Independent Market Operator

Minutes

Meeting:	Weighted Average Cost of Capital – Stakeholder Workshop
Location:	Citigate Perth 707 Wellington St, Perth WA, 6000
Date:	4 January 2012
Time:	Commencing at 2:15 to 4:20pm

Attendees	
Dr Ray Challen	PricewaterhouseCoopers (PwC)
Greg Ruthven	IMO
Johan van Niekerk	IMO (Minutes)
Corey Dykstra	Alinta Energy
Henry Cooke	Amanda Australia
Martin Jurat	Amanda Australia
Scott Laurance	Argonaut
Nick McDonough	Argonaut
Tom Blake	Clear Energy
Eugene Lee	Economic Regulation Authority (ERA)
Holly Medrana	Economic Regulation Authority (ERA)
Robert Pullella	Economic Regulation Authority (ERA)
Dr Duc Vo	Economic Regulation Authority (ERA)
Wana Yang	Economic Regulation Authority (ERA)
Pablo Campillos	EnerNOC
Andrew Sutherland	ERM Power
Tremayne Pirnie	Griffin Power
Wayne Trumble	Griffin Power
Darryl Flukes	Infratil Energy Australia
Ben Della-Bosca	KPMG
Graeme Alford	Landfill Gas and Power
Dr Steve Gould	Landfill Gas and Power
Shane Jones	Merredin Energy
Julian Widdup	Merredin Energy (by phone)
David Lyne	Newmont Asia Pacific
Roger Lloyd	Palisade Investment Partners (by phone)
Ky Cao	Perth Energy
Patrick Peake	Perth Energy
Stephen MacLean	Synergy
Ben Tan	Tesla

Attendees	
Geoff Down	Water Corporation

Item	Subject	Action
1.	**WELCOME** Mr Greg Ruthven of the IMO welcomed the attendees. He explained that the workshop had been organised by the IMO following discussions with Market Participants regarding the proposed 2014/15 Maximum Reserve Capacity Price (MRCP), particularly to provide background information on the calculation of the Weighted Average Cost of Capital (WACC) and its related components to explain the underlying reasons behind the fall in the WACC since the previous MRCP. Mr Ruthven introduced Dr Ray Challen from PricewaterhouseCoopers (PwC) who compiled the advice on WACC parameters for the proposed MRCP.	
2.	**PRESENTATION ON THE ROLE OF THE WACC AND ITS CALCULATION METHODOLOGY INCLUDING QUESTIONS AND ANSWERS** Mr Ruthven made a short presentation explaining the role of the WACC in the MRCP calculation and the process undertaken by the IMO in reviewing the WACC. A copy of the presentation is included with these minutes. Mr Julian Widdup queried why the CAPCOST formula on page 3 of the slide presentation only included the application of the WACC for a 6 month period. Dr Challen explained that this was based on an assumption of linear costs over a 12 month construction period effectively resulting in a 6 month compensation allowance. Mr Widdup queried whether an additional risk premium should be included with the WACC for the construction period as proponents were exposed to risk during this period. Mr Ruthven confirmed that this issue was outside the scope of the workshop. Mr Ky Cao disputed this and suggested that compensation for risk was appropriate including an allowance for the cost of providing the Capacity Credit Security Deposit. In addition he suggested that the MRCP Working Group (MRCPWG) had rushed through the changes to the MRCP Market Procedure. Mr Ruthven explained that the MRCP Review had been signalled for some time and was only concluded after a lengthy review by the MRCPWG which was made up of a representative group of Market Participants. Mr Ruthven confirmed that the IMO would note the comments of Mr Widdup and Mr Cao. Dr Challen made a short presentation on the WACC estimation method, the calculated WACC proposed for the 2014/15 MRCP and the underlying causes of the reduction from the WACC used for the 2013/14 MRCP. A copy of Dr Challen’s presentation is also included with these minutes. Dr Challen noted that the recent decline in the Nominal Risk Free	

Rate (NRFR), calculated from the observed yields of Government Bonds, was the primary driver for the reduction in the WACC.

Dr Challen noted that the current low yields in Government Bonds would not necessarily result in lower equity raising costs. A number of attendees suggested that the current MRP of 6% used in the calculation of the cost of equity was below what was being demanded in the market. Dr Challen noted that there was discretion for the IMO to adjust the MRP under the circumstances as noted by Mr Ruthven in his presentation.

