

Electricity Wholesale Consultative Forum (EWCF)

Meeting #1
22 November 2022



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, present and emerging.

Agenda

#	Time	Topic	Presenter(s)
1	1:00pm – 1:05pm	Welcome	Chris Muffett (AEMO)
2	1:05pm – 1:15pm	Purpose and objective of the forum <ul style="list-style-type: none">• EWCF Terms of Reference• EWCF Engagement Approach	Chris Muffett (AEMO)
3	1:15pm – 2:00pm	In-flight reform update: <ul style="list-style-type: none">• Integrated Energy Storage System (IESS)• Fast Frequency Response (FFR)• Frequency Performance Payments (FPP)• Enhancing information in MT PASA• Operational Security Mechanism (OSM)	AEMO reform leads: <ul style="list-style-type: none">• Emily Brodie• Chris Muffett• Hugh Ridgway• Chris Muffett• Nicole Dodd
4	2:00pm – 2:10pm	Procedures consultation roadmap	Nicole Nsair (AEMO)
5	2:10pm – 2:15pm	Upcoming engagements	Paul Johnson (AEMO)
6	2:15pm – 3:00pm	General questions and other business	Chris Muffett (AEMO)

Appendix A: Competition law meeting protocol and AEMO forum expectations

Please note that this meeting will be recorded for the purpose of compiling minutes.

2. Purpose and objective of the forum

Purpose and objective

- The Electricity Wholesale Consultative Forum (EWCF) provides a forum for AEMO and interested stakeholders to discuss changes to AEMO procedures and other supporting material as part of delivering the NEM2025 Program
- Aiming to meet monthly for 1.5 – 2 hours, with a focus on in-flight reforms and associated procedure consultations
- Note that the NEM Wholesale Consultative Forum is no longer being convened, but the EWCF is not intended to take on all of the objectives of that forum

EWCF Terms of Reference

- A draft Terms of Reference (ToR) was included with the meeting pack, and sets out the:
 - Purpose of the forum
 - Types of participants that would be interested, and the roles most applicable
 - Meeting cadence, and expectations regarding meeting material.
- AEMO welcomes any feedback on the ToR, with the aim of finalising at the next meeting

EWCF engagement

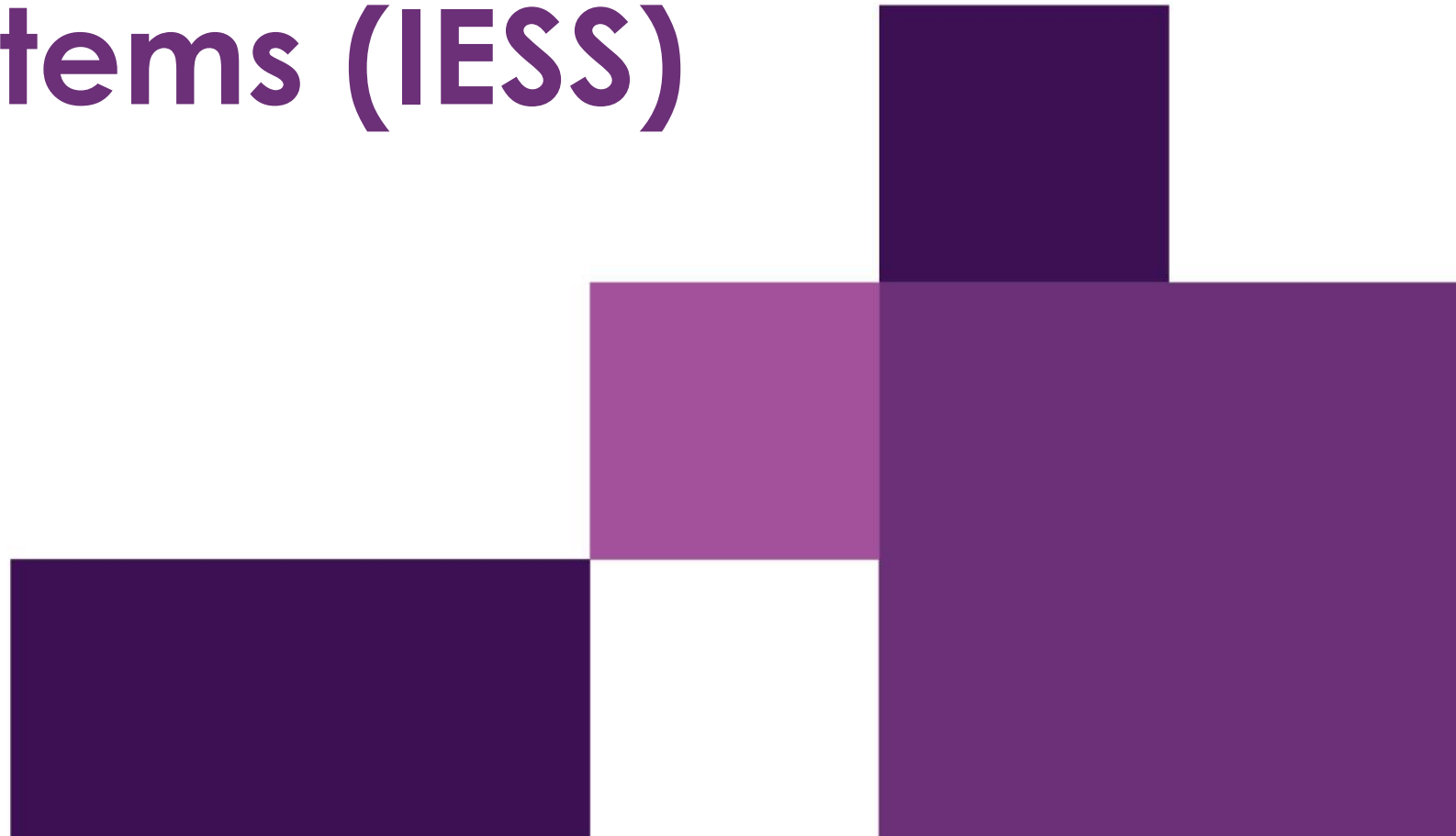
- Intended to provide a forum for coordination rather than in-depth technical discussion:
 - May arrange for separate detailed discussions as required, with feedback to the EWCF
- Agenda will cover reforms that are in implementation, or reforms that are well progressed through rule changes
 - Provide a summary of underway or upcoming procedure consultation
 - Develop and maintain a roadmap of consultations to enable stakeholders to manage their activities and resourcing
- Other areas of interest in Electricity Wholesale may be discussed if time permits

