NEM Reform Implementation Roadmap

Stakeholder briefing

11 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, present and emerging.

Introduction

General Stakeholder briefing

Objectives

- An overview of AEMO's NEM Reform Program, its initiatives and impact to industry.
- To equip stakeholders with sufficient information to get involved in implementation where its relevant to them.

Scope

- Committed initiatives (implementation/execution focus).

Roadmap briefing

Objectives

- Provide an overview and facilitate clarification on the NEM Reform Implementation Roadmap.
- Walk through the incremental as well as material changes since the v.1 release in September 2022.

Scope

- Holistic longer term NEM reform (planning focus).

- We look forward to your feedback and questions.

- Participants are asked to familiarise themselves with AEMO's Competition Law Meeting Protocol as outlined in Appendix A and at AEMO's website.

Agenda

#	Time	Topic	Presenters from AEMO
1	3:15 – 3:20pm	**Welcome**	Peter Carruthers
2	3:20 – 3:25pm	**Background and Context**	Peter Carruthers
3	3:25 – 3:40pm	**Process and changes since v.1 release**	Lance Brooks
4	3:40 – 3:50pm	**Walk-through of Roadmap**	Lance Brooks
5	3:50 – 4:00pm	**Q&A**	Peter Carruthers
6	4:00pm	**Thanks and close**	Peter Carruthers

Appendix A: AEMO Competition Law - Meeting Protocol
Appendix B: Acronym Alphabet

"Please note that this meeting will be recorded by AEMO and may be accessed and used by AEMO for the purpose of compiling notes. 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"

2. Background and Context

NEM Reform Implementation Roadmap

The **NEM Reform Implementation Roadmap** establishes a basis upon which AEMO, and stakeholders may navigate the breadth of reforms (including ESB Post-2025 reforms) over the coming few years, de-risking delivery, and informing implementation timing.

It will enable careful planning for the delivery of reforms, avoid unnecessary or duplicative costs, and identify where strategic investments can be made to deliver efficient outcomes for AEMO, market participants and consumers.

Why is it required?

- The implementation program to deliver the energy transition and other reforms is significant, let's maximise the chances of industry-wide success and efficient delivery
  - Integrated program rather than piecemeal and fragmented
  - Drive down implementation costs
  - Supports implementation resource planning and mobilisation for all implementation stakeholders
- Transparency on implementation
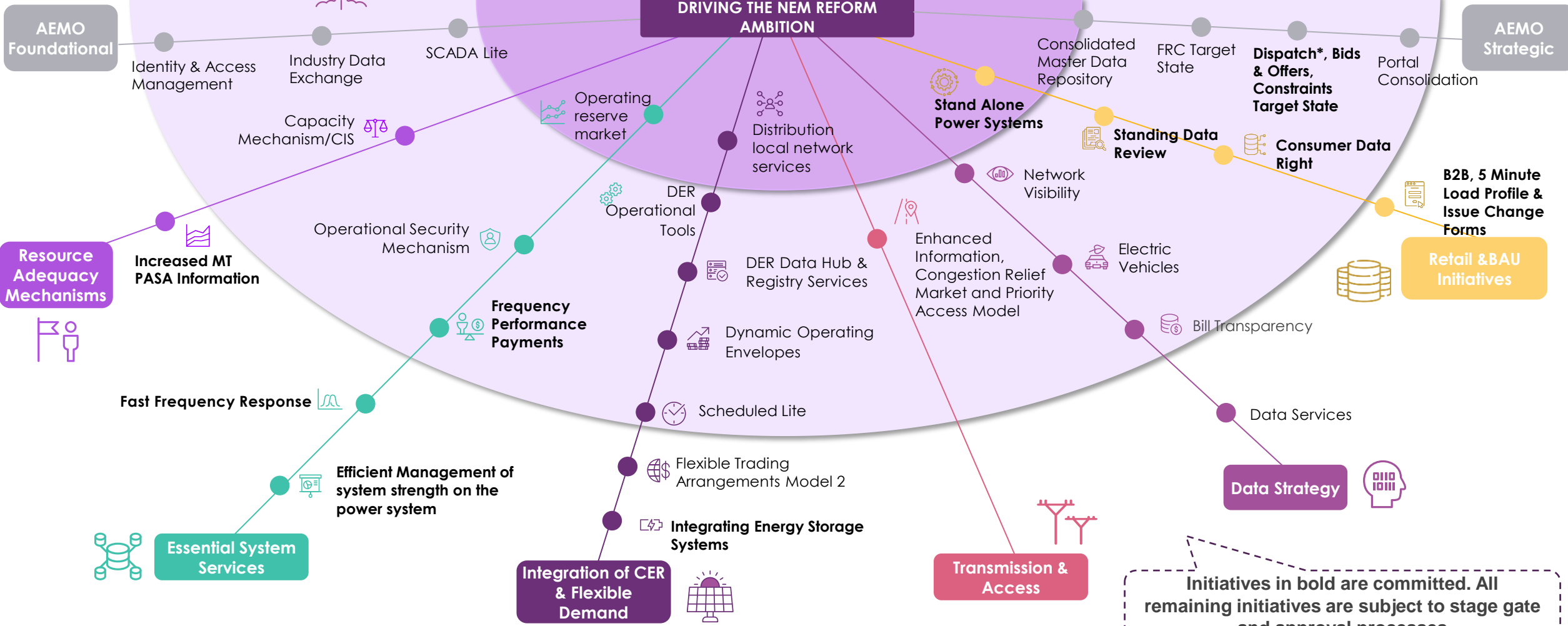- Informs implementation timing decisions by market bodies