Dr Challen stated that a number of Australian regulators were currently investigating the interrelationship between WACC and the MRP for their own WACC determinations. He stated the fundamental issue was whether the inputs used in the Capital Asset Pricing Model (CAPM) were delivering realistic results.

Mr Darryl Flukes suggested that the MRP was in fact a relatively volatile parameter that was perhaps worthy of consideration on a more frequent basis than once every 5 years. Dr Challen stated that he personally doesn't have a strong view on the level of the MRP however he confirmed that PwC is currently studying the relationship between risk free rates, the MRP and short and long term trends in markets. He suggested it was unclear whether there was a longer term reduction in bond market yields or merely a short term aberration.

Dr Challen agreed, as suggested by some attendees, that it was potentially counter-intuitive to expect a fall in the cost of equity finance in the current economic environment as characterised by an increase in government bond prices and fall in yields. Dr Challen confirmed that the Market Procedure only allowed the level of the MRP to be reviewed if "in the IMO's opinion, a significant economic event has occurred since undertaking the last 5 yearly review". Given that the review had been completed in October 2011, Dr Challen suggested that any discretion available to the IMO in this regard could not be exercised lightly.

Mr Cao suggested at this stage that the MRCP was being adjusted by the IMO as a "bludgeoning instrument" to deal with what he suggested was a perception of excess capacity in the market. Mr Dykstra disputed this, pointing out that the review of the MRCP had been an open and transparent process involving consultation with the industry which was well represented in the MRCPWG, the engagement of expert consultants and a lengthy consultation process. Mr Cao disagreed stating that he believed that there continued to be "significant issues" and that these had been ignored.

Mr Ruthven confirmed that all the changes made to the Market Procedure had been agreed to by the majority of MRCPWG members. Mr Dykstra suggested that attendees who believed that the proposed WACC was underestimating the cost of capital should focus on the earlier comments made by Dr Challen, specifically the option for the IMO to use discretion in reviewing the level of the MRP.

Dr Challen pointed out that the Market Procedure followed well established regulatory practice and that those who wished to see a review of the MRP should make submissions in writing to the

IMO.

Mr Ben Tan queried as to whether the IMO was open to using their discretion in reviewing the MRP. Mr Ruthven encouraged interested parties to make detailed submissions in writing and confirmed that the IMO would consider these submissions before deciding whether to review the level of the MRP.

Mr Campillos questioned whether it was worthwhile for those considering making submissions to expend resources, given the current deadline for submissions of 13 January 2012, if ultimately the IMO was going to maintain a strict interpretation of the Market Procedure with regards to a review of the MRP. Mr Ruthven noted that the IMO was bound to consider all submissions and that the IMO was required to submit the MRCP to the ERA by late January 2012 for consideration at the February meeting of the Governing Body.

Mr Ruthven confirmed that following the workshop he would contact Dr Challen to ascertain how long it would take to review the Market Risk Premium if the IMO deemed that such a review was justified in terms of the Market Procedure.

Mr Ruthven pointed out that the MRP used by regulators across Australia was typically in the range of 6-6.5% which was on a par with the 6% used in the MRCP. Mr Ruthven noted that the most recent ERA decision, being the Final Decision on the revised access arrangement for the Dampier to Bunbury Natural Gas Pipeline, had determined a MRP of 6%.

Mr Martin Jurat stated that while he was aware it was outside the scope of the workshop he wished to point out that the large forecasted fall of approximately 30% in the MRCP in 2014/15 would have a significant impact on the income of capacity providers and suggested that the volatility of capacity payments should be considered for future capacity cycles.

Mr Ruthven pointed out that the issue of volatility had been considered by the MRCPWG and it was noted that the MRCP needed to be responsive to changes in the market in order to be effective as the price cap in a Reserve Capacity Auction. He confirmed that smoothing of capacity payments would be an item that would be discussed under the Reserve Capacity Mechanism (RCM) Review which would commence in 2012.

Mr Flukes pointed out that financiers were looking very closely at changes to the capacity payment mechanisms in the SWIS.