3. In-flight reform update



Integrating Energy Storage Systems (IESS)

Emily Brodie



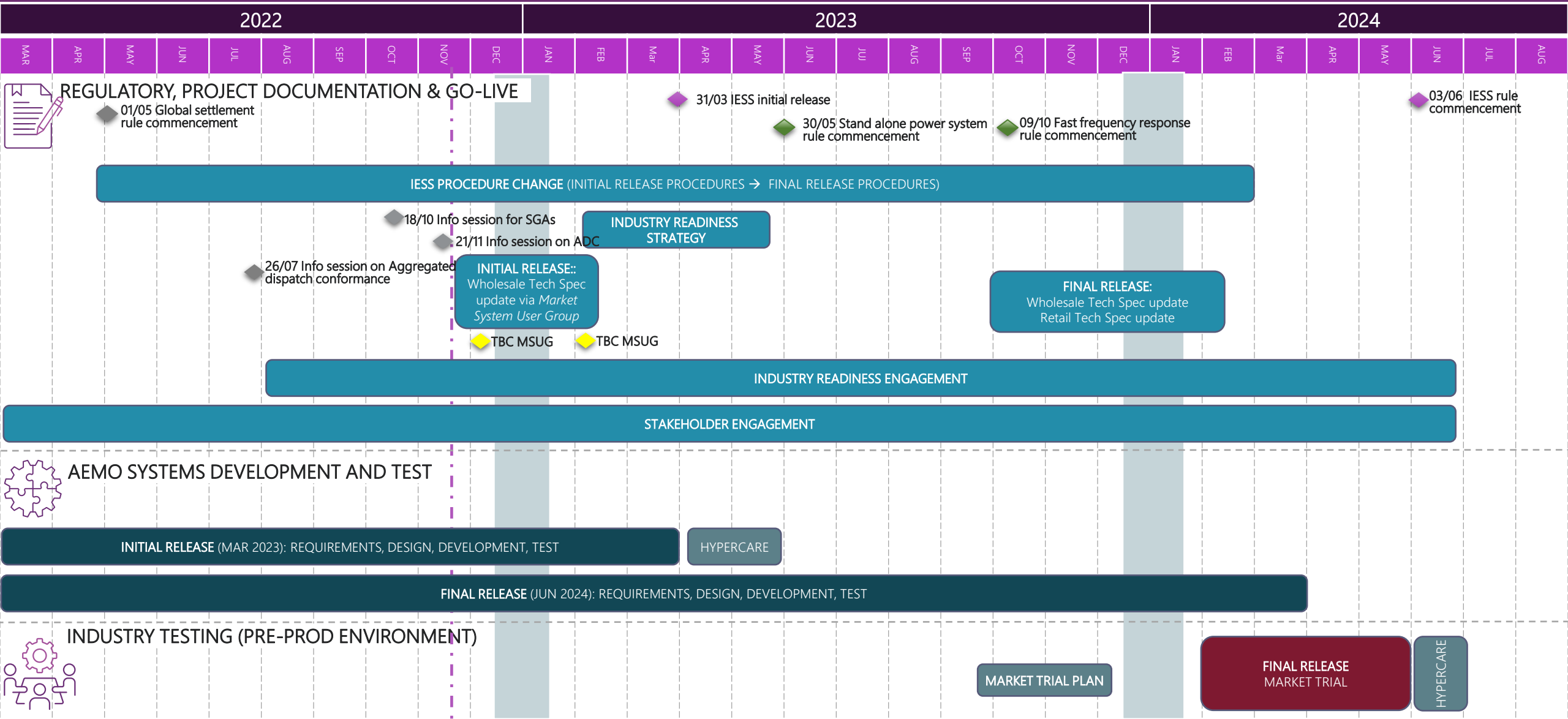
Integrating Energy Storage System (IESS) rule change



