

Introduction of Very Fast FCAS Services

Information session
8 May 2023



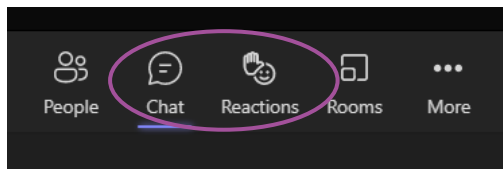
1. Welcome

We acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and culture.

We pay respect to their Elders past and present.

Introductions

- The purpose of this session is to:
 - Outline the approach to facilitating registration of eligible FCAS providers prior to market start.
 - Describe how AEMO intends to transition from current Contingency FCAS market arrangements to the new arrangements.
 - To support discussion during this forum, we ask all attendees to please raise their virtual hand when they intend to speak or post questions in the Teams chat and be respectful to others speaking. There will be breaks to verbally answer questions throughout the presentation as well as at the end



- Please introduce yourself (name & organisation) before you speak.

PLEASE NOTE...



This session will be recorded to assist AEMO in accurately capturing feedback



Slide pack will be distributed after the meeting

AEMO Competition Law - Meeting Protocol

AEMO is committed to complying with all applicable laws, including the Competition and Consumer Act 2010 (CCA). In any dealings with AEMO, all participants agree to adhere to the CCA at all times and to comply with appropriate protocols where required to do so.

AEMO has developed meeting protocols to support compliance with the CCA in working groups and other forums with energy stakeholders. Before attending, participants should confirm the application of the appropriate meeting protocol.

Please visit:

<https://aemo.com.au/en/consultations/industry-forums-and-working-groups>

Guiding principles

What you must do

Participants in AEMO discussions must:

1. Ensure that discussions are limited to the matters contemplated by the **agenda** for the discussion
2. Make **independent and unilateral decisions** about their commercial positions and approach in relation to the matters under discussion with AEMO or AEMO Services
3. **Immediately and clearly raise an objection with AEMO or the Chair of the meeting** if a matter is discussed that the participant is concerned may give rise to competition law risks or a breach of this Protocol

What you must not do

Participants in AEMO or AEMO Services meetings **must not discuss or agree** on the following topics:

1. Which **customers** they will supply or market to
2. The **price or other terms** at which Participants will supply
3. **Bids or tenders**, including the nature of a bid that a Participant intends to make or whether the Participant will participate in the bid
4. Which suppliers **Participants** will acquire from (or the price or other terms on which they acquire goods or services)
5. **Refusing to supply a person or company access** to any products, services or inputs they require
6. **Coordinating of maintenance** or other activities which may affect generation output

Under no circumstances must Participants share **Competitively Sensitive Information**. Competitively Sensitive Information means confidential information relating to a Participant which if disclosed to a competitor could affect its current or future commercial strategies, such as pricing information, customer terms and conditions, supply terms and conditions, sales, marketing or procurement strategies, product development, margins, costs, capacity or production planning.

Agenda

#	Time	Topic	Presenter
1	11:00am – 11:05am	Welcome	Carla Ziser
2	11:05am – 11:10am	Context <ul style="list-style-type: none">• Outline of Very Fast Frequency Control Ancillary Services (VF FCAS)	Carla Ziser
3	11:10am – 11:25am	Registration arrangements for VF FCAS <ul style="list-style-type: none">• Registration application process• Pre-assessment option for existing Fast FCAS providers• FCAS registration amendments for select providers	Adam Gorton & Akeesh Kusrutsing
4	11:25am – 11:30am	Determining the requirement for VF FCAS	Andrew Groom
5	11:30am – 11:35am	Approach to very fast service introduction	Carla Ziser
6	11:35am – 12:00pm	Q&A	Paul Johnson
7	12:00pm	Session Closed	Paul Johnson

"Please note that this meeting will be recorded by AEMO and may be accessed and used by AEMO for the purpose of compiling minutes. By attending the meeting, you consent to AEMO recording the meeting and using the record for this purpose. No other recording of the meeting is permitted"

Important Notice

Purpose

This presentation is to share the approach taken by AEMO to determine the amount of Very Fast FCAS required under different power system conditions and to clarify the technical requirements to register in the Very Fast FCAS markets.

