

Electricity Wholesale Consultative Forum (EWCF)

Meeting #5
16 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.

Agenda

| # | Time | Topic | Presenter(s) |
|---|-----------------|--|--|
| 1 | 1:00pm – 1:05pm | Welcome | Chris Muffett (AEMO) |
| 2 | 1:05pm – 1:10pm | Actions & Feedback from Previous Meeting | Chris Muffett (AEMO) |
| 3 | 1:10pm – 1:30pm | Quarterly Energy Dynamics Report | Shaun Hooper (AEMO) |
| 4 | 1:30pm – 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 | AEMO reform leads: <ul style="list-style-type: none"> • Nicole Nsair • Carla Ziser • Oliver Derum • Chris Muffett • Chris Muffett |
| 5 | 2:00pm – 2:10pm | Other Reforms <ul style="list-style-type: none"> • IDAM, IDX & PC | Ulrika Lindholm (AEMO) |
| 6 | 2.10pm – 2:25pm | Consultation Update <ul style="list-style-type: none"> • Amendment of automated procedures for determining a manifestly incorrect input | Istvan Szabo (AEMO) |
| 7 | 2:25pm – 2:35pm | Procedures Consultation Roadmap | Nicole Nsair (AEMO) |
| 8 | 2.35pm – 2:40pm | Upcoming Engagements | Paul Johnson (AEMO) |
| 9 | 2:40pm – 3:00pm | General Questions and Other Business | Chris Muffett (AEMO) |

Appendix A: Competition law meeting protocol and AEMO forum expectations

Appendix B: Indicative Industry consultation schedule (IDAM IDX PC)

“Please note that this meeting will be recorded by AEMO and may be accessed and used by AEMO for the purpose of compiling minutes. 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. Actions & Feedback from Previous Meeting

Actions & Feedback from Previous Meeting

| # | Topic | Action | Status | Notes |
|-------|--------------------------------------|--|--------|--|
| 4.7.0 | General questions and other business | AEMO to consider incorporating RDC outputs at future EWCF. | Closed | AEMO will provide a RDC update at the June meeting |

The latest meeting minutes and materials are available on the [NEM Reform Electricity Wholesale Consultative Forum](#) webpage.

3. Quarterly Energy Dynamics Report

Q1 2023 Overview

NEM Q1 2023 Highlights

- Q1 operational demand falling to it's lowest Tasmania joined NEM
- Record high distributed PV average quarterly output
- Wholesale prices returning to historic levels; averaging \$83/MWh in Q1 2023
- Continued price separation between northern and southern regions in the NEM
- Increased renewable generation, decreased thermal generation
- Increased VRE curtailment

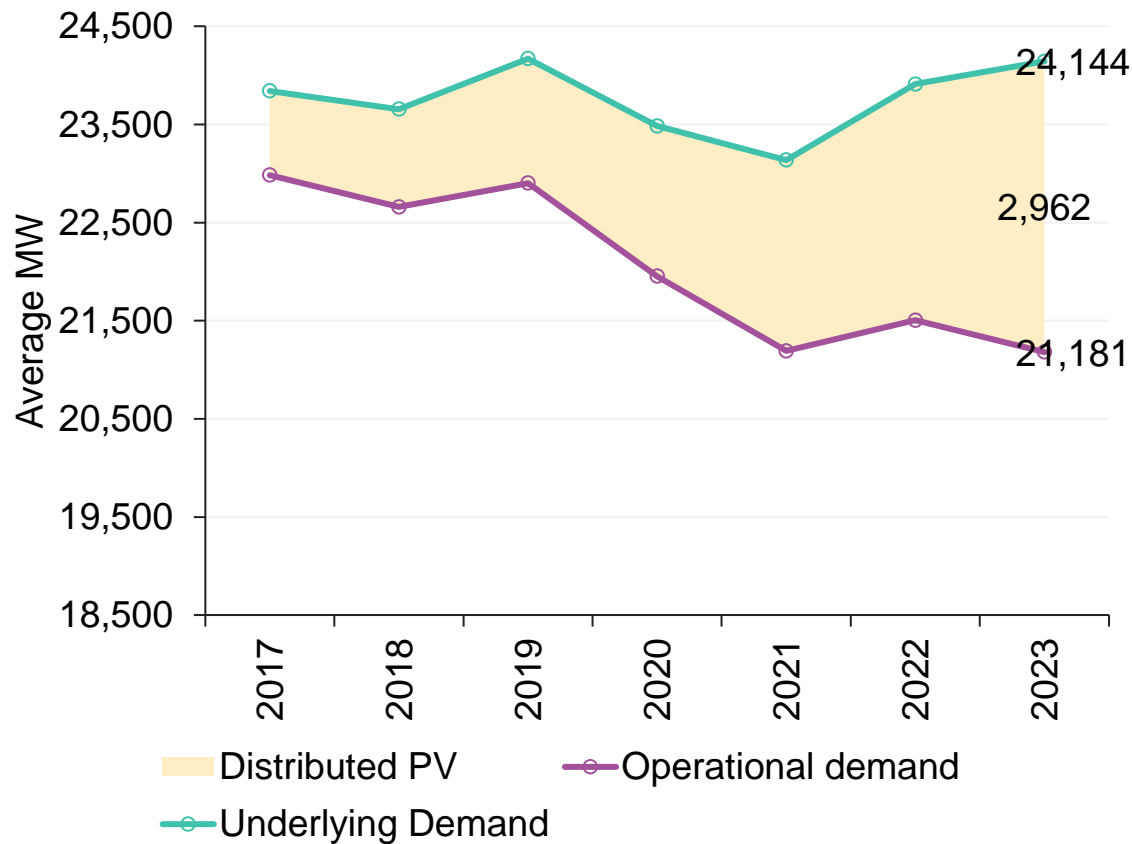
East Coast Gas Markets Highlights

- East coast gas prices declining from Q4 2022, but still at record levels for Q1
- Gas demand at lowest Q1 levels since 2016
- Production issues continue at QCLNG's LNG export facility, leading to additional QLD supply into the domestic market
- Iona Underground Gas Storage facility at near capacity at the end of Q1

Operational Demand

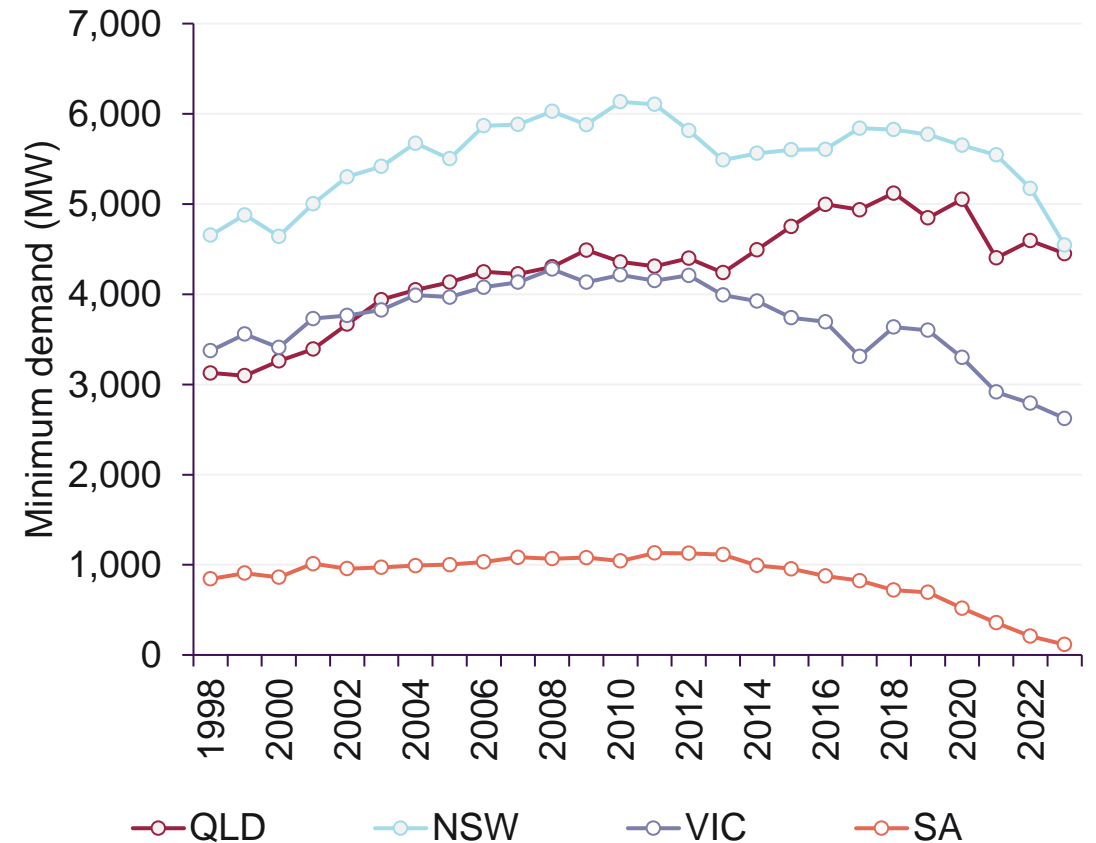
Operational demand decreases despite increase in underlying demand

NEM average operational and underlying demand Q1



Record Q1 minimum demand in NSW, VIC & SA

Q1 minimum operational demands for mainland regions

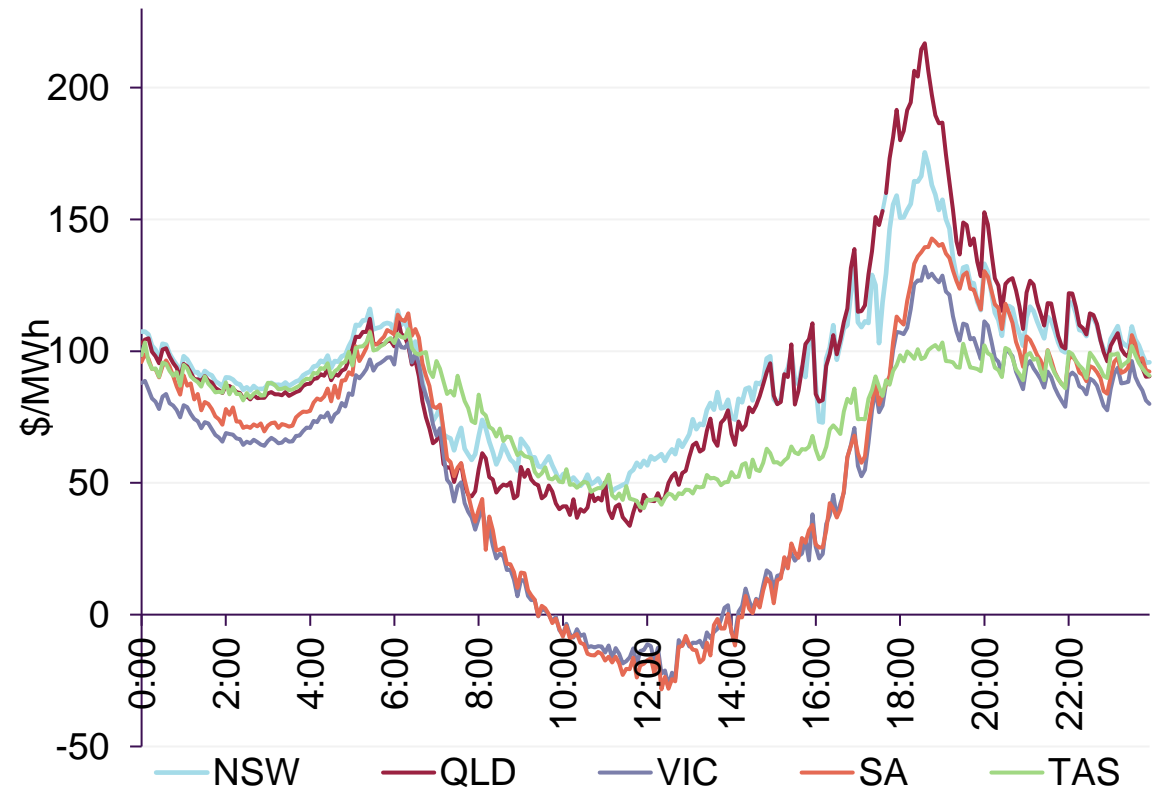


Prices vary across regions

Price divide between northern and southern regions
Q1 23 Average spot prices – energy and cap

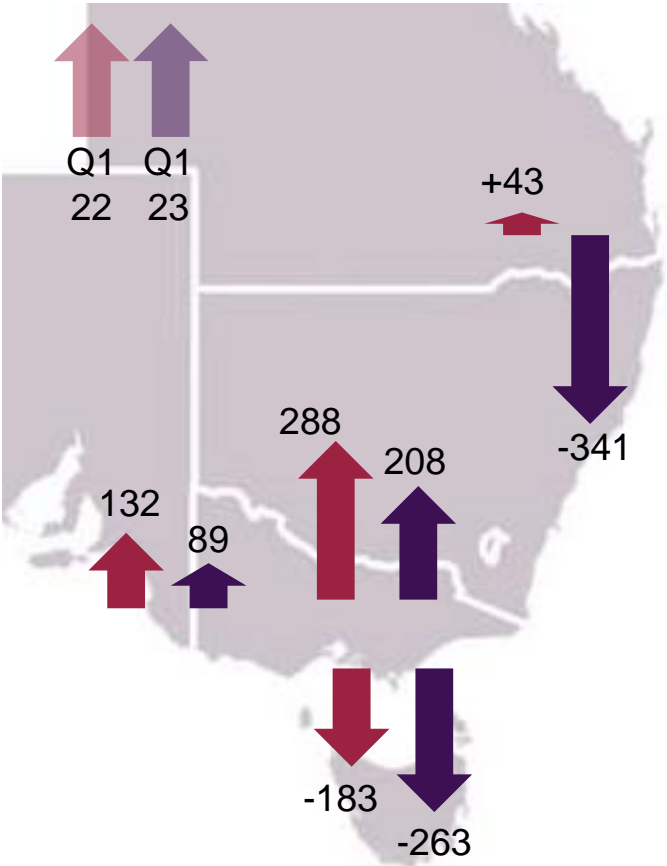


Daytime prices in Vic and SA average negative
Average NEM energy prices by time of day – Q1 2023