Roadmap Objectives

- The objectives of the NEM Reform Implementation Roadmap is to set out a program that:
  - Implements reforms in a timely and efficient manner;
  - Co-ordinates regulatory and IT change;
  - Aims to remove costs associated with implementation of individual initiatives; and
  - Provides transparency to stakeholders on the implementation program

Program Overview

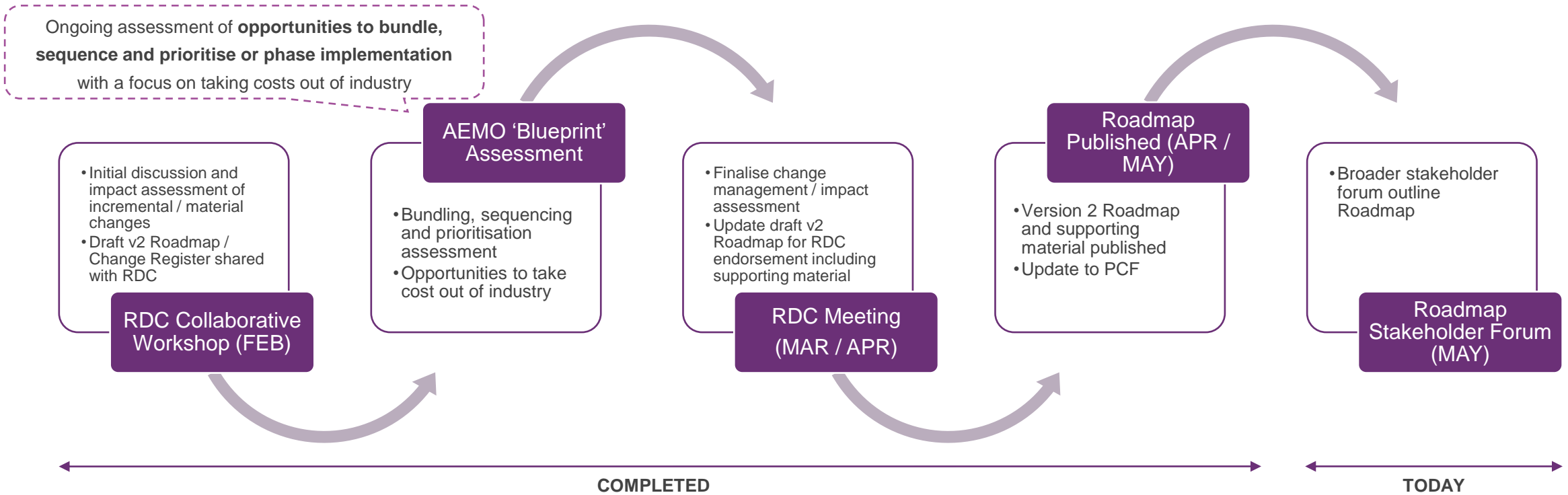Successfully enabling the energy transition and net-zero emissions economy for Australians

