant rather than a 40MW plant, as adopted when determining the Energy Price Limits. 	<p style="text-align: center;">IMO</p>

Item	Subject	Action
	<ul style="list-style-type: none"> • Mr Cremin noted that a building block approach is reasonable for determining marginal cost of generation. Further, Mr Cremin noted that investors reliant on a smoothed MRCP going forward, as opposed to bilateral, would be provided more certainty. The Chair noted that a smoothed MRCP would potentially increase the amount of capacity in the market. Mr MacLean noted that the prices in a particular year that an investor determines to construct a plant in the SWIS may vary from the prices that occur in the year that the plant enters the market. This may have a big impact under scenarios where there is high economic growth (either positive or negative). <p>Mr Cremin also noted that the MRCP has gone up a lot since market start due to the inclusion of different variables into the methodology. The Chair clarified that these had been included as a result of exogenous changes to market conditions such as the resources boom, as well as endogenous structural issues.</p> <ul style="list-style-type: none"> • Mr Rob Pullella stated that the process for including transmission costs into the MRCP should be considered by the Working Group along with the consistency over the use of the rate of return. • Mr Gould noted that the inclusion of transmission costs was a major concern as not only did it cause the recent increase in the MRCP but the increase did not incorporate the approved tariff increases. Mr Gould also recommended that the Working Group consider the impact of the MRCP on behaviour and the achievement of the Wholesale Market Objectives. Mr Gould also noted that as there has been a significant rise in the amount of Demand Side Management on the SWIS the regime needs to be considered from this perspective. <p>In response, the Chair noted that the IMO had originally proposed to the Office of Energy (OoE) the use of a more robust decay curve. This was however rejected by the OoE. Mr Cremin noted that excess capacity can have a large impact on merchant financed generators.</p> <p>Additionally, the Chair noted that he had received a request from DSM aggregators to have a seat on the Working Group. The Working Group discussed the inclusion of a specific DSM aggregator. The Working Group was of the view that DSM participation would add value to the outcomes of the Working Group and as such agreed to the inclusion of a DSM aggregator representative on the Working Group.</p> <p><i>Action Point: The IMO to undertake an appointment process to include a DSM aggregator representative on the Working Group.</i></p> <ul style="list-style-type: none"> • Mr Nenad Ninkov noted that the Working Group should consider how to determine the best way of financing new investment and what risks should be taken to get plant on 	<p style="text-align: center;">IMO</p>

Item	Subject	Action
	<p>system. In response, Mr Cremin noted that investment decisions can vary significantly based on prices.</p> <p>Mr Ninkov also suggested that the definition of a peaking plant (fast start vs. plants which only supply for 1-2% of the year) requires consideration. Mr Alistair Butcher noted that there is currently no criterion for defining a fast start plant. The Chair noted that the first calculation of the MRCP included a dual fuel unit which was removed on the basis that the MRCP was to be determined for a real Liquid Fuel peaker. Mr Ninkov raised the question of whether dual fuel is more valuable to the market.</p> <ul style="list-style-type: none"> Mr Patrick Peake noted the issues of price volatility need to be discussed. In particular, Mr Peake noted the possibility that the auction could go to zero raises the issue of market power. Mr Peake noted that there are not many serious generator developers around and that as a result the current situation of excess capacity could be easily turned around. <p>Mr Peake noted that in the past Western Power has been able to identify good locations to build a generator. Mr Peake suggested that maybe the MRCP should tie this into the mechanism by pricing the cost of building at one of these locations. In response, the Chair noted that Western Power has created a transmission map of connection locations which would require minimal deep connection infrastructure (up to 30MVa). The Chair noted that if an approach like this were to be adopted it would require Western Power picking winners.</p>	
3	<p>MRCP WORK PROGRAMME</p> <p>The Chair requested the Working Group to identify any information required to determine the work programme at the next meeting.</p> <p><i>Action Point: Working Group members to provide the IMO with details of any additional information they require to determine the work programme by Friday 18 June 2010.</i></p> <p>The Working Group discussed whether the questions around the current construct should be considered. For example whether the current approach is fit for purpose. The Working Group accepted that the general construct of the MRCP is appropriate in the current market and agreed that it would discuss the detailed costing during future meetings.</p> <p>No comments were made by Working Group members on the draft work programme. The Chair noted that at the next meeting the Working Group would discuss where they might need to expend consultancy effort.</p> <p>Mr Cremin questioned when next MRCP process will begins. The Chair noted there are some large issues on the table and it's unlikely a decision will be made for the next cycle.</p>	<p>Working Group</p>

