

NEM2025 Program Industry Readiness Approach

Frequency Performance Payments 23 January 2024





Purpose of Initiative Readiness Approach

- To assist industry with their own planning and delivery activities to be ready for FPP as it is operationalised.
- To define the criteria against which go-live decisions will be made.
- Aligns to and supports the implementation approach of the two-stage delivery defined for FPP:
 - 9 December 2024 Commencement of a period of "non-financial operations**"
 - 8 June 2025 Rule commencement and financial settlement changes (Financial Operations)
- The Readiness Approach, once endorsed, will form the basis of participant readiness activities in line
 with the principles in the <u>NEM 2025 Industry and Business Readiness Strategy</u>.

^{**} The period of Non-Financial Operations is designed to allow participants to observe how different patterns of operation would result in penalties or payments, based on actual performance and in real time, prior to FO operations commencing.





Participant Impact Assessment

The FPP initiative introduces:

a new financial incentive whereby facilities such as electricity generators, large loads and batteries that help to control power system frequency will receive payments from those who make unhelpful contributions.

FPP penalties and payments and the estimated recovery rates for regulation FCAS services will be calculated for each five-minute trading interval.

Participants will be provided with the outcome and all input data following the completion of the calculation. This will give facility operators the opportunity to understand their frequency performance and potentially vary their behaviour in response.

Participant Impact Assessment continued



Participant Type	Impact Level	Impact Description
Cost recovery market participants with units to be individually assessed for FPP	High	 New CFs to be calculated each trading interval and reported to plant operator the following interval. Default contribution factors (DCFs) to be calculated where necessary data is unavailable. Data for all participants published at the start of the next trading day. FPP included in settlements. No direct impact on dispatch process, however CFs may inform participant Regulation FCAS offers. No additional metering requirements.
Cost recovery market participants without units to be individually assessed for FPP	Moderate	 Reporting of settlement data requires changes to existing participant interfaces. Overall cost of FCAS to be recovered from participants expected to increase.
Other participant categories (eg NSPs, meter providers	Minimal	- No direct impact





STAGE 1 - DECEMBER 2024 NON-FINANCIAL OPERATION

Actual generator performance used to calculate and report to participants what Reg FCAS and FPP financial outcomes would have been under the new system.

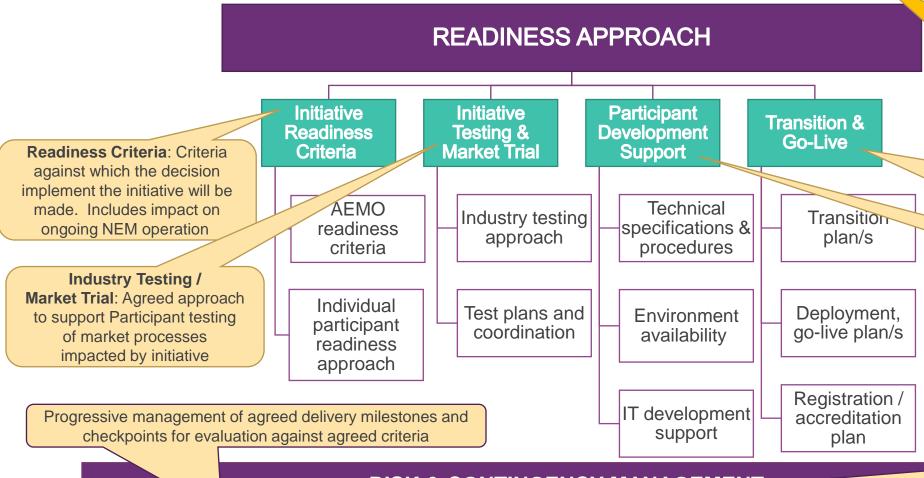
STAGE 2 - JUNE 2025 FULL COMMENCEMENT

Settlement of Reg FCAS and FPPs commences.

Context: NEM Reform program industry strategy



NEM REFORM READINESS STRATEGY (ALL INITIATIVES)



FPP readiness
approach adopts the
standard NEM
Reform program
framework

Transition & Go-Live: Approach and management of transitional activities and Go-Live timings, dependencies and communication approaches

Participant Development Support:
Approaches to provide impacted participants the information required for successful development and implantation of their required changes