DRIVING THE NEM REFORM AMBITION

AEMO Foundational

AEMO Strategic

Identity & Access Management

Industry Data Exchange

SCADA Lite

Consolidated Master Data Repository

FRC Target State

Dispatch*, Bids & Offers, Constraints Target State

Portal Consolidation

Capacity Mechanism/CIS

Operating reserve market

Distribution local network services

Stand Alone Power Systems

Standing Data Review

Consumer Data Right

Network Visibility

B2B, 5 Minute Load Profile & Issue Change Forms

Resource Adequacy Mechanisms

Increased MT PASA Information

Operational Security Mechanism

DER Operational Tools

Enhanced Information, Congestion Relief Market and Priority Access Model

Electric Vehicles

Retail &BAU Initiatives

Frequency Performance Payments

DER Data Hub & Registry Services

Dynamic Operating Envelopes

Bill Transparency

Fast Frequency Response

Scheduled Lite

Data Services

Efficient Management of system strength on the power system

Flexible Trading Arrangements Model 2

Data Strategy

Essential System Services

Integrating Energy Storage Systems

Integration of CER & Flexible Demand

Transmission & Access

Initiatives in bold are committed. All remaining initiatives are subject to stage gate and approval processes

* Tactical uplift only.

3. Process and changes since v.1 release

Keeping the NEM Reform Implementation Roadmap up to date

- AEMO and the Reform Delivery Committee (RDC) are in the process of updating the Roadmap capturing both incremental or material changes across initiatives in accordance with the Change Management Process established for the NEM2025 Program

Ongoing assessment of **opportunities to bundle, sequence and prioritise or phase implementation** with a focus on taking costs out of industry

RDC Collaborative Workshop (FEB)
- Initial discussion and impact assessment of incremental / material changes
- Draft v2 Roadmap / Change Register shared with RDC

AEMO 'Blueprint' Assessment
- Bundling, sequencing and prioritisation assessment
- Opportunities to take cost out of industry

RDC Meeting (MAR / APR)
- Finalise change management / impact assessment
- Update draft v2 Roadmap for RDC endorsement including supporting material

Roadmap Published (APR / MAY)
- Version 2 Roadmap and supporting material published
- Update to PCF

Roadmap Stakeholder Forum (MAY)
- Broader stakeholder forum outline Roadmap

COMPLETED

TODAY

Recap: **Change Management Process**

- Given the uncertainty and/or complexity of individual initiatives there is a high likelihood of incremental or material changes in scope or timelines as policy or designs are finalised.

- The Process **seeks to understand the potential implementation impacts of these changes**, ensuring the Roadmap and overall forecast costs remain up to date and to help inform decision-makers on potential approaches or solutions to those impacts.

- The Process provides for **engagement with the Reform Delivery Committee (RDC) and relevant market bodies**, the completion of an impact assessment and a standing quarterly review process.