Main IESS changes

CHANGE	AFFECTED PARTICIPANTS	READINESS CONSIDERATIONS	TIMING
Integrated Resource Provider (IRP) category: <ul style="list-style-type: none"> Integrated resource system Bidirectional units 	<ul style="list-style-type: none"> Current and future bi-directional system participants Participants that analyse AEMO's operational data 	<ul style="list-style-type: none"> Reclassification Bidding format change Standing data changes Update customised reports as required 	Effective 03-Jun-24 with a grace period for existing IRPs
Aggregated dispatch conformance <ul style="list-style-type: none"> Optional for participants Will be available to systems with two or more technologies behind the connection point 	<ul style="list-style-type: none"> Participants choosing to adopt new conformance model 	<ul style="list-style-type: none"> Understand the new model <ul style="list-style-type: none"> Includes conformance flag in dispatch instruction Develop required control systems 	Available from initial release 31-Mar-23
Small generating units can provide FCAS <ul style="list-style-type: none"> Optional for participants 	<ul style="list-style-type: none"> Small generation aggregators (SGA) choosing to provide FCAS 	<ul style="list-style-type: none"> Apply for contingency FCAS (optional) 	Available from initial release 31-Mar-23
Settlement based on gross energy <ul style="list-style-type: none"> Non-energy cost recovery Scheduled load carve outs UFE calculations Embedded networks 	<ul style="list-style-type: none"> All market participants 	<ul style="list-style-type: none"> Understand new settlement data model Update customised reports as required 	Final release 03-Jun-24
Aggregation of small resources by IRP <ul style="list-style-type: none"> Transition MSGA to IRP Act as FRMP 	<ul style="list-style-type: none"> MSGAs Participants seeking to provide retail services under IRP 	<ul style="list-style-type: none"> Work with AEMO to transition to IRP Understand requirements for MSATS access 	Final release 03-Jun-24

IESS – Indicative Industry Timeline



- IESS Confirmed
- IESS Indicative
- Concurrent initiatives
- Completed activities
- Summer holiday periods: Avoid industry IESS activities where possible
- Market trial:** Feb-24 configure environment; Mar-24 1st test cycle; Apr-24 2nd test cycle; May-24 remediation

Focus for November/December 2022

- **Procedure** changes/updates:
 - *Dispatch procedure*
 - [Guide to generator exemptions and classifications of generating units](#)
- Industry and AEMO **readiness** for March 2023 initial release:
 - SGAs participating in FCAS
 - Aggregated dispatch conformance
- Data Model **Tech Spec** version 5.2
 - High level discussion in Implementation Forum - Tue 29 Nov
 - Detailed discussion in Market System User Group - early December TBC

Final release go-live date (1/2)

- IESS effective date is Mon 03 June 2024 for:
 - Changes to non-energy cost recovery (NECR) calculations
 - Bi-directional unit (BDU) bidding
- As NEM billing week starts on a Sunday, current go-live date requires AEMO to design, test and run a settlement ‘transitional week’ from Sun 02 June 2024 comprising:
 - 1 day of current NECR calculations
 - 6 days of new NECR calculations
- Transitional week = significant additional cost and time for both AEMO and participants.

IESS TRANSITION WEEK: Estimated effort for AEMO

	Effort (Days)
Development	100
System test/SIT	200
UAT	30
TOTAL	330

Final release go-live date (2/2)

- To reduce cost for industry and AEMO, considering shifting the settlements go-live to a Sunday, eliminating the need for a transition week:
 - **Sun 02 Jun 2024**: NECR go-live (likely via rule change)
 - **Mon 03 Jun 2024**: BDU bidding go-live (no rule change needed as NECR and BDU changes are independent of each other)

DISCUSSION:

1. What are your views on aligning the IESS settlement (NECR) go-live with NEM billing week?
2. What would the impacts be to your business?
3. What dependencies are there for your business between the IESS settlement go-live and the BDU bidding go-live?

Next steps

- Requesting feedback from the EWCF by Fri 02 Dec to iess@aemo.com.au
- Subject to feedback, AEMO to pursue rule change to align IESS settlement go-live with NEM billing week.

