



Government  
of South Australia

Department for  
Energy and Mining

Our Ref: D21039389

Ms Anna Collyer  
Chair  
Australian Energy Market Commission  
GPO Box 2603  
SYDNEY NSW 2000

  
Dear Ms Collyer

**RE: ERC0263 – PRIMARY FREQUENCY RESPONSE INCENTIVE ARRANGEMENTS – DRAFT DETERMINATION**

The Energy and Technical Regulation Division (the Division) of the Department for Energy and Mining thanks you for the opportunity to make a submission on the *Primary Frequency Response Incentive Arrangements – Draft Determination*.

The Division welcomes the Commission's draft determination for primary frequency response (PFR) arrangements to apply from June 2023. The Division supports a long-term model that values PFR performance while maintaining the significant frequency control gains that have been achieved over the last year because of the mandatory PFR requirement.

The expert advice provided to the Commission reinforces that broad-based, narrow band PFR delivers profoundly better frequency performance, that this helps to improve overall stability and system security resilience, and that it supports more efficient use of frequency control ancillary services (FCAS). The rapid and sustained reduction in frequency excursions beyond the normal operating frequency band is clear. Furthermore, although there may be frequent movement, widespread provision of PFR reduces the impact on individual generators during normal operation, as the magnitude of active power movement is lower. We note that widespread implementation of PFR by semi-scheduled generation is yet to occur and, once activated, further reduction of the impact on individual plant may accrue.

The Rules need to ensure there can be adequate and effective PFR available as the generation mix continues to change over time and across all regions. From the expert advice presented, it appears likely that the mandatory obligation on its own may not be sufficient to deliver effective PFR across all regions beyond the short term.

Energy and Technical Regulation Division

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The Division notes the conclusion of GHD that there should be effective PFR reserves available in all regions in the “short term”, but projects that there will be decreasing levels of frequency responsive plant over time and uncertainty about the extent to which changes in plant behaviour will be incentivised. Although GHD suggests that there is unlikely to be shortfalls in PFR raise capability before the end of the current decade, beyond that point the outlook seems less certain.

The Commission has determined a start date for the PFR incentive arrangements from March 2024, taking account of the advice from the Australian Energy Market Operator (AEMO) about the implementation task to prepare for double-sided causer pays. However, GHD estimates that, should the changing power system indicate that further reforms are necessary to support PFR procurement, such reforms could take four or more years to develop and implement. This estimate is based on recent reform experience and indicates a start time would ideally occur around the middle of this decade. While there would be several years’ data available due to the mandatory PFR requirement, the incentive arrangements will have barely commenced by that time.

This highlights the importance of the performance monitoring, reporting and transparency reforms included in the draft determination. These will be necessary to allow early detection of any deterioration and to lay a credible foundation for developing any future procurement arrangements. South Australia often experiences these tipping points ahead of other regions and, if the pace of change occurs more quickly than anticipated, there is a risk of shortfalls materialising sooner than expected. The Division is encouraged that the draft determination includes the requirement for AEMO to report frequency responsiveness on a regional basis, so that regional-specific trends and local requirements can be identified as early as possible.

In conclusion, the Division supports the continuation of mandatory narrow band PFR as an effective tool and safety net, complemented by improved valuation of good frequency responsiveness. Thank you for considering this submission. Should you wish to discuss this further please contact Sally Gartelmann, Principal Policy Officer, Energy and Technical Regulation Division, on (08) 8429 3296.

Yours sincerely



Vince Duffy

**EXECUTIVE DIRECTOR, ENERGY AND TECHNICAL REGULATION**

25/10/2021

