

17 January 2012

Mr Greg Ruthven
Acting Manager, System Capacity
Independent Market Operator
By email to IMO@imowa.com.au

Submission on the Maximum Reserve Capacity Price for 2014-15 Reserve Capacity Year

Introduction

Perth Energy welcomes this opportunity to provide further feedback, in addition to our previous submission of 4 October 2011, over the setting of the Maximum Reserve Capacity Price (MRCP) for the 2014/15 Capacity Year. As both a retailer and generator we are considering the MRCP from both sides of the market and are keen to see that the final figure is realistic and defensible. We see the holding of a workshop to discuss the Weighted Average Cost of Capital (WACC) as positive and think it is regretful that IMO had not held similar public workshops for other key inputs to the MRCP, namely:

- the network connection cost, with Western Power not supporting the new estimation methodology
- the spread of time based on which a return on construction capex is set, cutting this from 24 months to 6 months (for a 12-month construction period) without any market evidence, and
- the power station cost, which is based on a median cost base compiled by SKM rather than a maximum cost base for the purpose of MRCP determination.

We would stress that our concerns remain unabated over the limited public consultation on such critical factors that has led to an unjustifiably large reduction in the MRCP.

We are pleased to make this submission on WACC setting in response to the IMO's invitation.

Market Dislocation

To be successful and attract a good balance of generation capacity resources, the Reserve Capacity Mechanism needs to be stable and robust. The very significant reduction in the MRCP proposed for 2014/15, through changes in methodology rather than in market costs, is seriously disturbing potential investors and lenders at a time when world financial markets are experiencing dislocation. It would be negligent of IMO if it ignored the fact that the eurozone, which represents a key funding source for the main four Australian banks, has been in turmoil for the last year and especially in the last several months. In the WEM, only the Australian banks offer project finance for generation projects of the type aimed at through the MRCP.

The current capital flight to safety caused by financial system distress that has reduced Commonwealth Government Bond yields has a substitution effect that is depleting capital availability for other investment forms. It should not be confused with an increase in aggregate capital supply relative to aggregate demand. Private generation project WACC could not have fallen. The following table shows the steep rise in funding costs for the major Australian banks in recent months:

Covered Bond Issues by Australian Banks

Issue Date	Issuer	Tenor	Volume	Issue Margin	BBSW Equiv (issue)
15-Nov-11	ANZ BANK	5yr	US\$1.25bn	MS+115bps	+150bps
17-Nov-11	Westpac	5yr	US\$1bn	MS+115bps	+150bps
4-Jan-12	CBA	5yr	EUR1.5bn	MS+100bps	+220bps
5-Jan-12	NAB	5yr	EUR1bn	MS+100bps	+220bps
9-Jan-12	ANZ Bank	10.5yr	EUR1bn	MS+130	+245bps
11-Jan-12	NAB	15yr	EUR200m	MS+145	+275bps

There has been concern over excess of generation capacity in the WEM but the evidence does not bear this out. The most recent Statement of Opportunities Report shows that the forecast excess in 2014/15 is around 223 MW. The proposed changes to certification of intermittent generation would reduce this by about 50 MW and expected changes to certification of demand side management should reduce it further. The increase in system certified capacity last year was the lowest since the market started and our view is that the current “excess” could turn into a deficit within a short space of time.

A shortfall in certified capacity would be a serious market failure and would force the IMO to secure Supplementary Reserve Capacity, an exercise with potentially costly outcomes for end use consumers. As a retailer, Perth Energy wishes to see adequate generation capacity brought to the market in a timely manner. Given the lumpy nature of generation capacity investment, it is only normal that the system experiences “bulging” supply from time to time, usually immediately after capacity investments are delivered, while system demand consumes these investments. Excess capacity is a sign of market success, not an item for concern warranting a panicky reaction from IMO.

System Management is on public record to have expressed concern last year over the potential shortage of capacity should the system face a one-in-ten-year summer peak event.

While the Market Rules allow for a Reserve Capacity Auction to be called by IMO should a shortage be projected during a Capacity Cycle, reality of project financing points to this prospect unlikely to be ever materialised. For a facility to be entered into an Auction it must have already been certified - it cannot just be developed in response to a capacity shortfall in a few short months (from August when IMO confirms Capacity Credits allocation to November when an Auction has to be called).

For a facility to be certified it would have to be well advanced in development, after years of effort considering the project approvals required, to the point where equity and debt commitment has been made. Without such commitment, a participant would not apply for certification since confirmation from IMO would entail an immediate delivery of a sizeable security deposit to IMO. There is no chance that a participant, with funding commitment and security deposit delivered, would withhold from accepting IMO’s offer of Capacity Credits allocation in August in order to wait for an Auction that may or may not happen in November, to bid into that Auction that it may or may not win.