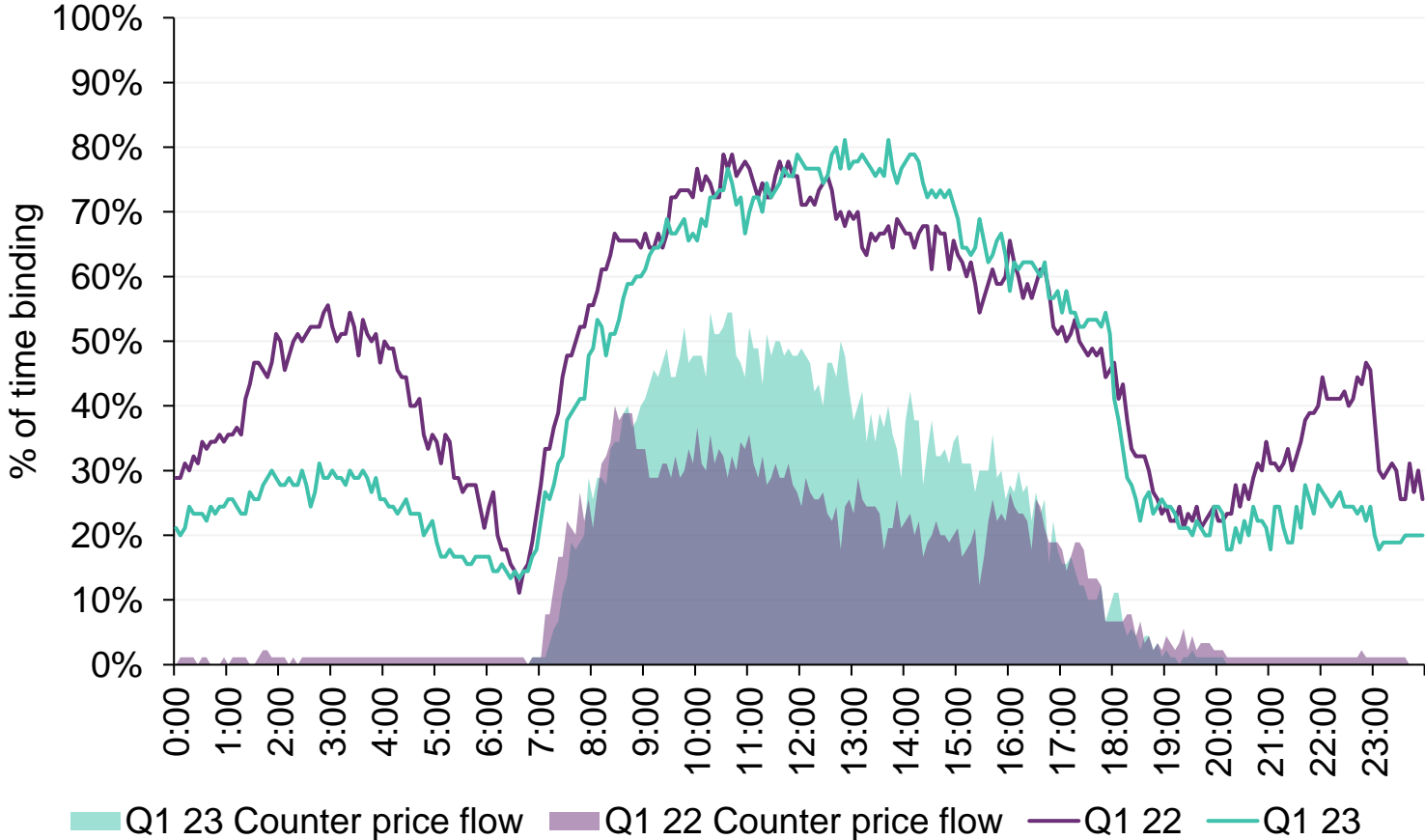


Interconnector flows

Interconnector flows has tended southwards
 Quarterly inter-regional transfers



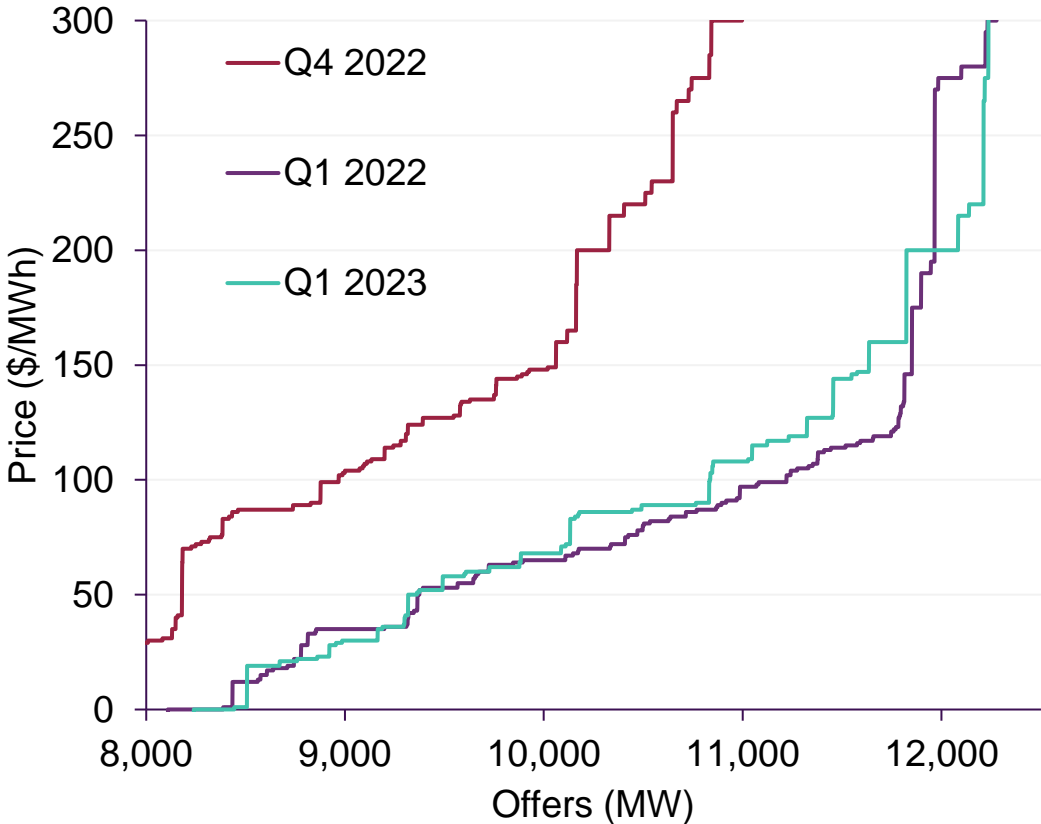
Increased frequency of counter-price flows from NSW to Vic
 % of time VNI export bound by time of day – Q1 2023 vs Q1 2022



Lower coal-fired generation offers

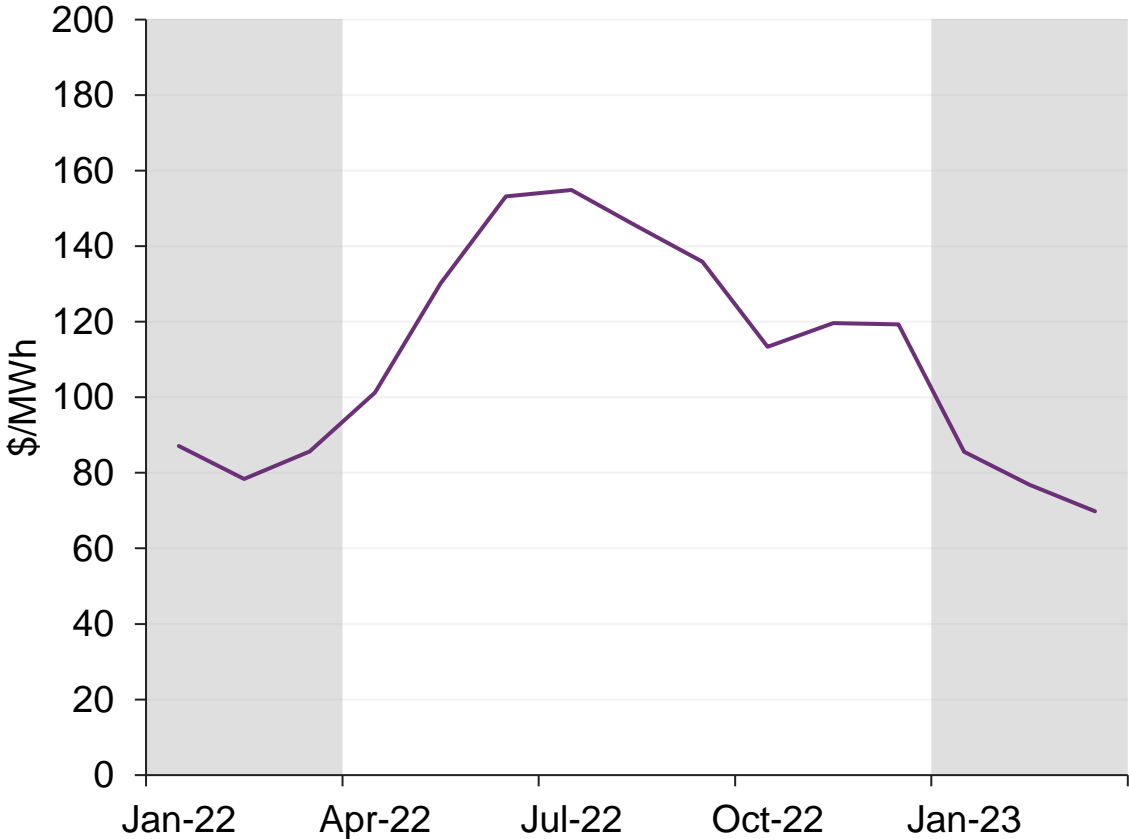
Black coal offer curves similar to Q1 2022 levels

Black coal generation bid supply curve – Q4 22, Q1 22 and Q1 23



Black coal-fired generator marginal offer pricing declines

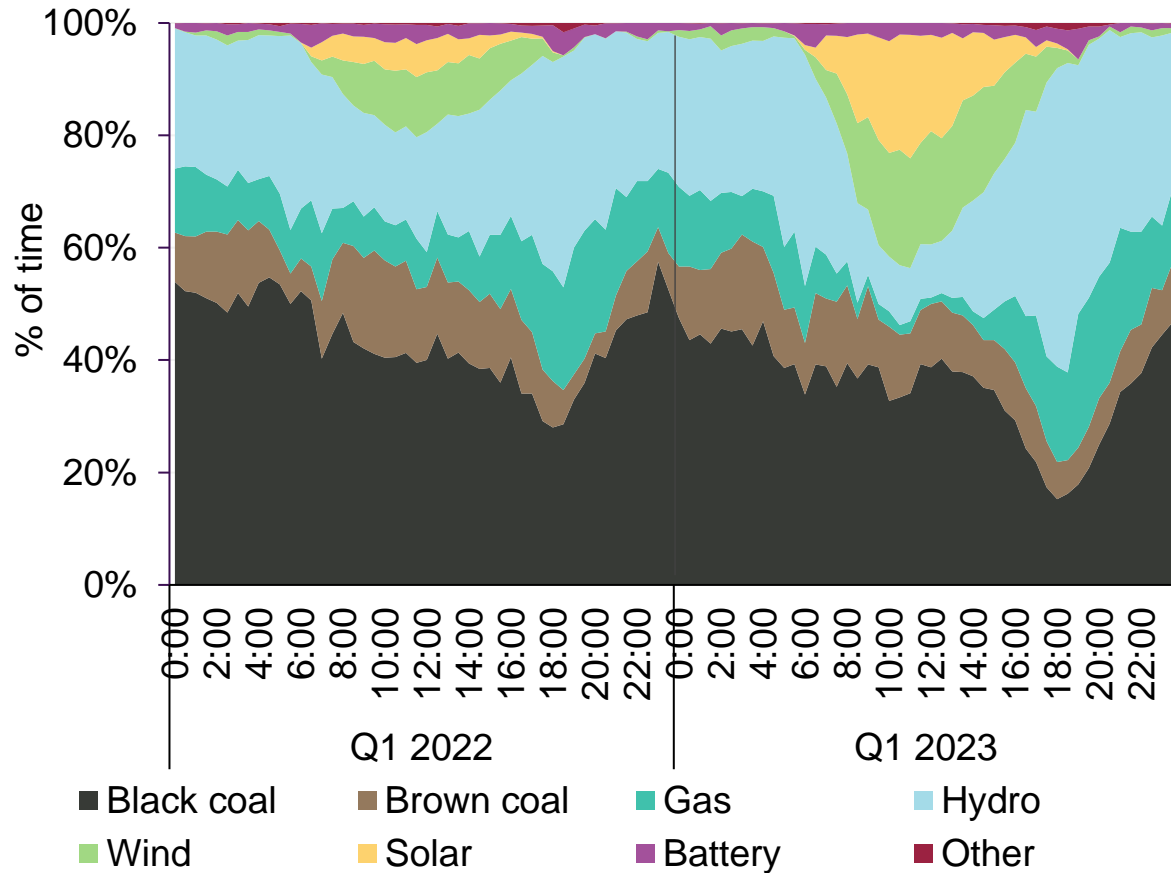
Monthly volume-weighted marginal offers



Price-setting Dynamics

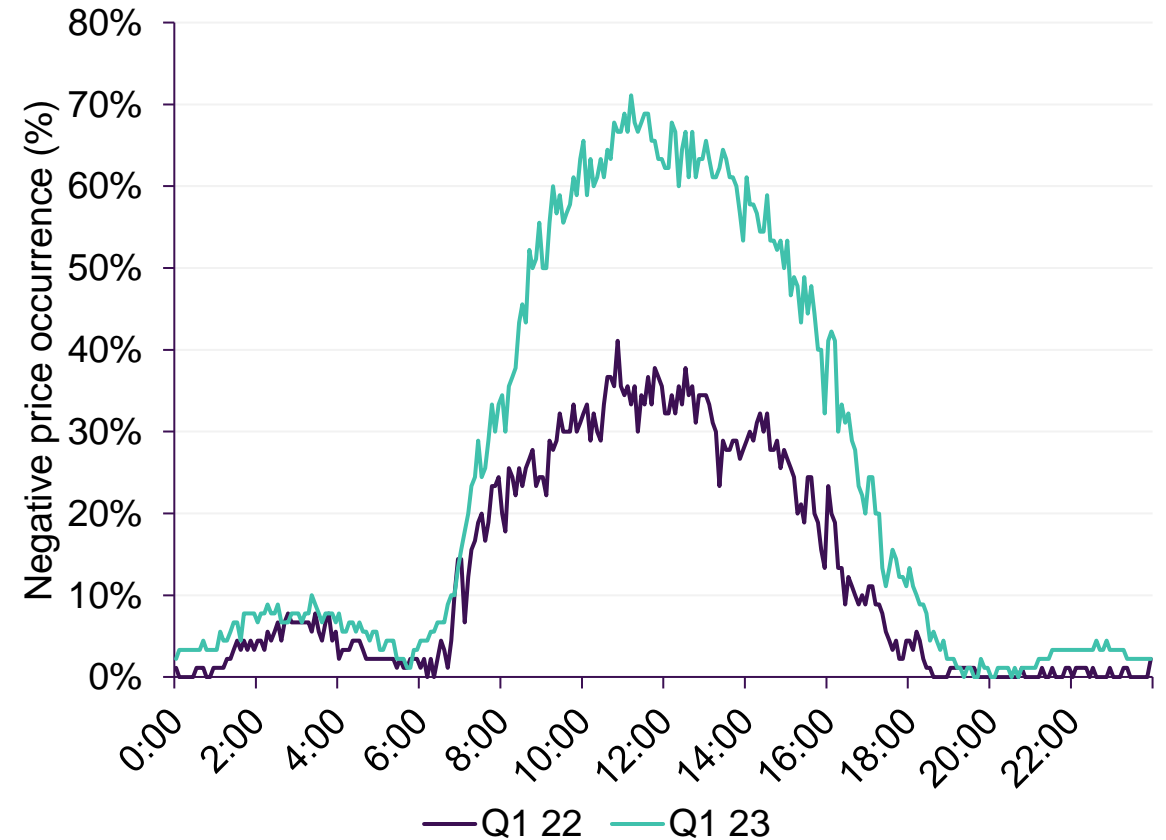
Grid-scale solar and wind increase price-setting frequency

Mainland NEM price-setting frequency and average price set by fuel type



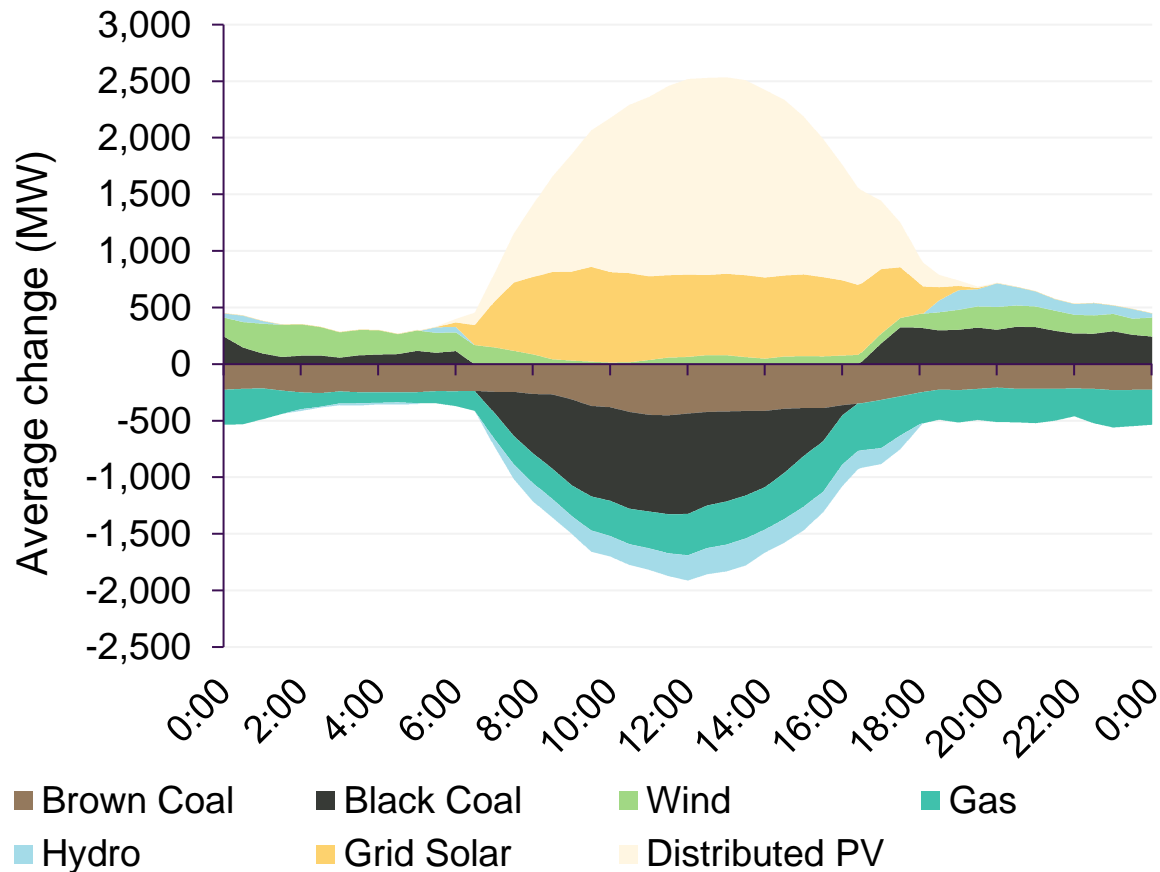
Large daytime increase in Victorian negative price occurrence