- The Process **targets material changes** assessed against a baseline
  - e.g. change in scope impacting on overall complexity or change in timeline requiring an adjustment of two months or more.
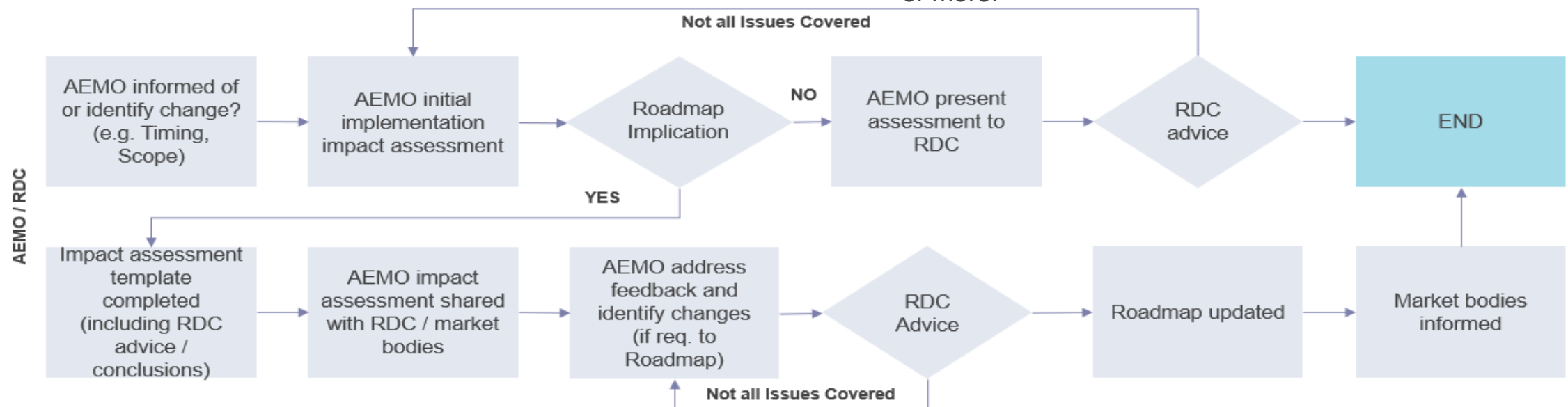
The following example changes have been identified and assessed in the last 6 months

INCREMENTAL CHANGES
(and action)

- **Fast Frequency Response (FFR)** (name change)

- **Frequency Performance Payments (FPP)**(committed go-live)

- **Integrating Energy Storage Systems (IESS)** (pending tidy up rule change processes)

- **Dispatch / Bids & Offers / Constraints Target State** (mapped key assessment checkpoints)

- **FRC Target State** (mapped AEMO workplan)

- **Identify and Access Management (IDAM)** (mapped AEMO workplan)

- **Industry Data Exchange (IDX)** (mapped AEMO workplan)

- **Portal Consolidation (PC)** (mapped AEMO workplan)

- **Operational Security Mechanism (OSM)** (updated timeline to reflect rules consultation, call out of high-level implementation design assessment)

- **Flexible Trading Arrangements (FTA) (Model 2)** (updated timeline to reflect rules consultation)

- **Scheduled Lite** (updated timeline to reflect indicative rules consultation)

- **Capacity Mechanism** (name change, material policy change, further changes pending final design of Capacity Incentive Scheme)

- **Congestion Management Mechanism** (name change, material scope change, and split of initiative in two consistent with Energy Minister Advice, further changes pending final policy design)

- **Various Distributed Energy Resources (DER) Initiatives** (extended policy design and development phase to reflect ESB workplan)

- **Various Data Strategy Initiatives** (extended policy design and development phase to reflect ESB workplan)

- **Turn Up Services** (descoped from program, no longer proceeding.)

RDC agreed recommendations to address material changes

Initiative	Update Roadmap (Timing, Initiative Name, Stage Gate)	Complete Detailed Impact Assessment	Re-assess Bundle, Sequence & Prioritisation	Remove Initiative
Operational Security Mechanism (OSM)	✓	✓	✓	✗
Flexible Trading Arrangements (FTA) Model 2	✓	✗	✓	✗
Scheduled Lite	✓	✗	✓	✗
Capacity Mechanism	✓	✗	✗	✗
Congestion Management Mechanism	✓	✗	✗	✗
Distribution Energy Resources (DER) Initiatives	✓	✗	✓	✓ (Turn-up Services Only)
Data Strategy Initiatives	✓	✗	✗	✗

Further assessment required of implications of a potentially congested 2025 delivery year, as well as future opportunities to group, sequence and prioritise initiatives

Impact of changes and next steps

These changes have resulted in:

- **delays to assumed implementation** timetables for multiple initiatives within the scope of the NEM Reform Program primarily because of ongoing policy design or rule change consultation processes.

- an **extension to the overall timeline** for implementation of the full scope of the NEM Reform Program.

- the **removal of some opportunities** previously identified to bundle and sequence the implementation of initiatives effectively and efficiently.

