

Mr Rob Jackson AEMO Level 22, 530 Collins St Melbourne VIC 3000

By email

18 May 2017

Dear Rob,

## Submission to Second Stage of Consultation on the MASS

Thank you for the opportunity to comment on this very important component of the operation of the FCAS systems.

This submission is from Tilt Renewables, which owns the Snowtown 1, Snowtown North, Snowtown South, Blayney and Crookwell wind farms.

Tilt Renewables agrees with the Draft Report that there are complex matters to address here that are unlikely to be adequately resolved in the timeline of this consultation. Tilt Renewables strongly encourages AEMO to continue its work on frequency control, including the Ancillary Services Technical Advisory Group, in parallel with the completion of this consultation, and encourages AEMO to schedule a further consultation on amendments to the MASS to progress the complex issues raised, particularly on the points discussed further below.

The Draft MASS attempts to improve the reliable delivery of the Regulation Raise and Lower services by describing the ability of AEMO to declare the service as non-conforming if it fails to respond, in AEMO's reasonable opinion, in an accurate and timely manner. While Tilt Renewables agrees that the previous definition needed improvement, this draft determination does not provide any certainty to participants about the performance required, and defers to AEMO's judgement a specification that should be in the MASS. Tilt Renewables encourages AEMO, in conjunction with the Ancillary Services Technical Advisory Group, to develop a comprehensive performance measure, such as a performance index, that measures the performance of regulation service delivery in a way that balances the system need for some level of certainty in delivery against the cost of achieving this. Such a balance is particularly relevant for intermittent generation where it may be economically inefficient to provision sufficient storage to cover infrequent large changes in output due to rapid weather changes.

Tilt Renewables agrees that further detailed design is required on the Contingency services. As a participant with technology not traditionally used for FCAS, we consider that the Contingency services could be better specified in the MASS by a thorough illustration of the desired response, instead of leaving the details to a complex verification process (including the FCASVT) that must be reverse-

engineered. We appreciate your efforts to simplify the verification clauses for the contingency service, but we suggest that the MASS is still lacking a clear explanation of how a generator is expected to act in response to a change in dispatch level during the period it is responding to the frequency event.

In addition, Tilt Renewables agrees that further work is needed on the definition of the "orderly transition" to the next Contingency service, as the desired response, while it may be implicitly assumed to be a linear ramp, is not specified in the MASS. As identified in the draft report, this may present a risk to the quality of frequency control if the linear ramp assumption isn't met. The lack of specification of the orderly transition in the MASS also means that a non-traditional provider of FCAS, who may have some flexibility in how the service is provided, does not know what is best for the power system, and risks having to change the configuration later if the requirements are tightened. In reviewing the transition between services, we encourage AEMO to investigate the full capabilities of the non-traditional FCAS sources to maximise their benefit to frequency control.

Finally, Tilt Renewables wishes to comment on the response in the Draft Report to submissions about imposing system changes and costs on existing providers. Tilt Renewables does not agree that avoiding system changes and costs on existing providers should itself be a consideration, but that both the costs and benefits of any system changes should be evaluated, in accordance with achieving the National Electricity Objective.

We again thank you for the opportunity to contribute to this consultation, and look forward to the further work of AEMO and the Ancillary Services Technical Advisory Group on this important issue of system frequency control.

Kind regards,

Dr Jum

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