



# MASS Review Consultation Stakeholder Forum

23 June 2021

# General MASS Review



We acknowledge the *Traditional Owners* of country throughout Australia and recognise their continuing connection to land, waters and culture. We pay our respects to their *Elders* past, present and emerging.

# AGENDA

- Please note that this meeting will be recorded for the purpose of capturing actions.

Time	Topic	Presenter
10:00 – 10:05	Welcome and Introductions <ul style="list-style-type: none"><li>• Agenda</li><li>• Meeting objectives</li><li>• Housekeeping</li></ul>	James Lindley Kate Reid
10:05 – 10:20	Overview of draft determination outcomes	James Lindley / Matt Holmes
10:20 – 10:55	Q&A	All
10:55 – 11:00	Close	James Lindley

# 1. Welcome and Introductions

# Welcome & introduction

- This forum provides an opportunity for stakeholders to gain a brief overview of AEMO's draft determination and raise questions they have with regards to the draft determination and draft MASS.
  - It is expected that stakeholders have read the relevant sections of the draft determination prior to this forum.
- Discussion as part of this forum will not be included as formal feedback on the draft determination.  
AEMO will only consider formal submissions provided in writing (word & PDF) via email by 6 July 2021.

# Housekeeping

- AEMO ask that attendees reserve questions for the Q&A section scheduled for the second half of this forum.
- Questions can be asked by raising a hand and waiting to be called on to ask the question 
- Please remain on mute unless speaking to reduce background noise.

# 2. Overview of Draft Determination

# Matters that have been determined

1. Adoption of new re-worked MASS.
2. Clarification of MASS references to FOS.
3. Improved guidance on the co-ordination of different FCAS and Primary Frequency Response (PFR).
4. Clarification of relationship between the MASS and other instruments and institutions.
5. New requirements and improved guidance for Regulation FCAS providers – note 18 month transition period.
6. Proposed way forward on managing balance of FCAS response types (frequency responsive vs non-frequency responsive).

# Matters requiring further work

1. General limits on FCAS response types.
2. Changes to required response triggers for FCAS (proportional and switched).
3. A subset of the proposed Regulation FCAS requirements.
4. Proposed changes to Delayed FCAS to allow only switched services.

MASS determination has proposed the formation of working group(s) to assist AEMO in some of these tasks and upcoming tasks such as FFR specifications. Details TBA.

### 3. Q&A

Questions can be asked by  raising a hand and waiting to be called on to ask the question.

# 4. Close

For those interested in the DER MASS review forum, please stay online and we will commence at 11:00am.

# DER MASS Review

MASS Consultation 2021

Forum 2

# AGENDA

Time	Topic	Presenter
11:00 – 11:05	Welcome and Introductions <ul style="list-style-type: none"><li>• Agenda</li><li>• Meeting objectives</li><li>• Housekeeping</li></ul>	James Lindley Kate Reid
11:05 – 11:20	Overview of draft determination outcomes	James Lindley / Akeelesh Kusrutsing
11:20 – 11:40	Questions on Notice <ul style="list-style-type: none"><li>• Frequently asked questions</li></ul>	All
11:40 – 11:55	Q&A	All
11:55 – 12:00	Close	James Lindley

# 1. Welcome and Introductions

MASS Consultation

DER Review

Forum 2

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- Please note that the chat box will not be utilised during this session

# 2. Overview of Draft Determination

DER Review

# Matters under consideration

- **Measurement sampling rate**
  - Error introduced when assessing the fast FCAS capacity delivered with a slower sampling rate
  - Impact on the integrity of the fast FCAS markets and how it can result in market distortion
  - Power system security concerns due to DER inverter behaviour
- **Location of FCAS meter**
  - Insufficient evidence that measurement at the asset level would benefit the power system or improve integrity of the FCAS markets
  - Concerns with gaming and poor orchestration of DER behind the same NMI if the FCAS response is measured at the asset level

# Overview

## Draft Determination outcome:

AEMO is proposing not to change the measurement requirements of the MASS and has set transitional arrangements for VPP Demonstrations participants.

