

# IESS Working Group

Meeting 3

29 JUNE 2022



# 1. Welcome

We acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and culture.

**We pay respect to their Elders past, present and emerging.**

# Agenda

| # | Approx. Time | Topic  | Presenter/s           |
|---|--------------|--|-----------------------|
| 1 | 10:00-10:10  | Welcome  | Emily Brodie, AEMO    |
| 2 | 10:10-10:15  | Notes, actions and feedback from previous WG meeting | Ulrika Lindholm, AEMO |
| 3 | 10:15-10:25  | Project update                                       | Emily Brodie, AEMO    |
| 4 | 10:25-10:35  | Procedures update                                    | Gareth Morah, AEMO    |
| 5 | 10:35-10:45  | HLD/implementation strawperson update                | Carla Ziser, AEMO     |
| 6 | 10:45-11:00  | Introduction to IESS industry readiness              | Emily Brodie, AEMO    |
| 7 | 11:00-11:15  | Industry risks and issues register                   | Emily Brodie, AEMO    |
| 8 | 11:15-11:25  | Forward Plan   | Ulrika Lindholm, AEMO |
| 9 | 11:25-11:30  | General questions and close                          | Emily Brodie, AEMO    |

## Appendix A: Forum and Meeting Expectations and Competition Law Meeting Protocol

*Please note that this meeting will be recorded for the purpose of note taking, and not for publication.*

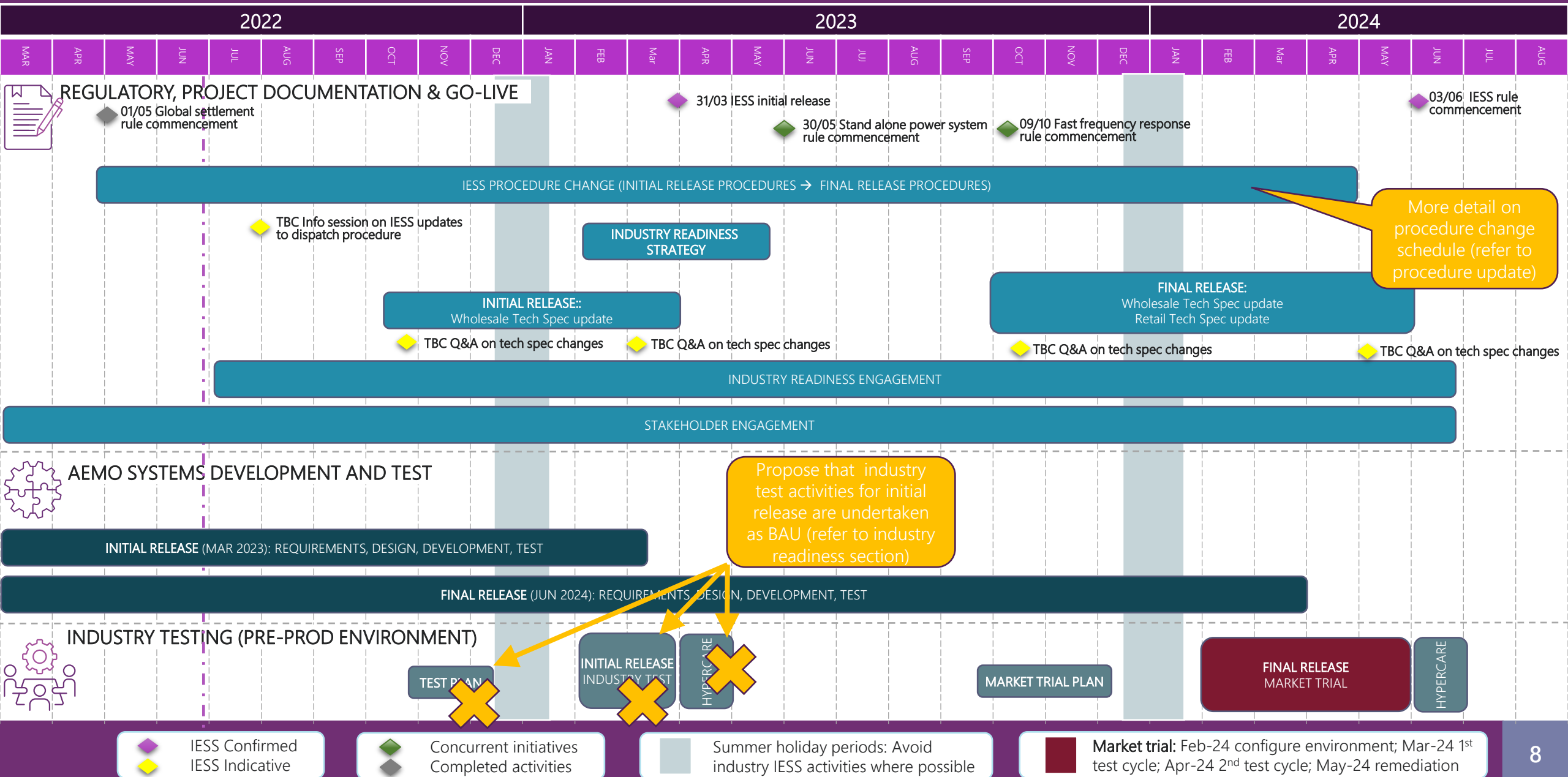
## 2. Notes, actions and feedback from previous WG meeting

