

NEMMCO

National Electricity Market
Management Company Ltd

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Sydney Office

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Dr John Tamblyn
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By email: submissions@aemc.gov.au

Dear Dr Tamblyn

NEMMCO Submission on Rule Change Proposal - Causer Pays for Ancillary Services to Control the Tasmanian Frequency

Thank you for the opportunity to comment on Hydro Tasmania's proposed Rule change - Causer Pays for Ancillary Services to Control the Tasmanian Frequency.

NEMMCO has a number of concerns with the proposal, mainly in the areas of causer pays, runway pricing, and complexity of operation. These concerns are detailed on the following pages for consideration by the AEMC in its decision-making process.

NEMMCO appreciates your consideration of this submission. If you wish to discuss any of the matters identified please do not hesitate to contact John Wormald on (02) 9239 9107.

Yours sincerely



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1. Causer Pays and Runway Pricing

Hydro Tasmania's proposal document claims that the change reinforces and provides consistent application of the 'causer pays' principle. The current application of the causer pays principle, in terms of the recovery of contingency FCAS costs, is that:

- Market Customers pay for the cost of lower services;
- Market Generators pay for the cost of raise services;
- Market Participants are allocated costs on a trading interval basis in proportion to their metered energy; and
- costs for each binding FCAS constraint are recovered only from the region or set of regions to which the constraint applies.

The proposal promotes a form of runway pricing for the contingency services, whereby all additional costs due to the new frequency standard, whether they are related to raise or lower services, are required to be recovered from NCGUs for both raise and lower services. While runway pricing may be classified as a form of 'causer pays' recovery, in contrast to the claims in the proposal, recovery of lower service costs from generators is not consistent with the current 'causer pays' recovery arrangements for FCAS in the NEM.

Another aspect of the proposed implementation which is inconsistent with current application of the 'causer pays' principle in the NEM relates to the operating status of generating plant. All generating units have periods, during commissioning and in routine operation, when they are not synchronised to the power system. If a generating unit is not connected to the power system, then it cannot be a causer of frequency excursions. This is recognised in the existing recovery calculations, which do not allocate charges to plant that are out of service. Under the proposal, we understand that NCGUs would be required to carry the full additional recovery cost from the moment they are registered in the NEM. This point is discussed further in section 6 below.

Runway pricing as a recovery mechanism for contingency FCAS was raised as an issue in NEMMCO's FCAS Review and discussed in the final report¹ dated 31 July 2007. The review determined² that:

Decision 11: There is no compelling case in favour of moving to a runway pricing regime for the recovery of contingency FCAS costs. Consequently this proposal should not be progressed and the existing contingency cost recovery arrangements should be maintained.

The review considered this matter as an option for the NEM as a whole in respect of contingency services. It is recognised that the proposal is promoting the use of runway pricing for a different purpose. Nevertheless, NEMMCO notes that there was insufficient support for the mechanism to warrant its progression in a general sense in 2007. The proposal is putting forward a form of runway pricing as an exception to current arrangements in a portion of the NEM, and its acceptance would therefore give rise to a need to maintain two recovery mechanisms. The merits of such an arrangement would need careful consideration in view of the lack of support for broader application of runway pricing revealed in NEMMCO's review.

¹ Available on the NEMMCO website at <http://www.nemmco.com.au/powersystemops/160-0329.html>

² See page 31 of the review.

2. Identifying the 'Causer'

The proposal appears to be predicated on the view that the Tamar Valley CCGT and future generating units that cannot meet the existing frequency standard (NCGUs) 'caused' the tightening of the Tasmanian frequency standards; that the owners of that plant would capture the benefits and therefore they should bear direct costs flowing from that change. If this understanding is correct, then it may not be clear what is meant by the term 'causer'. Another view of events would be that the Reliability Panel made the decision to tighten frequency standards, for the reasons set out in its report.

The report and the proposal also argue that NCGUs capture a benefit in the sense that the change allows them to compete in the Tasmanian region of the NEM. However, it is not clear whether identifying the major beneficiary should be the key objective when applying a causer pays recovery framework. Thus, the claim that the proposed Rule change reinforces the causer pays principle³ may require further consideration in this context.