Mr Patrick Peake suggested that there should be more uniformity in the WACC parameters used by the IMO and Western Power. He suggested that power generation assets were a less secure investment when compared to network assets and therefore a higher WACC as proposed by Western Power in determining their network access charges was "out of kilter" with the WACC used in the MRCP. Mr Tan also questioned the logic of the WACC used by Western Power being greater than that used in the MRCP.

Mr Ruthven noted that the WACC as proposed by Western Power for its AA3 submission to the ERA was higher than the cost of capital funding shown in Western Power's most recent annual report.

Mr Stephen MacLean questioned whether it was valid to assume that network assets were inherently less risky than power station assets. He pointed out that network assets were not able to be as easily redeployed and required continued investment by government. Mr Dykstra supported Mr MacLean's view and pointed out that the WACC used by Western Power was still subject to review by the ERA. Mr Dykstra pointed out that it was common for the ERA to determine a lower WACC than that proposed by regulated entities.

Mr Cao questioned as to why the issue of the WACC hadn't been identified at an earlier stage as being likely to have a significant downward impact on the MRCP. Mr Ruthven confirmed that the recent reduction in Commonwealth bond yields had been the significant trigger for the forecast reduction in the WACC. Mr Campillos pointed out that the MRCPWG didn't at any point identify the calculation or the level of the WACC as an issue at any time during their meetings.

Mr Flukes questioned the accuracy of the Equity Beta of 0.83 considering the current volatility in equity markets. Dr Challen pointed out that Beta was a measure of relative risk. He indicated that Beta was unlikely to be impacted by market volatility as the relative risk of various equity assets is unlikely to substantially fluctuate. Mr Dykstra pointed out that the relative risk of any particular capacity provider would be largely influenced by their contracting arrangements. Dr Challen confirmed that the Equity Beta of 0.83 reflected the ability for a capacity provider assigned Capacity Credits in the Reserve Capacity Auction to effectively secure a 10 year contract.

Mr Dykstra pointed out that a review of the Reserve Capacity Mechanism would commence shortly following the review presented by the Lantau Group in October 2011. He suggested that this review could potentially lead to substantial changes in the structure of the RCM. Mr Cao suggested that the review of the RCM should have been undertaken prior to the review of the 5-yearly review of the MRCP. Mr Dykstra pointed out that a review of the MRCP was required once every 5 years and as a result could not have been delayed. Mr Ruthven pointed out that the MRCP review had been signalled since late 2009.

Mr Cao suggested that the rates of finance available from the big 4 banks in Australia was in excess of the cost of debt under the WACC. Mr Andrew Sutherland supported this view. Mr Ruthven confirmed that the IMO appreciated these views. Mr Campillos questioned whether there was any further discretion for the IMO to consider other WACC parameters at this stage other than the MRP. Mr Ruthven confirmed that the only discretion available to the IMO was to consider the values of 5-yearly parameters in the circumstances of a "significant economic event" following completion of the 5-yearly review, confirming that there was no allowance for looking at the basis for the calculation of the Risk Free Rate.

Mr Flukes questioned as to whether the validity of the MRP of 6% had been fully considered. Mr Ruthven confirmed that 6% had been recommended by PwC and agreed by the MRCPWG. Mr