To ensure that sufficient generation is provided, there needs to be a steady flow of proposed projects going through the development process, with the view of them being submitted into the certification process. Perth Energy is very concerned that against the background of financial market turmoil, investors will now be moving away from the WEM given the volatility in Reserve Capacity Price setting with limited supporting market evidence. The downside risk is becoming too great compared to other markets.

Weighted Average Cost of Capital

The function of the MRCP within the Market Rules is to set the maximum price that can be bid into a Reserve Capacity Auction. As explained above, in the time that the Reserve Capacity Mechanism has been operating there has not been an Auction. The real function of the MRCP has been to establish the actual Reserve Capacity Price (RCP) paid to generators. In theory the WACC should be developed to cover the maximum cost of a power station which is supported by a 10-year guaranteed price. In reality, the MRCP is a first step towards the setting of the RCP, which acts as the market capacity price. A balance between the level of the RCP and the risks carried by generators in terms of price volatility and loss of revenue through severe non-availability penalties must be correctly determined. As the RCP is automatically discounted by 15% from the MRCP, the MRCP must therefore be a truly maximum price. The recently adopted methodologies used for component inputs into the MRCP determination shows this is not the case, with the MRCP appearing to be treated by IMO as a minimum price it could get away with.

At the WACC workshop it was stressed that the WACC calculation has been made in accordance with the Market Procedure. Ray Challen of PwC stated that the result which shows a significant reduction since last year is counter-intuitive. The cost of money is reported to have risen substantially with no indication that this trend will be reversed soon. The financial crisis in the eurozone along with general financial weakness elsewhere in the World is increasing rather than decreasing the returns required by both investors and lenders.

The Market Procedure states that the “*cost of capital must be an appropriate WACC for the generic Power Station project considered*” (MP 2.9.1). It further allows the IMO to “*review and determine values for the 5 Yearly components that differ from those in step 2.9.8 if, in the IMO’s opinion, a significant economic event has occurred since undertaking the last 5 yearly review*” (MP 2.6.4).

Perth Energy contends that 7.11% as the pre-tax real WACC for a power station built in the WEM under the current economic conditions is not “*appropriate*”. The WACC used last year was 8.65% and financing costs have not improved since then to justify this reduction. Perth Energy considers that “*significant economic events*” have occurred which justify a review of the 5 Yearly components. These include:

- The sudden fall in the 10 year bond rate (chart presented at the WACC Workshop on 4 January 2012) which mirrors the fall at the time of the GFC: The IMO chart shows that the fall associated with the GFC was around 2 percentage points, similar to the fall in recent months. It is not possible to say whether the present fall is a sustained reduction or a transient dip that will soon recover. Perth Energy suggests we are in a situation where the current 10 year bond rate is not necessarily a good indicator of the long term Risk Free Rate.
- At the WACC Workshop, PwC advised that it did not have an agreed position on where the various economic factors used to develop the WACC are moving. This uncertainty is of

sufficient significance to compel the IMO to review these factors and form opinions based on evidence provided by market participants with existing projects such as Perth Energy.

Perth Energy strongly recommends that the IMO review and determine the values of the 5 Yearly components identified within the Market Procedure. These include:

Equity Return

The implied equity return rate in the IMO's 7.11% WACC is under 10%, which is assumed adequate for BBB equivalent investment assets. This is grossly inadequate for the type of asset being considered. Peaking power development in the WEM is not seen as BBB assets by investors and equity return well in excess of that level is required. This is due to:

- the 15% discount embedded in the RCP;
- the significant risk of losses through late project delivery (a frequent occurrence in SWIS for power generation development) and asymmetric risk-reward structure where a generator could lose its entire annual revenue through non-availability penalties in the few summer months; and
- financiers' view that there is no guarantee under the Rules that IMO will make capacity payments should bilaterally traded capacity lose its contract, and if any obligation exists theoretically under an Auction scenario it is of limited duration and not Government backed.

Note that for a project to fail, ie to go into liquidation, it does not have to lose a full year's revenue, but only to the extent it is declared defaulting on debt covenants. This is a far shallower criterion for project failure and far easier to encounter than implied in the Market Rules. There is no benefit for anyone, least of all end use consumers, for a project to fail. Plants on the ground need to be encouraged to return to operation, not penalized to exit the market. Yet, with the implied equity return IMO is effectively not recognising these risks and making new project entry impossible. Experience in the last five years shows equity return for this type of risks, as they have become more understood by investors, will need to be closer to 15%.

Market Risk Premium (MRP)

The MRP represents the additional return that investors expect for holding risk in the form of a well diversified portfolio of risky assets compared to the risk of holding Commonwealth Government Bonds. Studies indicate that this figure is generally close to the value of 6% that is used by the IMO. However, the risk premium required by markets is not constant. At various stages of the market cycle investors perceive that equities are more risky than at other times and will increase their expected return. Equity markets have recently shown high volatility relative to historic averages and it is expected that equity markets will require increased return to compensate for this increased risk.