3. Grandfathering Arrangements

Hydro Tasmania argues that the proposal is sound because it "reaffirms the principle that investors will not be faced with costs arising from regulatory decisions made in response to later investments"⁴. In particular, "new entrants will be concerned that any future changes to the standards will impose additional costs on them"⁵. If that principle were accepted for this proposal, then it raises the question of whether it would have implications for future Rule and standard changes across the NEM. If future Rule and standard changes were to preserve the status quo for incumbents (ie grandfather them), and impose the cost of new arrangements only or primarily on new entrants, then the NEM would become very complex with a range of rules and standards applying to participants and categories of participants rather than uniformly across the NEM.

NEMMCO also observes that the proposal seeks to use two separate frequency standards for Tasmania, whereby technical compliance would be assessed against the new standard but recovery charges would be assessed by testing against ability to meet the old standard. Acceptance of this arrangement would introduce a material overhead in maintaining processes to manage two standards. If further changes were made to the standard in the future as noted by the proponent, the arrangement might require additional standards to be carried forward in operational and financial processes.

³ Page 9 of proposal document

⁴ Page 9 of the proposal

⁵ Page 8 of the proposal

4. Barrier to Entry

The change to the frequency standards has the effect of opening the Tasmanian region to the addition of generation facilities of a type that would otherwise be excluded on technical performance grounds. However, the proposal seeks to charge a premium to such plant through additional FCAS recovery costs over a 15 year period. If this is the case, there is a risk that the additional cost might operate as a barrier to entry when compared to an approach that does not impose additional charges in this way. This may bear consideration with respect to promotion of efficient investment and the NEM objective.

5. Complex Calculation

In its proposal, Hydro Tasmania notes NEMMCO's concern that 'it would be difficult to run a complete what-if run for FCAS pricing'. Putting the pricing issue aside, the determination of 'Additional Requirement' or volume of FCAS to be enabled is not simple. It depends on the difference between the amount that is enabled under the new frequency standard and the amount that would have been enabled under the old standard. In each case, the amount required depends on many power system variables, including the maximum generator output from the previous dispatch interval, the Tasmanian demand and power system inertia. Even if the problem of 'What would those power system values have been under the old frequency standard?' is set aside, the amount to be enabled needs to be co-optimised with Basslink interconnector support capability, FCAS capability as defined by part of the generator offers (commonly referred to as their "FCAS trapeziums") and an appropriate level of co-optimisation between delayed and regulation services.

This can only be determined with any degree of reliability under varying operating conditions by an additional run of the NEMDE dispatch engine for each dispatch interval. The run would have to be supported by maintaining two sets of constraint equations covering both system normal and outage network conditions. The two sets of constraint equations would have the same terms of FCAS providers and Basslink flow on the left-hand side, but the right-hand side terms would differ, one set being consistent with the old frequency standard, and the other set being consistent with the new standard.

NEMMCO currently uses a tool to dynamically calculate the FCAS requirement in Tasmania to cover contingency events every 5 minutes, taking into account latest information about Tasmanian demand and power system inertia. This tool would also need to be modified (effectively duplicated) to provide outputs with respect to both the new and old frequency standards.

Settlement systems would need to be modified to evaluate the additional cost and create additional transactions to appear on the settlement statements.

Thus the Rule change proposal would result in a significant additional development, maintenance and audit cost for NEMMCO with respect to the supporting dispatch and settlement systems and an on-going obligation to produce and publish additional supporting information. It would add a new layer of complexity, reduce the transparency of FCAS settlement calculations, and it would be a move away from the current NEM-wide uniformity of the FCAS market processes. These matters would need some consideration if the AEMC is to make the proposed Rule.

6. Settlement Anomaly

The basis for apportioning the costs over the Market Generators in the proposed Rule is not clear. Draft Rule 6(3) requires the Additional Cost be shared pro-rata to generator energy, while the accompanying formula uses the terms RGEN and TRGEN which are determined by capacities. If the basis is energy then, assuming that it is the energy in the dispatch interval, the calculation would appear to fail as the denominator is zero for those intervals that have zero NCGU energy metered. If the basis is capacity, then it follows that the NCGUs will be allotted the recovery charge for the Additional Cost even if they are not physically trading in the NEM at the time. This apparent anomaly would need to be resolved if the proposal is to be progressed.