

# NEM Reform Implementation Roadmap



Stakeholder briefing  
22 May 2024



# 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

This session

## 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 and material changes since the v.3.1 release in December 2023.

### 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 | 2:00pm – 2:05pm | <b>Welcome</b>                                 | David Reynolds       |
| 2 | 2:05pm – 2:10pm | <b>Background and Context</b>                  | Lance Brooks         |
| 3 | 2:10pm – 2:25pm | <b>Process and changes since v.3.1 release</b> | Lance Brooks         |
| 4 | 2:25pm – 2:35pm | <b>Informed Go-Live Process</b>                | Dominic Mendonca     |
| 5 | 2:35pm – 2:50pm | <b>Walk-through of Roadmap</b>                 | Lance Brooks         |
| 6 | 2:50pm – 3:00pm | <b>Q&amp;A</b>                                 | David Reynolds       |
| 7 | 3:00pm          | <b>Thanks &amp; close</b>                      | David Reynolds       |

Appendix A: AEMO Competition Law Meeting Protocol  
Appendix B: Change Management Process



*“Please note that this meeting will be recorded by AEMO and may be accessed and used for the purposes of publishing it on the external [NEM Reform Public forums webpage](#) as a resource for industry participants. By attending the meeting, you consent to AEMO recording the meeting and using the recording for this purpose. No other recording of the meeting is permitted”*

# General Housekeeping

1. Please mute your microphone.
2. Use the 'Chat' function to ask any questions or comments.
  - AEMO SMEs are on the call, who will attempt to respond in the chat.
3. Key questions or comments will be addressed in the Q&A section.
4. In attending this meeting, you are expected to:
  - Contribute constructively.
  - Be respectful, both on the call and in the chat.

# 2. Background and Context





# What is the Roadmap ?

AEMO published v.4 of the Roadmap and supporting artefacts 30 April 2024

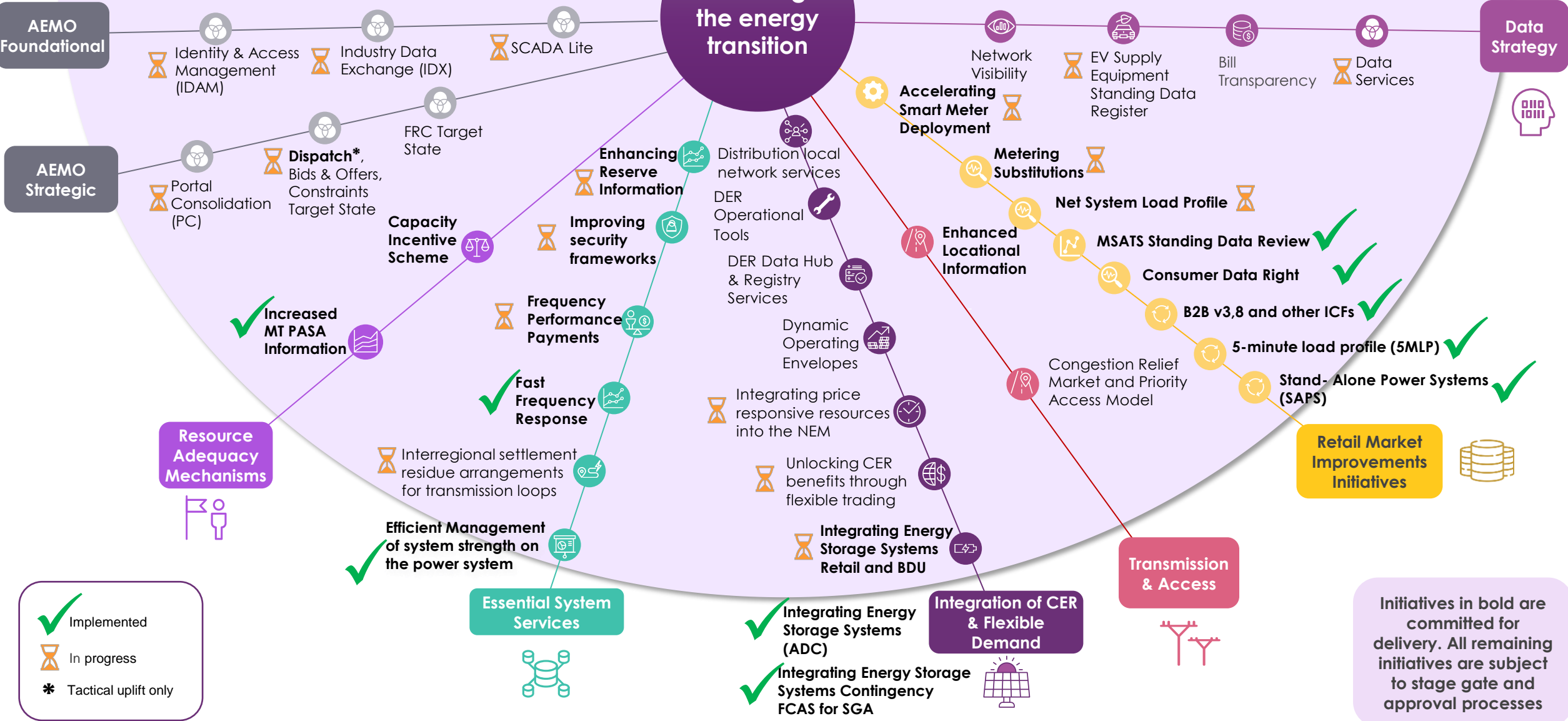
- The **NEM Reform Implementation Roadmap** establishes a basis upon which AEMO, and stakeholders may navigate the breadth of reforms (including ESB Post-2025 reforms) over the coming years, de-risking delivery, minimising implementation costs and informing regulatory and policy timing
- It is a key output from our **collaboration** with the **Reform Delivery Committee** (RDC)
- The **objective** of the 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;
  - Provides **transparency** to stakeholders on the implementation program; and
  - Supports **participant readiness**
  - Provides a basis for understanding **implementation & deliverability challenges**
- Over time the Roadmap has been expanded to include gas reform initiatives to provide an overall integrated view for participants in both markets