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2. Context

Background

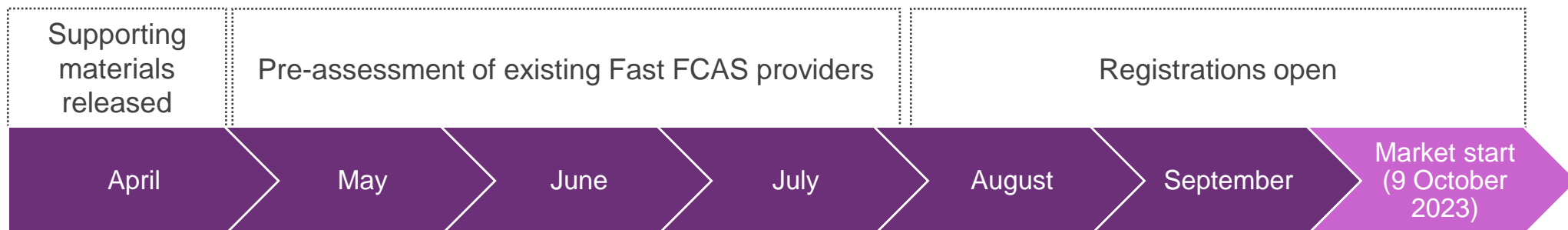
- The AEMC has made a final rule to introduce two new services to help control frequency as the inertia of the power system reduces.
 - The services will provide “very fast” contingency response, alongside the existing fast, slow and delayed services.
 - The AEMC considers the introduction of these services will also foster innovation in faster responding technologies, which become more important to support the energy transition.
- The new very fast services will come into effect from 9 October 2023, at which time AEMO will implement a requirement for the services and FCAS providers will be enabled through dispatch processes.
- This service commencement plan has been developed to ensure stakeholders are aware of AEMO’s approach to implementing the new very fast services.

3. Registration arrangements for VF FCAS

Registration activities

AEMO has participant readiness arrangements in place to allow appropriate time and opportunity to register for Very Fast FCAS services in time for market commencement, with high level timeframes as follows:

- Supporting materials were published in April to assist potential providers in assessing their capability for Very Fast FCAS.
- AEMO will engage with existing Fast FCAS providers who wish to provisionally confirm their Very Fast FCAS maximum capacity, prior to the formal registration application being submitted.
- Registrations formally open on 9 August, from which date providers can submit registration applications.



Registrations applications

- Registration applications for Very Fast FCAS can be made from 9 August 2023, in preparation for Rule commencement.
- On 9 October 2023, Very Fast FCAS registration (and if applicable, amended Fast FCAS registration) becomes effective.

Participant type	How to apply
Market customer – Scheduled loads	Registration application forms, available at AEMO Registration
Market generator - Scheduled & semi-scheduled generating units	
DRSP, market customer, SGA – non-scheduled loads	Portfolio Management System