- potential **congestion from a delivery standpoint, particularly in 2025** resulting in challenges and risks in implementation for AEMO and participants with multiple releases across two committed initiatives and three initiatives currently under consideration

AEMO and the Reform Delivery Committee (RDC) discussed the impacts from the changes and agreed:

- to **keep a watching brief** on the progress of those initiatives still to progress through the AEMC's rule change process, or in policy design and development and reassess in due course noting the timing of rules consultation process and final scope of policy or rule change determination (if made), and

- to **further assess opportunities to bundle, sequence and prioritise or phase implementation** with a focus on taking costs out of industry.

This assessment work has been conducted ('**Blueprint assessment**') and is currently being baselined before being shared with industry.
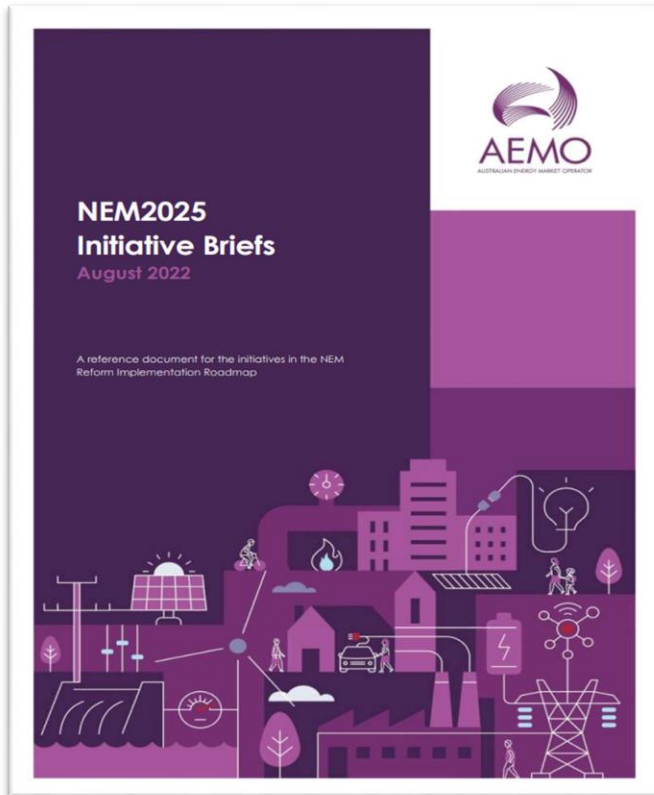
NEM Reform Implementation Roadmap (v2) developed

- Various incremental / material changes made to initiatives as per the Reform Delivery Committee (RDC) collaborative workshop
  - Removal of Turn-up Services
- TA initiatives split in two to reflect likely implementation requirements
  - 1) Enhanced information; and 2) Congestion Relief Market & Priority Access Model
- General restructure of initiatives within the Roadmap consistent with committed or estimated go-live dates
- Stage gates updated
- Removal of non-NEM Reform Program initiatives implemented in 2022
- New East Coast Gas Reform Roadmap

REGULATORY IMPLEMENTATION ROADMAP

INITIATIVES WITH IT SYSTEM IMPLEMENTATION IMPACTS

| R | Committed | Energy Consumer Data Right Rules |

EAST COAST GAS REFORM PROGRAM

TRANCHE 1 - Gas Supply Adequacy and Reliability

NEM2025 IMPLEMENTATION ROADMAP

W	Committed	Efficient management of system strength on the power system
W	Committed	Fast Frequency Response
W	Committed	Increased MT PASA information
W	Committed	Integrating Energy Storage Systems
W	Committed	Frequency Performance Payments (part of PFR Incentive Arrangements rule)
R	In progress	Flexible Trading Arrangements Model 2
W	Conceptual	Scheduled Lite
W	In progress	Operational Security Mechanism
W	In progress	Operating Reserves Market
A		Portal Consolidation
A		Identity and Access Management
A		Industry Data Exchange

AEMO published the amended version of the Roadmap on 27 April 2023

Updates to supporting artifacts

INITIATIVE BRIEFS

NEM2025 Initiative Briefs
August 2022

A reference document for the initiatives in the NEM Reform Implementation Roadmap

- Various edits to initiatives capturing incremental and material changes including for example:
  - Scope of CIS and T&A reform
  - Timing of next steps
- Removed Turn-up Services
- Removed indicative scheduled for initiatives (captured in the Roadmap as well as via milestone updates)