Occurrence of Victorian negative or zero prices by time of day

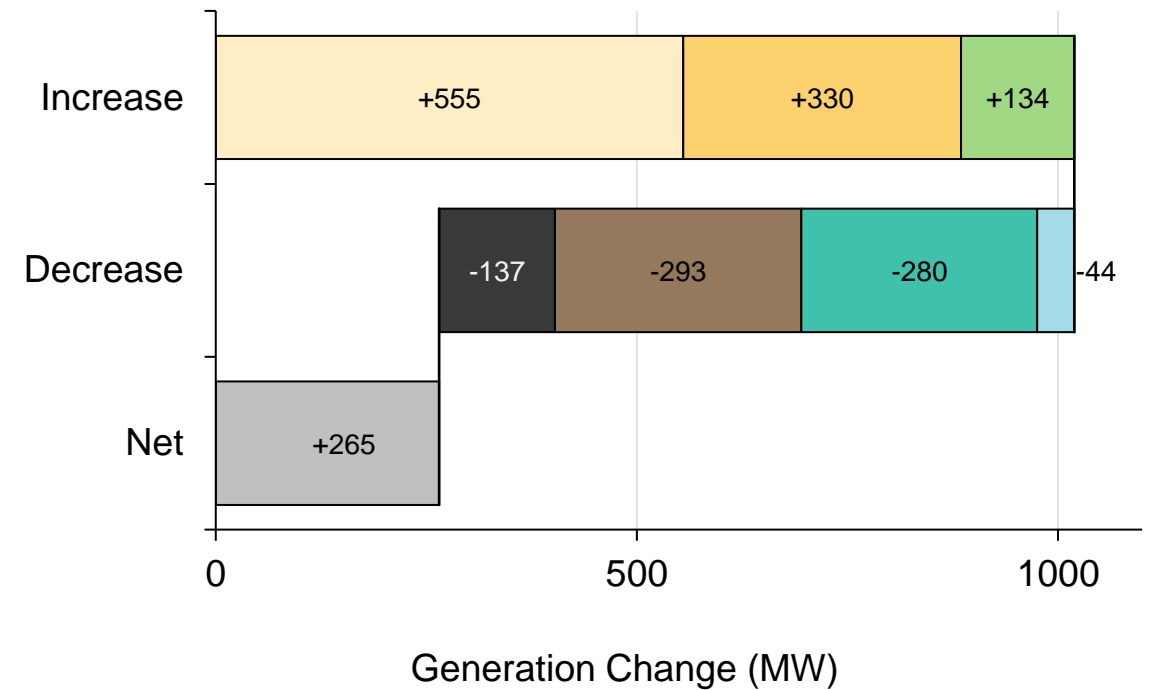


Supply Mix Changes

Middle of the day solar uplifts offsets coal, gas and hydro
Change in supply mix by time of day Q1 2022 to Q1 2023



Q1 record low for coal and gas, Q1 high for wind and solar
Change in average MW by fuel type, Q1 2022 to Q1 2023

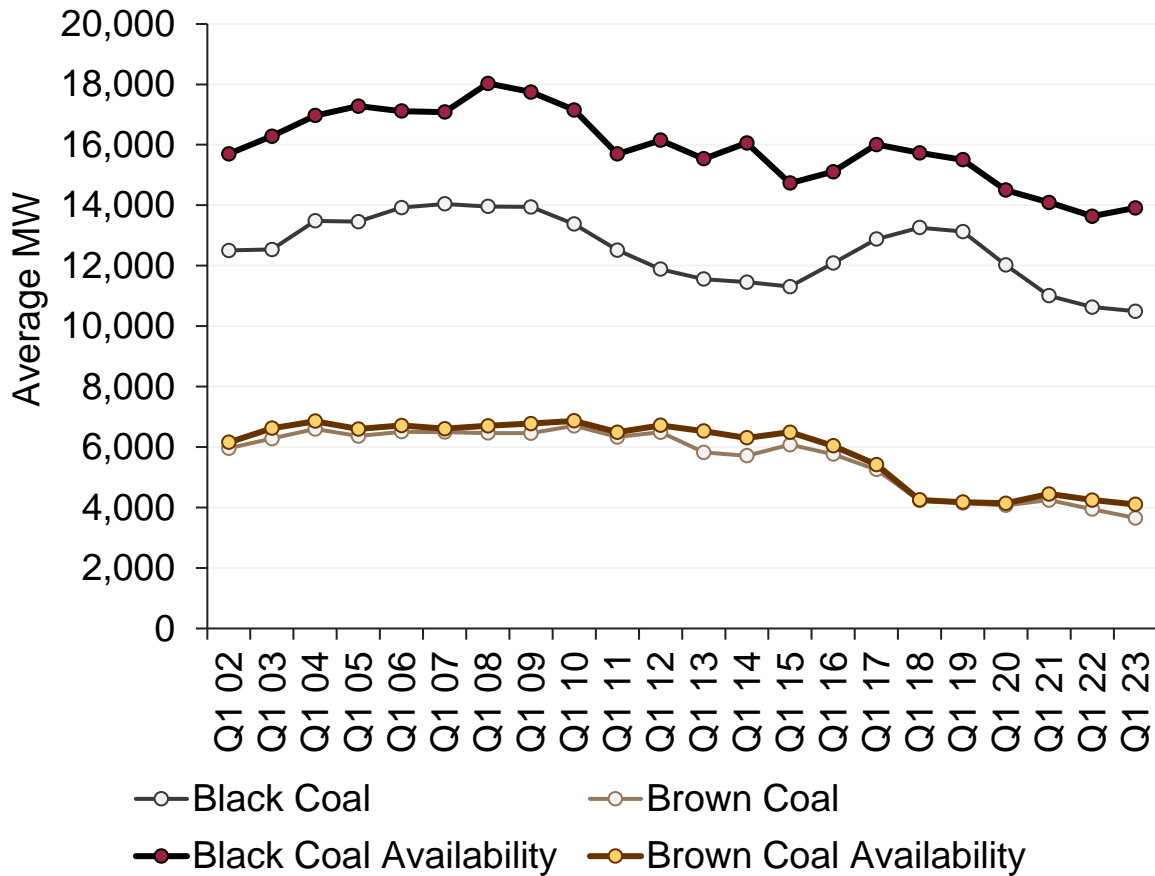


- Distributed PV
- Grid Solar
- Wind
- Black Coal
- Brown Coal
- Gas
- Hydro
- Net

Black Coal Output

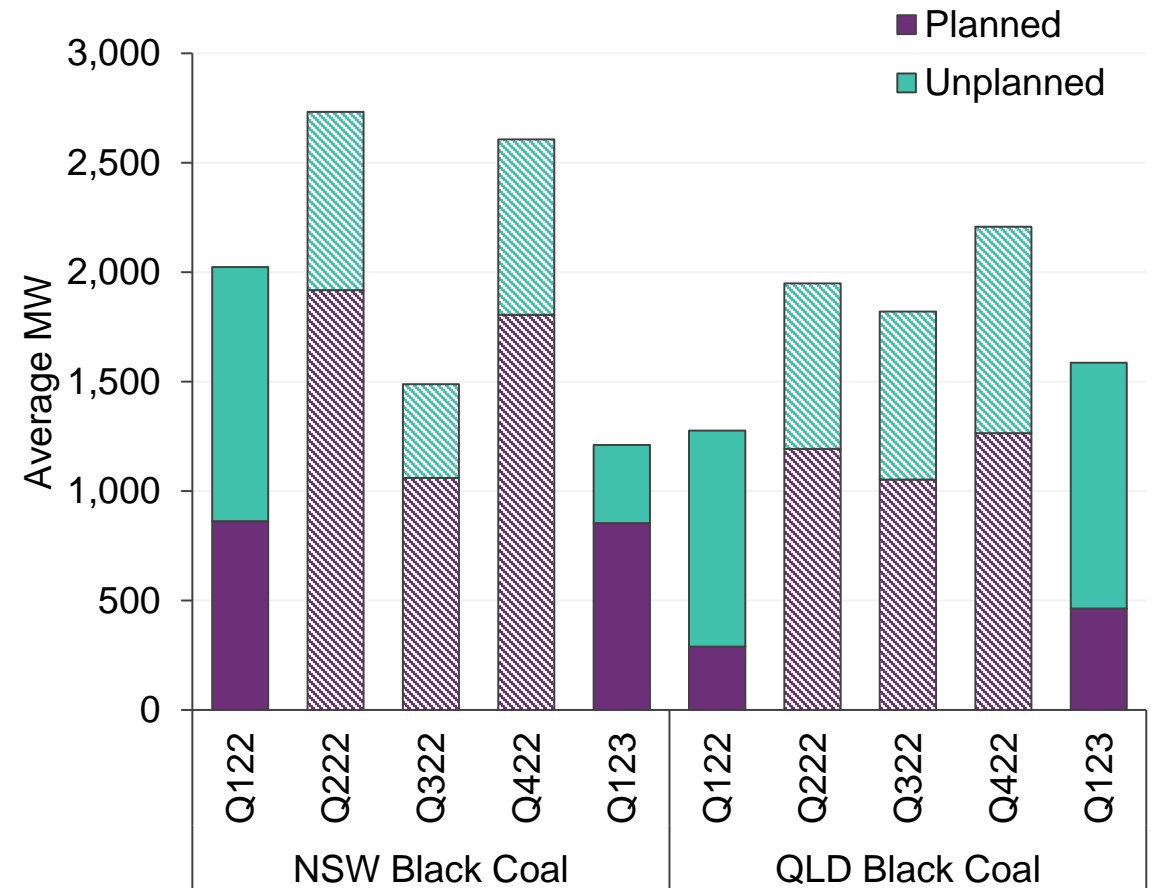
Black coal declines 1.3% while brown coal declined 7.4%

Q1 coal generation and availability through time



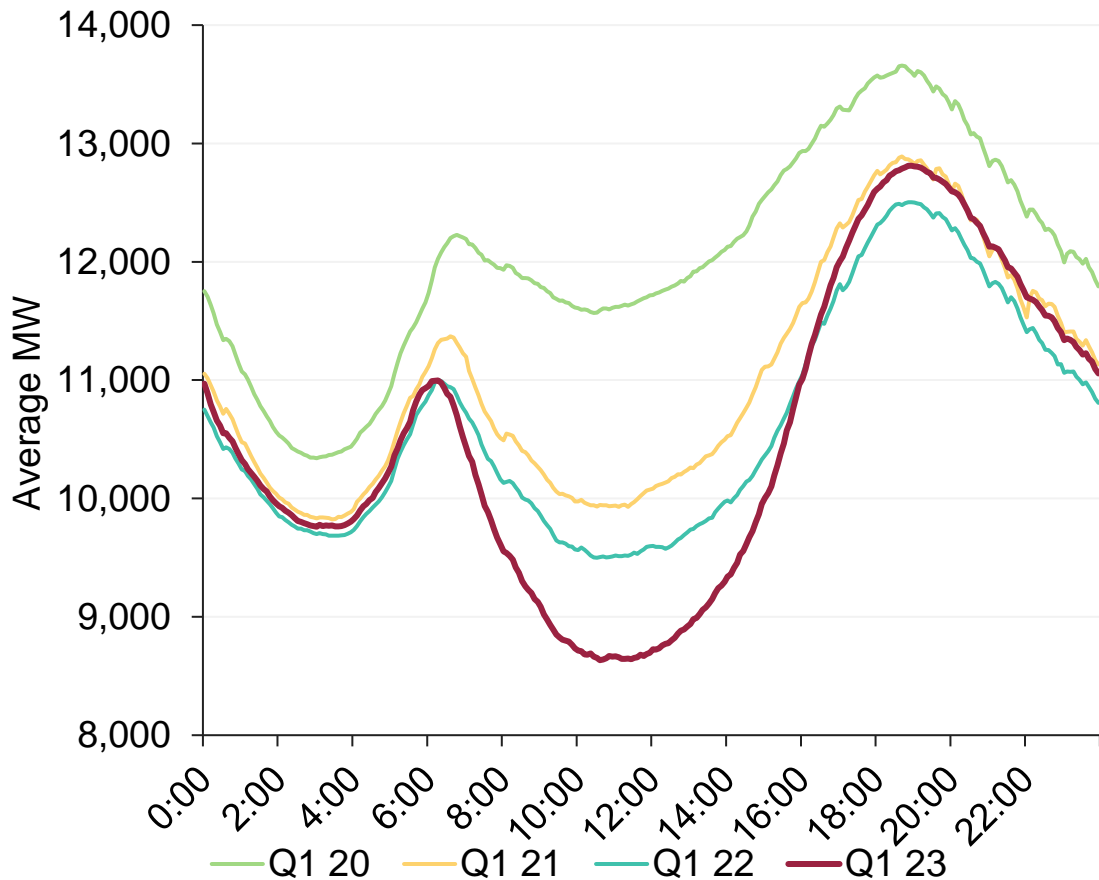
353 MW decline in black coal outages (in service units).