## Measurement requirements:

- <=50 ms sampling rate to participate in fast FCAS markets
- FCAS response measured using the net flow from site

## VPP Demonstrations transitional arrangements:

- Discounts to apply on measured fast FCAS delivered during transitional period:
  - 20% discount if sampling rate is >200 ms and <=1 s
  - 5% discount if sampling rate >50 ms and <=200 ms
- Transitional arrangements to end in June 2023

# 3. Questions on Notice

# Questions on Notice

Stakeholder	Question
Evergen	<p>Consider:</p> <p>A single 5MW device with 20Hz monitoring will record 120 measurements over 6 six seconds.</p> <p>In comparison, 1,000x 5kW devices, each measured at 1Hz, will record 6,000 measurements over six seconds.</p> <p>The analyses AEMO presented in the draft determination did not seem to take into account that 1Hz measurements are per device. A good verification approach would result in errors being averaged out across the fleet.</p> <p>Has AEMO considered modifying their verification approach to better utilise 1 second telemetry from every device to minimise verification error, rather than requiring 120,000 measurements per 1000 small devices for 6 seconds?</p>
Sonnen	Please describe how the Fast FCAS local frequency measurement requirement of <0.01Hz margin of error (draft MASS 5.3.2 – table 4) was derived and the specific technical/market objective that the error specification attempts to address?
SwitchDin	Many devices will be unable to comply with the 50ms measurement requirement. Could 1s or 0.5s measurement be used for VPPs if discounting of their response was applied, like the VPP trial transitional arrangements, to enable greater participation?
Tesla	<ol style="list-style-type: none"> <li>1. Is AEMO willing to further consider 100ms or 200ms resolution based on the feedback provided by University of Melbourne?</li> <li>2. Can AEMO explain how 50ms data addresses the power system security concerns raised in the document (when compared to 100ms or even 1 second data).</li> <li>3. Noting that the measurement location concerns primarily seem to be around more than one devices providing FCAS at the same location, is AEMO willing to consider further optionality where device or grid flow data is allowed (with grid flow data required for sites with more than 1 FCAS enabled device, and all other sites having the option)?</li> <li>4. AEMO noted that the price of high speed meters provided by the industry ranges from \$120 to \$15,000 per NMI. Has AEMO considered the cost of hardware, installation, and data (the MASS requires retaining the high speed data for 12 months)?</li> </ol>

# Questions on Notice

Stakeholder	Question
CEC	<ul style="list-style-type: none"><li>• Is AEMO willing to extend the closing date for submissions to the Draft Determination?</li><li>• Is AEMO willing to undertake cost-benefit analysis to assess the merits of moving to 100ms or 200ms measurement, rather than the proposed 50ms?</li><li>• Is AEMO willing to further consider 100ms or 200ms resolution based on the feedback provided by University of Melbourne?</li><li>• Can AEMO explain how 50ms data addresses the power system security concerns raised in the document (when compared to 100ms or even 1 second data).</li><li>• Noting that the measurement location concerns primarily seem to be around more than one devices providing FCAS at the same location, is AEMO willing to consider further optionality where device or grid flow data is allowed (with grid flow data required for sites with more than 1 FCAS enabled device, and all other sites having the option)?</li></ul>
Simply Energy	Can AEMO please elaborate on why it has dismissed the use of a “universal” assessment window given that the MU study has shown this to reduce the average error from 1 sec sampling from 15% to 3%. The MU report indicates this approach “requires further analysis to identify what procedures, requirements and possibly additional facilities would be needed to gather relevant data” so could the VPP Demonstration Program be used as an opportunity to at least explore this option rather than place an additional, significant cost burden on consumers?
Energy Locals	Specifically what influenced AEMO to select option 1 when there was little support for that option from the submissions we've seen?

# 4. Q&A

Questions can be asked by  raising a hand and waiting to be called on to ask the question.

# 5. Close

# Indicative consultation timeline

Process	Indicative Date	Status
<b>First Stage</b>		
Issues Paper and Notice of First Stage of Consultation	Tuesday, 19 January 2021	Complete
Submissions Close	Thursday, 11 March 2021	Complete
<b>Second Stage</b>		
Draft MASS and Notice of Second Stage of Consultation	Monday, 14 June 2021	In Progress
Submissions close	Tuesday, 6 July 2021 (subject to extension of second stage of consultation)	To be commenced
Final MASS determination published	Tuesday, 17 August 2021 (subject to extension of second stage of consultation)	To be commenced

- Request for extension to provide formal submissions by email to [mass.consultation@aemo.com.au](mailto:mass.consultation@aemo.com.au) by COB Thursday 24 June 2021
- AEMO to confirm extension by COB Friday 25 June 2021