Wholesale Electricity Market – Submission to Procedure Change Proposal PC_2011_06 5-Yearly Review of the Methodology and Process for Determining the Maximum Reserve Capacity Price

Submitted by

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Submission

Clause 2.10.7 of the Wholesale Electricity Market Amending Rules provides that any person may make a submission for a Procedure Change Proposal by filling in this Procedure Change Submission form.

Submissions for Procedure Changes that relate to the Power System Operation Procedures and IMO Market Procedures should be submitted to:

Independent Market Operator
Attn: Manager Market Development & System Capacity
PO Box 7096
Cloisters Square, Perth, WA 6850
Fax: (08) 9254 4399
Email: market.development@imowa.com.au

1. Please provide your views on the Procedure Change Proposal, including any objections or suggested revisions:

EnerNOC welcomes the opportunity to submit its views on the Methodology and Process for Determining the Maximum Reserve Capacity Price (MRCP).

We are supportive of a number of the proposed changes to the MRCP methodology that we believe will ensure the MRCP remains an accurate predictor of the real world cost of new capacity in the SWIS, namely:

- the Fixed Fuel Cost including an allowance to initially fill the fuel tank with sufficient distillate for 14 hours of operation;
- accommodating greater land size than 3ha in any particular location where the minimum available land size in that location warrants this consideration,
- that the IMO should have the scope to include additional locations, where appropriate, to reflect the areas within the South West interconnected system (SWIS) where generation projects are most likely to be proposed;
- that the Capital Cost should include the average of the Land Costs across all locations considered;
- the compensation period for the total investment costs for the power station be amended to 6 months, in accordance with PricewaterhouseCoopers (PwC) recommendation, and that the total investment costs be determined as of April of Year 3 of the relevant Reserve Capacity Cycle;
- that the escalation of values in respect of power station, transmission, switchyard and Operating and Maintenance costs to April of Year 3 be performed by the consultant(s) developing the cost estimates, with the methods to be explained;
- that an allowance for annual asset insurance costs for the power plant to be included within Fixed O&M Costs;
- debt issuance costs to be included within the WACC and debt financing costs be removed from within margin M;
- that the "Minor" and "Major" components of the WACC be reconfigured in procedure step 1.13.8 as having a "Review Frequency" of "5-yearly" and "Annual" respectively;
- that the Statutory Corporate tax rate be reclassified for "Annual" review while Debt issuance costs be slated for "5-yearly" review with a fixed value of 0.125%;
- that the IMO be accorded the discretion to nominate a method for determining the Debt Risk Premium (DRP) that is consistent with current accepted Australian regulatory practice, and that the intent of the Procedure be expressed as adopting the "Bond Yield Approach" developed by the Economic Regulation Authority (ERA) when and if this becomes accepted Australian regulatory practice.

Further, EnerNOC accepts and supports the proposed change to incorporate the provision for an inlet air cooling system to be included in the power station costs of the MRCP, as this capability would appear to be a practice being undertaken by power station developers in recent times. We note the comments made at the MRCP Procedure Change Workshop with regards whether appropriate water supply considerations had been taken into account within the MRCP to accommodate the requirement for inlet cooling to be installed in the generic power station. It is understood this consideration has not been included within the proposed MRCP methodology, but as outlined by Sinclair Knight Merz (SKM)'s representative at the public workshop, a *"a non-location specific calculation could be undertaken to determine costs associated with meeting water requirements under the power station elements capital cost*.[1]" EnerNOC supports the development and inclusion of such a calculation within the MRCP, or the incorporation of an otherwise appropriate consideration of the water supply needs associated with inlet cooling installations.

While EnerNOC believes the aforementioned changes will better allow the MRCP to assess the cost of new capacity, we have significant reservations with respect to the proposed change to the methodology for forecasting Transmission Connection Works costs within the MRCP. We note that the purpose of the MRCP is intended to correctly reflect the actual real-world costs faced by a project developer to construct and operate a power station of relevant size and capability in the event the WEM requires such capacity to be made available within the required timeframe. Therefore the MRCP's construction, including the engineering considerations underlying its development, should seek to be as accurate a reflection of the *likely future costs* faced by the generic developer as possible. Where the MRCP's methodology results in costs that are much higher than the *likely future costs*, the market faces significant inefficiencies in its capacity procurement, where these costs are much lower than the *likely future costs*, the market impact will be felt in relation to future system reliability.

While EnerNOC acknowledges those comments that have been registered outlining the immediate capacity "price shock" (downwards) impact of the proposed Transmission Connection Works methodology developed by SKM, this immediate impact does not describe our main reservations with the method proposed. We acknowledge that the SKM methodology could, in the short to medium term and dependent upon access applications made to connect to the SWIS, equally result in a significant increase in Transmission Connection Works costs, an upwards "price shock" reflective of growing transmission constraints. We do not subscribe to the thesis that the proposed methodology necessarily reduces price volatility when compared to the existing methodology.

Our reservations with the proposed methodology relate to its ability to accurately predict future transmission costs associated with the construction of a 160MW liquid-fuelled OCGT. The MRCP Working Group considered the potential for determining costs associated with a range of different plant sizes and configurations that might more accurately reflect the reality of power station constructions and connections to the SWIS. However it was agreed, and subsequent consultations appear to have confirmed, that the power station "peg" to be utilised for the MRCP remains the original 160MW liquid-fuelled OCGT.

[1] Minutes MRCP Procedure Change Workshop 1 September 2011, page 3.