IESS project contact



ieess@aemo.com.au



<https://aemo.com.au/initiatives/major-programs/integrating-energy-storage-systems-project>

Fast Frequency Response

Chris Muffett



Objective of the reform

- Frequency Control Ancillary Service (FCAS) is a market ancillary service used to manage the frequency of the power system during normal conditions and when events occur
- 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
 - They will also foster innovation in faster responding technologies, which become more important to support the energy transition

Procedures approach

- Implementation of Fast Frequency Response (FFR) involves two main areas of procedure change:
 - *Market Ancillary Services Specification (MASS)* – this sets out the definition of the very fast service, and the technical requirements for providers. The MASS consultation was finalised in October 2022
 - *Constraint Formulation Guidelines (CFG)* – this sets out how AEMO will formulate FCAS requirements for the very fast service, as part of operating the dispatch, pre-dispatch and PASA processes. Consultation on the CFG will commence shortly.

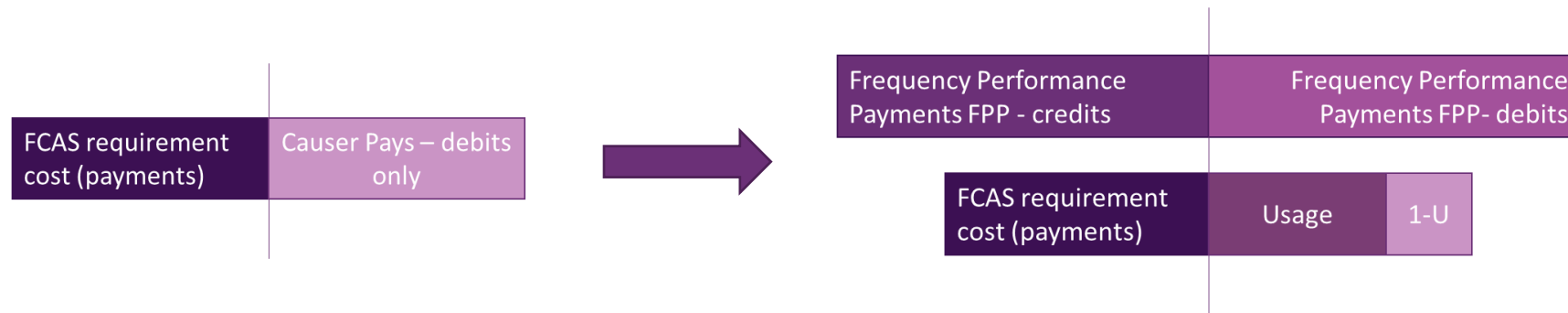
Frequency Performance Payments

Hugh Ridgway

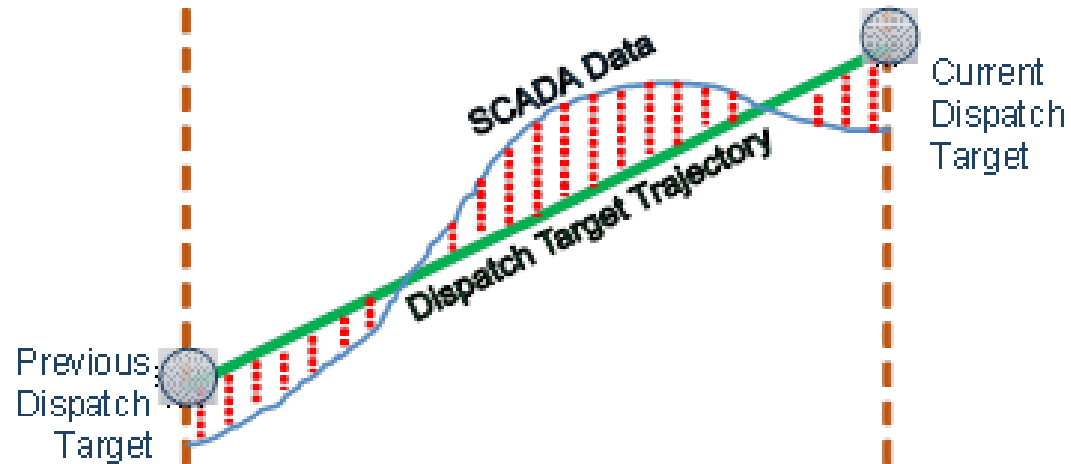


Frequency Performance Payments Project (FPP) - What is it

1. Creates a new, self-funded, financial incentive for primary frequency response
2. Amends existing causer pays process for recovery of regulation FCAS costs