Refer to Appendix B:  
Change Management  
Process





# Enabling the energy transition

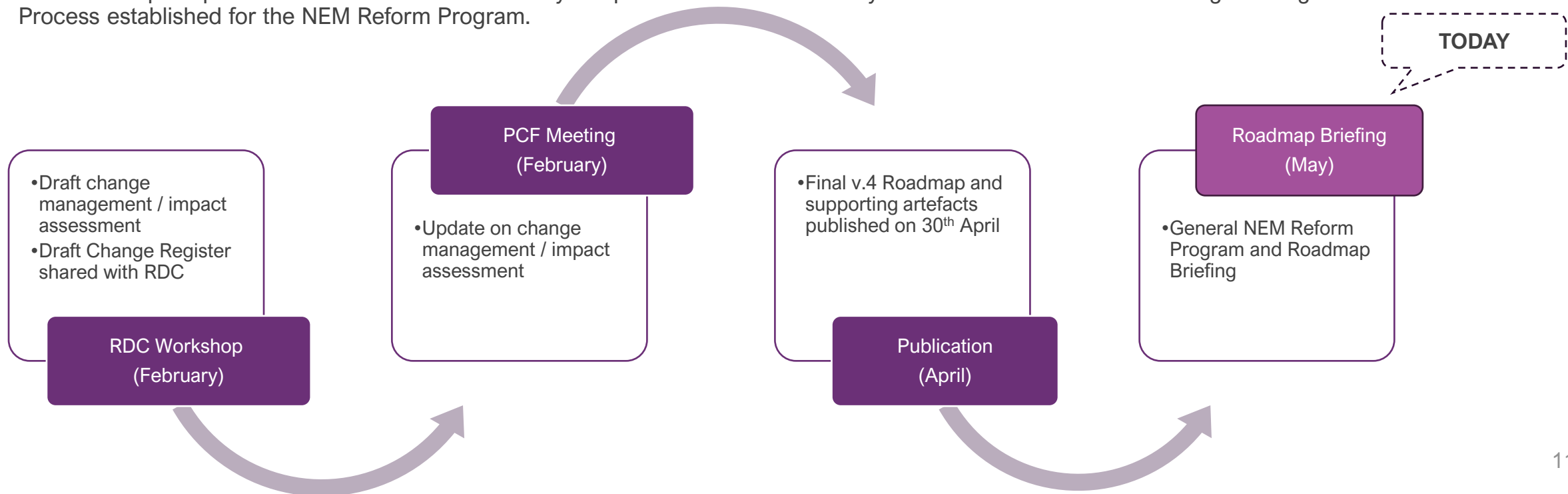


## Reform pathways & how we are going

# 3. Process and changes since v.3.1 December release

# Keeping the NEM Reform Implementation Roadmap up to date

- The Roadmap, produced in partnership with the Reform Delivery Committee (RDC), provides AEMO and stakeholders with a holistic view of the reform program impacting national electricity and gas markets across the east coast of Australia.
- It is used as a planning tool to inform the scheduling and implementation of key reforms to maximise value and minimise overall cost by appropriately bundling, sequencing, and prioritising the change agenda.
- The Roadmap is updated at a minimum twice annually in April and October of each year in accordance with the Change Management Process established for the NEM Reform Program.

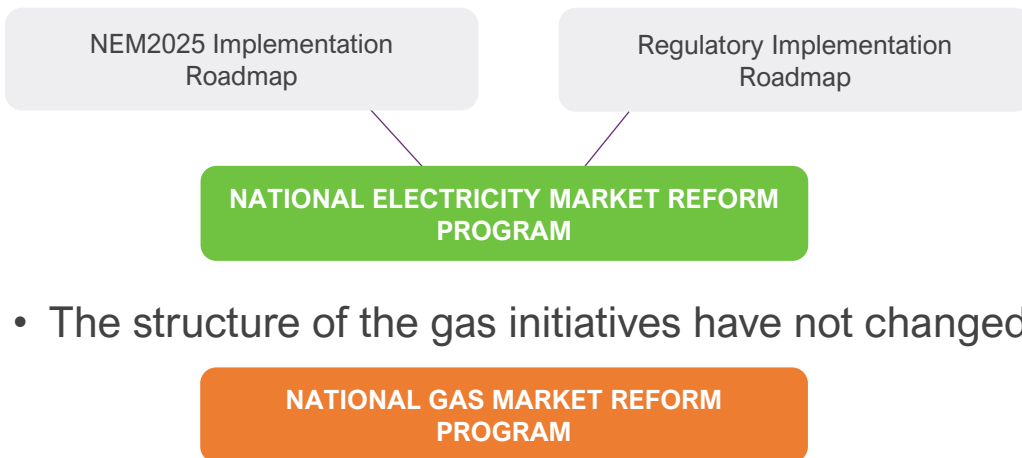


# NEM Reform Implementation Roadmap v4 published

Published: 30 APR 2024

## Roadmap restructure

- This version simplifies the roadmap for stakeholders by merging the former *NEM2025 and Regulatory Implementation Roadmap initiatives* under a single banner
- The initiatives have then been further split based on the level of IT system implementation impact



- The structure of the gas initiatives have not changed

## Other updates

- The following standard updates have also been made to the Roadmap v4
  - Various incremental / material changes
  - General restructure of initiatives within the Roadmap consistent with committed or estimated go-live dates
  - Rebranding of initiatives based on latest rule change naming
  - Inclusion of new initiatives (e.g. new rule changes)
  - Removal of initiatives implemented

- 33 out of 39 electricity reform initiatives updated (including addition of new rule changes)
- 3 out of the 10 gas reform initiatives updated

