



INFORMATION

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Primary frequency response incentive arrangements

Consultation on a revised frequency performance payments process

The Commission has published a directions paper which describes a revised approach to new incentive arrangements that encourage generation and load to help control power system frequency. We are after stakeholder input on this revised approach.

This paper responds to stakeholder feedback on the frequency performance payments process in the draft rule

In September 2021, the Commission published a draft determination and draft rule setting out enduring regulatory and incentive arrangements to support the control of power system frequency. Power system frequency must be maintained within a narrow range around 50Hz. This is achieved by dynamically balancing generation and consumption at all times.

The draft rule had several key elements including:

- confirmation of the mandatory primary frequency response (PFR) arrangements as enduring; accompanied by the
- introduction of incentives, through frequency performance payments, for market participants to operate their plant in a way that helps to control power system frequency; supported by
- new reporting requirements for AEMO and the AER related to frequency responsiveness and the costs of frequency performance payments.

In response to the draft determination, stakeholders requested that the Commission take more time to further develop the frequency performance payments process before making a final rule. Stakeholders also requested further detailed analysis of the expected financial impacts to show how the arrangements would support the provision of primary frequency response into the future. The purpose of this directions paper is to set out further information on a refined frequency performance payments process.

The Commission acknowledges stakeholder feedback to the draft determination expressing concern for the proposed confirmation of Mandatory PFR as an enduring arrangement. The Commission will further consider and respond to stakeholder feedback on this element of the draft rule in the upcoming final determination and notes that this element of the draft rule is not the focus of this directions paper.

A revised frequency performance payments process

The revised frequency performance payments process has been developed in collaboration with AEMO, IES Consulting, and the AEMC frequency control technical working group, comprised of stakeholder representatives from across the industry.

In keeping with the draft rule, the process is based on the measurement of active power deviations for eligible generation and load, relative to their expected active power behaviour over each trading interval. The deviations are compared against the real time requirement to raise or lower the frequency in the power system.

Under the draft rule, the frequency performance payments were sized based on the total costs for regulation services, scaled by the need for regulation services relative to the volume enabled in each trading interval.

The key difference under the revised process is that the size of the frequency performance payments would be separate from the total costs of regulation services. Instead, the size of the frequency performance payments would be based on the aggregate requirement for corrective response in the system, valued at the price for the respective regulation raise or

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lower service. The revised process includes a simplified frequency performance payment transaction based on the product of three key elements for each trading interval:

- The valuation of active power deviations based on the price for the regulation raise or regulation lower service.
- The scaling of payments by the aggregate system requirement for corrective response.
- A contribution factor determined for each eligible unit of generation and load. This allocates payments and costs based on the proportional contribution of each plant to the need to raise or lower the frequency of the power system.

As for the draft rule, AEMO would be responsible for developing a Frequency contribution factors procedure which would specify the process AEMO would use to determine contribution factors for eligible plant.

We would like to hear from you

This paper has been published to consult on the revised process for the frequency performance payments process. Submissions in response to this paper should be provided to the AEMC by 16 June 2022.

Next steps for this rule change

The Commission plans to publish a final determination and final rule for this rule change by 7 July 2022. The Commission will consider the best approach to finalise this rule change request in a timely manner following stakeholder consultation on this directions paper. Given the complexity of the issues covered by the rule change request, the current date for the final determination may need to be extended.

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