# Notes, actions and feedback from previous WG meeting (25th May)

| Item # | Action   | Responsible | Status  |
|--------|--|-------------|---|
| 2.1    | IESS WG to provide feedback on the proposed approach to considering an IESS implementation amendments rule change. | WG members  | Closed. No feedback received.   |
| 2.2    | IESS WG to advise of any potential implementation amendments on an ongoing basis.                                  | WG members  | Standing item.  |
| 2.3    | AEMO to circulate the WDM HLD document for reference   | AEMO        | Closed. Circulated to WG on 31 May. <a href="#">Link to document.</a> |

# 3. Project update

# IESS – Indicative Industry Timeline





# 5. HLD/implementation strawperson update

# IESS – HLD/Strawperson

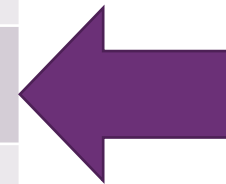
- HLD update will reflect changes since initial publication and stakeholder feedback
- Strawperson has been developed to align with the HLD and provide additional information on participant impact. It identifies:
  - Scope of changes for systems and procedures
  - Affected participants
  - Type and extent of impact to participant systems.
- The two documents aim to:
  - Guide participants through the scope of the changes
  - Allow participants to start planning on the likely system changes needed.

# Main IESS changes

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

# Consultation approach

| ACTION   | TIMING      | STATUS      |
|--|-------------|-------------|
| Publication of Draft High Level Design                           | 16 Dec 2021 | Complete    |
| Stakeholder Q&A Forum  | 4 Feb 2022  | Complete    |
| Written stakeholder feedback on Draft HLD                        | 12 Feb 2022 | Complete    |
| Engagement through the IESS Working Group                        | Ongoing     | In progress |
| Publication of Draft Implementation Strawperson and HLD update   | Early July  | Not started |
| Written stakeholder feedback on Draft Implementation Strawperson | 12 Aug 2022 | Not started |
| Publication of Final Implementation Strawperson                  | 1 Sep 2022  | In progress |



We are here

AEMO will release an issues paper on aggregated dispatch conformance in July, allowing stakeholders to provide collective feedback on the High Level Design, Strawperson and issues paper.

# 4. Procedures update

# Background

- Timelines not yet settled for:
  - Retail and B2B
  - Registrations (classifying a DC-coupled system as a Semi-Scheduled unit)
- Timelines reflect the recent rule change to the standard NER 8.9 consultation process
- All dates are indicative

# Important Dates

- Connections and Registrations:

| Connections                       |            |
|-----------------------------------|------------|
| Consultation Type                 | M&A        |
| Change marked procedure published | 1/11/2022  |
| Feedback Due                      | 15/11/2022 |
| Procedure Published               | 29/11/2022 |

Registration procedures TBD

# Important Dates (cont.)

- Operations and Dispatch

| Dispatch Procedure                |               |
|-----------------------------------|---------------|
| Consultation Type                 | Not required* |
| Change marked procedure published | 21/7/2022     |
| Feedback Due                      | 12/8/2022     |
| Procedure Published               | 1/9/2022      |

\*Information session planned for 1 week after publication of change marked procedure.