Item	Subject	Action
	<p>Mr Dykstra noted that there is currently an incomplete Market Procedure which requires rectifying to reinstate the Major Components.</p> <p><i>Action Point: The IMO to amend Market Procedure for determining the MRCP to reinstate the 2009 MRCP Major Component values.</i></p>	IMO
4	<p>GENERAL BUSINESS</p> <p>There were no general business items raised.</p>	
5	<p>NEXT MEETING</p> <p>The next Working Group meeting will be held Tuesday 22 June 2010 (1:00-3:00pm)</p> <p>The Working Group discussed what an appropriate meeting time would be.</p> <p><i>Action Points: Working Group members to email appropriate meeting times to the IMO for consideration by Friday 18 June 2010.</i></p>	Working Group
6	<p>CLOSED</p> <p>The Chair declared the meeting closed at 4.15pm.</p>	Chair



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
1	Meeting 1	Mr Cremin	Mr Cremin to provide copy of his assessment of the impacts of MRCP on the various types of investors in the market to the IMO by Friday 18 June 2010.	Completed. A copy of Mr Cremin's presentation was provided to Working Group members on 15 June 2010.
2	Meeting 1	IMO	The IMO to provide all Working Group members with a copy of the comprehensive issues register.	Completed. The issues register has been provided in Agenda Item 3 for discussion at today's meeting.
3	Meeting 1	IMO	The IMO to undertake an appointment process to include a DSM aggregator representative on the Working Group.	Completed.
4	Meeting 1	Members	Working Group members to provide the IMO with details of any additional information they require to determine the work programme by Friday 18 June 2010.	Underway.
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.

Meeting No 2: 22 June 2010

#	Meeting Arising	Responsibility	Action	Status/Progress
6	Meeting 1	Members	Working Group members to email appropriate meeting times to the IMO for consideration by Friday 18 June 2010.	Underway.

Agenda Item 4: Finalisation of MRCP Scoping Questions

1. MRCPWG – ISSUES REGISTER

The following issues register was developed by Future Effect to provide a starting point for, and focus the work of the Maximum Reserve Capacity Price Working Group (MRCPWG). The issues presented in the register were identified from submissions, reports and various correspondence received by the IMO in relation to the MRCP and its associated Weighted Average Cost of Capital (WACC).

The issues identified in this register were then consolidated into the higher level MRCP Scoping Questions (provided as Appendix 1 to this paper).

1.1 MRCP Objectives

1. Do the Market Rules drive a particular contracting strategy for Capacity Credits? In particular, is there a natural preference for long term contracting or short term contracting (with full exposure to fluctuations of the market capacity price, recognising that the market capacity price defaults to the administered price when no auction is held)?
2. With reference to the question above, is there any evidence of any Market Participant holding market power in the capacity market?
3. Is the current scaling mechanism within the MRCP effective in meeting the balance of attracting new entry while ensuring that excess capacity is not encouraged into the market place?
4. With reference to the outcomes of the discussions in response to points 1 through 3 above, should the determination of the MRCP be more closely linked to the balance between the forecast supply and demand of capacity in any one year? If so, how would this best be achieved?
5. There is in general a trade-off between providing certainty to investors by fixing the MRCP or the methodology for calculating MRCP for a certain period versus ensuring that the price remains relevant and as accurately as possible reflect the costs of providing capacity to the system. Should the MRCP continue to be reviewed annually or should it be fixed for longer periods at a time?
6. If a longer period is allowed for between MRCP redeterminations, would prudent risk management dictate that major economic upheavals would be a valid catalyst for a one-off reassessment of the MRCP/WACC? If so, how is this ability best reflected within the regulatory framework?
7. With reference to question 5, above, should the periodic redetermination of the MRCP be a full redetermination or should scope limitations be applied (such as the current distinction between major and minor reviews)?