Quarterly average MW on outages

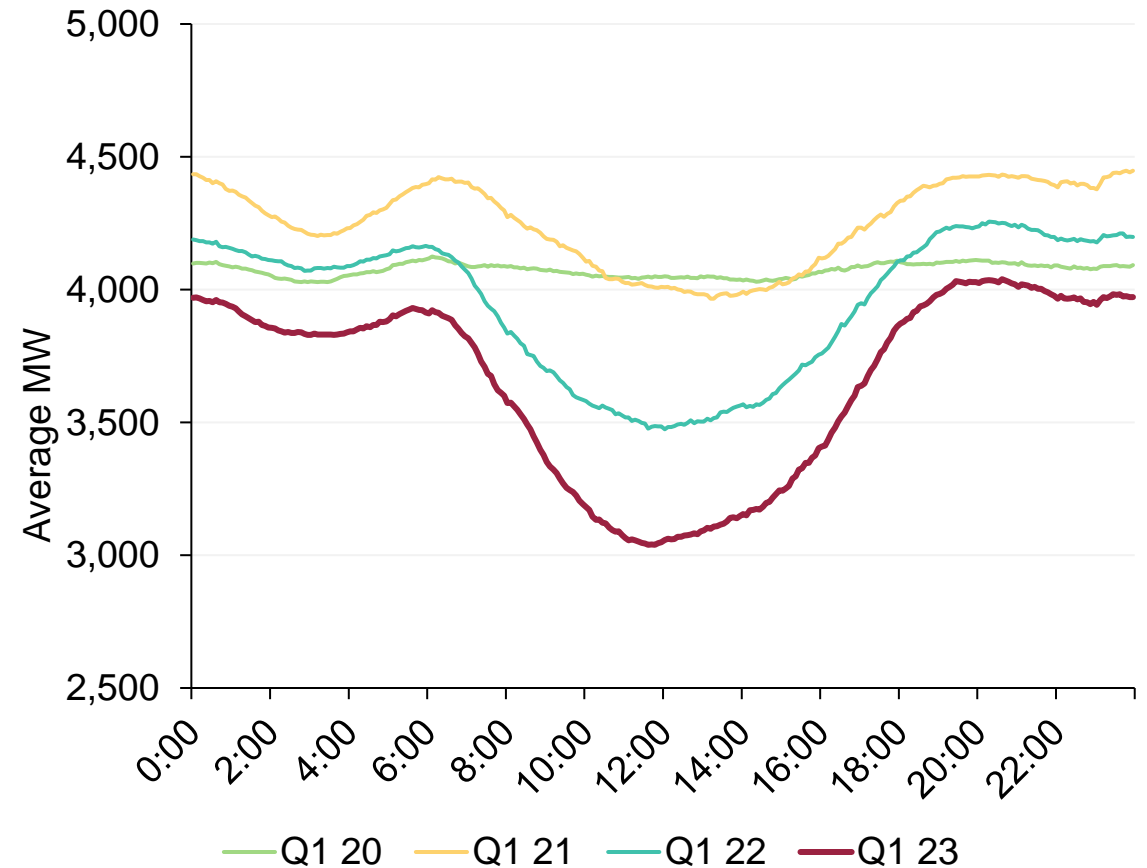


Intraday variability at coal

Black coal intraday variability increased 1172 MW
Time of day black coal output

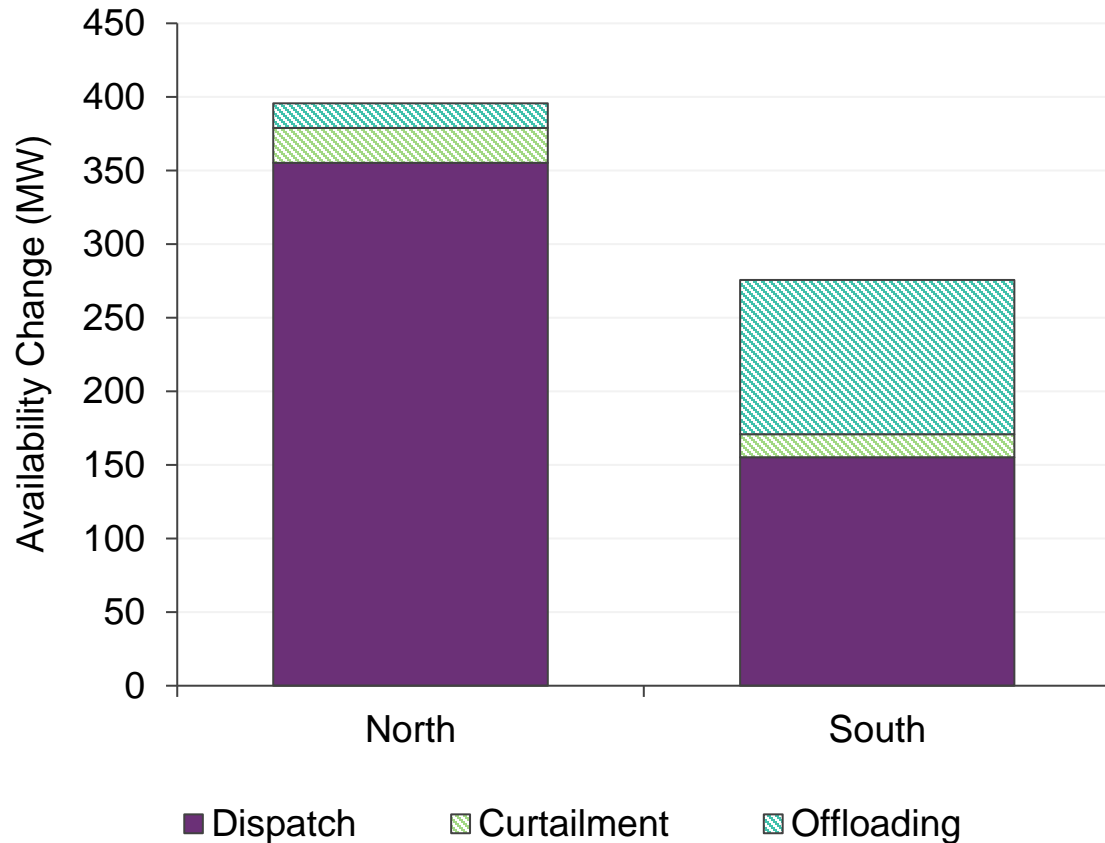


Brown coal intraday variability increased 220 MW
Time of day brown coal output

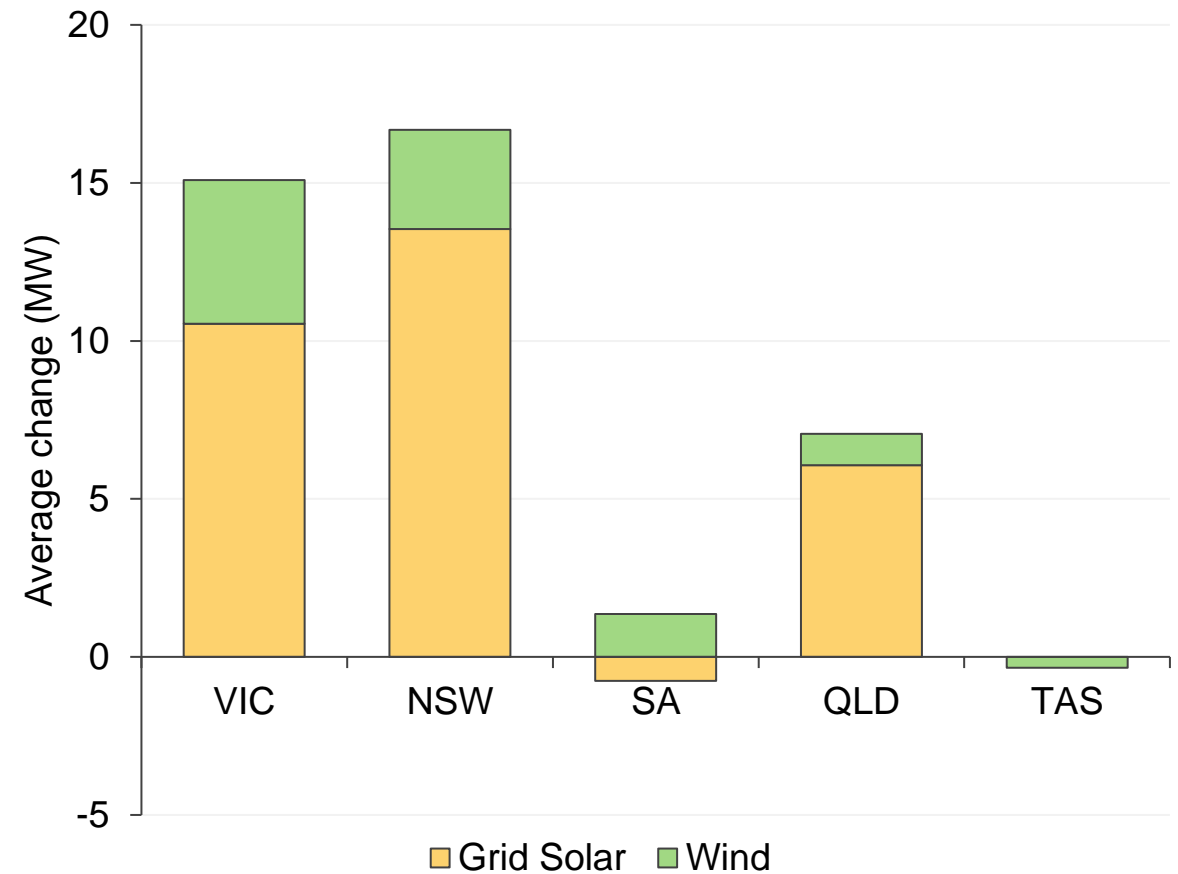


Wind and Solar output

Spilled energy was highest in southern mainland regions
Change in Availability and Output Q1 2022 to Q1 2023



Curtailment from network system security constraints rose 39%
Change in curtailment from Q1 2022 to Q1 2023 by region

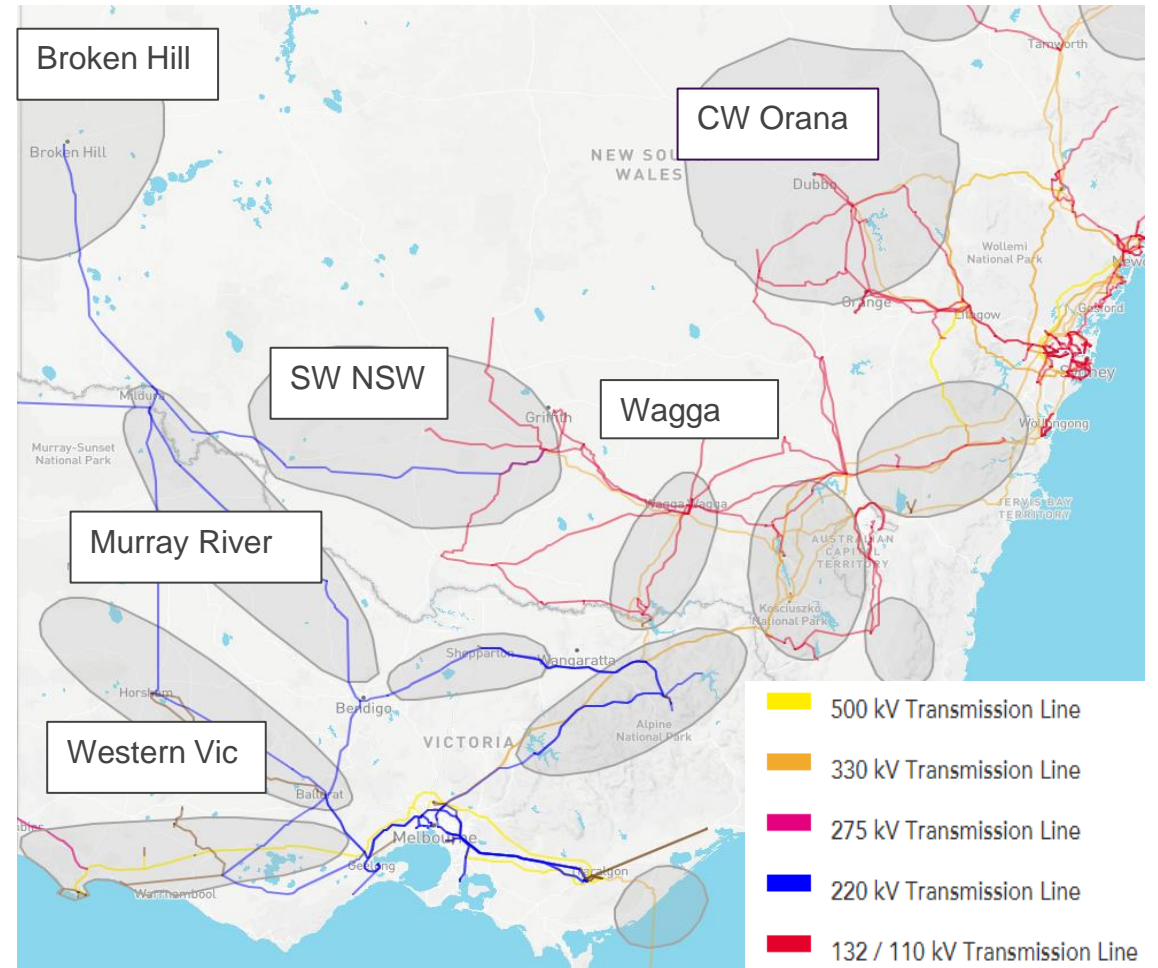


Curtailment by REZ area

Curtailment (MW) was highest in the NW Vic and SW NSW regions
 The average VRE curtailment by REZ region Q1 2022 and Q1 2023