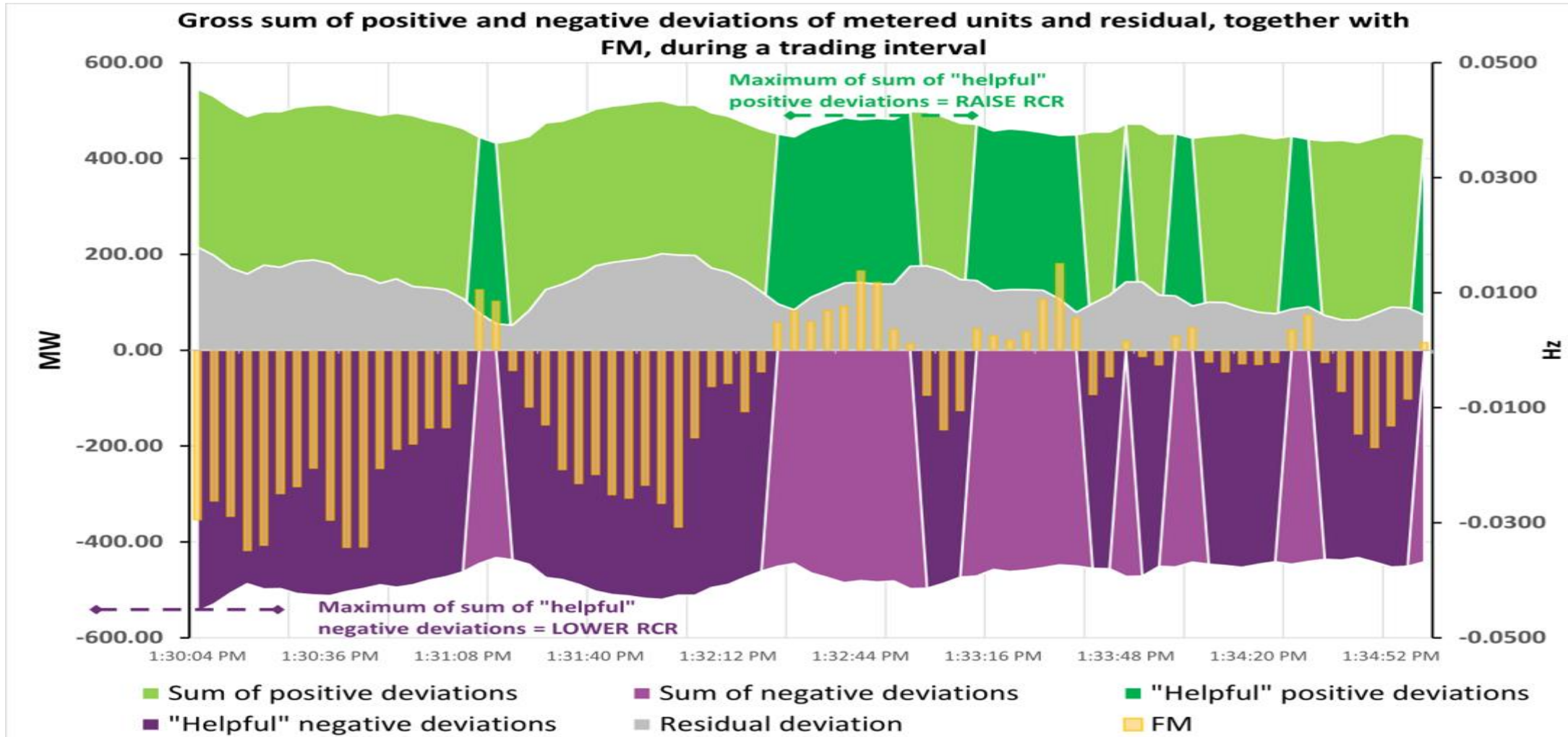


Frequency Performance Payments (FPP) - How is performance assessed



Frequency Measure

Frequency Performance Payments (FPP) - How is performance assessed



Frequency Performance Payments (FPP) – Further information

- AEMC rule - <https://www.aemc.gov.au/rule-changes/primary-frequency-response-incentive-arrangements>
- AEMO procedure consultation page - <https://aemo.com.au/consultations/current-and-closed-consultations/frequency-contribution-factors-procedure>
- FPP project page - <https://aemo.com.au/initiatives/major-programs/frequency-performance-payments-project>
- Email inbox - FPPconsultation@aemo.com.au



Enhancing information in MT PASA

Chris Muffett



Objective of the reform

- Medium Term Projected Assessment of System Adequacy (MT PASA) is a market information process that facilitates coordination of outage planning for generators and transmission networks, and provides visibility on system adequacy out 3 years
- The AEMC has made a [final rule](#) to improve the quality and transparency of information that is collected and published about the future availability of generators as part of MT PASA
- Requires generators to provide additional unit state information and unit recall times, which AEMO will use and publish.