# Important Dates (cont.)

- Forecasting and Planning

| Operations Forecasting            |           |
|-----------------------------------|-----------|
| Consultation Type                 | M&A       |
| Change marked procedure published | 22/8/2022 |
| Feedback Due                      | 5/9/2022  |
| Procedure Published               | 19/9/2022 |

| Reliability & Operability Forecasting* |           |
|--|-----------|
| Consultation Type                      | M&A       |
| Change marked procedure published      | 7/8/2022  |
| Feedback Due                           | 21/8/2022 |
| Procedure Published                    | 4/9/2022  |

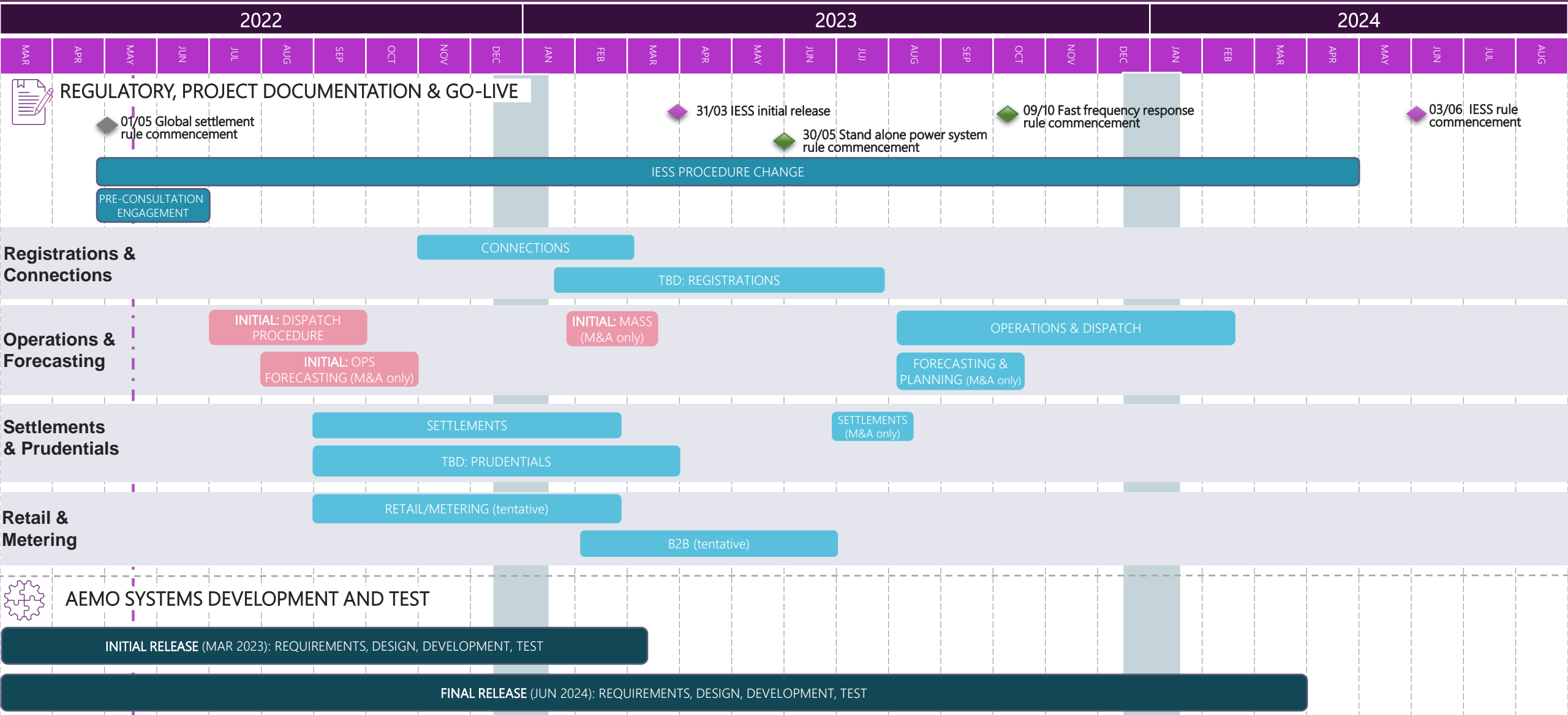
\*10 docs, some will be updated via standard annual review processes