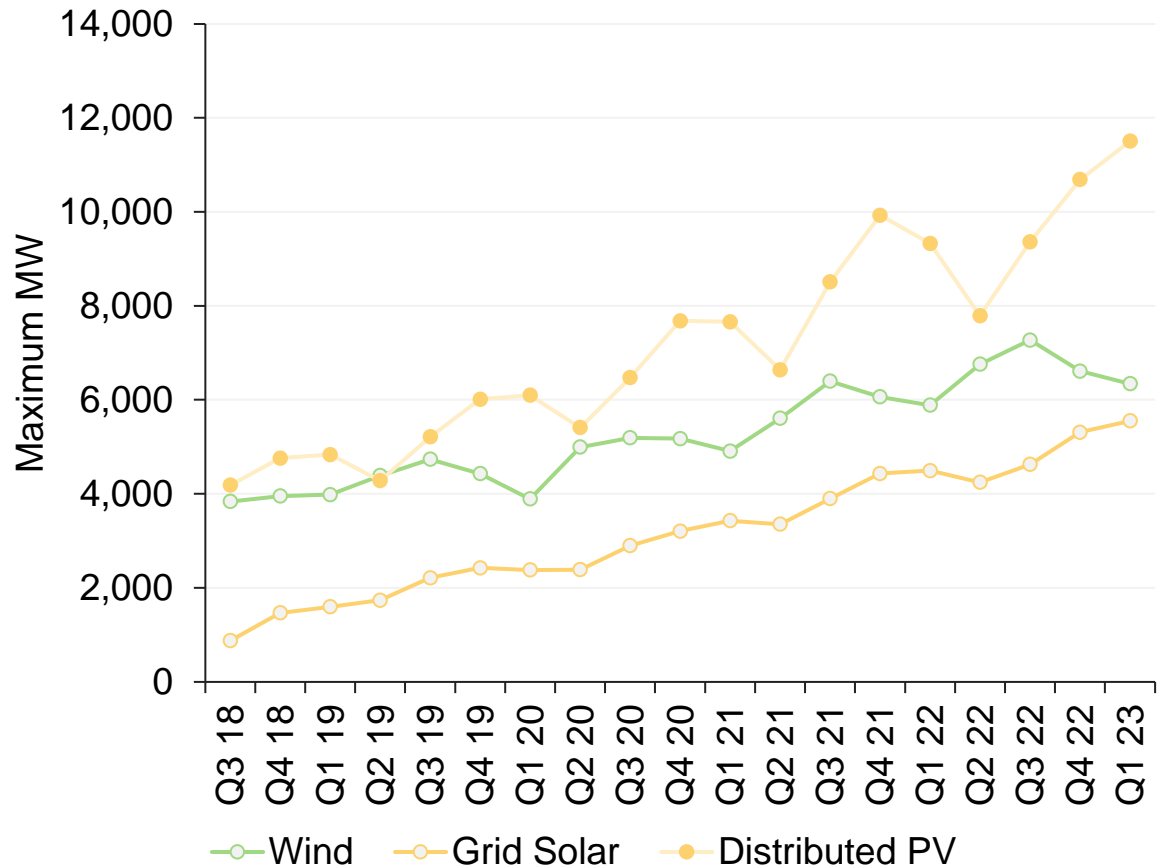


REZ areas with highest curtailment
 AEMO Map of Tx Lines and ISP REZ areas

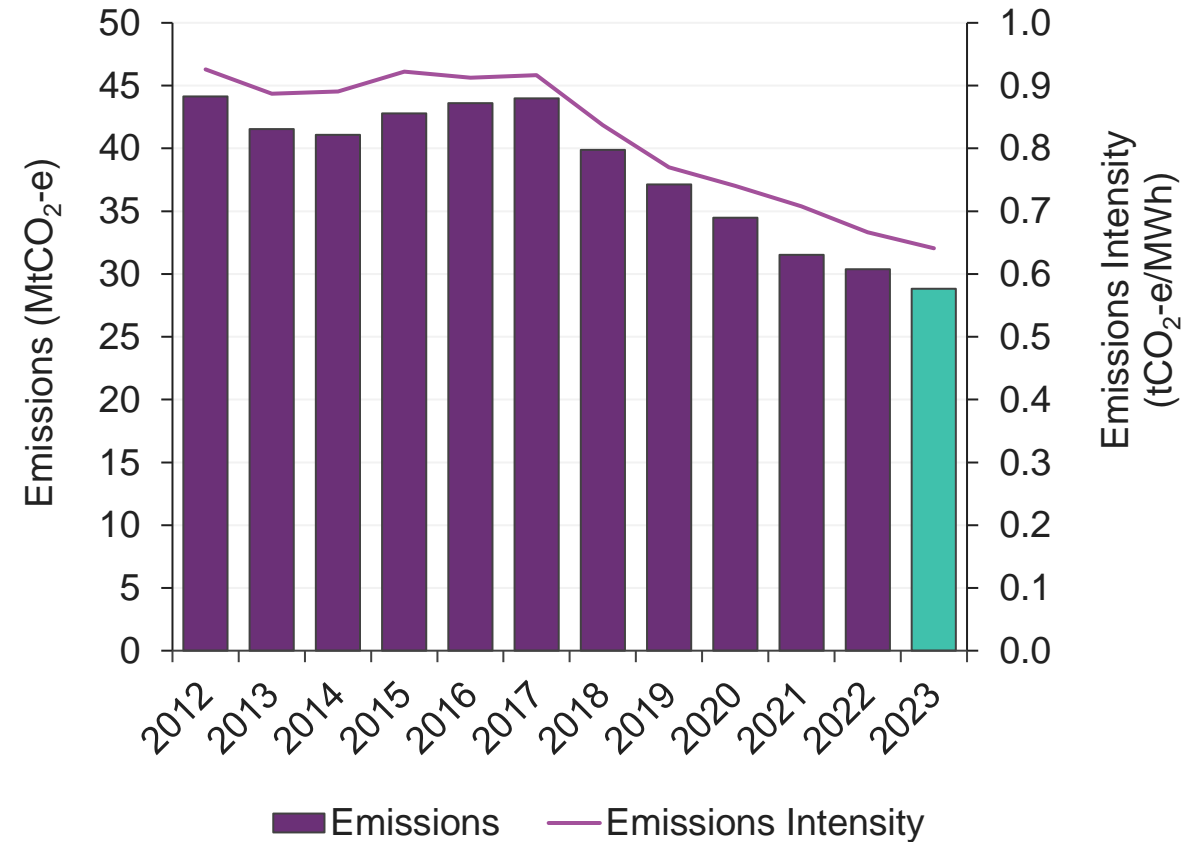


High Renewables Support Q1 Records

Instantaneous dPV climbed 23% from Q1 2022



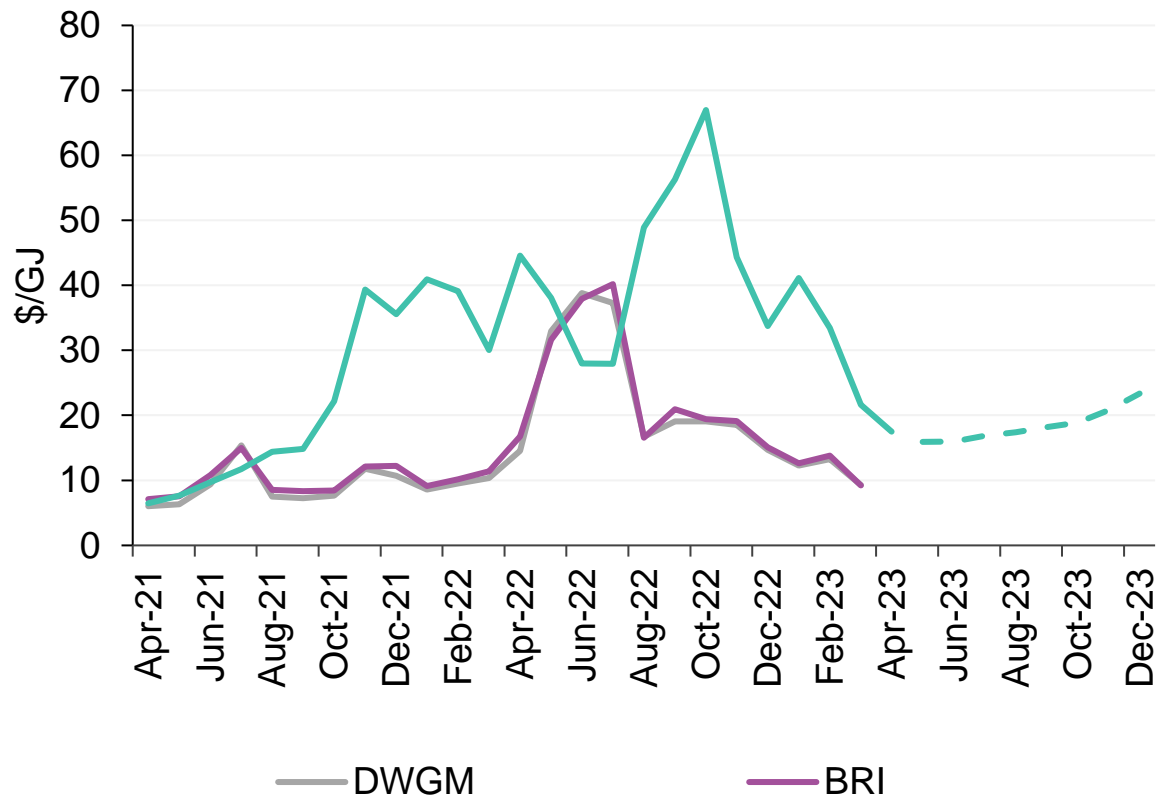
NEM emissions and emissions intensity reach Q1 lows



East coast gas prices

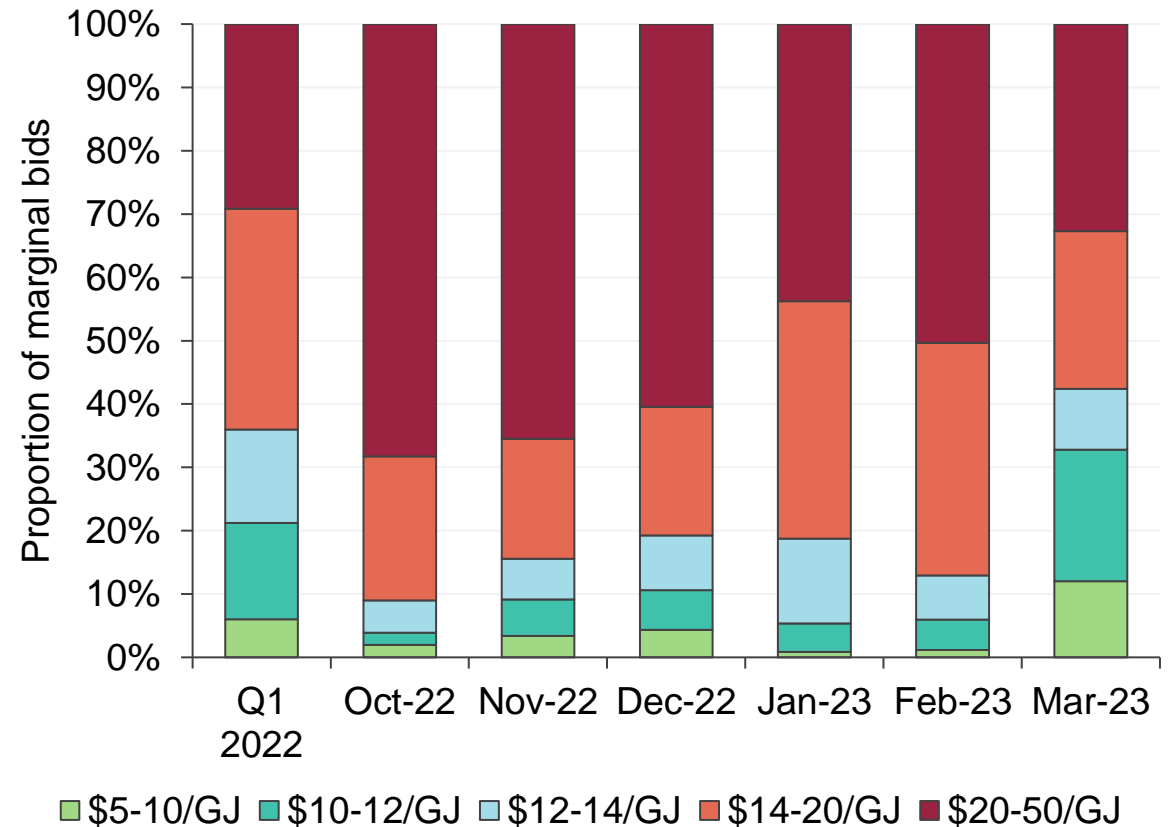
East coast gas prices up 19% from Q1 2022

DWGM and Brisbane average price compared to ACCC LNG Netback price



DWGM bids reflecting lower prices in March

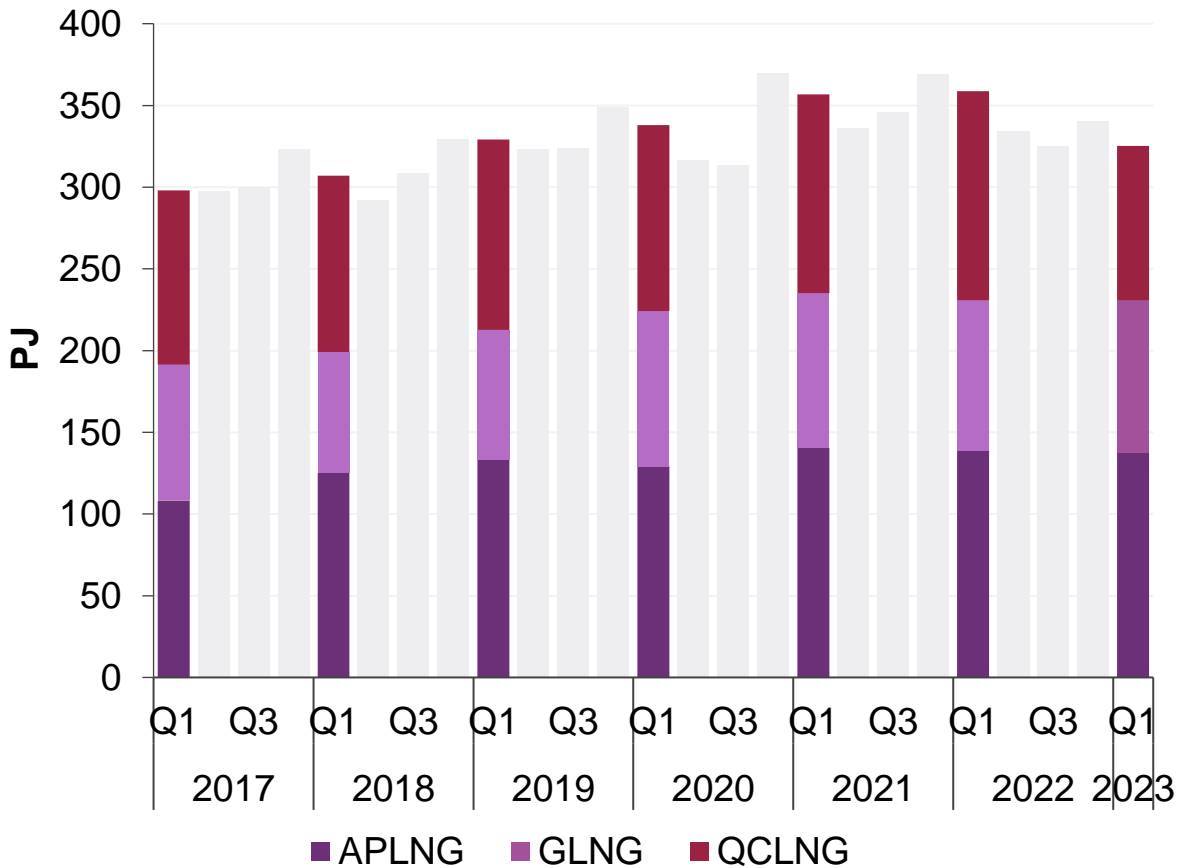
DWGM – proportion of marginal bids by price band



Lower LNG demand carries over from Q4 2022

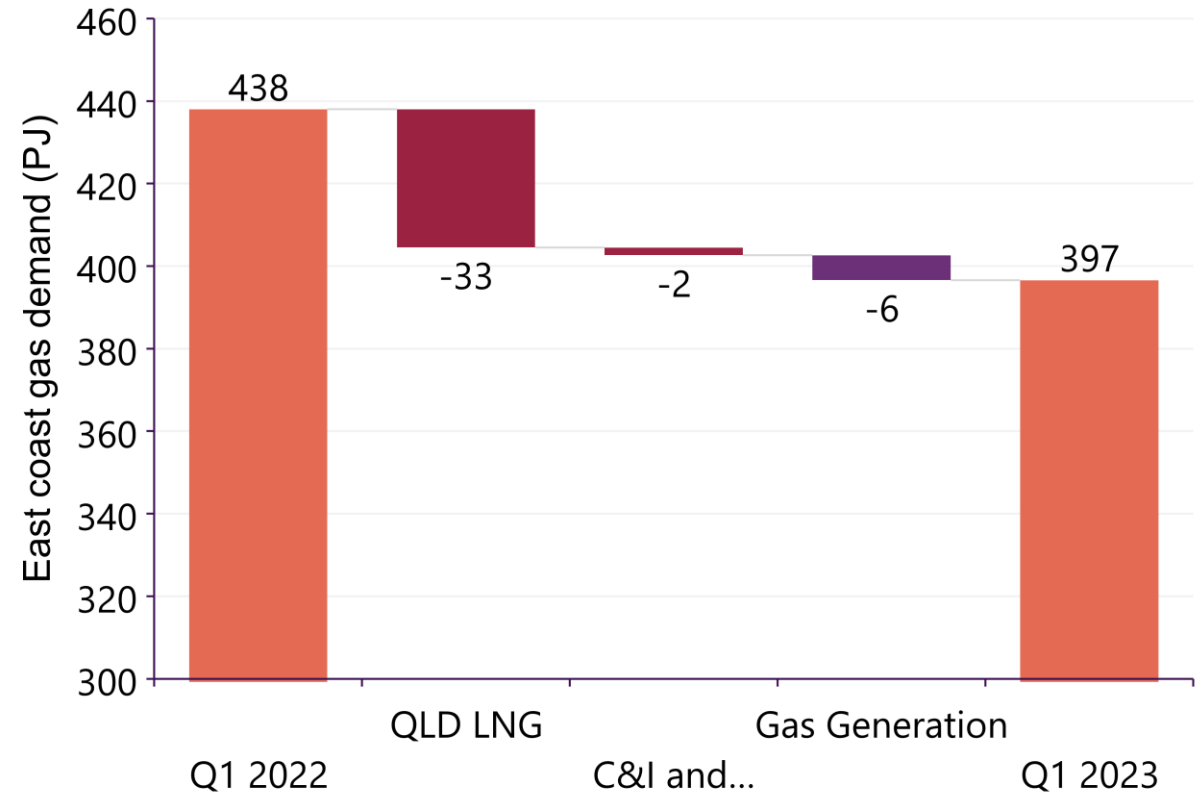
Curtis Island flows for LNG lowest for Q1 since 2018