Procedure approach

- AEMO is consulting on changes to give effect to the rule, which primarily relates to the following procedures:
 - Reliability Standard Implementation Guidelines
 - MT PASA Process Description
- First round of consultation underway, submissions due 28 November 2022
 - More information available at:
<https://www.aemo.com.au/consultations/current-and-closed-consultations/2022-reliability-forecasting-guidelines-and-methodology>

Operational Security Mechanism

Nicole Dodd

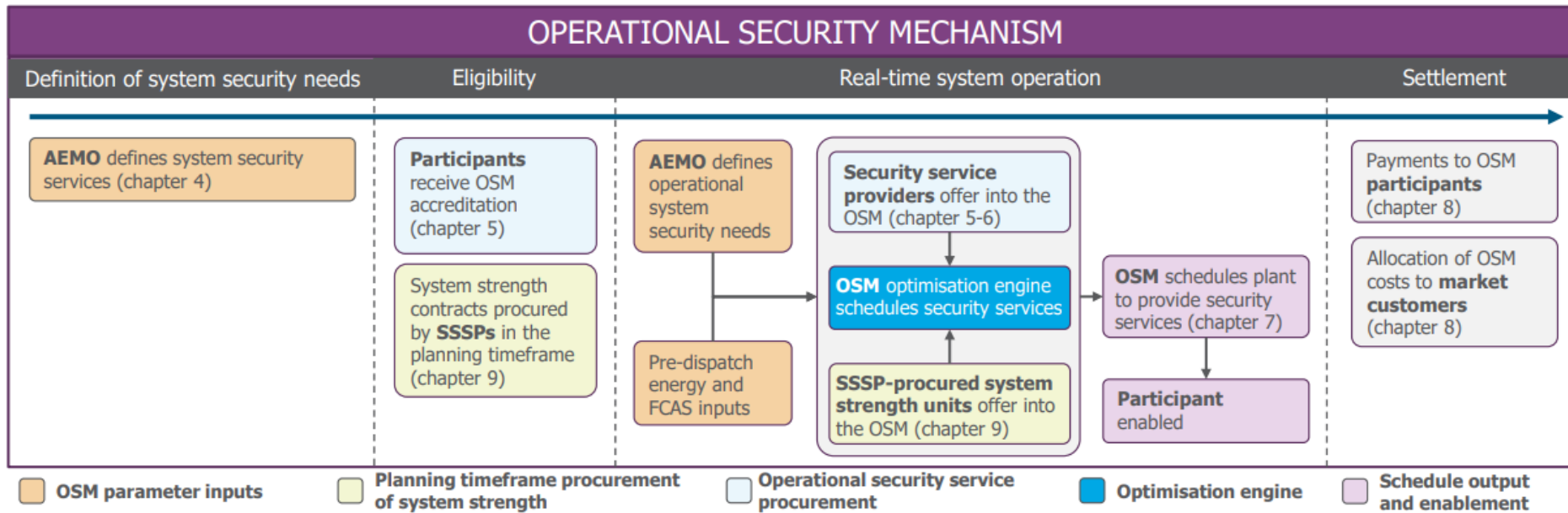
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Operational Security Mechanism (OSM)

- The AEMC made a draft determination for the OSM on 21 September 2022.
- The OSM is a market-based process run in the short-term operational timeframe to value, compensate, and schedule essential system services (ESS) to meet power system security requirements.
- At a high-level, it involves:
 - Definition of security services in the form of security configurations and/or separate services.
 - Accreditation of providers of security.
 - Introduction of a new optimisation solver to be run close to real-time that determines a schedule for security provision.
 - Settlement for provision of security.
- More information can be found on the AEMC's project page:
<https://www.aemc.gov.au/rule-changes/operational-security-mechanism>

Operational Security Mechanism (OSM)

Key elements for implementation (as per the draft rule):



*chapter references are to chapters in the AEMC's draft determination

- Introduces two new AEMO Procedures:
 - The Security Services Guideline – methodology to determine system security services. These will be set out in a Security Services List.
 - The OSM Procedures – defines the scheduling parameters and describes the operational processes

Operational Security Mechanism (OSM)

Next steps:

- The draft rule indicates the OSM will commence on 1 October 2025: this date was determined in consultation with the Reform Delivery Committee and the implementation plan will be further refined in the coming months.
- AEMO is starting work to prototype the engine that will determine the OSM schedule; prototyping will inform regulatory discussions and implementation planning.
- AEMO expects to work with the AEMC's Technical Working Group for the OSM as the prototyping work progresses and as AEMC reach a final determination.
- We will also keep the EWCF up-to-date with progress.
- Please contact nicole.dodd@aemo.com.au for any further information.