1.2 Approach to Determining the MRCP

1. Is the selection of a 160 MW OCGT peaking plant financed over a 15 year period an appropriate MRCP benchmark? In particular, does the selection of this plant adequately reflect the plant type and operating profile requirements and is the financial life of 15 years appropriate from both a Proponent and market perspective?
2. Should the approach taken for the periodic redetermination of the MRCP be wholly specified within the Market Rules and associated Procedures or should some flexibility be left to the IMO to make value determinations in a consultative process and in recognition of the Market Objectives?

Notes: Matters to consider include the current mismatch within the Procedure of being fully prescriptive V being generalistic.

1.3 Cost components in MRCP calculation

1. Should there be an allowance in the cost base for the MRCP calculation to cover Capacity Credit refunds for expected forced outages? If so what level of forced outages would be reasonable to include in the MRCP calculation?
2. Is there a need for further definition in the Market Rules or Market Procedures with respect to the type of land that should be considered when assessing the cost of land component in the MRCP calculation? Is Landgate the most appropriate entity to provide an assessment of likely land costs associated with constructing a power station?
3. Should there be a specific allowance for business development costs in the MRCP calculation? If so, should only specific items related to the development of a specific power station project be allowed, or should the net be cast wider to recognise ongoing business development and legal costs that may be incurred by organisations that routinely develop new power stations?
4. Capacity credit refunds are asymmetric, depending on the season and time of day when the forced outage occurs. Should this asymmetry be specifically recognised and allowed for when calculating the MRCP?
5. The cost of building a gas lateral was specifically included in the MRCP calculation in the original version of the Market Rules. Should this cost component be re-introduced to the calculation?
6. Do the cost allocations within the MRCP adequately address the Proponents exposure to inflation between the time of the MRCP determination and the commencement of the Capacity Year?

1.4 Network Costs



1. Given that network costs will vary significantly from site to site, what approach should be taken to best reflect these costs within the MRCP determination?

Note: Matters to be considered include deep and shallow connection costs, use of system charges; the current approach of reviewing a range of scenarios and selecting one (not necessarily the highest cost).

1.5 Weighted Average Cost of Capital

1. Is the calculation of beta currently performed on the basis that reflects current industry best standards and is it appropriate and applicable for its application in the MRCP?

Note: Matters to be considered in this assessment to include: the selection processes for the beta comparator companies; the merits of incorporating an allowance for the actual payment or Capacity Refunds or a premium for to represent the asymmetrical impact they have on revenue streams.

2. Is the calculation of gamma currently performed on the basis that reflects current industry best standards and is it appropriate and applicable for its application in the MRCP?

Note: One matter for consideration is the pay-out ratio for imputation credits.

3. Should a comparative assessment of WACC be undertaken as part of the reporting process, against other similar markets and industries, providing a benchmark (sensitivity test) by which Market Participants can compare the outcomes of the MRCP WACC determination?
4. Are the costs of raising debt and equity adequately reflected in the WACC? Is there a potential double counting between the derivation of WACC and the determination of Margin M?
5. Given the current roles of the IMO and the ERA within the industry framework, is it appropriate for the WACC to be determined by the ERA in the future?

1.6 Procedural and timing related issues

1. Should the Market Rules or the Market Procedures specifically set out which components of the WACC that the IMO would be allowed to update and when?
2. Should there be specific objectives drafted for the MRCP procedure to provide overall guidance in interpreting the procedures? If so, to what extent should the MRCP objectives relate to the Objectives of the Market?
3. Are there current concerns with regard to the timeliness of the MRCP processes? If so, what improvements could be made to make the processes more administratively efficient?

1.7 Issues not directly relating to MRCP

When canvassing interested parties for issues that should be covered by the MRCPWG some issues that are related but not directly connected to the MRCP were also raised. These issues are set out below.\

- 1 Given the asymmetric nature of the capacity credit refund multipliers, being higher in the hot season and higher in peak compared to off peak periods, should generators be explicitly allowed to include a refund risk component in their Short Run Marginal Cost calculation for their STEM Bids?

2. PROCESS FROM HERE

The IMO recommends that the MAC:

- **Note** the MRCP Issues Register;
- **Discuss** whether the MRCP Scoping Questions cover all identified issues; and
- **Agree** to the MRCP Scoping Questions.