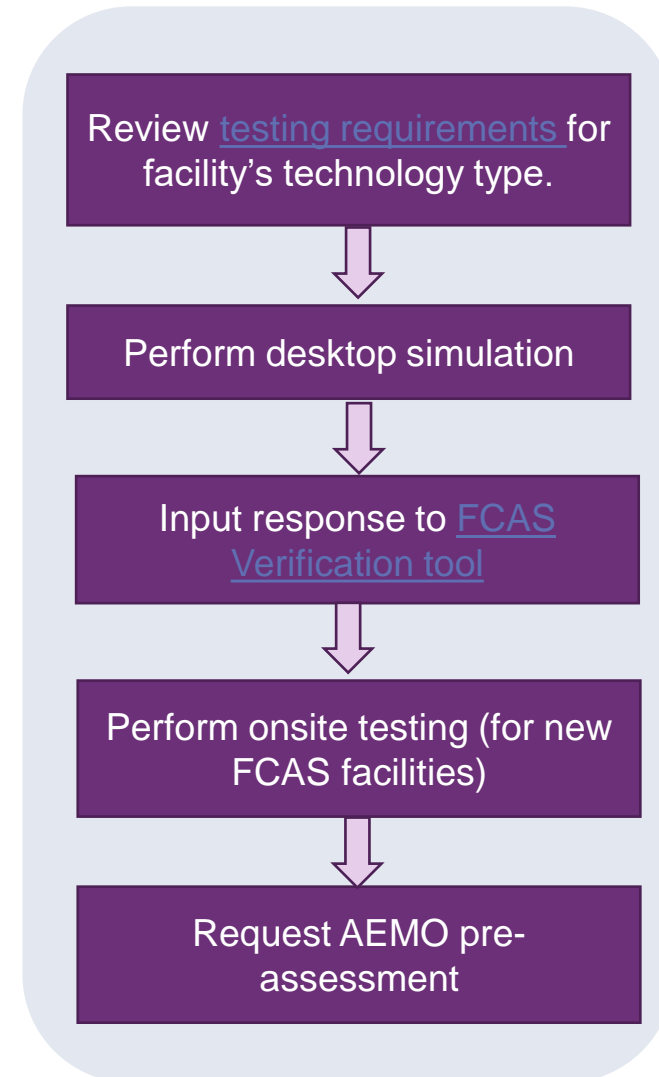


How long will an application take to process?
 All applications will be initially assessed by AEMO within 5 business days, to determine if further information is required to process the application. The time taken to finalise an application depends on whether further information is required, and how soon this information is provided to AEMO by the applicant.

What is the cost to apply for very fast FCAS?
 Fees are outlined in AEMO’s latest fee schedule at [AEMO | Energy market fees and charges](#).

Very Fast FCAS pre-assessment

- Eligible facilities* that currently provide Fast FCAS:
 - Will generally be able to demonstrate their capability for VF FCAS by completing a desktop simulation or a lab test on each device type; and
 - Will **generally not** be required to demonstrate FCAS ability through onsite testing.
- New FCAS facilities will be required to:
 - Complete a desktop simulation or a lab test to demonstrate the FCAS response; and
 - Demonstrate FCAS ability through onsite testing
- Providers can already initiate this pre-assessment with AEMO.
- A draft version of the [MASS FCAS verification tool](#) was published on 6 April 2023. The changes made in the latest MASS have been implemented and feedback can be provided to [AEMO](#) before 30 June 2023.
- Technical FCAS guides to registration have also been published on the [AEMO website](#) to assist participants with their Very Fast FCAS registration.



*Eligible facilities are those able to meet the specifications for Very Fast FCAS service provision as set out in the MASS.

FCAS registration amendments for select providers

- [Version 8 of AEMO's MASS](#) becomes effective from 9 October 2023 and incorporates a removal of the multiplier effect that currently applies for selected FCAS providers.
- This change ensures that the amount of FCAS enabled is more reflective of the change in active power from an FCAS Facility.
- AEMO has identified a number of participants (mostly Fast FCAS providers) who will undergo such a revision.
- AEMO will contact the identified providers between May and July to ensure awareness of this revision:
 - Participants will need to either submit a Schedule 3.1 bid and offer validation data notification form or use the Portfolio Management System (PMS) to have their maximum market ancillary service capacity amended before 9 October 2023.
 - The revision of the registered maximum market ancillary service capacity is a fee-free AEMO process.



Participants who are unsure whether their registrations will be impacted by this change are encouraged to contact AEMO via the [Support Hub](#).