4. Procedures consultation roadmap

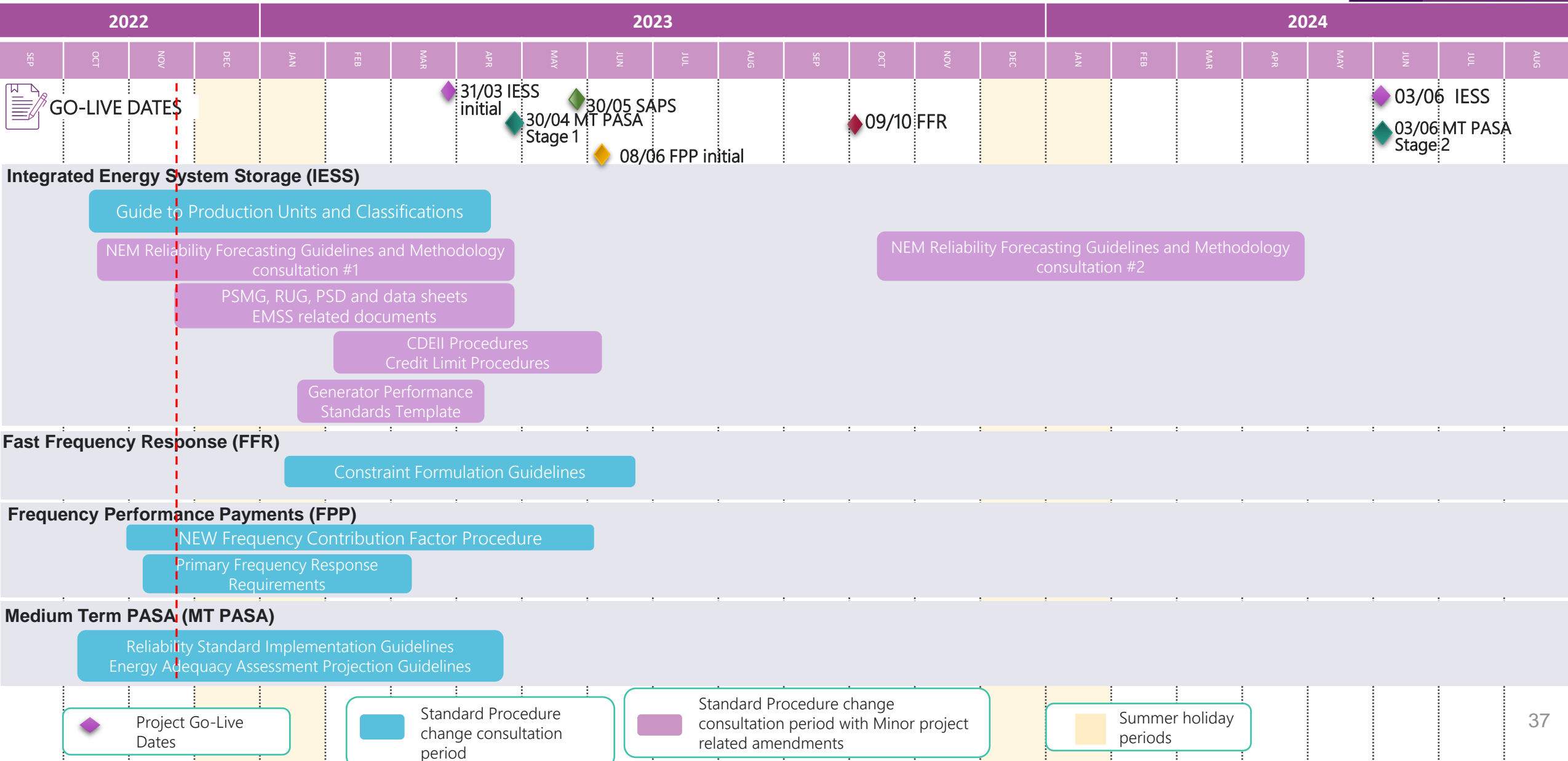
Procedures consultation roadmap

- Objective: to help stakeholder see what AEMO is planning
- A tool to manage and plan timeframes for upcoming changes
- Awareness of what is changing and who it impacts within organisations
- Identification of any concurrent consultations between ‘in flight projects’
- Information about consultations all in one place

Policy Objectives

Process	Policy Objective	Reason for Change
Fast Frequency Response (FFR)	New FFR services	<ul style="list-style-type: none"> Introduction of new markets of FFR services, which operate more rapidly than the existing frequency control services. These will provide an additional frequency control option and reduce the overall existing costs of managing power system frequency
Frequency Performance Payments (FPP)	Better frequency control	<ul style="list-style-type: none"> To enable better frequency control through incentive payments
Standalone Power Systems (SAPS)	Develop the regulatory frameworks for stand-alone power systems	<ul style="list-style-type: none"> Allow local distribution network service providers (DNSPs) to use stand-alone power systems where it is economically efficient to do so, while maintaining appropriate consumer protections and service standards.
Integrated Energy System Storage (IESS)	Integration of energy storage systems into the electricity framework	<ul style="list-style-type: none"> Better integrate energy storage systems into the market and give greater participation and flexibility in the rules and electricity framework
Medium Term PASA (MT PASA)	Improving the quality and transparency of information about future generator availability	<ul style="list-style-type: none"> Contribute to better operational, planning, policy and investment decisions and support a more coordinated approach as the power system transitions

Indicative Procedure Change Timeline



Document changes within workstreams

Project	Workstreams impacted
Fast Frequency Response (FFR)	Operations Systems capability Operational Forecasting
Frequency Performance Payments (FPP)	<ul style="list-style-type: none"> • New Frequency Contribution Factor Procedure to replace existing Regulation FCAS Contribution Factor Procedure (Causer Pays) • Primary Frequency Response Requirements • New FPP Procedure
Integrated Energy System Storage (IESS)	Operational Forecasting <ul style="list-style-type: none"> • Dispatch Procedure (Operations) • Guide to Production Units and Classifications Operational Analysis and Engineering National Connections Reliability Forecasting Systems Commercial Settlements and Prudentials
Medium Term PASA (MTPASA)	Reliability Forecasting guidelines and documents