# Example: Material changes identified (1/3)



# Example: Material changes identified (2/3)

Refer to General Briefing pack or AEMO's website for further information on each initiative

| Initiatives   | Impacted stakeholders                                 | Change   | Next steps   |
|---|---|--|--|
| <b>Improving security frameworks for the energy transition</b><br>(committed) | Generators, Scheduled Load, Market Customers, TNSPs   | <ul style="list-style-type: none"> <li>Final rules determination published by the AEMC March 2024</li> <li>Staged implementation with <b>operational enablement of security contracts Dec 2025</b></li> </ul>              | <ul style="list-style-type: none"> <li>AEMO HLID / PIA to be published (timing TBC)</li> <li>Review final determination, HLID / PIA, establish project delivery teams</li> </ul>                   |
| <b>Enhancing reserve information</b><br>(committed)                           | Generators, Scheduled Load, FRMP, TNSPS               | <ul style="list-style-type: none"> <li>Final rules determination published by the AEMC March 2024</li> <li><b>Staged go-live 1 July 2025 &amp; 1 July 2027</b></li> </ul>  | <ul style="list-style-type: none"> <li>AEMO HLID / PIA to be published (timing TBC)</li> <li>Review final determination, HLID / PIA, establish project delivery teams</li> </ul>                   |
| <b>Accelerating smart meter deployment</b>                                    | Retailers, DNSPs, MC, MP, MDP                         | <ul style="list-style-type: none"> <li>Fast track rule change – Draft rules determination published by the AEMC April 2024</li> <li><b>Proposed go-live June 2025 &amp; 2026</b></li> </ul>                                | <ul style="list-style-type: none"> <li>AEMO HLID / PIA published May 2024</li> <li>Review draft determination, HLID / PIA, establish project delivery teams</li> </ul>                             |
| <b>SCADA Lite</b>   | DRSP, VPP, SGA, Operators of remote grid scale assets | <ul style="list-style-type: none"> <li>AEMO Proof of Concept (POC) assessment confirming implementation activities and schedule for external milestone reporting.</li> <li><b>Proposed go-live October 2024</b></li> </ul> | <ul style="list-style-type: none"> <li>Pilot test with selected participant (July)</li> <li>Readiness approach published (April)</li> <li>Opt-in, review 'How to guideline' (September)</li> </ul> |

# Example: Material changes identified

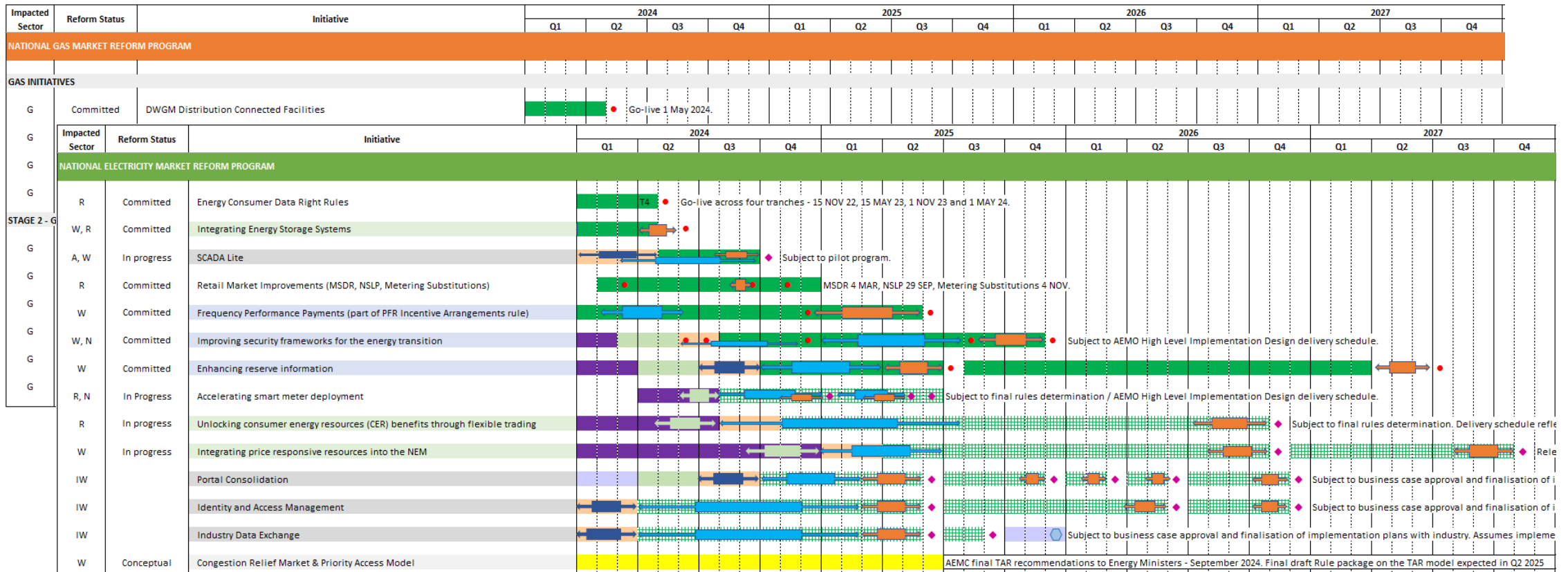
## (3/3)

Refer to General Briefing pack or AEMO's website for further information on each initiative

| Initiatives  | Impacted stakeholders   | Change   | Next steps  |
|--|---|--|---|
| <b>Unlocking CER benefits through flexible trading</b>     | Retailers/FRMP, Embedded Network Managers, MC, MP, MDP, DNSP  | <ul style="list-style-type: none"> <li>Draft rules determination published by the AEMC February 2024</li> <li><b>Proposed go-live November 2026</b></li> </ul>   | <ul style="list-style-type: none"> <li>AEMO HLID / PIA published April 2024</li> <li>Review draft determination, HLID / PIA, establish project delivery teams</li> <li>Final rules determination anticipated July 2024</li> </ul> |
| <b>Integrating price responsive resources into the NEM</b> | Retailers, Aggregators, VPPs, IRPs, Non-scheduled generating and bi-directional units, Market Customers | <ul style="list-style-type: none"> <li>Update paper published by the AEMC December 2024 with revised plan</li> <li><b>Proposed go-live extended subject to rules determination / HLID / PIA</b></li> </ul>   | <ul style="list-style-type: none"> <li>Draft / final rules determination anticipated July / December 2024</li> <li>AEMO HLID / PIA to be published (timing TBC)</li> <li>Engage in AEMC rules consultation</li> </ul>             |
| <b>CER / DER (Various)</b>                                 | Retailers/FRMP, DNSP, MC, MP, MDP   | <ul style="list-style-type: none"> <li>ECMC meeting in November 2023, Ministers agreed to develop a National CER Roadmap and supporting expert taskforce</li> </ul>  | <ul style="list-style-type: none"> <li>Holistic review of CER/DER initiatives to be completed following publication of CER Roadmap</li> </ul>   |
| <b>IDAM, IDX and PC</b>                                    | All   | <ul style="list-style-type: none"> <li>Draft business case published</li> <li>Industry support for Business Case and recommendations received at the Executive Forum March 2024</li> <li><b>Proposed go-live multiple tranches / releases</b></li> </ul> | <ul style="list-style-type: none"> <li>Final business case and confirmed investment decision expected May / June 2024</li> <li>Further planning and confirmed timeframes in consultation with industry</li> </ul>                 |