	Dykstra stated that the MRP of 6% was in-line with values used in other regulated areas. Mr Nick McDonough suggested that there had been a dislocation between the RFR and MRP and that the IMO should take leadership in considering the regulatory risk and consequences for investment of no change in the MRP coupled with the current low RFR. Dr Challen advised that the long term level of the MRP in the market was unlikely to change greatly however agreed that there should be an awareness of the inter-relationship between the MRP and RFR. Mr Flukes suggested that the cost of equity within the MRP should be fixed. Dr Challen advised that the current procedure for determining the cost of equity was more suitable and robust than a fixed cost of equity value. Mr Ruthven pointed out that the IMO was required to determine the MRCP in accordance with the Market Procedure and that, as stated before, any review of the MRP could only be undertaken if the IMO was satisfied that a "significant economic event" had occurred since completion of the review in October 2011. Mr Dykstra suggested that volatility in capacity payments should be considered under the RCM review. Mr Ruthven confirmed that the scope of the RCM review was discussed in the December 2011 MAC meeting and that a call for expressions of interest for participation in the new Working Group would be issued shortly with the first meeting to be held in February 2012. Mr Dykstra questioned whether there was scope for extending the MRCP submission period beyond 13 January 2012. Mr Ruthven advised that any scope for extending the submission period was limited by the need to provide the report to the ERA by in time for its determination at the February meeting of the Governing Body. Mr Ruthven confirmed that he would discuss this with the ERA to establish whether the submission period could be extended. Mr Ruthven advised that he would aim to provide this feedback by 6 January 2012. Mr Widdup queried the basis to be used in updating the 1-yearly parameters before submission of the MRCP to the ERA. Mr Ruthven confirmed that these parameters, including the DRP, would be updated with the values for the last 20 days of the previous month prior to the submission. In the case of a submission to the ERA in January 2012 the last 20 days of December 2011 would be used. Mr Ruthven confirmed this was in-line with regulatory practice. Mr Widdup questioned the basis for calculating inflation. Dr Challen confirmed that there had been a recent move away from using inflation-linked bond returns as a basis for determining the inflation rate. Mr Tan questioned as to whether the publication of the MRCP could be delayed until later in 2012 when there would be more clarity on the issues of the MRP and RFR. Mr Ruthven pointed out that such delays were not feasible and would unacceptably impact on the processes in the Reserve Capacity Cycle. Mr Scott Laurance suggested that, based on data presented by Merredin Energy prior to the workshop, a MRP of 10% would	

	appear to be more accurate. Dr Challen disputed that there was any prima facie evidence for such an increase. A number of attendees again questioned the suitability of the current MRP and Beta values. Dr Challen stated that the values used were reflective of the expected risk profile of a business operating in a regulated industry with a 10 year guaranteed revenue stream. Mr Ruthven stated that the workshop was not the forum for discussions on bilateral contracting of capacity. Mr Dykstra stated that the structure of the MRCP aimed to protect Market Customers by providing a maximum cap on the price payable for capacity while taking into account the reasonable costs faced by capacity providers faced with low price risk. Mr Wayne Trumble questioned how all capacity providers could be paid the same price for what could be argued are different products. Mr Ruthven confirmed that this issue would be discussed during the RCM Working Group. Mr Dykstra stated that while he understood that some of the results of the MRCP, particularly with reference to cost of equity and the RFR, might be construed as counterintuitive those results were the product of a robust process undertaken by the MRCPWG which had reached reasonable conclusions. Mr Cao questioned why anyone would bilaterally contract as he suggested the Reserve Capacity Price in the market was below cost. Mr MacLean suggested that if that was the case then capacity providers had the option to participate in the Reserve Capacity Auction process which offered a potentially higher price capped at the MRCP. Mr Widdup suggested that the Asset Beta of 0.5 used in determining the cost of equity under the WACC was unreasonably low and that they would make this point in their submission. In response to statements by attendees Dr Challen confirmed the basis for calculating the Debt Risk Premium based on Bloomberg data and the application of the differential between 7 and 10 year AAA bonds for BBB securities. Mr Widdup suggested that credit default swap rates could be used as a basis for determining the DRP and that the application of the differential for AAA bonds from 7 to 10 years directly to BBB bonds was unsuitable given the absence of a direct linear relationship. Dr Challen agreed that while there was no exact linear relationship he advised that the methodology had been determined after much thought and consideration of regulatory practice. Mr Widdup questioned why the communication of the 1-yearly components published in October 2011 was so brief. Dr Challen confirmed that these were updated values prepared on the same basis as those previously provided by PwC in February 2011 and that the earlier document should be consulted for more detail on the methodology used. Mr Ruthven confirmed that the methodologies for estimating these parameters were prescribed in the Market Procedure, except the DRP, for which the IMO had nominated and explained its choice of methodology in the Draft Report.	

	Mr Dykstra confirmed that the MRCPWG had been aware of the issues surrounding the DRP and had agreed that, until such time as the ERA's methodology had regulatory acceptance the IMO should have discretion to continue the use of the Bloomberg methodology. He noted that this method was imperfect but had been accepted by regulators as a valid methodology in determining the DRP. Mr Ruthven asked Mr Widdup if he would allow the publication of Merredin Energy's written questions as provided prior to the meeting on the IMO's website and Mr Widdup approved. A copy of those questions is included with these minutes. Mr Ruthven thanked everyone for their attendance and the meeting ended at 4:20 PM.	