Identifying impacted FCAS providers

FCAS providers potentially impacted by the removal of the ‘multiplier effect’ are:

- Scheduled generating units
 - Maximum upper angle for raise FCAS greater than 45°
 - Maximum lower angle for lower FCAS greater than 45°
- Scheduled loads
 - Maximum upper angle for lower FCAS greater than 45°
 - Maximum lower angle for raise FCAS greater than 45°
- Non-scheduled loads
 - Registered Delayed FCAS capacity less than Fast FCAS capacity

Additional characteristics may also require an amendment to the FCAS registration.



Participants can refer to FCAS trapezium parameters published under the ‘Ancillary Services’ tab in the [NEM registration and exemption list](#).

4. Determining the requirement

Determining the requirement

- AEMO has developed an approach towards determining the quantity of very fast FCAS (R1 and L1) required to maintain frequency within the Frequency Operating Standard (FOS).
- This approach applies the FFR policy objectives, and the changes to the Market Ancillary Services Specification that were consulted on during 2022:
 - Supports a non-zero requirement for system normal conditions that is inertia-aware - that is, the presence of inertia will act to decrease the VF FCAS requirement.
 - Defines the 1s service as distinct from 6s service (and changing the definition of the 6s service accordingly)
- The requirement will be set dynamically based on RoCoF risk and determined as a ratio of the 6s (or fast) requirement as set out in the [AEMO | Constraints Implementation Guidelines](#)

Further details on this approach are available in the Service Commencement Plan.

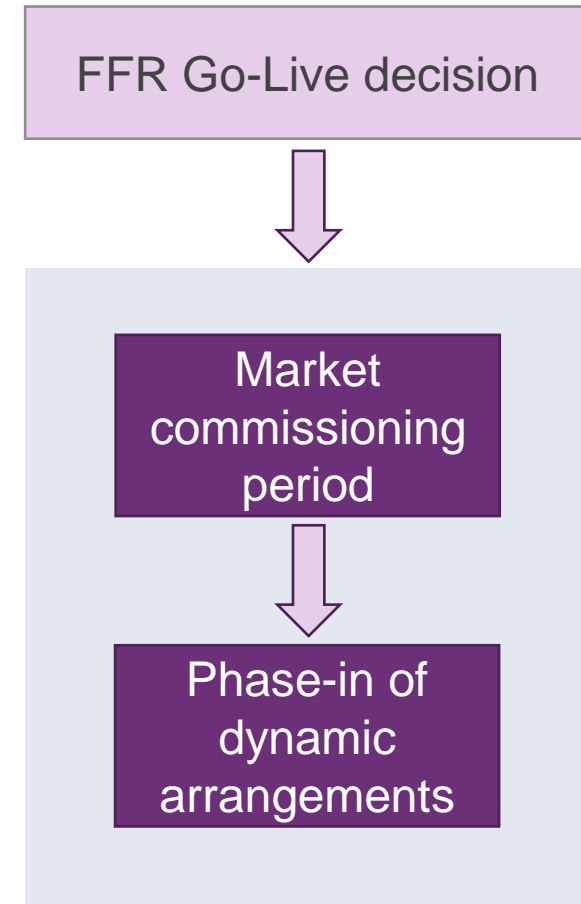
5. Approach to very fast service introduction

Approach to very fast service introduction

AEMO flagged that there would be a progressive transition from existing Contingency FCAS arrangements to the future model with 8 Contingency FCAS services.

AEMO plans to introduce the VF FCAS markets as a two-stage process:

- 1** Commencing market operation with a system normal mainland NEM requirement for each of Raise and Lower Very Fast FCAS services at a static, nominal commissioning volume of 50 MW for an initial period of 2 weeks.
- 2** Phasing in the dynamic calculation of VF FCAS requirements, progressively increasing allowed requirement volumes while ensuring that sufficient capacity is registered and committed for VF FCAS market participation.



6. Q&A

7. Session Closed



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