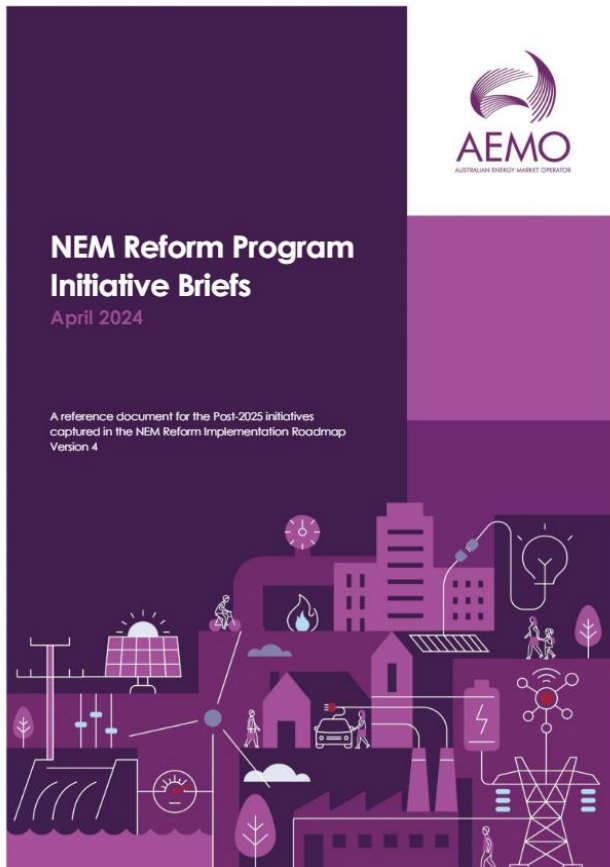
# NEM Reform Implementation Roadmap (v4) developed



25 out of 39 electricity initiatives were identified to have material changes (i.e. changes in timing or scope)

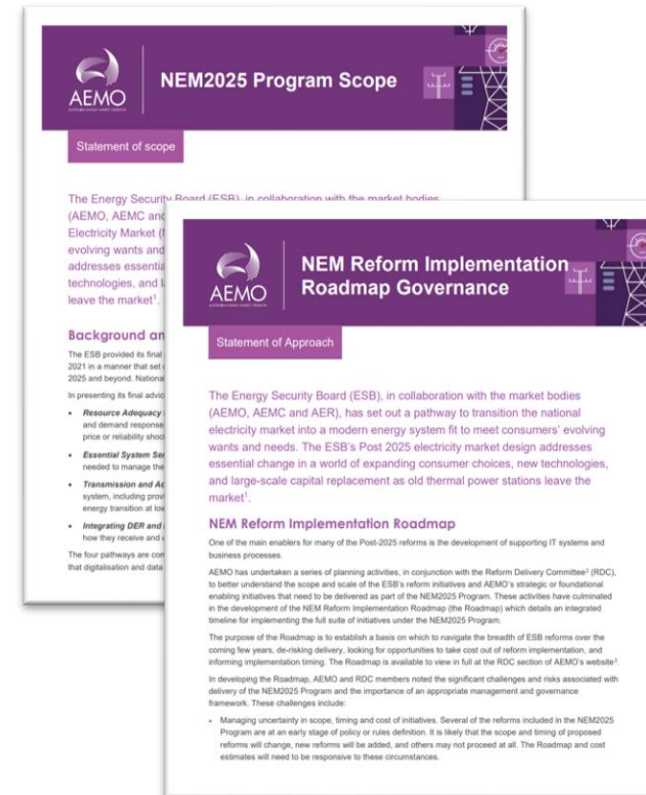
# Roadmap is published alongside several supporting artefacts

## INITIATIVE BRIEFS



- Complete restructure of the Initiative Briefs to assist stakeholders understand the objectives, scope and assumptions
- Inclusion of high-level impact assessment across market and industry stakeholders and AEMO teams
- Where information is available, inclusion of Procedures & Guidelines, Market Application and Market Interface changes required for the implementation of each initiative
- Various edits to initiatives capturing incremental and material changes in scope and/or timing

## PROGRAM SCOPE & GOVERNANCE



- **Program Scope and Governance Arrangements:** Minor edits in line with changes to Roadmap and Initiative Briefs

# 4. Informed Go-Live process

# General Process

AEMC’s “Unlocking CER benefits through flexible trading arrangements” draft determination (DD) provides an opportunity to test the Informed Go-Live process