PROGRAM SCOPE & GOVERNANCE
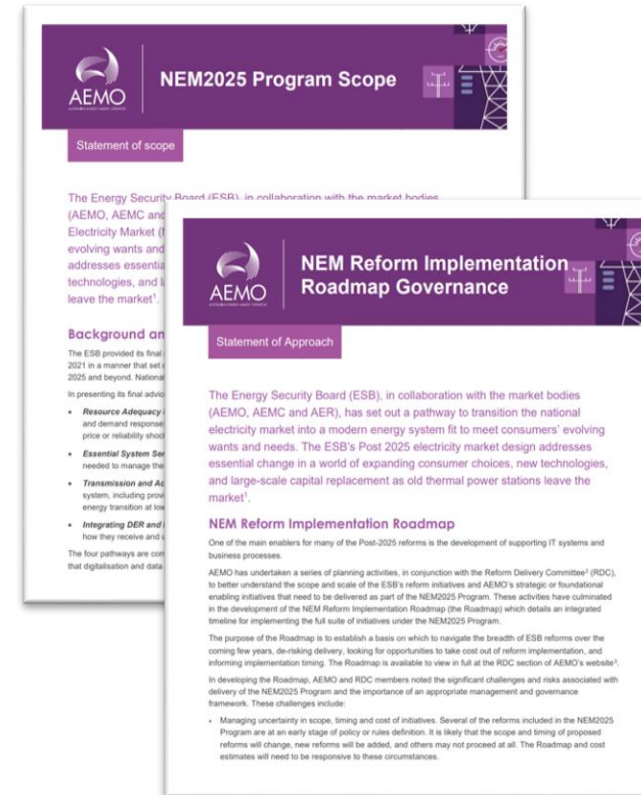
- **Program Scope:** Minor edits to in line with changes to Initiative Briefs
- **Governance:** Updates to stage gate timing (see Section 5)

Addendum to Gate 1 Business Case acknowledging removal of Turn-up Services in development

4. Walk through of Roadmap

What is the Roadmap telling us about the next 3 years ?