Total quarterly pipeline flows to Curtis Island



Lowest Q1 east coast gas demand since Q1 2016

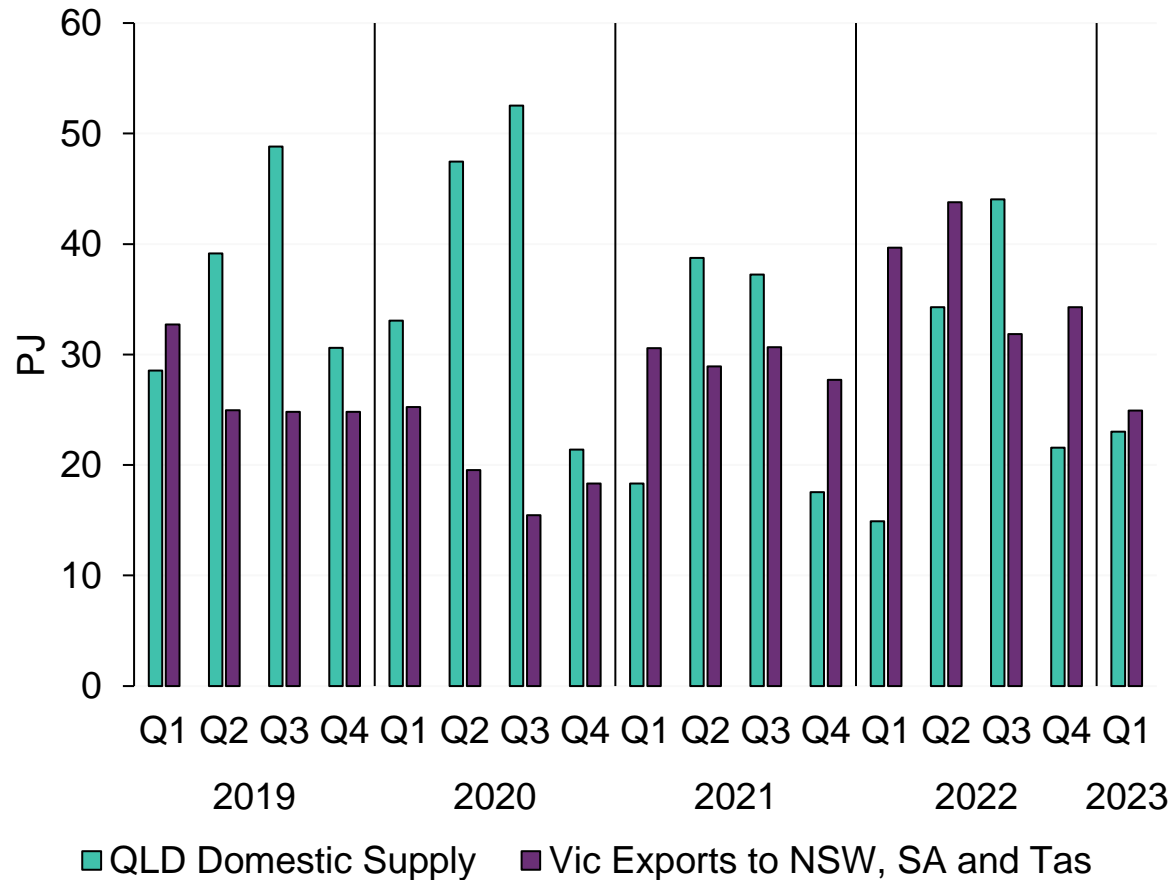
Components of east coast gas demand change – Q1 2022 to Q1 2023



Queensland domestic supply continues to increase

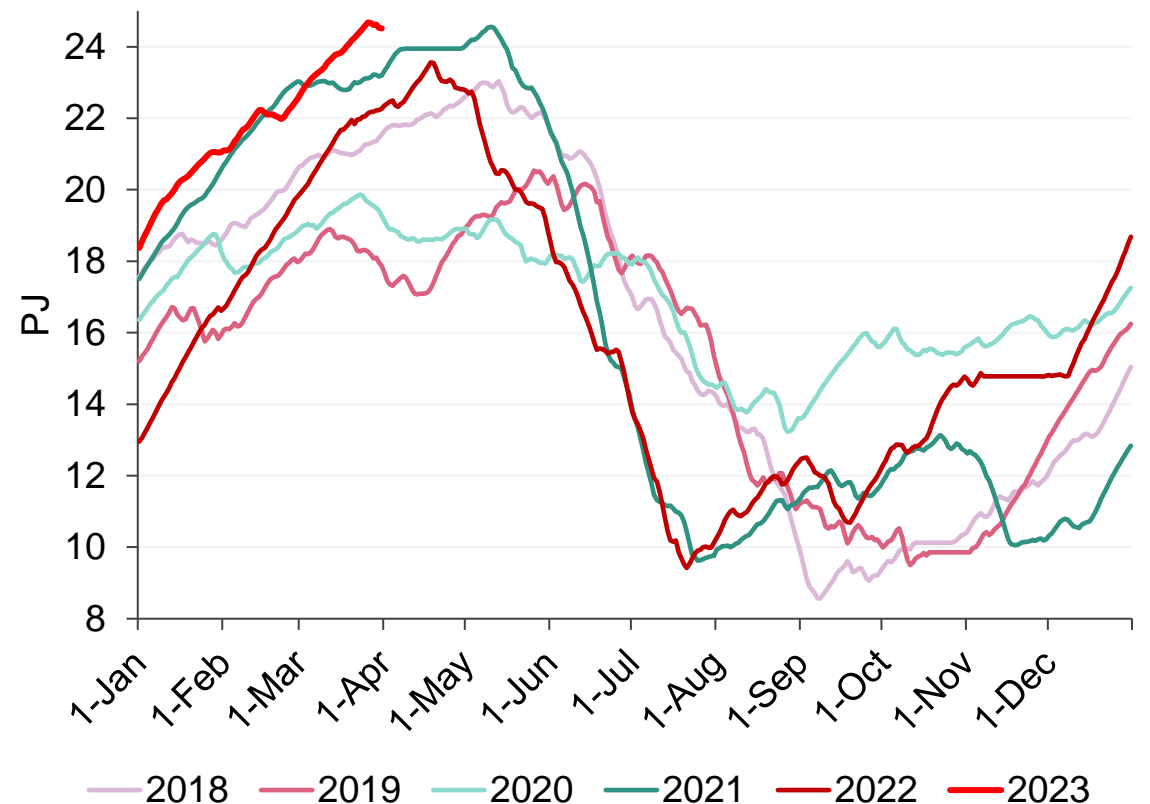
Queensland domestic supply increases to highest Q1 level since 2020

Queensland domestic supply compared to Victorian gas exports by quarter



Iona storage at highest end to Q1 balance since storage levels began reporting

Iona storage levels



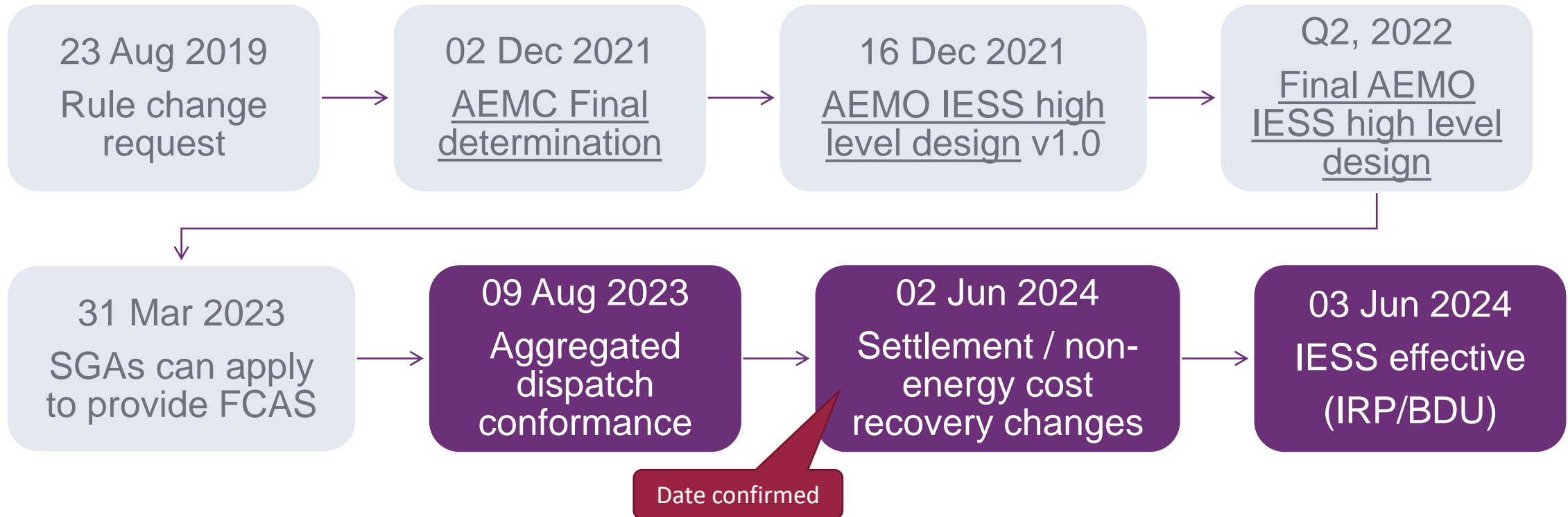
4. In-flight Reform Update



Integrating Energy Storage Systems (IESS)

Nicole Nsair

IESS: High-level Timeline

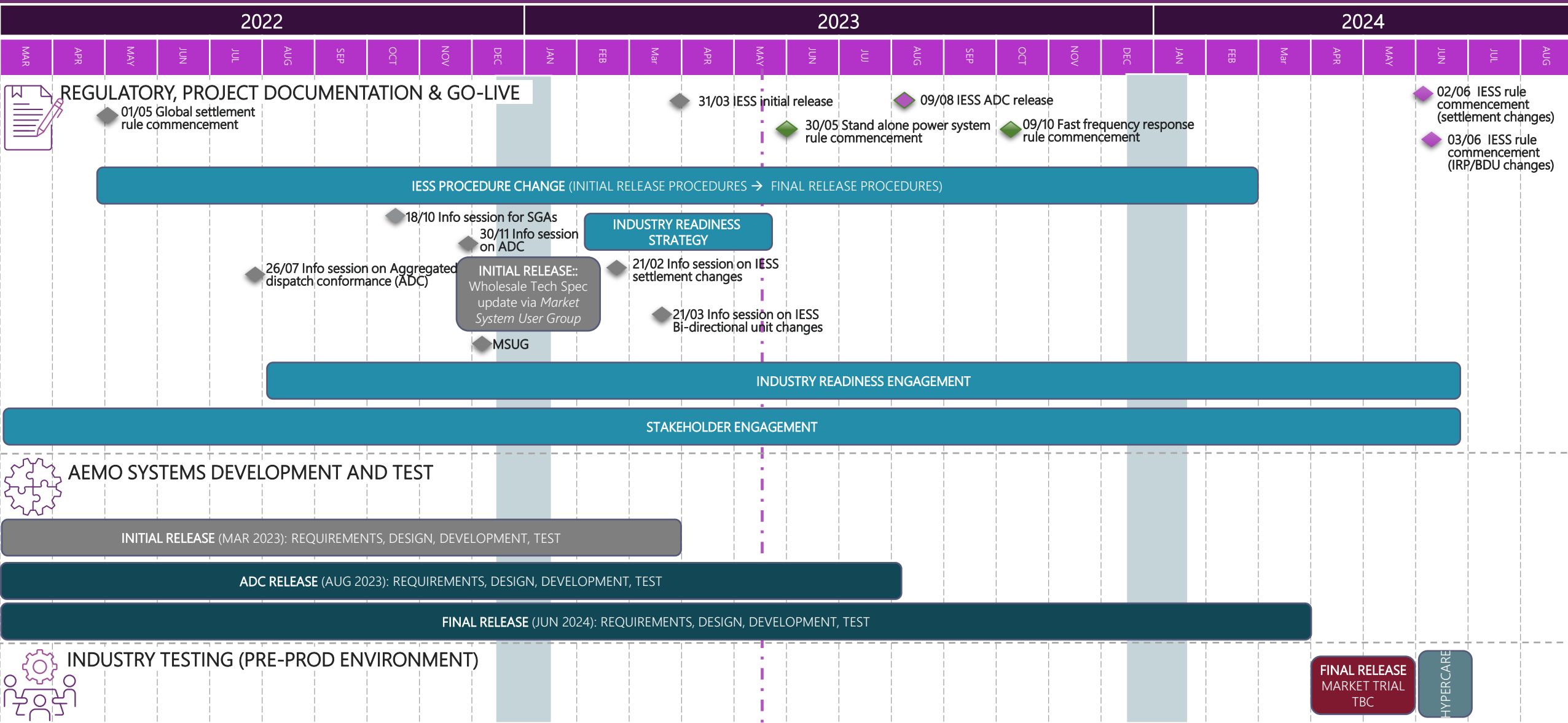


| | |
|-------------|---------------------------------------|
| SGA | Small generation aggregator |
| FCAS | Frequency control ancillary service/s |
| IRP | Integrated resource provider |
| BDU | Bi-directional unit |

REFERENCES

- [AEMC IESS rule change](#)
- [AEMC Implementing IESS rule change](#)
- [AEMO IESS High Level Design and Implementation Strawperson](#)
- [AEMO IESS Participant Toolbox](#)

IESS – Indicative Industry Timeline



I ESS project update

Since last EWCF meeting

| | |
|---------------------|--|
| ✓ Tue 26 Apr | Draft IESS participant readiness impacts at Implementation Forum |
| ✓ Thu 04 May | Implementing IESS final determination and rule |
| ✓ Wed 10 May | 'Call to action' at PCF for industry input into IESS readiness planning |

Key upcoming activities



May: Information sessions for connecting NSPs on how to assess and manage applications for Aggregated Dispatch Conformance



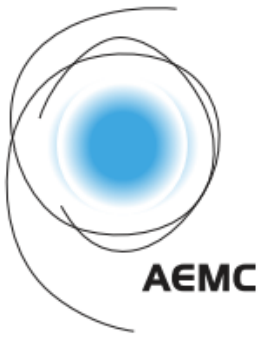
Mid-May: Publish final [Guide to Generator Exemption & Classification of Generating Units](#)



June : Consultation opens for [IESS procedure updates](#) for prudentials & possibly dispatch.



Tue 30 May: Final BDU model design and responses to industry feedback at [Implementation Forum](#)



Implementing IESS rule

- AEMC made rule to reduce implementation costs, improve clarity and reduce uncertainty in its implementation:
 1. Expands ADC eligibility to include generating systems
 2. Amends inflexibility profile eligibility
 3. Aligns non-energy cost recovery changes with billing week
 4. Other clarifications
 5. Minor and administrative amendments
- Details at <https://www.aemc.gov.au/rule-changes/implementing-integrated-energy-storage-systems>

IESS project contact



ies@aemo.com.au



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

Fast Frequency Response

Carla Ziser

Refresher on the FFR Rule

- Recap on the objective:
 - 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
- The new very fast services will come into effect from 9 October 2023, at which time AEMO will implement a “requirement” for the services and FCAS providers will be enabled through dispatch processes

Procedures Update

| PROCEDURE | TIMING |
|--|---|
| <p>Market Ancillary Services Specification (MASS) – this sets out the definition of the very fast service, and the technical requirements for providers.</p> | <p>The MASS consultation was finalised in October 2022.</p> |
| <p>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.</p> | <p>Submissions on the draft report closed 12 April 2023. Final version of CFG scheduled to be published 22 June 2023.</p> |
| <p>Constraint Implementation Guidelines (CIG) – update to set out how constraint equations are implemented for the very fast service.</p> | <p>Final version published on 20 April 2023.</p> |
| <p>Market Suspension Pricing Methodology (MSPM) – minor update for very fast service.</p> | <p>Final report published on 2 March 2023.</p> |

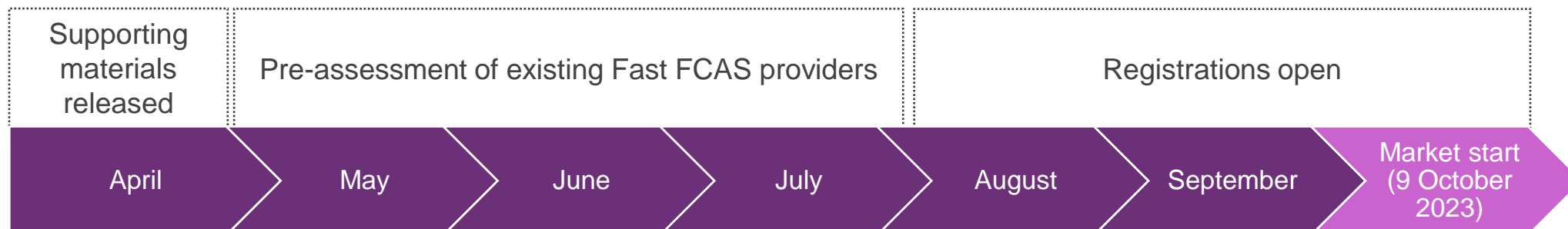
Readiness activities

FFR Service Commencement Plan

- Stakeholder information session held 8 May 2023.
- Final version published on 11 May 2023.