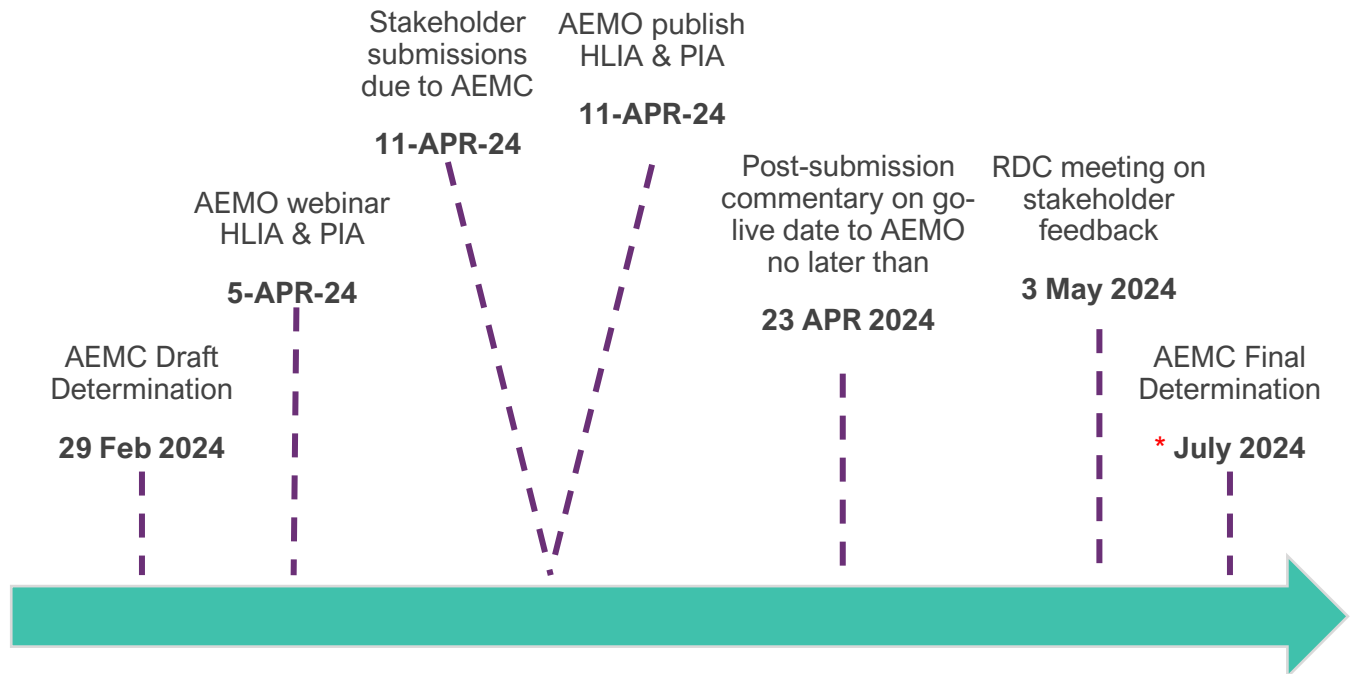
## What is the informed go-live process ?

- Post issue of a Draft Determination, AEMO will provide industry with initial views on implementation approach and impact
  - This is subject to sufficient policy direction contained in draft determination
  - As determination delivery dates are confirmed, scheduled timeframes for High Level Implementation Assessment (HLIA) / Participant Impact Assessment (PIA) timeframes will be assessed

## Objectives

- Improve visibility and increased participant planning timeframe
- Provide initial view of anticipated implementation timings and contention in lead up to final Determination
- Provide participants opportunity to respond in AEMC process to any proposed implementation timeframes

## Process undertaken



\* Subject to change

# HLIA / PIA content

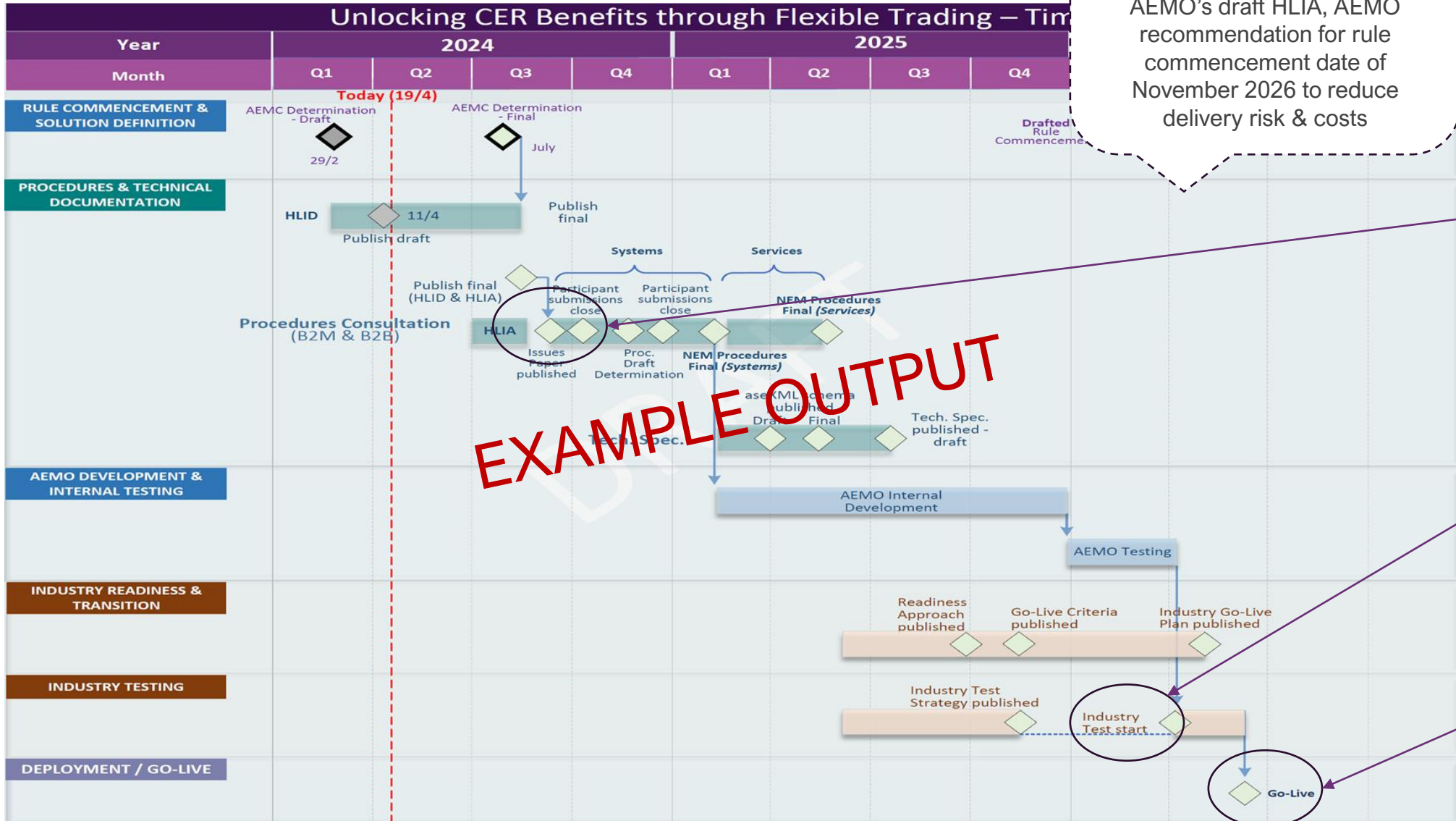
## Information included based on information in Draft Determination:

- Key Proposed commencement dates
- Impacts to Market Systems, systems interactions, Procedures at level of H/M/L and Heatmap
- Participant Impacts (Who, H/M/L ) to extent known
- Potential Industry Test approach
- High Level Implementation and Delivery Schedule (unconstrained)
- Assessment of Congestion and Contention based on program assessment
- Go-Live date recommendation

## Information will be reviewed based on Final Determination

- There remains a high potential for changes to occur from the Draft to the Final Determination which will impact the initial implementation information provided by AEMO
- Implementation milestones updated to form baseline delivery plans for project establishment and industry engagement
- Where initial assessment not performed based on Draft Determination, AEMO will provide HLID/PIA as first deliverable in the implementation process

# AEMO Indicative Timeline



Considering the feedback received based on impact assessment of the draft rule change determination and AEMO's draft HLIA, AEMO recommendation for rule commencement date of November 2026 to reduce delivery risk & costs

Proposed amendments to AEMO's draft HLIA timeline

Proposal: Additional window to allow 4 weeks for final HLID/HLIA after final rule, and additional time prior to Issues Paper for B2M & B2B consultation preparation (including any industry sessions)

Proposal: Allow 1 month for market trial setup, confirm 3-month market trial (4-month window in total)

Proposal: commencement shifts to November 2026

# 5. Walk through of Roadmap

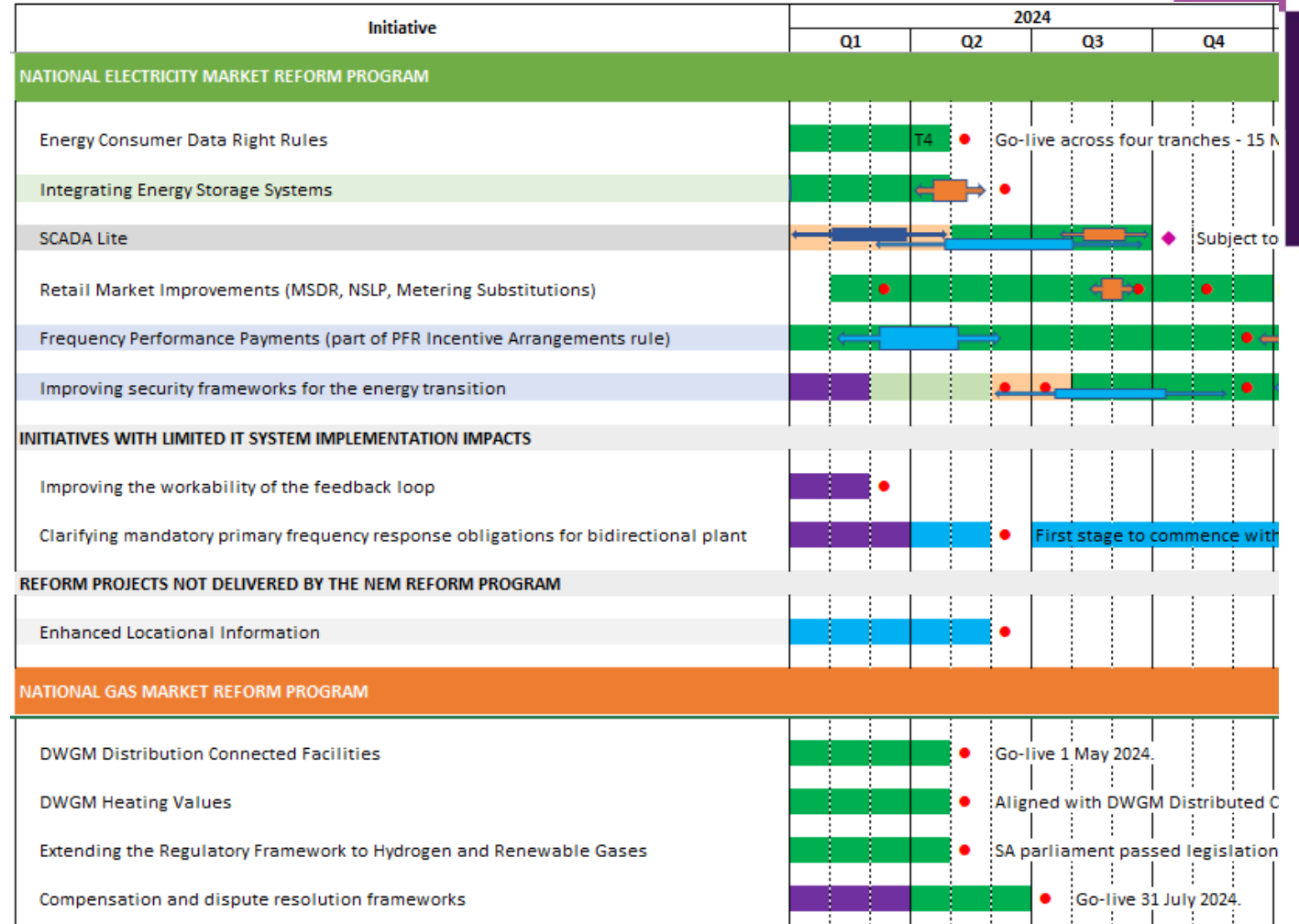


# 2024: a busy year for electricity and gas reform

The following electricity market reform initiatives have committed / proposed go-live dates throughout the year:

- **Consumer Data Rights** (May – Tranche 4 )
- **Integrating Energy Storage Systems** (June – Final release)
- **SCADA Lite** (November – subject to completion of Proof-of-Concept assessment)
- **Frequency Performance Payments** (December – Non-financial operation)
- **Improving security frameworks for the energy transition** (Various e.g., June – Transitional services framework, July – Directions transparency, December – TNSP Cost Recovery)
- **Retail Market Improvements** (September – NSLP, November – Metering Substitutions)

