



## Fact Sheet

As the power system transitions towards renewable generation from many more suppliers, managing power system frequency is becoming increasingly challenging. The Frequency Performance Payments (FPP) reform establishes a new financial incentive for facilities such as electricity generators, large loads and batteries to provide helpful frequency response in the National Electricity Market (NEM).

In September 2022, the Australian Energy Market Commission (AEMC) published its [final determination in the Primary frequency response \(PFR\) incentive arrangements](#). The final determination contained three key elements to recognise the importance of good frequency control. The elements are:

1. An enduring mandatory requirement for facilities to provide PFR (subject to technical capability);
2. A new system of FPPs, under which those facilities that make a helpful contribution to frequency receive payments from those who make unhelpful contributions; and
3. Using the same five-minute contribution factors to allocate the cost of Regulation Frequency Control Ancillary Services (FCAS), replacing the current 'causer pays' methodology.

## Why is this reform needed?

Frequency can be thought of as the 'speed' at which a power system operates. System frequency varies whenever the electricity supply does not exactly match consumer demand. Stable frequency is a fundamental requirement to maintain a secure power system. The changing NEM generation mix and increasing number of inverter-based resources such as large-scale wind and solar increases, as well as the high uptake of rooftop PVs, make maintaining the supply-demand balance more challenging. Consequently, keeping the frequency within a limited range around its nominal value has become more difficult.

The new arrangements are intended to provide clear economic signals to participants about the value of good frequency performance (and the cost of poor performance). To value frequency performance and allocate amounts to individual generating units, AEMO will calculate contribution factors every five minutes. By providing these outcomes to participants immediately, facility operators will have the opportunity to understand their frequency performance and potentially vary their behaviour in response to penalties and incentives.

These five-minute contribution factors will also be used to more dynamically allocate the cost of Regulation FCAS, replacing the current causer pays methodology. This calculation will also occur every five minutes, providing participants with the ability to respond in real-time.

The new arrangements encourage all Market Participants to operate their facility in a way that would help to maintain power system frequency around its nominal value. This encourages effective management

of power system frequency at the lowest cost to consumers.

## What is changing?

### Calculation of five-minute factors

AEMO published the final Frequency Contribution Factors Procedure (FCFP) on 1 June 2023. The FCFP describes the process for determining the impact of individual facilities on system frequency, as well as the process of calculating a facility's contribution factors that are used to determine both the FPPs and the cost recovery for Regulation FCAS. A contribution factor is a number between -1 and 1 determined for every trading interval for each facility.

- A negative contribution factor reflects the extent to which the unit contributed to the system frequency control in an unhelpful manner.
- A positive contribution factor reflects the extent to which the unit contributed to the system frequency control in a helpful manner.

### New process for allocation of Regulation FCAS costs

The process of recovering Regulation FCAS payments by allocating costs to Market Participants, historically known as 'causer pays' is being replaced. Used and unused Regulation FCAS costs will be recovered separately.

- The costs for regulation services used in a trading interval will be allocated based on

negative contribution factors determined for the trading interval.

- The costs for regulation services not used in a trading interval will be allocated based on default contribution factors — which are intended to reflect the longer-term historical performance of a facility.

### New double-sided frequency performance payments process

The new FPP process is a financial mechanism to incentivise plant behaviour that helps to control power system frequency. Participants that have a helpful impact on system frequency will receive payments, while those that have an unhelpful impact will pay penalties. The total amount of penalties equals that of incentives in each five-minute interval and is priced at the same value of Regulation FCAS within the relevant trading interval.

## Timing



**Dec 2024 - May 2025**

Non-financial operation of new FPP systems

Extended period of non-financial operation of the new FPP system to allow Market Participants to familiarise themselves with its operation and see what FPP outcomes would result from actual performance, prior to the commencement of financial flows under the scheme.



**8 Jun 2025**

Frequency Performance Payments Go live

## Where can I find more information?

See AEMO's website for the [Frequency Performance Payments project](#) page.

See the AEMC's website for the [final determination](#) and [final rule](#).

For more information, please contact [FPPconsultation@aemo.com.au](mailto:FPPconsultation@aemo.com.au).