Preparatory activities underway to support Registration

- AEMO will engage with existing Fast FCAS providers who wish to provisionally confirm their Very Fast FCAS maximum capacity, prior to the formal registration application being submitted.



ffrconsultation@aemo.com.au



[AEMO | Fast Frequency Response](#)

Frequency Performance Payments

Oliver Derum

Implementation update and dates

- Final Frequency Response Requirements Procedure published 4 May.
- Submissions to the draft Frequency Contribution Factors Procedure closed on 15 March. We are working to finalise our responses to submissions received. The final Procedure must be published by 8 June 2023.
- Currently planning to conduct non-financial trials of the new FPP system from December 2024.
- Go live 8 June 2025.

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

Implementation Update

- Recap of the objective:
 - 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
 - Generators will be required to provide additional unit state information and unit recall times, which AEMO will use and publish
- AEMO is implementing the rule through changes to procedures and systems, with the new arrangements commencing 9 October 2023

Procedure Consultation

- 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, AEMO received 7 submissions with no substantive issues raised with AEMO's implementation of the rule
- Second round of consultation, AEMO received 7 submissions
- A final determination and procedures were published on 24 April 2023.
 - More information is available at:
 - <https://www.aemo.com.au/consultations/current-and-closed-consultations/2022-reliability-forecasting-guidelines-and-methodology>

Operational Security Mechanism

Chris Muffett

Rule Update

- Recap on the objective:
 - 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.
- The AEMC made a draft determination for the OSM on 21 September 2022, and has proposed a final determination will be published on 27 July 2023
- More information can be found on the AEMC's project page:
 - <https://www.aemc.gov.au/rule-changes/operational-security-mechanism>

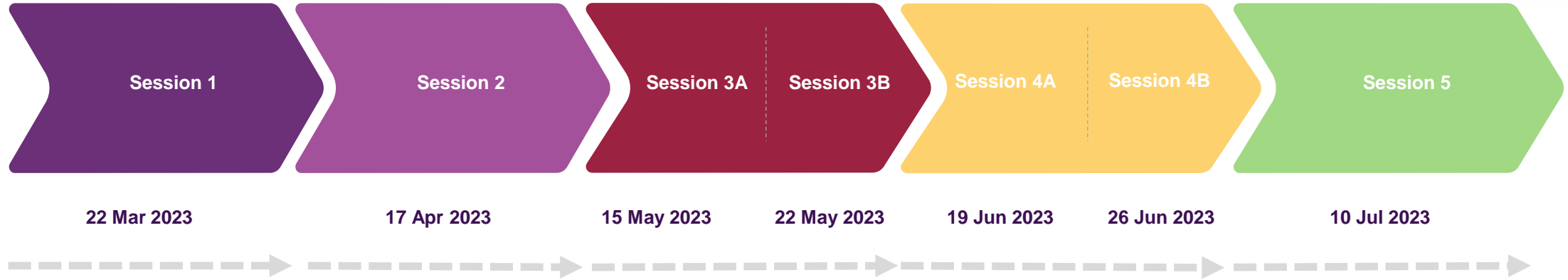
5. Other Reforms

Recap: Strategic / Foundational initiatives

| Pathway | Initiatives | Description |
|---|---|--|
| Foundational <ul style="list-style-type: none"> Foundational dependency work to deliver an uplift to base capability on which reforms are dependent | <ul style="list-style-type: none"> Identity Access Management (IDAM) | <ul style="list-style-type: none"> A unified mechanism to authenticate participant users and applications when accessing AEMO services. |
| | <ul style="list-style-type: none"> Industry Data Exchange (IDX) | <ul style="list-style-type: none"> Unified access to AEMO services across all markets, using modern authentication and communication protocols, facilitating a cohesive approach to industry data exchange. This will leverage IDAM |
| Strategic (Related) <ul style="list-style-type: none"> Strategic dependency work to effectively futureproof capabilities and scalability of systems thereby avoiding investment in systems that will become end-of-life shortly after the reforms take effect | <ul style="list-style-type: none"> Portal Consolidation (PC) | <ul style="list-style-type: none"> A 'single pane of glass' user experience for participants accessing all AEMO browser based services |

- These initiatives have been identified for the NEM Reform Program and included in the [NEM Reform Implementation Roadmap](#).

Industry Consultation underway



| Session | Introduction – IDX, IDAM & PC | Discovery Workshops – IDAM and PC | Target State Discussion | Transition Strategy | Conclusions and Business Case |
|----------|--|---|---|---|---|
| Agenda* | <ul style="list-style-type: none"> Introduce initiatives Outline workshop plan | <ul style="list-style-type: none"> Pain points and benefits Survey | <ul style="list-style-type: none"> Concept walkthrough | <ul style="list-style-type: none"> Transition Strategy Impacts & Benefits | <ul style="list-style-type: none"> Summary Options |
| Audience |  |   |   |   |  |

* Detailed consultation schedule available in Appendix B of this pack.

Industry survey insights - IDAM



The issue with **managing multiple credentials** for accessing different AEMO systems was highlighted in the survey emphasising the need for a unified IDAM solution



Respondents **supported the concept of Identity Federation** with 66% stating that their organisation can implement federation within 2 years



78% respondents felt their Participant Admins would benefit from a **pre-defined role catalog**



Respondents highlighted that the **ability identify inactive accounts** and the **ability to monitor, identify and address suspicious or unusual activity** is a critical and necessary requirement to maintain security



The **cybersecurity risk** has been identified as one of the drivers of the IDAM initiative with participants highlighting the **need for modern authentication mechanisms** like OAuth and token-based authentication as well as enhanced security controls like **Multi-factor authentication**



Inadequate capabilities for managing **password changes for service accounts** is a key challenge.



The results of the survey clearly demonstrate **the need for the Data Sharing concept to be discussed** in upcoming consultations in order to clarify the concept. This concept will be discussed in the upcoming Technical and Business Focus Target state consultation.



The majority of respondents voted for **NEM** (particularly NEM Wholesale) to be **transitioned first** and preferred a phased approach to transition.

6. Consultation Update



Amendment of automated procedures for determining a manifestly incorrect input

Istvan Szabo

Summary

- Consultation paper and proposed procedure change published on 14 Apr and 8 May 2023 respectively.
- Proposing:
 - the inclusion of FCAS into the [Automated Procedures for Identifying Dispatch Intervals Subject to Review](#)
 - a uniform 450 MW FCAS requirement as MII trigger for all FCAS markets and NEM regions.
- Submissions close on 5:00pm AEST on **25 May 2023** and are to be sent to istvan.szabo@aemo.com.au
- Publish final report and determination: 20 July 2023
- Implementation (indicative): 4 October 2023

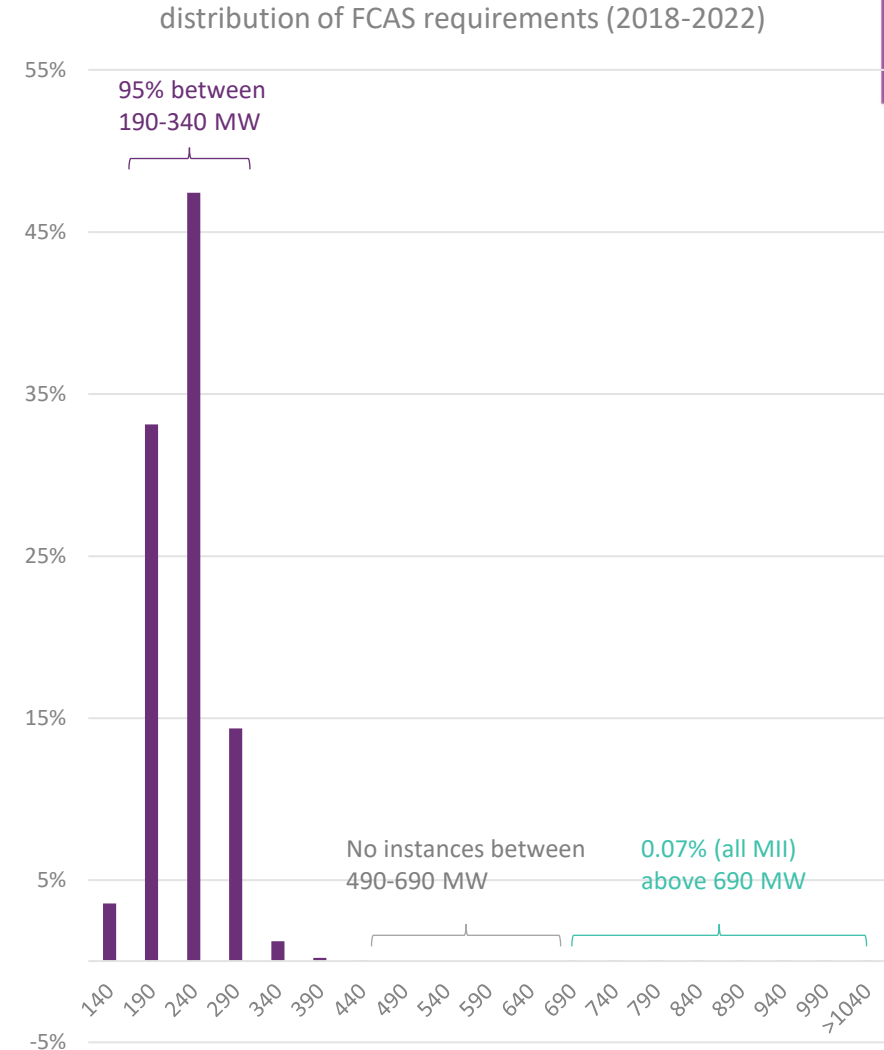
Background & context

- **2021 review & consultation:** revised trigger levels for Terranora and Heywood interconnector flows – spot market
- **2022 review:**
 - 2 events (6 Apr & 10 Aug)
 - recommended to investigate and then to extend the MII process to include FCAS
 - framework being put forward now would have detected the 2 events
- **2023 review (indicative):** end of 2023, after Oct implementation



Supporting analysis

- Analysed 5 years of large FCAS requirement data
- Only 1.47% of non-MII cases above 340 MW, 95% between 190-340 MW
- Outside of prolonged Market Suspension, **all time maximum of non-MII: 447 MW** on 14/09/2022
- Excluding Market Suspension (476MW) – not business as usual
- The proposed 450 MW threshold level appropriately balances the risk of false positives and inaccurate identification of MII.



Proposed approach

1. A uniform, 450 MW threshold is set for all NEM regions and FCAS markets.
2. Threshold is compared against FCAS requirement for TI.
3. If threshold is breached, TI is subject to review:
 - i. Market Notice: subject to review
 - ii. within 30 minutes AEMO control room accepts or rejects the price
 - iii. Market Notice: price unchanged or price adjustment

| FCAS market | MII trigger – FCAS requirement (MW) |
|---|-------------------------------------|
| Raise 6 sec (R6) | 450 |
| Raise 60 sec (R60) | 450 |
| Raise 5 min (R5) | 450 |
| Raise regulation (RREG) | 450 |
| Lower 6 sec (L6) | 450 |
| Lower 60 sec (L60) | 450 |
| Lower 5 min (L5) | 450 |
| Lower regulation (LREG) | 450 |
| Raise 1 sec (implement in October 2023) | 450 |
| Lower 1 sec (implement in October 2023) | 450 |

7. Procedures Consultation Roadmap

Procedures Consultation Roadmap

- Upcoming documents consultations for
 - In Flight Reform projects
 - Business as usual changes, including NER review requirements

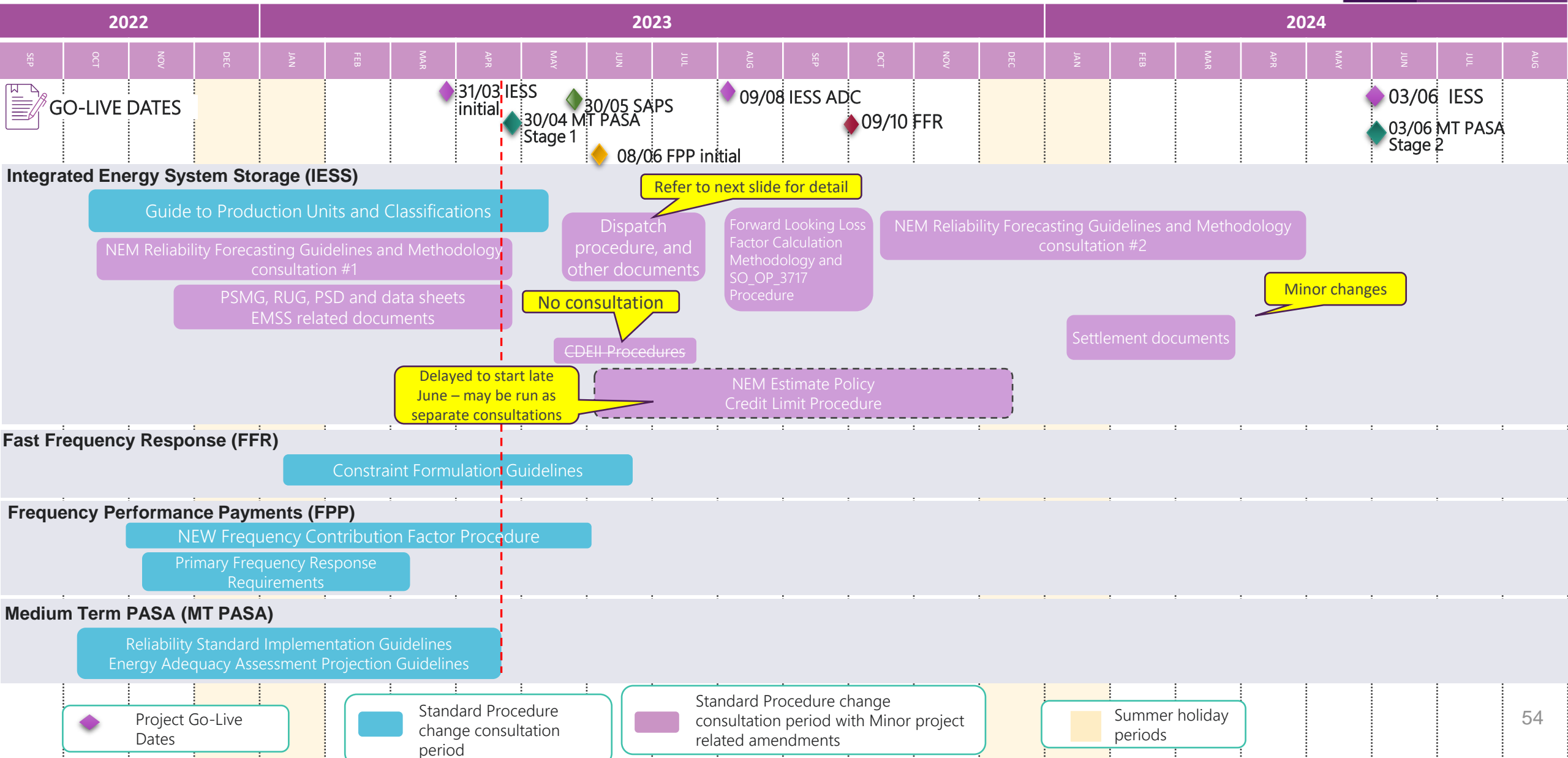
To show stakeholders what documents AEMO is planning to change