All committed gas initiatives on the roadmap are proposed to go-live over May to July



# 2025: an increase in the number of initiatives, and in their size and complexity

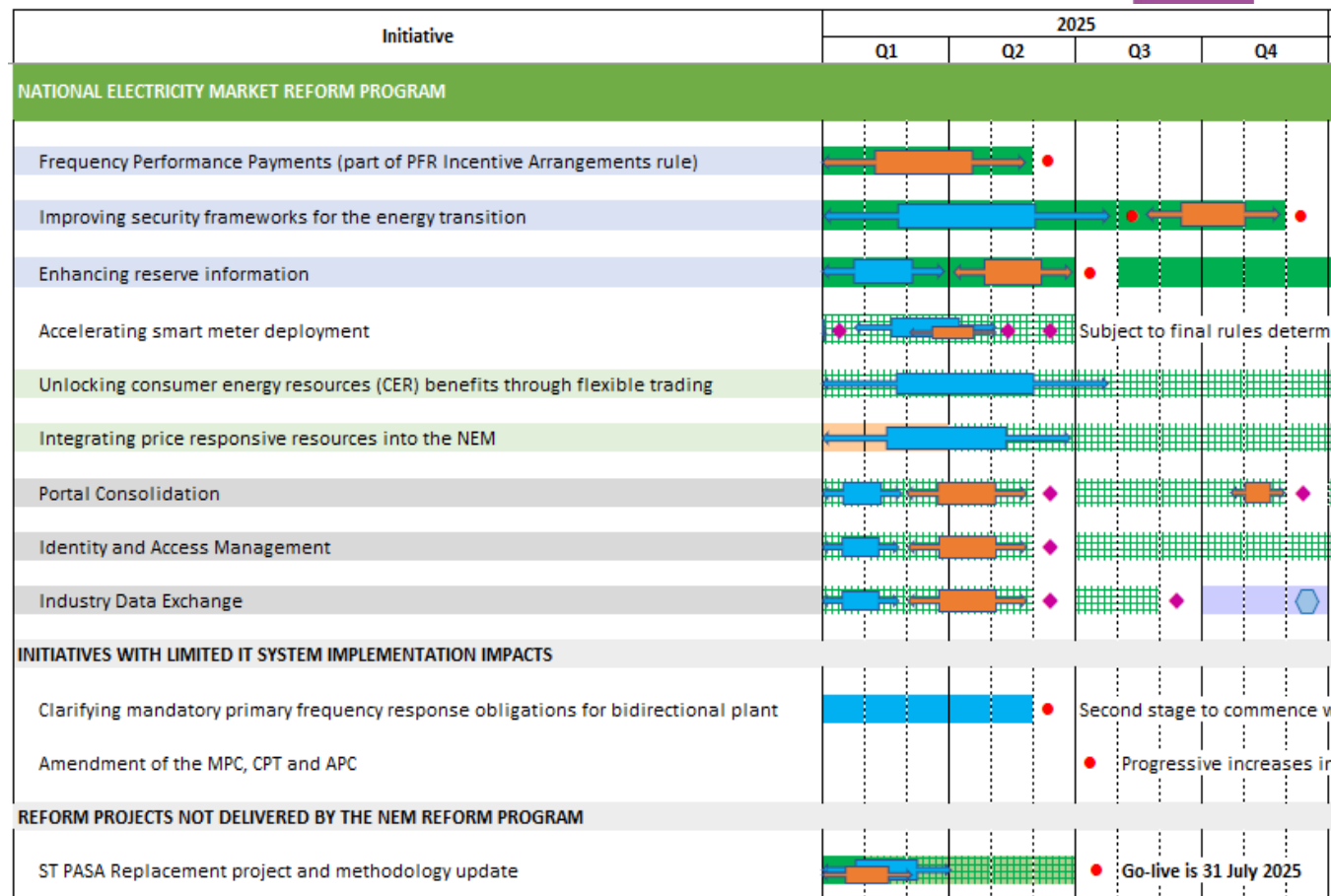
## COMMITTED

- **Improving Security Frameworks** (December – Operational enablement)
- **Enhanced Reserve Information** (July – State of charge, daily energy limits, max storage capacity submissions)
- **STPASA Replacement** (Currently July, however rebased timeline will see this moved to 2026 (August TBC))

## PENDING FINAL DETERMINATION

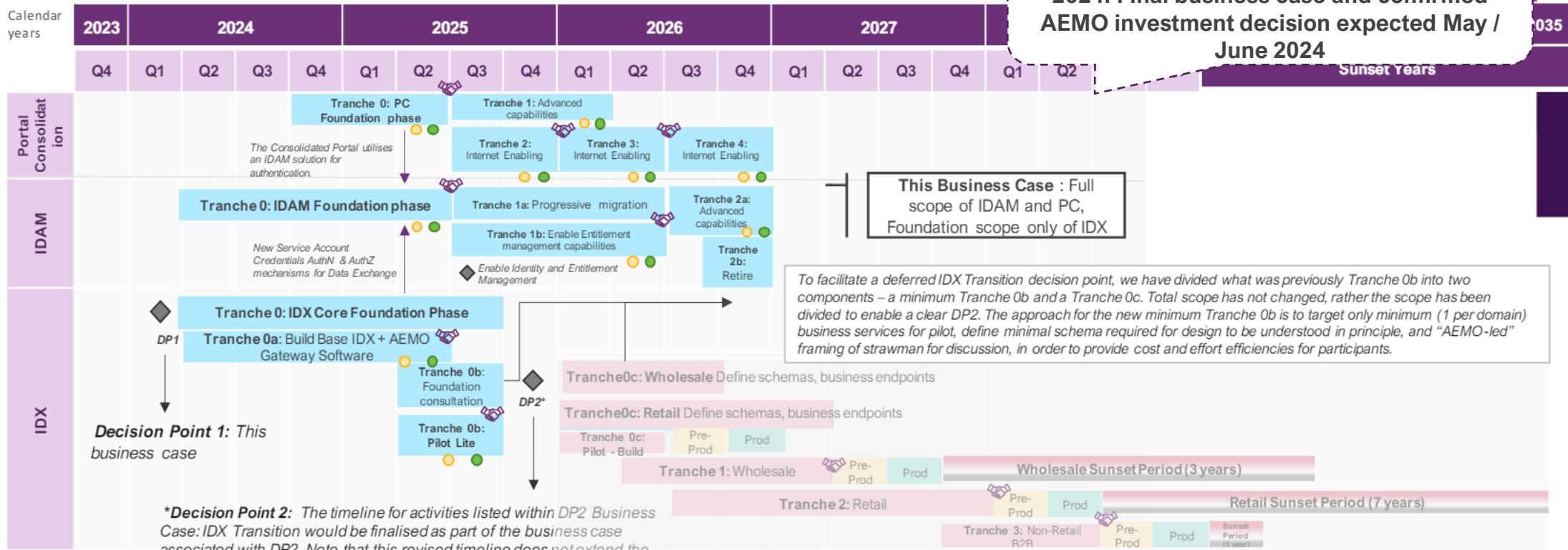
- **Accelerating Smart Meter Deployment** (DD APR 2024, AEMO High Level Implementation Assessment published recommending two phases 2025 and 2026)
- **Unlocking benefits of CER through flexible trading** (Go-live TBC – Recommended November 2026)
- **Integrating price responsive resources into the NEM** (TBC)