# Important Dates (cont.)

- Settlements

| Carbon Dioxide Equivalent Intensity Index Procedures |            |
|--|------------|
| Consultation type                                    | Standard   |
| Issues paper published                               | 5/9/2022   |
| Submissions due                                      | 3/10/2022  |
| Draft determination published                        | 14/11/2022 |
| Submissions due                                      | 12/12/2022 |
| Final determination published                        | 20/12/2022 |

# IESS – *INDICATIVE* IESS procedure change timeline



- IESS Confirmed
- IESS Indicative
- Concurrent initiatives
- Completed activities
- Initial release
- Final release
- M&A only = areas that only have minor & administrative changes to procedures
- Summer holiday periods: Avoid industry IESS activities where possible

# 6. Introduction to IESS industry readiness

# Context

Main IESS changes canvassed above (slide 11)

|                              | Initial release 31-Mar-2023  | Final release 03-Jun-2024   |
|------------------------------|--|---|
| <b>Scope</b>                 | SGAs can provide FCAS; aggregated dispatch conformance for hybrids   | IRP registration; BDU classification; BDU bidding; new non-energy cost recovery settlement processes  |
| <b>AEMO's readiness</b>      | <i>Required by the release date</i>  | <i>Required by the release date</i>   |
| <b>Participant readiness</b> | <i>Optional participation any time from the release date</i>   | <i>Affected participants need to be ready for mandatory changes by the release date (or by the end of the grace period)</i>   |
| <b>Note</b>                  | <ul style="list-style-type: none"> <li>Participant numbers uncertain</li> <li>AEMO will monitor likely uptake for 'day one'</li> </ul> | <ul style="list-style-type: none"> <li>Participants may choose to update any customised reports at any time e.g. settlement reconciliation, dispatch analysis</li> <li>May need to consider aligning IESS readiness activities with other NEM 2025 program readiness activities.</li> </ul> |

# Proposed approach to IESS industry readiness

| Release                             | Approach  | Comments  |
|-------------------------------------|---|---|
| <b>Initial release</b><br>31-Mar-23 | No additional industry readiness support above BAU  | <ul style="list-style-type: none"> <li>• IESS initial release does not require cross-industry coordination</li> <li>• Optional participation, only AEMO needs to be ready</li> <li>• BAU processes (including supporting documentation and access to Pre-Production as appropriate) will be in place for:               <ul style="list-style-type: none"> <li>– SGAs participating in FCAS</li> <li>– Hybrid plant opting for aggregated dispatch conformance</li> </ul> </li> <li>• AEMO’s Support Hub is available for participants 24/7</li> <li>• AEMO will monitor participant activity in the lead up to the initial release. If there is an increase in readiness activity during this time, propose reviewing the industry readiness approach in consultation with the IESS WG.</li> </ul> |
| <b>Final release</b><br>03-Jun-24   | <ul style="list-style-type: none"> <li>• Develop <b>industry readiness strategy</b> in consultation with the IESS WG (Feb – May 2023)</li> <li>• Develop <b>market trial plan</b> (Sep – Dec 2023)</li> </ul> | <ul style="list-style-type: none"> <li>• BDU bidding and new settlement processes start on 03-Jun-24</li> <li>• Coordinated market trial needed to test new bidding and settlement processes</li> <li>• Supporting processes and documentation needed for:               <ul style="list-style-type: none"> <li>– Reclassification to BDUs</li> <li>– Transitioning market small generation aggregators to IRPs</li> </ul> </li> </ul>  |

# Discussion

- How appropriate is this proposed industry readiness approach?
- What changes would improve the approach?

Please provide **initial feedback** on the IESS industry readiness approach to [IESS@aemo.com.au](mailto:IESS@aemo.com.au) by Fri 15 Jul 2022.

Feedback will form part of a future IESS WG discussion on readiness, TBC later this year.

# 7. Industry risks and issue register



# Context

- As the IESS project moves deeper into implementation, risks and issues will emerge.
- The IESS industry risks and issues register is being introduced to effectively communicate, monitor and manage industry risks and issues.
  - This register is separate to AEMO's internal register for managing its own project risks.

