3 May 2007

John Tamblyn, Chairman
Australian Energy Market Commission
Level 16, 1 Margaret Street
Sydney NSW 2000

By email: submissions@aemc.gov.au

Dear Mr Tamblyn,

ABOLITION OF THE SNOWY REGION

Origin appreciates this opportunity to provide a submission in response to the Draft Determination made by the Australian Energy Market Commission (the Commission) on the rule change proposal put forward by Snowy Hydro (the Snowy Hydro proposal). While Origin supports the Commission's Draft Determination to abolish the Snowy region, we are disappointed that a Final Determination has now been further delayed, ostensibly until August 2007[1]. As we have noted in a separate letter to the Commission, repeated delay on this matter has created substantial uncertainty for market participants adversely affecting contract prices and market perceptions regarding the regulatory process.

This latest delay has arisen partly, if not wholly, as a consequence of two further rule change proposals put before the Commission shortly after its Draft Decision, one by the Southern Generators and another by Macquarie Generation. These proposals effectively seek to price Tumut and Murray generation directly which, the proponents argue, would generate a greater level of competition benefits than the Snowy Hydro proposal. For the reasons we outline below, we strongly disagree with this contention.

Dispatch efficiency versus hedging efficiency

The Frontier modelling underpinning the Commission's Draft Determination demonstrates that more accurate pricing of the Murray-Tumut constraint will improve the efficiency of dispatch and thereby reduce the intensity and frequency of this constraint. The key reason why this constraint has been so troublesome is the distorted price signals observed by Snowy Hydro when it binds. At its core the issue is quite simple: when the constraint binds in a northerly direction Tumut should see a high price; to encourage it to generate, and Murray should see a low price; to discourage it to generate; and vice versa. The Snowy Hydro proposal restores these price signals and thus helps mitigate this troublesome constraint.

Origin acknowledges that the current interim arrangements and the Split Region option will achieve similar outcomes with regard to dispatch efficiency. Moreover, because they reflect even more precise pricing the dispatch outcomes may be somewhat better. Though tellingly, the Frontier modelling shows the productivity benefits delivered by more precise pricing are in actual fact relatively minor. We consider the competition and hedging implications are likely to be of much greater significance.

[1] It appears the Commission still has not in fact committed itself to final decision even in August.

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First, applying nodal prices to some generators and not others without appropriate hedging mechanism is inconsistent with the regional market design and damages competitive neutrality. Second, Placing Murray and Tumut in their own separate regions has the effect of exposing all 3800 MW of Snowy Hydro generation to basis risk across three interconnectors between Victoria and NSW. As we explain in a little more detail shortly, Origin is concerned that this would have significant adverse impacts on the contract market with flow on effects to competition and interregional trade more generally.

Origin considers that in the long term appropriately conceived and targeted CSC-CSP arrangements may be a more useful way to impose price signals, where necessary, without perhaps destroying the competitive neutrality between generation participants. However, they are still very much in the early stage of development and yet to undergo a full consultation process. Consequently they cannot be considered a viable alternative to the Snowy Hydro proposal; a point elegantly articulated by the Commission at the predetermination conference. Moreover, despite the interim arrangements providing some level of administered hedging in the form of a CSC, they still leave much of Snowy Hydro generation exposed to significant basis risk relative to Victoria and NSW. In a significant number of circumstances, they also still discourage Snowy Hydro from maximising its capacity to Market at times of high pool prices[2].

Competition benefits of the Split Region option

The key counterfactual in the Commission's analysis and the basis for Macquarie Generation's regional boundary proposal is the Split Region option, which applies a nodal price both to Murray and Tumut generation. In this context it is surprising that Frontier Economics found the risk mitigation benefits associated with the Split region proposal to exceed those of the Snowy Hydro proposal. However they acknowledge that their analysis ignores "transactions costs" and "execution risk"; which, as we discuss below, is a key omission. Frontier's findings on risk reflect the fact that by nodally pricing Murray and Tumut generation three interconnectors are notionally created; between Melbourne and Murray; Murray and Tumut; and Tumut and Sydney.

In theory, this should provide participants with a greater ability to hedge all key constraints between Melbourne and Sydney because settlement residues will be available to target these constraints specifically. This was the key point made in the presentation by the Southern generators at the pre-determination conference.

Origin considers this analysis is open to question on two grounds. First, while it is acknowledged that the firmness of trade across a single interconnector between VIC and NSW could be affected by the binding of these other intra-regional constraints; we also note that the Frontier modelling found that such constraints were unlikely to be material in the short to medium term.

However, in the absence of such materiality it is not obvious how the Split region option would deliver substantive additional basis risk mitigation benefits over the Snowy proposal, which also draws attention to the fact that only the Murray-Tumut constraint is serious enough in the NEM to warrant immediate resolution. We consider it important that the Commission is not distracted from this key objective by focusing on other potential constraints within Victoria and NSW, which the Commission's own analysis has already

[2] It is important to remember that under the current arrangements both Murray and Tumut generation effectively receive a nodal price, which may be significantly lower than the Victorian or NSW price when constraints between Melbourne and Sydney bind placing it at a competitive disadvantage to other generators in those regions.

established to be immaterial. In the longer term, if and when these constraints start to bind then they can each be addressed on their merits with whatever mechanisms are comprehensively developed and agreed to in the Congestion Management Review. It is important to note in this respect that abolishing the Snowy region does not in anyway preclude the implementation of such arrangements for addressing future "intra' regional congestion within NSW and Victoria, or anywhere else in the NEM for that matter.