Under current circumstances, it is considered that an adjustment of 1-2% would be required. If we take the Risk Free Rate to be 4.25% and the MRP to be 6%, as assumed by the IMO, then a specific additional adjustment of around 1.5% should be included in the calculation.

Asset Beta and Equity Beta

The beta factor is a measure of the risk of an investment or business operation relative to a well diversified portfolio. In recent work commissioned by Perth Energy, KPMG has estimated the appropriate level of beta for power companies through linear regression with the stocks' historical data (based on the observed relationship between the security's return and the returns of the All Ordinaries

Accumulation Index). It concludes that, considering the nature of the power industry, an asset beta in the order of 0.65 would be reasonable (we can make this report available to IMO).

To determine the equity beta, an assessment was made of the gearing ratio of the various companies considered above. Based on this and the comparable gearing levels adopted in relation to the WEM a gearing ratio of 35% debt and 65% equity has been assumed. On this basis, the equity beta value is around 0.9.

In assessing the asset beta, consideration needs to be given to risk factors which are specific to the WEM. A generator that is late entering service must make substantial payments to the market in addition to its revenue losses and extended construction costs. Griffin Energy's Bluewaters power station and Verve Energy's gas turbine project have both had to make very large refund payments.

(These refunds have a material and direct impact on private company viability and are not coverable by higher regulated tariffs or taxes or levies enjoyed by regulated businesses. This underlines our earlier point that any perception of similarity between regulated assets and power generation development in WEM under the MRCP is a fallacy).

A second significant factor is that Western Power will not provide a fixed price to connect a power station to the transmission system. Western Power provides only a best estimate and the generator is required to fully fund whatever costs are ultimately incurred. Perth Energy has experienced significant final cost surges (>30%) from prices in the executed Interconnection Works Contract.

These local risks affect the amount of buffer equity that must be available for a project as well as the minimum level of return that equity requires before proceeding with a new project.

Debt issuance costs

Perth Energy's recent experience is that the debt issuance cost allowance of 0.125% is well below the actual costs which are currently around 1-2% upfront and 0.3% on an annualized basis. This cost applies at re-financing (every three to five years) and also to any undrawn debt.

Franking Credit Value

Whilst there is some merit from an academic perspective in that dividend imputation affects value, there does not appear to be any clear evidence that investors build franking credits into values based on long-term cash flows or ascribe value to them. The impact of imputation tax credits is best taken into account within the cash flows of the business and that a gamma factor of zero be adopted.

Debt and equity ratio

As noted above in the discussion on beta, at the WACC level used by IMO, a gearing ratio of 30-35% debt and 65-70% equity would be more reflective of the WA power industry.

Other considerations

There are other factors that should be taken into account in determining the appropriate level of WACC for current power generation projects in the WEM:

- Construction and commissioning risk – the additional risk reflecting the potential difficulties and delays, and the consequential increase in capital expenditure, which are often associated with the construction of large scale projects. The continuing demand for professional and trades staff within the oil and gas and mining industries accentuates this issue
- Forecasting risk – the risk associated with the ability to predict and realise any cost and revenue forecasts in the pre-construction stage
- Financing risk – given the unfavourable market conditions it is noted that there are may be additional risks regarding access to new debt facilities required during the construction phase
- Re-financing risk – with the relatively short debt tenor being offered, generators face a serious risk that refinancing may be required during a period of considerable economic difficulty; and
- Carbon pricing scheme – adjustment to reflect the additional risk arising from the impact of the new carbon pricing scheme.

The following table sets out Perth Energy's estimate of the various factors that contribute to the WACC and the final WACC figure.

Input	IMO	PE
Risk Free Rate	4.25%	4.25%
Market Risk Premium	6.0%	6.0%
Specific risk adjustment	0	1.5%
Asset beta	0.50	0.65
Equity beta	0.83	0.90
Franking Credit Value	0.5	0
Proportion of debt	40%	35%
Proportion of equity	60%	65%
WACC	7.11%	10.52%

Conclusion

Perth Energy agrees with PwC that the significant reduction in WACC since last year is counter-intuitive and that real funding costs have increased rather than fallen. We consider that the WACC calculated in the draft MRCP Report is not “*appropriate*” and there is sufficient evidence of recent “*significant economic events*” for the IMO to “*review and determine*” the 5 Yearly components.

We urge the IMO to exercise its right to review and determine the 5-Yearly components within the WACC as proposed in this submission.

Should you wish to discuss the contents of this letter directly please do not hesitate to contact me.

Yours sincerely



KY CAO
MANAGING DIRECTOR