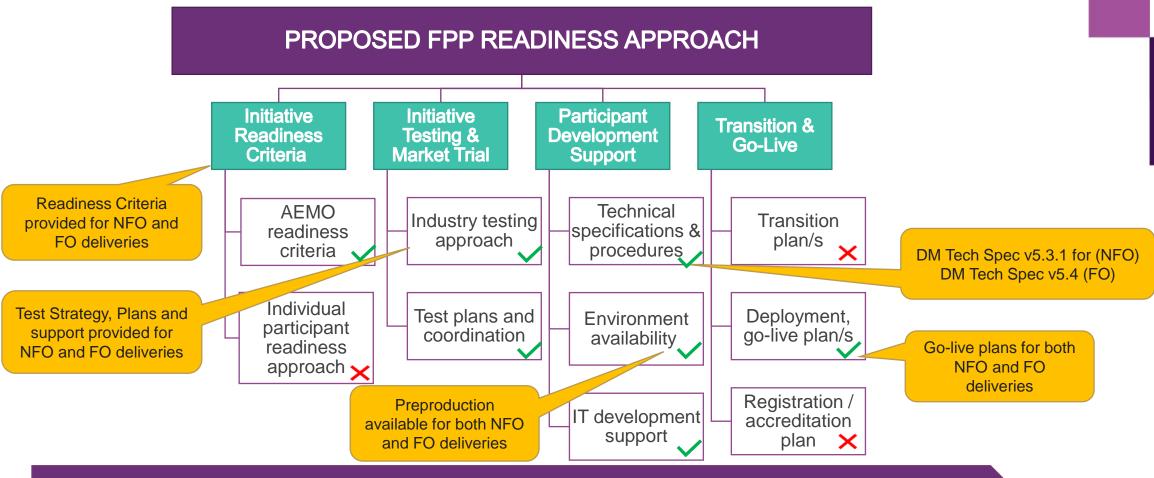
Identification and management of Implementation risks and Agreed contingencies for the initiative

RISK & CONTINGENCY MANAGEMENT

Context: NEM Reform program industry strategy



NEM REFORM READINESS STRATEGY (ALL INITIATIVES)



RISK & CONTINGENCY MANAGEMENT

INITIATIVE READINESS REPORTING & GO-LIVE CRITERIA MANAGEMENT



Elements of proposed FPP readiness approach: readiness criteria – non-financial operations



GO-LIVE CRITERIA Non-Financial Operations from 9 Dec 2024 · FPP (NFO) go-live criteria will reflect Technical Readiness for go-live and AEMO preparedness to support new FPP calculations and reporting. Impacted participant readiness will not be considered as criteria for golive. Readiness Criteria will be more fully defined and form the basis of golive criteria management - 29 Feb 2024* **AEMO TECHNICAL AEMO** solution tested in-line with requirements for: INITIATIVE · New FPP solution deployed for Production operation – excluding **READINESS** settlements Calculation of new FPPs and reporting of new data for all eligible generating units via NEM Reports / AEMO Data Interchange **AEMO** business operations and procedures in place to: Support operations for new FPP calculations and reporting **AEMO IT Operations ready to:** Provide technical support for new FPP solution and reports **INDUSTRY** Participant readiness activity is not a dependency for go-live. **READINESS** Participants will need to make timely system/process changes to consume the large amount of new data that will be provided (and potentially respond

monitor participant readiness.

CONTINGENCY

to the market signals it provides). However, AEMO does not propose to

Contingency approaches to be developed and discussed with IF members

Introduction of FPP is based on AEMO providing new FPP calculations and reports using existing standard approach. There is no preparatory participant activity that will prevent initiative go-live.



Elements of proposed FPP readiness approach: readiness criteria – financial operations



CRITERIA Rule Commencement and Financial Operations from 8 Jun 2025 • FPP Financial Operations Go-live criteria will reflect technical readiness for go-live and AEMO preparedness to support settlements of frequency performance payments. Impacted participant readiness will not be considered as criteria for go-live Readiness Criteria will be more fully defined and form the basis of go-live criteria management 31 Jan 2025*

AEMO TECHNICAL INITI ATIVE READINESS

AEMO solution tested in-line with requirement for:

 Complete FPP solution including settlement of frequency performance payments and reporting.

AEMO business operations and procedures in place to:

• Support FPP including settlement operations and rule commencement

AEMO IT Operations ready to:

Provide technical support for FPP including financial operations

INDUSTRY READINESS

Participant readiness activity is not a pre-requisite for go-live.

Participants will need to make timely system/process changes to consume the large amount of new data that will be provided (and potentially respond to the market signals it provides). However, AEMO does not propose to monitor participant readiness.

CONTINGENCY

Contingency approaches to be developed and discussed with Implementation Forum members

* Date tentative

Introduction of FPP is based on AEMO providing FPP reports and settlement statements using existing standard approach. There is no preparatory participant activity that will stop AEMO going live.





