Westpac Institutional Bank

Monday,10 July 2006

Dr John Tamblyn, Chairman
Australian Energy Market Commission
1 Margaret Street
Sydney, NSW 2000

Sent by email to submissions@aemc.gov.au

Management of negative settlement residues by re-orientation

Dear Dr Tamblyn,

Westpac Energy is a registered market trader and financial intermediary in the National Electricity Market registering among the most active market risk management participants in OTC, Futures and SRA derivatives. Within its wider operations, Westpac has significant debt and equity interests in the Australian energy sector. The following response represents the views of the Westpac Energy group (Westpac).

The issue of reorientating constraints in the Snowy region to managed negative residues has already been thoroughly debated in a public forum[1]. NEMMCO initially proposed that *"if negative residues are accumulating, or forecast to accumulate, on the Victoria to Snowy interconnector (in either direction), the normal 'Option 4' type constraint orientated to Murray will be replaced by a special 'Option 4' type constraint orientated towards Dederang"*. After further analysis and input from affected parties, NEMMCO withdrew the proposal as *"the end result under the proposed change is likely to be similar, if not more pronounced, than the outcomes that have occurred under the current approach"*. Westpac concurred with NEMMCO's analysis at the time and we believe that there is no further information available which will change the outcome in any way. The AER also stated in their submission to the AEMC[2] *"[reorientation] amounts to a sophisticated 'fudge'. We started out with efficient dispatch, then we merged the VIC and Snowy regions leading to a pricing distortion at the Murray node, which we then corrected with some other mechanism, restoring us to efficient dispatch. No 'real' behaviour in the market has been changed – only the financial flows have been altered. Why not simply alter the financial flows directly rather than risk distorting dispatch? "*

Westpac's original analysis[3] shows that the proposal will prevent negative residue on the V-SN interconnector. However it will introduce additional residue issues since the Murray generator will receive the Dederang price which will always be higher than

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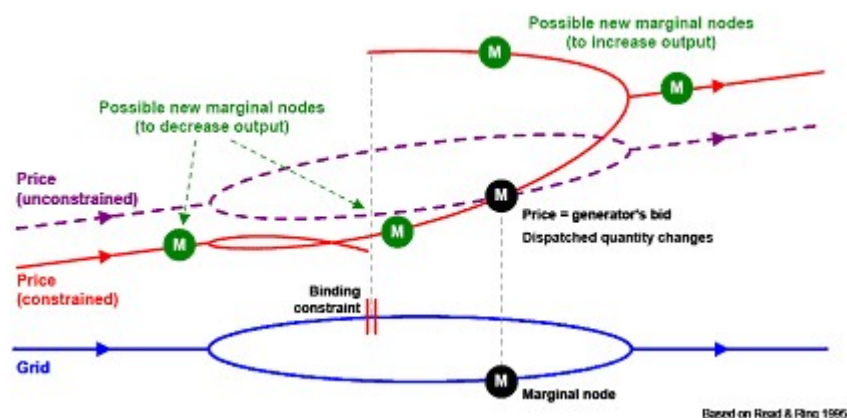[1] Revision to Procedures for Management of Negative Residues, 20-Sep-2005
http://www.nemmco.com.au/dispatchandpricing/178-0095.htm
[2] http://www.aemc.gov.au/pdfs/reviews/Management of negative settlement residues in the Snowy Region/submissions/001Australian Energy Regulator.pdf
[3] http://www.nemmco.com.au/dispatchandpricing/179-0250.pdf

the Murray price during a reorientation event. This increment in payment will be exactly balanced by a reduction in payment to SNOWY1 unit holders.

The major consideration in all analysis should be fairness to all participants (physical and financial), specifically no one participant should be able to directly and unilaterally influence the pool price and the payoff of derivative instruments. For this reason the reorientation proposal should be rejected since it encourages the proponent to behave in a strategic manner. Westpac believes that the Southern Generators proposal[4] provides a much fairer solution. In particular when coupled with the CSP\CSC scheme, there are now prices associated with all the major network nodes in and adjacent to the Snowy region with generating units (i.e. Victoria, Murray, Tumut and NSW). It makes far more sense to produce dispatch prices for network nodes which have generation since they are the only points which can influence power flows in the short run than it does to produce prices for nodes such as Dederang where no such control is possible.

The following diagram shows typical prices observed in a loop[5]. The closer a generator is to the binding constraint, the more impact it has on flows around the loop and hence, the generator's price deviates more from the unconstrained case (in both upward and downward directions). This is because it's not possible to increase output at one node without decreasing output at another or the flow on the critical segment will be altered. In the case being considered, the left most M represents Dederang, the right most M represents Tumut, and Murray would be located at the unlabeled location immediately to the left of the binding constraint. This illustrates that the Murray price should be lower than the Dederang price.

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[4] "*Westpac Submission - Revision to Procedures for Management of Negative Residues*", http://www.nemmco.com.au/dispatchandpricing/179-0250.pdf
[5] B Ring and G Read, 1995, updated 2005
http://www.esc.auckland.ac.nz/Organisations/EPOC/WW2005Talks/ReadEPOC2005_2.pdf

Snowy states[6] that following reorientation *"Snowy would not be exposed to low or negative prices at Murray. As a result, it would compete on substantially equal terms to Victorian generators"*. The low prices are however economically valid and indicate that the Murray generation has more impact on network congestion than Victorian generation. If the Murray generator receives the Victorian price, it will have a very real incentive to over produce. This in turn will constrain off Victorian generation and constraint on Murray and/or NSW generators in order to balance power flows around the loop. Artificially equalizing the price between the Murray and Victorian generators in fact puts Snowy on substantially better, rather than on equal terms.

Snowy states[7] that *"Snowy would have no unique incentive to withhold generation, as withholding would no longer result in a higher price in the Snowy region"*. However for the reasons stated above, Snowy would now have the opposite incentive, i.e. to over produce and increase network congestion.

Snowy states[8] that the Southern Generators proposal will *"have a material negative financial impact on Victorian customers and Snowy Hydro."*. Clearly however it is the net economic benefit of all participants (both physical and financial) which is important, rather than an artificially selected subset. By producing the correct price signal for both Southern Generators and Murray generation, the network capacity is utilised fully and fairly. The Snowy argument appears to be predicated on the Victorian price increasing and the NSW price remaining unchanged. This is not a valid methodology for measuring economic benefit. As explained earlier, over-production at Murray results in the constraint rebalance generation around the loop. In particular Tumut and\or NSW generation is constrained on and Victorian generation is constrained off. There is clearly then an economic cost, which can be avoided even if the NSW price does not change (typically because it is capped at VoLL).

Regards

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[6] Pg 10 *"Snowy Hydro Limited Proposal"*,
http://www.aemc.gov.au/pdfs/reviews/Management of negative settlement residues by re-orientation/submissions/000Snowy Hydro Limited Proposal (including non-confidential attachments).pdf
[7] Pg 10 *"Snowy Hydro Limited Proposal"*,
http://www.aemc.gov.au/pdfs/reviews/Management of negative settlement residues by re-orientation/submissions/000Snowy Hydro Limited Proposal (including non-confidential attachments).pdf
[8] Pg 2 *"Snowy Hydro Limited Proposal"*,
http://www.aemc.gov.au/pdfs/reviews/Management of negative settlement residues by re-orientation/submissions/000Snowy Hydro Limited Proposal (including non-confidential attachments).pdf