Agenda Item 4 Appendix 1: Maximum Reserve Capacity Price Scoping Questions

1 MRCP HIGH LEVEL

- Is there a need to define the MRCP Objectives in the Market Procedure?
- What is the best way to give a price signal to achieve the MRCP objectives?
 - Fixed price providing price certainty versus volatile/cost reflective price to ensure accuracy?
 - Are the current adjustment mechanisms appropriate?

2 MRCP DETERMINATION

- Are the MRCP assumptions still correct and appropriate?
 - Auction versus Bilateral trade.
 - Type, design and components.
- What is the appropriate level of IMO discretion?
- Is one submission period sufficient?

3. COST COMPONENTS

- Are the components of each section correct and/or explicit enough?
- Weighted Average Cost of Capital (WACC)
 - Is the current WACC equation appropriate?
 - Should the calculation of WACC parameters be prescribed?
 - Should the IMO/ERA calculate the WACC?
- What is the most appropriate calculation method for the network connection cost?

Should a level of forced outage refunds be built into the MRCP calculation as a component of the operation and maintenance costs?

- Should fixed gas pipeline transmission costs be included in the calculation of MRCP?

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 proposes 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.

The components are listed below, along with information to guide the Working Group's decision-making process. The IMO recommends that the components be reviewed by the Working Group in the order set out below. In discussing these items the Working Group should review the priority of the listed items, with higher priority given to components that may require external consultant support in order to assist the Working Group with its review.

Component	Options	Market Procedure Reference
Power station – type	<ul style="list-style-type: none"> • OCGT, low NOx burners • Other 	Sections 1.5 to 1.7
Power station – capacity	<ul style="list-style-type: none"> • 160 MW • 40 MW • Another value linked to forecast demand growth 	Section 1.5
Power station – fuel type	<ul style="list-style-type: none"> • Distillate only • Dual fuel 	Section 1.5
Power station – capacity factor	<ul style="list-style-type: none"> • 2% • Other value 	Section 1.5
Liquid fuel storage and handling facilities	<ul style="list-style-type: none"> • Current specifications • Alternative specifications 	Section 1.9
Transmission connection – source of valuation	<ul style="list-style-type: none"> • Western Power • Alternative provider 	Section 1.8
Transmission connection – location	<ul style="list-style-type: none"> • Linked to land valuation locations • Alternative location(s) • Optimisation of land & connection costs 	Section 1.8
Transmission connection – other elements	<ul style="list-style-type: none"> • Capital Contribution Policy • Tariffs 	Section 1.8
Fixed O&M	<ul style="list-style-type: none"> • Current methodology • Alternative methodology 	Section 1.10
Land – source of valuation	<ul style="list-style-type: none"> • Landgate • Alternative valuer 	Section 1.11
Land – location	<ul style="list-style-type: none"> • Current list • Alternative location(s) 	Section 1.11

Land – size	<ul style="list-style-type: none"> • 3 ha (no buffer zone) • 30 ha (with buffer zone) • Alternative size 	Section 1.11
Margin M (legal, insurance, financing, environmental approval costs)	<ul style="list-style-type: none"> • Current methodology • Removal of debt/equity issuance costs (part of WACC) • Alternative methodology 	Section 1.12
Contingency margin	<ul style="list-style-type: none"> • Factor of 0.15 • Alternative value 	Section 1.12
Weighted Average Cost of Capital (WACC) - source	<ul style="list-style-type: none"> • Determined by IMO • Determined by ERA • Alternative source 	Section 1.13.4
WACC - basis	<ul style="list-style-type: none"> • Auction and Long-Term Special Price Arrangement • Alternative basis 	Section 1.13
WACC – period from auction to payment stream	<ul style="list-style-type: none"> • 2 years • Split over multiple years • Alternative 	Section 1.13.2
WACC – determination of Minor and Major components, review schedule	<ul style="list-style-type: none"> • Current methodology • Alternative methodology 	Section 1.13
WACC – basic calculation method	<ul style="list-style-type: none"> • Current methodology (CAPM, pre-tax, Officer WACC method) • Alternative 	Section 1.13.7
WACC – equation	<ul style="list-style-type: none"> • Current equation • Alternative equation 	Section 1.13.8