- **2023** will be a busy year with a full program of committed releases and work progressing on several initiatives due to go-live in 2024
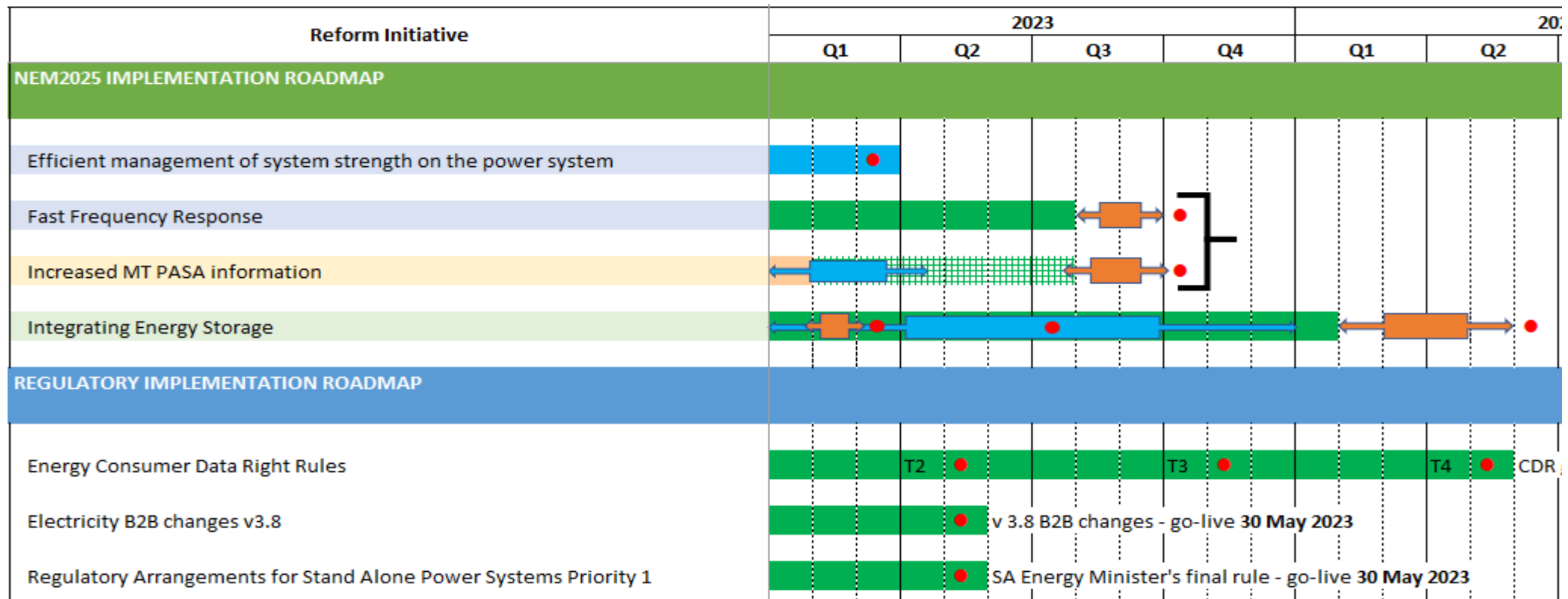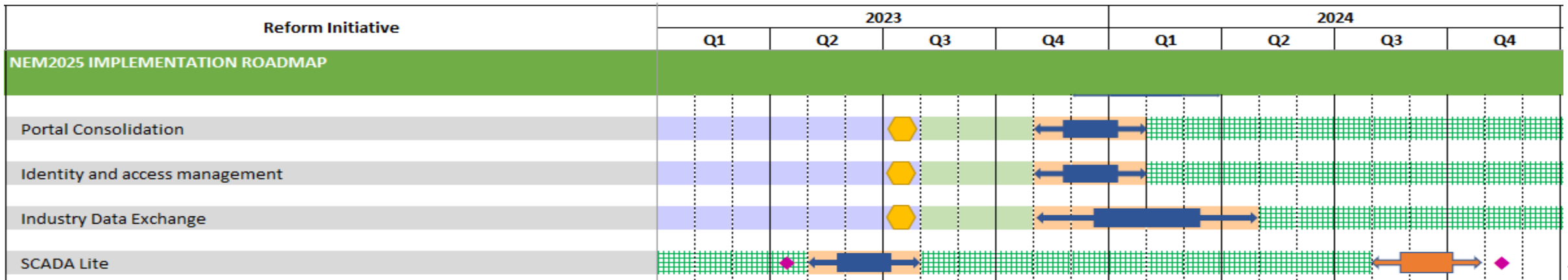
What is the Roadmap telling us about the next 3 years ?