## FOUNDATIONAL & STRATEGIC (see next slide)



2026 and beyond will be subject to the outcomes of various policy and rule changes (e.g. Transmission Access Reform market review, National CER Roadmap & Taskforce)

# FaSI: Phased Investment Delivery Timeline



Industry support for Draft business Case received at the Executive Forum 28th March 2024. Final business case and confirmed AEMO investment decision expected May / June 2024

This Business Case : Full scope of IDAM and PC, Foundation scope only of IDX

To facilitate a deferred IDX Transition decision point, we have divided what was previously Tranche 0b into two components – a minimum Tranche 0b and a Tranche 0c. Total scope has not changed, rather the scope has been divided to enable a clear DP2. The approach for the new minimum Tranche 0b is to target only minimum (1 per domain) business services for pilot, define minimal schema required for design to be understood in principle, and “AEMO-led” framing of strawman for discussion, in order to provide cost and effort efficiencies for participants.

\*Decision Point 2: The timeline for activities listed within DP2 Business Case: IDX Transition would be finalised as part of the business case associated with DP2. Note that this revised timeline does not extend the previously socialised timeline in total.

DP 2 Business Case: IDX Transition scope only\*

This is a draft timeline developed for the purpose of the business case, Roadmap will be managed for change, preventing industry overload from process and tech alterations through an industry agreed governance framework.

# Emerging trends and opportunities

AEMO is seeking stakeholder input across these key activities to ensure efficient, and cost-effective delivery of the portfolio of reform initiatives

## Emerging trends

- 2025/26 on the surface remains a **congested delivery period** despite delays and changes in the status of various initiatives
  - RDC’s initial assessment in NOV 2023 and acknowledgment of the need to continually monitor issues of congestion remains valid as per the current version of the Roadmap with several releases (go-live dates) set across the period, many of which remain subject to ongoing policy / rules development processes
  - AEMO’s informed go-live process to help alleviate potential risks
- Continued **growth in size** both in terms of **scope** as new electricity or gas policy, or rule changes have been proposed and in **timeframe** as many rule / policy processes are extended
- Continued **uncertainty** with many initiatives remaining subject to the ongoing policy and rule change processes (e.g., CER)

## Opportunities

- AEMO, the RDC and wider participant cohort continue to collaborate on managing the implementation risks and challenges associated with delivering the breadth of initiatives across the Program including:
  - Assess **bundling and sequencing** opportunities across upcoming initiatives
  - Better understand **participant impacts** for upcoming initiatives
  - Developing **High Level Implementation Design and Participant Impact Assessments** for wider consideration as key mobilization activities

| Initiatives   | Timing  | Functional Overlap | Rationale  | Next step                                       |
|---|---------|--------------------|--|---|
| Unlocking CER benefits through flexible trading, Accelerating smart meter deployment & other Retail Market Improvements | Aligned | Strong             | Unlocking CER benefits through flexible trading has two new meter types and will require definition of metering services. Accelerating smart meter deployment will need to modify the same metrology procedures, presenting an opportunity to do the consultations together  | Bundling opportunity to be assessed             |
| Unlocking CER benefits through flexible trading & Integrating price responsive resources into the NEM                   | Aligned | Medium             | Unlocking CER benefits through flexible trading enables the management of controllable resources through a second connection point. The framework developed for flexible trading arrangements to support the management of controllable resources will be used by the Integrating price responsive resources into the NEM initiative | Sequencing opportunity reflected in the Roadmap |

EXAMPLES

# Challenges, impacts and next steps

EXAMPLE CHALLENGES



## Uncertainty in timing, scope and progression of initiatives

Managing certainty is a key challenge. **Continue to expect substantial improvements over the coming 3 – 6 months** with decisions or directions on a number of reforms



## Deliverability and resourcing

Continues to be a watch item for all, with the Roadmap providing a basis for analysing implementation impacts, facilitating the conversations and helping **support** informed implementation approaches

## Future Roadmap timing

A **full update** of the Roadmap (v5) is scheduled for later this year, ahead of publication in October 2024.

**AEMO welcomes feedback on the Roadmap and its supporting artefacts**

**2025 and 2026 will be busy and challenging for all, with several reform initiatives to be delivered.**

AEMO will continue to work with the RDC (and wider participant cohort) to further assess opportunities to bundle, sequence and prioritise or phase implementation with a focus on efficiency and deliverability including:

- A **holistic review of the DER initiatives** (national and jurisdictional specific) to assess the opportunities, impacts or challenges for AEMO and industry participants and how they may be accounted for in the Roadmap / Program following publication of the National CER Roadmap
- Ongoing monitoring of key reform such as **Transmission Access Review** which could be a major initiative to be delivered and contribute to issues of congestion

# 6. Q&A

# 7. Thanks and close



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For more information visit

[aemo.com.au](http://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

Change Management Process



# 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 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 (while also capturing incremental changes)
  - e.g. change in scope impacting on overall complexity or change in timeline requiring an adjustment of two months or more.