Origin's second key ground for concern with the Frontier modelling is the extent to which it predicts that the Split region option will reduce basis risk between Victoria and NSW. The rationale appears to be that because such risk is made more explicit under this option it will consequently be easier to hedge and manage. In this regard both the Southern Generators and Macquarie Generation imply that the constraints between Murray and Victoria and Tumut and NSW will begin to bind more frequently after the abolishment of the Snowy region, due largely it seems to the changed incentives Snowy Hydro will have a as a consequence (this follows as it is only Snowy Hydro that observes new price signals).

However, while assuming that Snowy Hydro will have the ability to influence the frequency and severity of constraints between Melbourne and Sydney may be reasonable; arguing that the Split region option will resolve the consequential trading risks is not. Snowy Hydro is likely to have very strong incentives to purchase SRA units on these constrained links, primarily as an essential hedging tool, but also for the reason that Snowy Hydro's market power would place it in the best position to control the value of the settlement residues that underpin them. To the extent this confers Snowy Hydro with an information advantage over others as to the true value of those units they may be expected to bid the highest price at auction[3]. If other participants attempt to outbid Snowy Hydro for the relevant SRA units in order to avoid Snowy Hydro from capturing them this would most surely drive up their price.

In addition, given that no participant would know the number of units that others had been successful in obtaining in the auction, most particularly Snowy Hydro, this would create significant uncertainty in the minds of participants as to the commercial incentives ultimately driving Snowy Hydro's behaviour. This in turn will increase the complexity and risks associated with the pricing of, and access to, inter-regional instruments for trading between VIC and NSW.

In our view, therefore, the Split Region option would increase the costs of interregional trade in the NEM, rather than reduce them, as indicated *prima facie* in the Frontier analysis. We strongly doubt this would be good for competition in the NEM.

Competition benefits of the Snowy Hydro proposal

Origin considers that the Snowy Hydro proposal would much better address the concerns identified above. First, there is are much greater concentration of supply and demand around the NSW and Victorian regional prices compared with regions that would contain only Murray or Tumut generation. Greater competition around each regional node in Victoria and NSW will reduce the ability for Snowy Hydro to influence the level of the pool price it receives, and therefore also its incentive for doing so.

In this regard, one of the key contributing factors to Snowy Hydro's incentives to withdraw capacity in the Snowy region was its desire to import either a high NSW price into the Snowy region when a northerly constraint bound or a high Victorian price into the Snowy region

[3] James Bushnell, 'Transmission Rights and Market Power' (1999) UCEI

when a southerly constraint bound. Clearly this incentive is removed if Snowy Hydro generation is already in Victoria and NSW observing the same price signals as other generators in those regions[4]. That is, the removal of the Snowy region means Snowy Hydro would subsequently observe the same price signals as all other generators in those regions. The consequential competitive neutrality strengthens the incentive for Snowy Hydro to maximise its dispatch at the going price in each region. This avoids the key incentive under both the interim arrangements and the Split region proposal for Snowy Hydro to withdraw its capacity because it receives a low nodal price when other generators receive a high regional price. This is further reinforced by the fact that any successful attempt by Snowy Hydro to withdraw its capacity in order to increase the regional price will apply to only half its total generation.

Partly for above reasons, Origin considers that the Snowy Hydro proposal would, compared with the Split region option, provide Snowy Hydro with much less cause to influence the value of settlement residues between Victoria and NSW; thus lowering the consequential interregional risks for all other participants. A key contributing factor is that Snowy Hydro could now enter directly into contracts with retailers in each state without the associated need to hedge any basis risk. *Prima facie* this should lower the requirement for Snowy Hydro to purchase SRA units, which to extent this translates into lower purchase quantities, should also lower the pay-off from attempting to influence their value.

The absence of basis risk under the abolishment proposal should also encourage Snowy Hydro to lower prices for its contracts. To the extent this causes Snowy Hydro to increase its contracting level this dampens its incentives for raising pool prices through economic or physical withholding, or to influence the severity of congestion between Victoria and NSW[5]. Origin considers this will have strong flow on effects to the liquidity of the contract market, interregional trade and competition.

This occurs because a greater level of competitive pressure exerted by Snowy Hydro in the contract market is likely to lower contract prices and thereby encourage a greater level of contracting between generators and retailers more broadly. In turn this should place downward pressure on spot prices as incentives for competitive spot market bidding by generators increases. That is, contracted volumes tend to be dispatched at or below marginal cost since the pay-off form withdrawing capacity or bidding above cost for such quantities is zero[6]. Moreover, if a more competitive contract market increases the level of contracts entered into by some generators (for example Snowy Hydro) this should encourage other less contracted generators to also bid more competitively, since failing to do so increases the risk of not being dispatched. The incentive for generators to remain uncontracted in these circumstances will also be considerably diminished because they will be keen to avoid exposure to extended periods of low pool prices[7].

Thus the potential competitive flow on implications from the abolishment of the Snowy region could be substantial, and we believe, will strongly outweigh the competition benefits envisaged form either maintaining the interim arrangements or implementing the Split region proposal.

[4] AEMC *Abolition of the Snowy Region*, Draft Rule Determination (January 2007) Appendix A p113-114
[5] Frank Wolak, 'An Empirical Analyis of the Impact of Hedge Contracts on Bidding Behaviour in a Competitive Electricity Market' (2000) 14, 2 *International Economic Journal*
[6] Ibid
[7] Ibid

Conclusion

For the reasons discussed above, Origin believes that abolishing the Snowy region would generate a greater level of competition benefits than would be possible either under the current interim arrangements or the proposed split region option. This should lower overall prices to consumers in both Victoria and NSW.

The Snowy Hydro proposal can therefore be expected to strongly contribute to the national electricity market objective.

Please do not hesitate to contact myself or Con van Kemenade on 02 8345 5278 if you wish to discuss any of these matters in more detail

Yours Faithfully,

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