Our concerns with respect to the accuracy of the methodology in predicting the likely future transmission costs associated with the power station required under the MRCP relate to:

- the definition of accuracy used by SKM within its methodology - *the extent to which the DCC calculation methodology drives the correct level of new capacity investment and supports the correct mix of generation technologies in the market as prescribed by the Market Objectives*[2] - introduces a normative market-outcome statement to an approach that should concern itself with accurate engineering forecasts. As the IMO itself has commented[3], "the MRCP is determined without regard for the supply-demand balance and is not, in itself, intended to be an investment signal…[*and it notes*]…that the downstream functions of the MRCP (calculation of the Reserve Capacity Price and Reserve Capacity refunds) are intended to provide signals to Market Participants". Through defining accuracy in the way it has, SKM's proposed methodology seeks to determine what the "system marginal cost of new peaking (liquid fuelled) capacity when the market is in long-run equilibrium"[4] may potentially be. EnerNOC contends that, while SKM's work outlines an insightful analysis of what the transmission costs for an efficient marginal generator *should be*, it does not reflect what the actual transmission costs *will be*, these being determined solely by the transmission service operator, Western Power;
- the proposed methodology for estimation of transmission connection costs considers access offers and proposals for a range of facilities of various sizes, and not specifically 160MW (or even necessarily within bounds closely approximating this unit size). While we acknowledge that the methodology determines a cost ($) per MW and scales this figure to meet a 160MW unit size, such scaling is not likely to match the actual $/MW cost for the size of unit being considered, due to the "lumpy" nature of transmission costs which works against approaches that invoke linear scaling to determine accurate transmission costs;
- Including historical generation facilities, almost regardless of size, within the methodology is likely to skew the results towards the historically predominant unit sizes captured within the sample. The sample units captured within the methodology may be significantly larger or smaller than 160MW, weighting the cost result to reflect much higher or lower transmission costs than those that may apply to the agreed peg of 160MW;
- The conservative forecasting error margin adopted within the methodology (15%) takes its lead from the Reserve Capacity Price determination when the market has secured exactly its capacity requirements without going to Auction (the Reserve Capacity Price is 85% of the MRCP). While we acknowledge the intended symmetry implied by utilising this figure, we contend that the underlying justification and rationale for the 15% "administered price discount" achieved under current rules is entirely unclear. Adopting this unclear percentage

[2] Calculation Methodology to be Applied in Determining Deep Connection Costs, Sinclair Knight Merz, Interim Discussion Report, 11 January 2011, pg 15.
[3] MRCP Procedure Change MAC comments and responses – final, response to number 2 (Corey Dykstra).
[4] Calculation Methodology to be Applied in Determining Deep Connection Costs, Sinclair Knight Merz, Interim Discussion Report, 11 January 2011, pg 15.

discount as the basis for forecasting error margin potentially diminishes the accuracy of forecast transmission costs which the method seeks to attain.

Fundamentally, EnerNOC takes the view that the MRCP's construction is a technical exercise once the basis for the "capacity peg" has been agreed to, which, as noted above and elsewhere in relation to this proposal, is a liquid-fuelled 160MW OCGT. How the MRCP is applied and utilised throughout the WEM is foremost with regards the achievement of market objectives, however, it is a secondary function post the MRCP's determination.

Informed by this perspective, we contend that the transmission cost components within the MRCP should, given the Western Australian situation, only be provided by Western Power as the sole provider of transmission services for the SWIS. We acknowledge, and have significant sympathy with, comments in relation to Western Power's quotations for transmission costs in previous capacity cycles.

We also acknowledge comments made in forums relating to the MRCP review that, in order for Western Power to more accurately determine transmissions costs for the MRCP unit and locations, it would require further resources to be made available on a permanent basis (up to 2 full-time resources) within the organisation to complete. Therefore to pursue one option identified by SKM in its review - *continue with the existing approach of the modelling of the connection of a model generator and reinforce the methodology to undertake analysis more consistent with that undertaken for an access applicant. This would include options analysis, integration with Western Power long term planning and perhaps consideration of the impact of the Applications and Queuing Policy* – would require further costs to be incurred annually to make accurate.

EnerNOC believes that these additional costs need to be weighed up against the annual costs incurred through the utilisation of consultants to determine transmission costs, as well as the benefits underlying an increased accuracy of the results of the costs determination. Further, we contend significant flow-on benefits could be derived by pursuing this approach, through greater transparency being made available regarding Western Power's design and costing methodologies for transmission connections, as well as reducing the likelihood of contention surrounding the MRCP's construction and the potential for realising a capacity shortfall in future years.

With a sole transmission service provider in the WEM, determining engineering costs for a prospective 160MW OCGT must be provided by this service provider and the IMO should seek to enable it, and the market, to have the appropriate resources to provide accurate forecasts relating to the MRCP's unit specification and locations.

2. Please provide an assessment whether the Procedure Change Proposal is consistent with the Market Objectives and the Wholesale Electricity Market Amending Rules.

EnerNOC considers that the bulk of the revised Market Procedure improves Market Objective (a) by promoting efficient supply of electricity in the SWIS through adopting changes reflective of actual project development costs.

However, we contend that the adoption of the proposed transmission cost methodology is likely to not match with real-world costs associated with a 160MW liquid-fuelled OCGT, and therefore undermines Market Objective (a) by discouraging the reliable supply of electricity in the SWIS.

3. Please indicate if the Procedure Change Proposal will have any implications for your organisation (for example changes to your IT or business systems) and any costs involved in implementing these changes.

EnerNOC does not forecast any implications for our organisation due to implementing the Procedure Change proposal.

4. Please indicate the time required for your organisation to implement the changes, should they be accepted as proposed.

Nil.