# Proposed approach

| DATE                                    | ACTION   | RESPONSIBILITY |
|---|--|----------------|
| Wed 29 Jun 2022<br>(IESS WG meeting #3) | AEMO to develop for IESS WG’s consideration: <ul style="list-style-type: none"> <li>• Strawperson register (attached)</li> <li>• Proposed risk management regime (next slide)</li> </ul>                                   | AEMO           |
| Fri 15 Jul 2022                         | IESS WG to provide feedback on: <ul style="list-style-type: none"> <li>• Strawperson register</li> <li>• Proposed risk management regime</li> </ul>  | IESS WG        |
| At IESS WG meetings and as required     | AEMO to: <ul style="list-style-type: none"> <li>• Issue updated register that reflects feedback (where appropriate)</li> <li>• Manage register by monitoring and updating risks/issues for duration of project.</li> </ul> | AEMO           |

# Overview of draft register

Microsoft Excel interface showing the draft register content.

**1 IESS industry risks/issues registers (Updated monthly)**

**4 PURPOSE**

The IESS industry risks & issues register facilitates the monitoring and reporting of industry risks and issues identified within the project. This register contains 3 main tabs:

- **Overview** (this tab) – provides a brief introduction to the register. Version number is in the file name (month and year).
- **Industry Risk Register** – contains all IESS industry risks identified by stakeholders and AEMO through the IESS Working Group and other meetings.
- **Industry Issue Register** – contains all IESS industry issues identified by stakeholders and AEMO through the IESS Working Group and other meetings.

**8 RISK MATRIX**

| 1 LIKELIHOOD | Likelihood     | Probability | Qualitative Description                           | CONSEQUENCE    |            |        |          |          |          |
|--------------|----------------|-------------|---|----------------|------------|--------|----------|----------|----------|
|              | Almost Certain | >90%        | Will occur in most circumstances                  | LIKELIHOOD     | Immaterial | Minor  | Moderate | Major    | Extreme  |
| 12           | Likely         | 51% - 90%   | Can be expected to occur in most circumstances    | Almost Certain | Medium     | Medium | High     | Critical | Critical |
| 13           | Possible       | 11% - 50%   | May occur, but not expected in most circumstances | Likely         | Low        | Medium | High     | Critical | Critical |
| 14           | Unlikely       | 1% - 10%    | Conceivable, but unlikely to occur                | Possible       | Low        | Medium | High     | High     | Critical |
| 15           | Rare           | <1%         | Will only occur in exceptional circumstances      | Unlikely       | Low        | Low    | Medium   | Medium   | High     |
| 16           |                |             |   | Rare           | Low        | Low    | Medium   | Medium   | High     |

| 2 CONSEQUENCE | Consequence | Qualitative Description                 |
|---------------|-------------|---|
| 18            | Immaterial  | Minor issue of little concern           |
| 19            | Minor       | Isolated case, some small disruptions   |
| 20            | Moderate    | Requires attention, inconvenience       |
| 21            | Major       | Requires urgent attention, impact days  |
| 22            | Extreme     | Wide damage, lasting weeks, impact high |

| TREND KEY |                    |
|-----------|--------------------|
| ↑         | IMPROVING          |
| ↔         | NO CHANGE (STABLE) |
| ↓         | WORSENING          |

