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Dear Sir or Madam

NEM Regional Structure Review

Introduction

This letter is a submission from Creative Energy Consulting Pty Ltd (CEC) to the MCE Standing Committee of Officials (SCO) on the National Electricity Market Regional Structure Review.

CEC is a small consulting firm which provides advice to market participants, service providers and regulators on the design, development and operation of wholesale energy markets. CEC has provided advice on congestion management and access rights to generators and retailers in the NEM and also to stakeholders in other energy markets in Australia and overseas.

CEC's philosophy is to create new ideas and solutions which address stakeholder objectives and concerns whilst recognising and respecting the physical, commercial and practical constraints of energy markets. Since it is apparent from the Consultation Paper[1] that the SCO agrees with the broad thrust of the CRA recommendations, CEC has confined its suggestions to incremental changes to their proposed approach.

Regional Boundaries

CEC supports the recommendation in the CRA paper[2] that any changes to regional boundaries should first pass a cost-benefit test. Such a test would presumably be similar in nature to the Regulatory Test for new transmission, estimating the NPV of the

[1] NEM Regional Structure Review – October 2004
[2] NEM Transmission Region Boundary Structure - September 2004

expected net benefits of a region change under a number of different market scenarios and allowing changes only to occur if positive net benefits can be demonstrated.

The paper also proposes that, unlike the Regulatory Test, region changes should be tested only every 5 years, in order to improve stability and certainty. CEC considers that these stability concerns are probably overstated. In particular, if the market projections used in the test are realistic, it is difficult to see why test results should be volatile[3] and, therefore, why a more frequent (eg annual) process would create instability.

To draw an analogy, one would not expect to improve stability and certainty in transmission expansion by only allowing Regulatory Tests to occur once every 5 years. Instead, the likelihood is that this would be detrimental to efficiency, by potentially and unnecessarily delaying economic investments by up to 4 years[4].

On the other hand, regions *could* be further stabilised – at little or no cost to market efficiency – by allowing region boundaries only to be *added*, not removed or changed. Certainly, it is hard to envisage how removing a region boundary could create market benefit; after all, for this to be considered, the boundary must essentially have no effect on market outcomes. And changing a boundary is akin to creating a new, small region, in that only generators lying between the old and new boundaries will be affected, implying that benefit to the market is likely to be small[5].

To summarise, whilst CEC sees merit in the proposal to stabilise regions and subject any changes to a cost-benefit test, there are likely to be further benefits from:

- reviewing boundary changes annually rather than 5-yearly[6]; and
- allowing only that new boundaries are *added* and not allowing existing boundaries to be removed or changed.

CSPs and CSCs

The paper proposes a regime of constraint support prices (CSPs) and constraints support contracts (CSCs) as an effective, lower-cost alternative to region changes for managing intra-regional congestion. The CSP/CSC regime is similar in many ways to a new regional boundary: for example, the new CSPs that are imposed on the generators which are "causing" the intra-regional constraint are similar to the new spot prices that would arise out of a change to regional boundaries[7].

[3] Indeed, if they are volatile, the integrity of using a 5-yearly "snapshot" would be in question.
[4] The CRA paper proposes a contractual regime to manage congestion where the introduction of new boundaries is delayed. This is discussed in the next section of this submission.
[5] And if there were a significant benefit from moving the boundary, a similar benefit would accrue from adding the new, small region.
[6] The proposed 3-year notice period, however, could remain. This can be factored into the test process and so need not unduly delay economic region changes, just as the typical 2-year lead time for developing new transmission need not prevent its timely introduction.
[7] Any differences would arise from the effect of loop flows.

On the other hand, the CSP/CSC regime does have some definite advantages:

- the demand side is unaffected, and therefore uniform retail tariffs can remain;
- the impact of CSPs on generators is mitigated by giving them CSCs which effectively preserve some of their existing access rights;
- non-NEO ("nodal energy only") constraints can also be managed; and
- the approach can be very flexible and targeted.

However, such benefits could be similarly realised by modifying the proposed "Region Change" regime, as follows:

- existing regions could be frozen for the demand-side, with new region boundaries only applying to generation[8].
- existing access rights could also be preserved, through the allocation of some form of FTRs, when new regions are introduced[9].
- non-NEO constraints could be managed through CSPs/CSCs[10], where their introduction satisfied a cost-benefit test and their impacts on market participants were appropriately managed; and
- more flexibility could be introduced as appropriate. However CRA has taken the view (which stakeholders are likely to agree with) that stability is probably more important[11].

It therefore seems unnecessary to create an additional tier of complexity by superimposing a new CSP/CSC Regime on the proposed Region Change regime. To illustrate of this complexity, consider the situation of a generator unsure whether a local intra-regional export constraint is to be:

- left unaddressed, in which case it must compete for its "squatters' rights" through its bidding strategy;
- addressed through CSPs/CSC, in which case it may have some, as yet unspecified exposure to the CSP and some continued access to the existing regional spot price; or
- addressed through a region change, in which case it has complete exposure to the new region spot price.

[8] In order to preserve settlement surpluses, the regional demand price could be set equal to the weighted-average of the generation prices, rather than the price at the old region RRN. This approach is discussed in the CRA paper (for example on P13), although it is not clear whether it is supported.
[9] The accompanying CRA paper, NEM Regional Boundary Issues Theoretical Framework – discusses the allocation of FTRs or CSCs in some detail and finds that similar issues arise in each regime.
[10] CSPs/CSCs might also be used when the need for a new region arises unexpectedly, but only during the 3-year notice period before this new region can be introduced. Such a need should happen only rarely.
[11] In which case, flexibility in the CSP/CSC regime is also likely to be undesirable

A local retailer, on the other hand, may or may not see a new local spot price, depending on whether the Region Change or CSC/CSP regime, respectively, is applied.

Under the modified Region Change regime suggested above, the generator would have comfort that, should a local new region be introduced, it simply exchanges some small, level of volume risk for some small level of price risk[12]. The impact on the retailer, whose region is unaffected by the change[13], is likely to be even less. Therefore, while some regulatory risk remains, it is contained and manageable.

To summarise, CEC suggests that the CRA proposals could be improved by making the following changes:

- new regions should apply only to the generation side; demand-side spot prices will continue to be based on existing regions;
- implicit financial access rights of existing generators should be (approximately) preserved through a defined process of allocating FTRs across any new regional boundary; and
- CSPs/CSCs should only be introduced to address non-NEO constraints or to manage NEO constraints in the 3-year transition period before a new regional boundary is introduced.

Thank you for inviting submissions on this review. I hope you find these comments helpful.

Yours faithfully,

Dave Smith
Director
Creative Energy Consulting

[sent by email]

[12] The volume risk arises from the uncertain effect of competing generators' bids on its dispatch, whilst the price risk arises on the portion of generation output which is not hedged by the allocated FTR.
[13] Although the regional spot price may be affected, if it is based on average of generation-side spot prices.