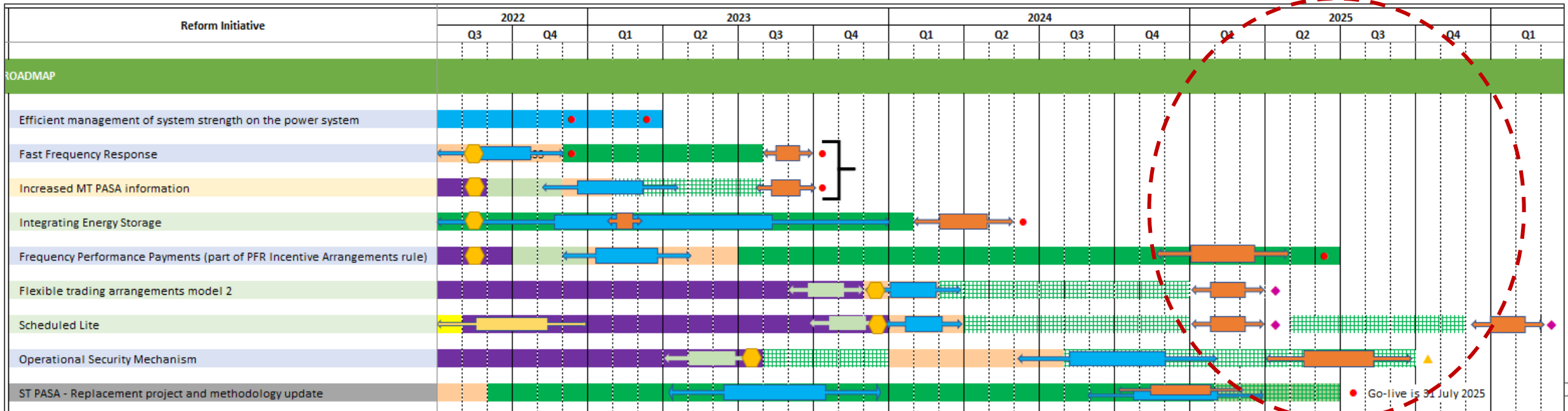- **2024** at this stage represents lower regulatory commitments
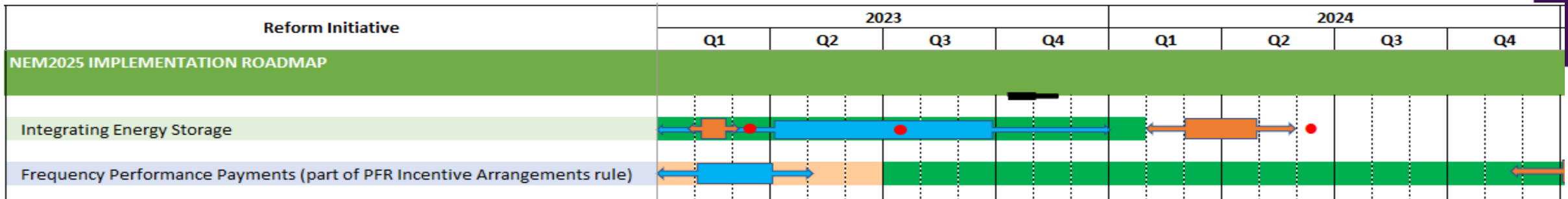
- Providing the potential opportunity to progress with AEMO foundation / strategic initiatives, subject to business case

What is the Roadmap telling us about the next 3 years ?

- **2025** on the surface appears congested resulting from the implementation of multiple reforms

- AEMO and Reform Delivery Committee (RDC) agreed the need to navigate this congestion, along with other challenges as they arise across the full scope of the NEM2025 Reform Program, in coordination with the relevant market bodies noting this will be subject to:
  - Timing and outcomes from the Australian Energy Market Commission (AEMC) rules consultation process on key initiatives
  - Future assessment of opportunities to bundle, sequence and prioritise implementation, or where possible adopt a phased implementation

5. Q&A

Stakeholder questions

Pre-submitted questions	AEMO's proposed response
What are the major technological transformation challenges posed by the Roadmap for AEMO and other participants?	The major technology transformation challenges are likely to be driven by • changes in the energy market, such as Distributed Energy Resources (DER) • Policy outcomes, potentially such as congestion management – although uncertainty exists • Legacy industry infrastructure, such as industry data exchange mechanisms. Participants have signalled that a cautious and prudent approach to significant industry-wide change investments is required, and a transition approach rather than 'big bang' is preferred where that is possible.
Will any smart meter roll-out postpone or change the roadmap timelines?	No, there will be no need to postpone or change roadmap timelines.
What cost benefit analysis is conducted when proposing NEM reform and what are the overall benefits to be delivered to industry and consumers from the NEM Reform program over the period of time (next-6-10 yrs.)?	Several cost benefit assessments have been completed to date on the NEM Reform Program. Please refer to: • The Energy Security Board's (ESB's) final recommendations to Energy Ministers (available here) which assessed the program as a whole. • The Australian Energy Market Commission's (AEMC's) website for an assessment of costs and benefits at an individual initiative level. Further, AEMO has assessed the costs and benefits of alternative implementation pathways for the NEM Reform Program as part of its business case (available here).

6. Thanks and close

NEMReform@aemo.com.au

AEMO | NEM Reform Program

AEMO | NEM Reform Implementation Roadmap

For more information visit

aemo.com.au

Appendix A

AEMO Competition Law - Meeting Protocol

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

Appendix B

Acronym Alphabet

Acronym Alphabet

AEMO Website Links

- A comprehensive glossary of terms (and measurements) can be found here for your reference.

AEMC Website Links

- For rules terms, see the relevant industry rules on the AEMC website > Energy rules.