

28 October 2019

Mr Ben Hiron

Australian Energy Market Commission  
Level 6, 201 Elizabeth St  
Sydney, NSW 2000

**ERC0263 - Removal of disincentives to the provision of primary frequency response under normal operating conditions**

Dear Mr Hiron,

SCADA Miner supports AEMO's proposal to introduce primary frequency control and believes it is vital to maintaining system security. AEMO proposes changes to the Regulation FCAS Contribution Factor Procedure which would exempt generators from causer pays exposure if they provide PFC in accordance with AEMO's specification. **SCADA Miner believes this will result in inefficient use of regulation FCAS because it removes the incentive for renewables to accurately forecast production.**

While the introduction of mandated PFC will likely decrease the ongoing cost of maintaining system frequency in the short term (due to procuring decreased volumes of regulation FCAS), the provision of regulation FCAS comes at a cost. In a future of high renewable penetration, renewables must constrain their output in order to provide regulation raise services. Regulation FCAS must therefore be used conservatively.

The existing Regulation FCAS Contribution Factor Procedure already functions in a manner to incentivise generators to implement a primary frequency response. Generators with deadbands well inside the normal operating frequency band incur low or zero causer pays fees<sup>1</sup>. The existing procedure keeps a separate score of LNEF and RNEF factors (in the case of semi-scheduled generators) – allocating a positive or negative score for each of the raise and lower not-enabled factors. If a generator constrains when system frequency is high, it improves its LNEF score, but has no impact on RNEF. Many renewables operate at their maximum possible power. They could implement a response that constrains output when frequency exceeds 50Hz, but offer no support where system frequency is below 50Hz. Exemption from causer pays for only providing a lower service shifts the cost of raise regulation services away from the causer.

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<sup>1</sup> AEMO presentation *Overview: frequency control activities, presentation to Frequency Control Working Group Dec 2018. Section "Causer Pays – top half of performers"*

The primary frequency response trial undertaken in Tasmania demonstrated that the variable output of wind generation results in deterioration of system frequency<sup>2</sup>. **Exemption from causer pays for implementing a frequency response eliminates the incentive for renewables to improve their 5-minute production forecasts.** Many companies, including SCADA Miner, have committed resources into developing improved production forecasts using AEMO's self-forecasting API. SCADA Miner believes that improving the accuracy of wind and solar production forecasts is critical to ensuring the efficient use of regulation FCAS as renewable penetration increases. Using relatively simple models, accuracy improvements greater than 20% have already been achieved against AEMO's forecasting system.

The incentive both to improve production forecasts and provide a primary frequency response exists in the present causer pays calculation and should remain there to encourage efficient use of regulation FCAS.

Yours sincerely,

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<sup>2</sup>Tasmanian Frequency Control Tests Summary Report, 2018 FMR, Section 3.1