5. Upcoming engagements

Upcoming engagements

NOV 2022

- Program: PCF monthly meeting
- RDC: [Collaborative Workshop](#) (2 November)
- Program: Implementation Forum (29 November)
- IESS: Standard Consultation commences on [Guide to Generator Exemptions and Classifications of Generating Units](#) (mid November)
- IESS: [Minor consultations](#) on
 - Wholesale Demand Response Baseline Eligibility Compliance and Metrics Policy (timing tbc)
 - Retailer Reliability Obligation – Procurer of Last Resort Cost Procedures (timing tbc)
- IESS: Monthly [Working Group](#) meeting (30 November)
- CFG: First consultation period opens (21 November)

DEC 2022

- Program: PCF monthly meeting
- RDC: [Quarterly meeting](#) (1 December)
- IESS: Discussion on Technical Specifications at [Market System User Group](#) (timing tbc)
- FPP: First consultation period closes [AEMO | Frequency Contribution Factors Procedure](#) (6 December)
- CFG: First consultation period closes (20 December)
- PFRR: First consultation period opens (5 December)

Q1 2023

- Program: PCF monthly meeting
- RDC: [Collaborative Workshop](#) (8 February)
- RDC: [Quarterly meeting](#) (21 February)
- IESS: Consultation on [Carbon Dioxide Equivalent Intensity Index Procedures](#) (February-March)
- FPP: Second consultation period opens [AEMO | Frequency Contribution Factors Procedure](#) (7 February)
- FPP: Second consultation period closes [AEMO | Frequency Contribution Factors Procedure](#) (15 March)
- CFG: Second consultation period opens (13 March)
- PFRR: (First consultation period closes (13 January)
- PFRR:: Second consultation period opens (20 February)
- PFRR: Second consultation period closes (21 March)

Stakeholder enquiries and nominations may be sent to
NEM2025@aemo.com.au

Glossary

MASS: Amendment of the Market Ancillary Service Specification (MASS) – Very Fast FCAS
 FPP: Frequency Performance Payments
 IESS: Integrating Energy Storage Systems
 PCF: Program Consultative Forum
 RDC: Reform Delivery Committee
 WECF: Wholesale Electricity Consultative Forum
 CFG: Constraints Formulation Guidelines
 PFRR: Primary Frequency Response Requirements

6. General Questions & Other Business



NEM2025@aemo.com.au



Appendix A: Competition law meeting protocol and AEMO forum expectations

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 regarding proposed reforms or other initiatives, all participants agree to adhere to the CCA at all times and to comply with this Protocol. Participants must arrange for their representatives to be briefed on competition law risks and obligations.

Participants in AEMO discussions **must**:

- Ensure that discussions are limited to the matters contemplated by the agenda for the discussion
- Make independent and unilateral decisions about their commercial positions and approach in relation to the matters under discussion with AEMO
- 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

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

- Which customers they will supply or market to
- The price or other terms at which Participants will supply
- Bids or tenders, including the nature of a bid that a Participant intends to make or whether the Participant will participate in the bid
- Which suppliers Participants will acquire from (or the price or other terms on which they acquire goods or services)
- Refusing to supply a person or company access to any products, services or inputs they require

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.

AEMO Forum and Meeting Expectations

This charter explains expectations regarding participation and behavior in the Australian Energy Market Operator (AEMO)'s stakeholder forums.

Meeting Expectations

All participants will:

- Respect the diversity of the group.
- Speak one at a time – refrain from interrupting others.
- Share the oxygen – ensure that all attendees who wish to have an opportunity to speak are afforded a chance to do so.
- Maintain a respectful stance towards all participants.
- Listen to others' points of view and try to understand others' interests.
- Share information openly, promptly, and respectfully.
- If requested to do so, hold questions to the end of each presentation.
- Remain flexible and open-minded, and actively listen and participate in meetings.
- Abide by COVID-Safe workplace guidelines, if attending a meeting on AEMO's premises.

Roles and Responsibilities

Forum stakeholders agree to:

- Be specific and fact-based in their feedback on a specific workstream or emerging issue;
- Review and provide feedback on papers and reports;
- Relay information to their colleagues or constituents after each meeting and gather information/feedback from their colleagues or constituents, as practicable, before each meeting;
- Maintain a focus on solutions or outcomes that benefit all energy consumers.

AEMO agrees to:

- Provide technical expertise in a manner that is considerate of the audience and their level of expertise;
- Assist participants in understanding issues enough to represent their views;
- Provide all participants the opportunity to voice their views.



For more information visit

aemo.com.au