A tool to manage and plan timeframes for upcoming document changes

Awareness of what is changing and who it impacts within organisations

- “Library” of AEMO Procedures, Guides and documents

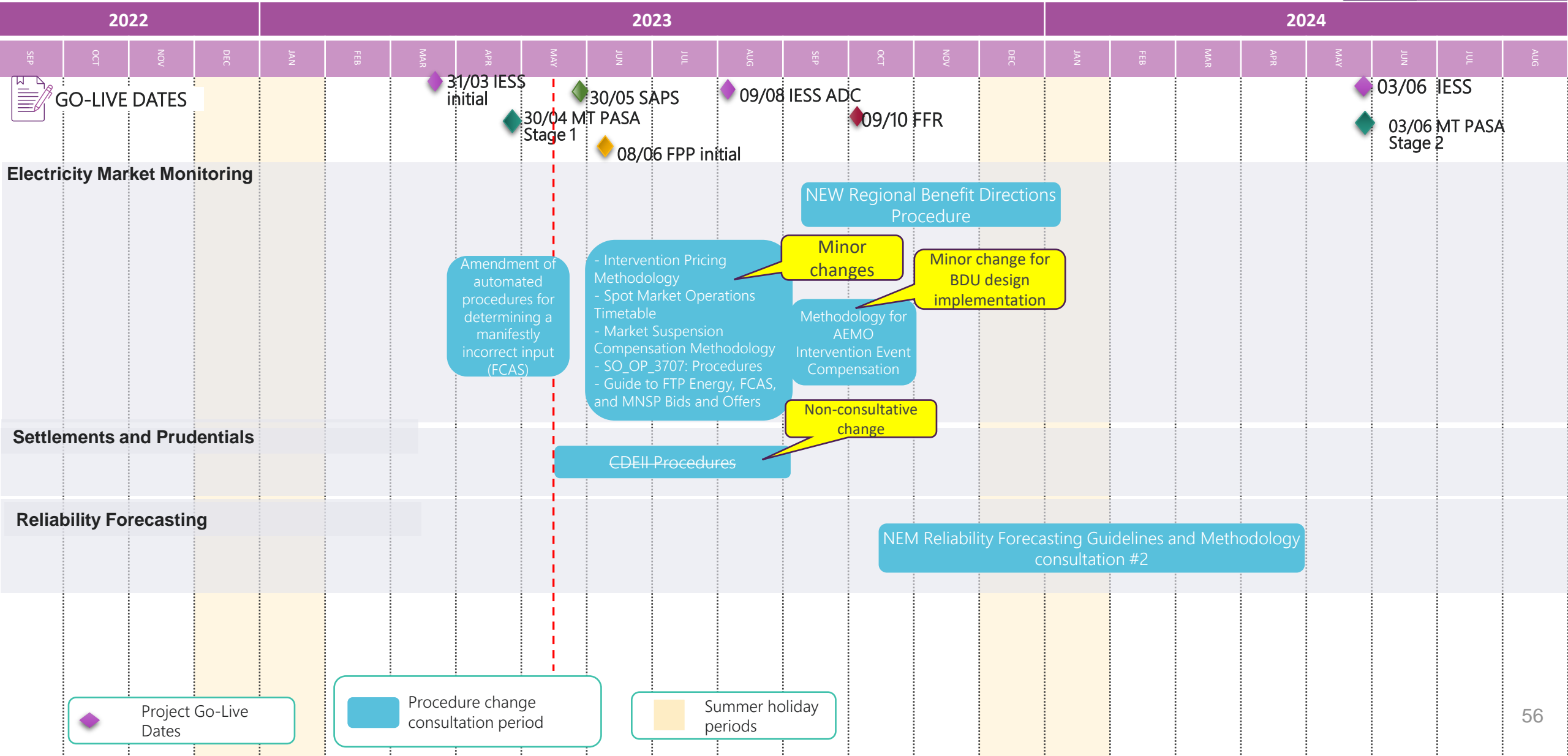
Reform Indicative Procedure Change Timeline



Document Changes Summary – Reform Projects

| In-flight projects | Consultation Type | Consultation | Key dates |
|--|--------------------------|--|--|
| Integrated Energy System Storage (IESS) | Standard | Guide to Registration Exemptions and Production Unit Classifications | Submission closed – 14 March 2023 Final report – mid-May 2023 |
| | Minor and administrative | Prudential documents | Consultation commencement – June 2023 |
| | Minor and administrative | Settlement documents | Consultation commencement – Jan 2024 |
| | Standard | Retail Procedures consultation | Draft report - 12 June 2023 Submissions close - 10 July 2023 |
| Fast Frequency Response (FFR) | Standard | Constraint Formulation Guidelines (CFG) | Submissions close - 12 April 2023 |
| | Standard | Constraint Implementation Guidelines (CIG) | Final report - 20 April 2023 |
| | Standard | Market Suspension Pricing Methodology (MSPM) | Final report - 2 March 2023 |
| Frequency Performance Payments (FPP) | Standard | Frequency Contribution Factors Procedure (NEW) | Final Procedure – 8 May 2023 |
| Enhancing Information in MTPASA | Standard | NEM Reliability Forecasting Guidelines and Methodology Consultation | Final determination and reports – 28 April 2023 |

AEMO BAU INDICATIVE Document Change Timeline



Non-consultative changes to documents (BAU)

- **Carbon Dioxide Equivalent Intensity Index (CDEII) Procedure**
 - Updated for 3 year review included CDEII values from 2022 ISP
 - Internal AEMO review concluded that the Procedure is applicable to existing CDEII processes and remains unchanged
- Information regarding the implementation of Bid Max Avail for semi-scheduled generators will be emailed via the “Operational Forecasting” mailing list.
 - If you are interested in joining this mailing list please email op.forecasting@aemo.com.au

8. Upcoming Engagements

Upcoming Engagements

MAY 2023

- RDC Collaborative Workshop: (3 May)
- PFRR: Final document published (4 May)
- FFR market start information session (8 May)
- PCF (10 May)
- All Stakeholder briefing / Information session on the NEM2025 Program (11 May)
- FFR Final Commencement Plan published (11 May)
- EWCF: (16 May)
- FPP: Final Frequency Contribution Factors Procedure published (18 May)
- ERCF: (22 May)
- RDC: (24 May)
- Industry Testing WG (25 May)
- Implementation Forum (30 May)

JUNE 2023

- PCF: (14 June)
- EWCF: (20 June)
- CFG: Final Guidelines published (22 June)
- ERCF: (26 June)
- Implementation Forum (27 June)
- Industry Testing WG: (29 June)

Q3 2023

- PCF (12 July)
- EWCF (18 July)
- ERCF (24 July)
- Implementation forum (25 July)
- Industry Testing WG (27 July)
- PCF (9 August)
- EWCF (15 August)
- ERCF (28 August)
- Implementation Forum (29 August)
- Industry Testing WG (31 August)
- PCF (13 September)
- EWCF (19 September)
- ERCF (25 September)
- Implementation forum (26 September)

Glossary

- FPP:** Frequency Performance Payments
- IESS:** Integrating Energy Storage Systems
- PCF:** Program Consultative Forum
- RDC:** Reform Delivery Committee
- EWCF:** Electricity Wholesale Consultative Forum
- ERCF:** Electricity Retail Consultative Forum
- CFG:** Constraints Formulation Guidelines
- PFRR:** Primary Frequency Response Requirements
- CIG:** Constraints Implementation Guidelines
- MSPM:** Market Suspension Pricing Methodology

Stakeholder enquiries and forum nominations may be sent to:

NEMReform@aemo.com.au

- To learn more about these events, please visit AEMO's [Industry meeting calendar](#) or contact the program at NEMReform@aemo.com.au.
- To learn more about AEMC calendar activities, please visit the [AEMC calendar](#).

Upcoming Engagements

| May | | | | | | |
|-----|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

| June | | | | | | |
|------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | | | 1 | 2 | 3 |
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| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | |

| July | | | | | | |
|------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
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| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

| August | | | | | | |
|--------|----|----|----|----|----|----|
| S | M | T | W | T | F | S |
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

| NEM Reform Program Forums |
|---|
| Program Consultative Forum |
| Reform Delivery Committee |
| Reform Delivery Committee - Collab W. |
| Implementation Forum |
| Electricity Wholesale Consultative Forum |
| Electricity Retail Consultative Forum |
| Industry Testing Working Group |
| AEMO Consumer Forum |
| Placeholder - Executive Forum |
| NEM Reform General Stakeholder Briefing & Implementation Roadmap Briefing |
| Initiative Specific Meetings |
| NEM Reform Foundational and Strategic initiatives |
| May Go-Live Criteria |
| Other |
| National Public Holiday |
| State/Territory Public Holiday |

To learn more about these events, please visit AEMO's [Industry meeting calendar](#) or contact the program at NEMReform@aemo.com.au.

9. General Questions & Other Business



NEMReform@aemo.com.au



[NEM Reform Electricity Wholesale Consultative Forum](#)



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.

Appendix B: Indicative NEM Reform Foundational and Strategic initiatives

Workshop Structure



SESSION 2:

| Dates | Purpose | Audience | Session Outline | Time [AEST] / Length | |
|---|--|--|--|--------------------------|--|
| SESSION 2: Discovery Workshops – IDAM and Portal Consolidation | | | | | |
| 17 April 2023 | Introduction: IDAM and PC | Technical and Business Focus Groups | <ul style="list-style-type: none"> • Introduction and Objectives – IDAM and PC • Recap on IDX Discovery (pain points) • AEMO view of IDAM/PC pain points from internal workshop • Workshop outline | 1:00 – 1:30pm (30 mins) | |
| | Technical Discovery Workshops: IDAM | Technical Focus Group – IDAM | <ul style="list-style-type: none"> • Mural board walk through • Industry pain points workshop • Industry benefits workshop | 1:30 – 3:00pm (1.5 hrs.) | |
| | Business Discovery Workshops: IDAM | Business Focus Group - IDAM | <ul style="list-style-type: none"> • Mural board walk through • Industry pain points workshop • Industry benefits workshop | 1:30 – 3:00pm (1.5 hrs.) | |
| | COFFEE BREAK 3:00 – 3:15PM | | | | |
| | Technical Discovery Workshops: PC | Technical Focus Group – PC | <ul style="list-style-type: none"> • Mural board walk through • Industry pain points workshop • Industry benefits workshop | 3:15 – 4:15pm (1 hr.) | |
| | Business Discovery Workshops: PC | Business Focus Group - PC | <ul style="list-style-type: none"> • Mural board walk through • Industry pain points workshop • Industry benefits workshop | 3:15 – 4:15pm (1 hr.) | |
| | Workshop Close | Technical and Business Focus Groups | <ul style="list-style-type: none"> • Summary • Next steps | 4:15 – 4:30pm (15 mins) | |

SESSION 3A:

| Dates | Purpose | Audience | Session Outline | Time [AEST] / Length | |
|---|--|---|---|----------------------------|--|
| SESSION 3A: Target State Proposal for Technical Focus Groups | | | | | |
| 15 May 2023 | Introduction | Technical Focus Groups – IDX, IDAM, PC | <ul style="list-style-type: none"> • Introduction • Workshop outline | 10:00 - 10:15am (15 mins) | |
| | Target State Proposal for IDX | Technical Focus Group - IDX | <ul style="list-style-type: none"> • Concept walkthrough • Recap on Discovery workshop outcomes • Proposed Target State models • Feedback | 10:15am – 12:15pm (2 hrs.) | |
| | LUNCH 12:15 – 1:30PM | | | | |
| | Target State Proposal for IDAM | Technical Focus Group – IDAM | <ul style="list-style-type: none"> • Concept walkthrough • Recap on Discovery workshop outcomes • Proposed Target State models • Feedback | 1:30 – 3:00pm (1.5 hrs.) | |
| | AFTERNOON TEA 3:00 – 3:15PM | | | | |
| | Target State Proposal for PC | Technical Focus Group - PC | <ul style="list-style-type: none"> • Concept walkthrough • Recap on Discovery workshop outcomes • Proposed Target State models • Feedback | 3:15 – 4:15pm (1 hr.) | |
| Session Close | Technical Focus Groups – IDX, IDAM, PC | <ul style="list-style-type: none"> • Summary • Next steps | 4:15 – 4:30pm (15 mins) | | |

SESSION 3B:

| Dates | Purpose | Audience | Session Outline | Time [AEST] / Length | |
|--|-----------------------------------|---------------------------------------|---|---------------------------|--|
| SESSION 3B: Target State Discussion for Business Focus Groups | | | | | |
| 22 May 2023 | Introduction | Business Focus Groups – IDX, IDAM, PC | <ul style="list-style-type: none"> • Introduction • Workshop outline | 1:00 – 1:15pm (15 mins) | |
| | Target State Discussion for IDX | Business Focus Group - IDX | <ul style="list-style-type: none"> • Concept walkthrough • Recap on Discovery workshop outcomes • Sample use cases – B2B, B2M, non-NEM • Feedback | 1:15 – 2:30pm (1.25 hrs.) | |
| | COFFEE BREAK 2:30 – 2:45PM | | | | |
| | Target State Discussion for IDAM | Business Focus Group – IDAM | <ul style="list-style-type: none"> • Concept walkthrough • Recap on Discovery workshop outcomes • Sample use cases – B2B, B2M, non-NEM • Feedback | 2:45 – 3:45pm (1 hr.) | |
| | Target State Discussion for PC | Business Focus Group – PC | <ul style="list-style-type: none"> • Concept walkthrough • Recap on Discovery workshop outcomes • Sample use cases – B2B, B2M, non-NEM • Feedback | 3:45 – 4:45pm (1 hr.) | |
| | Session Close | Business Focus Groups – IDX, IDAM, PC | <ul style="list-style-type: none"> • Summary • Next steps | 4:45 – 5:00pm (15 mins) | |

SESSION 4A:

| Dates | Purpose | Audience | Session Outline | Time [AEST] / Length | |
|---|--|---|---|-------------------------------|--|
| SESSION 4A: Transition Strategy for Technical Focus Groups | | | | | |
| 19 June 2023 | Introduction | Technical Focus Groups – IDX, IDAM, PC | <ul style="list-style-type: none"> Introduction and objectives Workshop outline | 10:00 – 10:15am (15 mins) | |
| | Transition Strategy, Impacts & Benefits – IDX and IDAM | Technical Focus Group – IDX Technical Focus Group – IDAM | IDX: <ul style="list-style-type: none"> Enabling progressive transition N -1 discussion Sunset timeframe discussion Propose principles for utilization IDAM: <ul style="list-style-type: none"> Aligned with IDX & PC take up Sunset timeframes Impacts & Benefits of IDX and IDAM initiatives – Technical view | 10:15am – 12:30pm (2.25 hrs.) | |
| | LUNCH 12:30 – 1:30PM | | | | |
| | Transition Strategy, Impacts & Benefits - PC | Technical Focus Group – PC | PC: <ul style="list-style-type: none"> Align to initiatives Sunset timeframes Impacts & Benefits of PC initiative – Technical view | 1:30 – 2:45pm (1.25 hrs..) | |
| Session Close | Technical Focus Groups – IDX, IDAM, PC | <ul style="list-style-type: none"> Summary Next steps | 2:45 – 3:00pm (15 mins) | | |

SESSION 4B:

| Dates | Purpose | Audience | Session Outline | Time [AEST] / Length |
|---|---|---|---|-------------------------|
| SESSION 4B: Transition Roadmap for Business Focus Groups | | | | |
| 26 June 2023 | Introduction | Business Focus Groups – IDX, IDAM, PC | <ul style="list-style-type: none"> • Introduction and objectives • Walkthrough of the principles for NEM2025 • Overview of the IDX, IDAM and PC Transition Roadmap | 1:00 – 1:30 (30 mins) |
| | Transition Roadmap, Impacts & Benefits – IDX and IDAM | Business Focus Group – IDX Business Focus Group – IDAM | <ul style="list-style-type: none"> • Present Roadmap for IDX and IDAM aligned to NEM2025 • Present Impacts and Benefits – Business view | 1:30 – 3:30pm (2 hrs.) |
| | COFFEE BREAK 3:30 – 3:45PM | | | |
| | Transition Roadmap, Impacts & Benefits – PC | Business Focus Group – PC | <ul style="list-style-type: none"> • Present Roadmap for PC aligned to NEM2025 • Present Impacts and Benefits – Business view | 3:45 – 4:45pm (1 hr.) |
| | Session Close | Business Focus Groups – IDX, IDAM, PC | <ul style="list-style-type: none"> • Summary • Next steps | 4:45 – 5:00pm (15 mins) |

SESSION 5:

| Dates | Purpose | Audience | Session Outline | Time [AEST] / Length |
|---|-----------------------------|--|--|-------------------------|
| SESSION 5: Conclusions and Business Case | | | | |
| 10 July 2023 | Conclusions & Business Case | Business Focus Groups – IDX, IDAM and PC | <ul style="list-style-type: none">• Introduction and re-cap of Sessions 3 and 4• Present key options – Incremental upgrade vs Early Transition• Recommendations and considerations• Session close | 1:00 – 3:00 pm (2 hrs.) |



For more information visit

aemo.com.au