FPP testing and market trial Industry testing approach Test/trial plans and coordination

	NFO INDUSTRY TESTING	FO INDUSTRY TESTING
Timeframe	25 Oct 2024 to 22 Nov 2024*Duration 1 month	17 Mar 2025 to 20 May 2025*Duration 2 months
Test Strategy	 To test FPP calculations and reporting Target publish date - 7 Jun 2024* AEMO co-ordinated delivery of agreed reporting for individual participant consumption 	 AEMO to coordinate execution of FPP settlements High-level approach, test objectives and timeframes will be provided in Market Trial Strategy to be published 31 Jan 2025*
Test Plan	To be published 2 Sep 2024*	 Market Trial Plan to be published 9 Feb 2025*
Scoping and Planning	In consultation with participants as schedule	nd in alignment with the project

* Dates tentative



Elements of proposed FPP readiness approach - FPP participant development support

Participant development support

Technical specifications and procedures

Environment availability

IT development support

Completed Procedure Consultations

- ✓ <u>Primary Frequency Response Requirements</u> published 4 May 2023 (effective from 8 May 2023)
- ✓ <u>Frequency Contribution Factors Procedure</u> published 1 June 2023 (effective from 8 June 2023)

Other relevant documents

- Efficient Dispatch and Localised Recovery of Regulation Services
 Business Specification
- Power System Data Communication Standard
- <u>Frequency Contribution Factors Tuning Parameters and Input Sources</u>
- Guide to Ancillary Services in the NEM





Participant development support

Technical specifications and procedures

Environment availability

IT development support

High Level Design

To assist participants with their own architecture and design processes:

- Published 8 Dec 2023
- FPP calculation and settlements process
- Indicative data structures for 15 new external FPP reports
- High-level indicative table/report changes for Settlement reports
- Implementation indicative timeline

Data Model Technical Specifications

To be published in time for participants to make their system changes

- DM Tech Spec v5.3.1 with updates for FPP Reporting 15 Apr 2024*
- DM Tech Spec v5.4 with updates for Settlements 22 Sep 2024*

* Dates tentative



Elements of proposed FPP readiness approach - FPP participant development support cont'd

Participant development support

Technical specifications and procedures

Environment availability

IT development support

Environment Availability

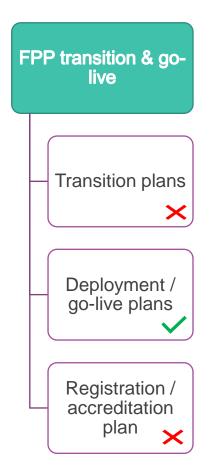
- Preproduction environment will be available to support Industry Test and Market Trial periods
 - Scheduling and requirements to be discussed at Implementation Forum.

IT Development Support

- MSUG sessions to support Technical Specification updates, aligned with release dates of draft and final specification
- Technical implementation support via Q&A, NEM2025 mailbox query
- Currently no specific focus groups to be established but open invitation sessions will be available during 2024



Elements of proposed FPP readiness approach - FPP transition and go-live



Transition Plans	No obligated transitional requirements for rule commencement
Deployment / Go- live Plans	Deployment / go-live plans for both releases covering key cutover timeframes, communications and participant co-ordinated activity (where required) will be needed for: • Data model changes • Reporting changes • Alignment of participant and AEMO system deployments • Post Go-live support Tentative publish dates: • NFO – 04 Nov 2024 (draft) and 18 Nov 2024 (final) • FO – 28 Feb 2025 (draft) and 28 Mar 2025 (final)
Registration / Accreditation Plans	 Re-registration is NOT required for existing participants FPP does not introduce or trigger any additional accreditation requirements



Elements of proposed FPP readiness approach - FPP readiness reporting etc

FPP READINESS REPORTING & GO-LIVE CRITERIA MANAGEMENT

Market readiness activities are intended to:

- 1) address readiness challenges and support the prudent implementation of NEM changes
- 2) safeguard the integrity of NEM processes across the various IT system go-lives or market starts, given the market's size, value, complexity and need for continuous operation.

Readiness reporting is used when there is a need for AEMO and industry to have an accurate assessment of industry's readiness for:

- system deployments,
- transitional activities, and/or
- rule commencements.

Propose that formalised Participant Readiness Reporting is <u>not</u> required.

Rationale:

- There are no mandatory participant transition or preparation activities that if not performed will impact technical readiness for market or other participants.
- AEMO does not need to provide an industry wide view on the progress towards implementation to meet go-live decisions.

AEMO will report to industry:

- Progress against agreed L1/L2 milestones
- Checkpoints on go-live criteria prior to Industry Test periods and in the lead-up to implementation – approximately 3 months and 1 month prior to both NFO and FO go-live dates.



Next Steps

 The Initiative Readiness Approach including the proposed approach for each readiness element of the framework, will be published on 1 February 2024

Seeking Feedback

- What are your views on the proposed readiness approach?
- What else should AEMO consider to assist industry to meet the agreed timeframes?

Please provide initial feedback (including seeking any clarification) by Fri 9 Feb 2024

• Please note that feedback on readiness approach continues to be welcomed anytime and will be actively sought in the development of readiness plans.