# Partial\* snapshot of draft register

\*Full draft IESS risks and issues register included as part of the meeting pack

| Integrating Energy Storage Systems (IESS) Industry Risks |         |   |   |                |            |             |             |             |            |  |            |         |   |                 |                      |        |      |
|--|---------|---|---|----------------|------------|-------------|-------------|-------------|------------|--|------------|---------|---|-----------------|----------------------|--------|------|
| Work Stream  | Title   | Description   | Category  | Date raised    | Likelihood | Consequence | Impact Date | Risk rating | Mitigation | Raised by  | Risk Owner | Actions | Residual likelihood   | Residual impact | Residual risk rating | Status |      |
| 1  | Program | AEMO business and operations not ready for initial IESS release on 31 March 2023      | If AEMO is not ready for the initial IESS release, then there may be a delay to:<br>- SGAs providing ancillary services<br>- Hybrid plant accessing aggregated dispatch conformance   | AEMO readiness | Jun-22     | Unlikely    | Moderate    | 31-Mar-22   | Medium     | AEMO has implemented a program management and reporting framework to monitor work stream deliverables.<br>If deliverables are at risk, AEMO to develop and discuss remediation plan with IESS WG.<br>AEMO to implement remediation plan. | AEMO       | AEMO    | AEMO and IESS WG to provide timely information on any potential delays<br>IESS WG to assess impact of delay to various participant types.<br>AEMO to regularly engage with and monitor stakeholder IESS intentions. | Rare            | Moderate             | Medium | Open |
| 2  | Program | AEMO business and operations not ready for final IESS release on 03 June 2024         | If AEMO is not ready for the initial IESS release, then there may be a delay to one or more of:<br>- BDU bidding<br>- BDU and Integrated Resource System (IRS) inclusion in forecasting processes<br>- settlement processes based on gross consumed or gross sent-out energy, including updated non-energy cost recovery<br>- IRP registrations and market fee recovery | AEMO readiness | Jun-22     | Unlikely    | Major       | 3-Jun-24    | Medium     | AEMO has implemented a program management and reporting framework to monitor work stream deliverables.<br>If deliverables are at risk, AEMO to develop and discuss remediation plan with IESS WG.<br>AEMO to implement remediation plan. | AEMO       | AEMO    | AEMO and IESS WG to provide timely information on any potential delays<br>IESS WG to assess impact of delay to various participant types.<br>AEMO to regularly engage with and monitor stakeholder IESS readiness.  | Rare            | Major                | Medium | Open |
| 3  | Testing | Not enough participants or participant types for market trial for final IESS release. | If there are too few participants or participant types ready to take part in market trials, then:<br>- Industry's ability to interact with AEMO's market systems may be inadequate during the industry market trial period.   | Testing        | Jun-22     | Unlikely    | Minor       | 3-Jun-24    | Low        | AEMO to regularly engage with and monitor stakeholder IESS interest in participating in market trials.   | AEMO       | AEMO    | AEMO to regularly engage with and monitor stakeholder IESS interest in participating in market trials.  | Rare            | Minor                | Low    | Open |

# Proposed IESS risk management regime

*Regular evaluation of risks and issues at IESS WG meetings (or out of session when necessary)*

| TIMING   | ACTIVITY   | RESPONSIBILITY |
|--|--|----------------|
| <p><b>Prior to monthly IESS WG meeting</b></p> | <p>AEMO to:</p> <ul style="list-style-type: none"> <li>• Seek feedback (internally and from IESS WG) on existing and new risks/issues</li> <li>• Consolidate and distribute marked up risk/issues register as part of meeting pack</li> </ul>  | <p>AEMO</p>    |
| <p><b>At monthly IESS WG meeting</b></p>       | <p>IESS WG to review and discuss by exception:</p> <ul style="list-style-type: none"> <li>• New or existing risks/issues that have been identified as requiring consideration</li> <li>• Current issues</li> <li>• “High” or “critical” risks:               <ul style="list-style-type: none"> <li>➤ Check probability and impact</li> <li>➤ Discuss additional mitigations</li> <li>➤ Discuss actions</li> </ul> </li> </ul> | <p>IESS WG</p> |
| <p><b>After monthly IESS WG meeting</b></p>    | <p>AEMO to:</p> <ul style="list-style-type: none"> <li>• Update to update register considering input from IESS WG</li> <li>• Post updated register on its website</li> </ul>   | <p>AEMO</p>    |

# Discussion

- How appropriate is this proposed risk management approach?
- What are the gaps?
- What changes would improve the approach?

Please provide **feedback** on this risk register and the risk management approach to [IESS@aemo.com.au](mailto:IESS@aemo.com.au) by Fri 15 Jul 2022.

# 8. Forward plan

# Forward plan – IESS Stakeholder engagement

|                       | JUNE 2022  | JULY 2022   | AUG 2022   | BEYOND   |
|-----------------------|--|---|--|--|
| Monthly meeting       | <ul style="list-style-type: none"> <li>✓ <u>Mthly meeting (today)</u></li> <li>• Draft implementation strawperson discussion</li> <li>• High level introduction to IESS industry readiness</li> <li>• Introduction to and discussion on IESS industry risks and issues register</li> </ul> | <p><u>Mthly meeting</u></p> <ul style="list-style-type: none"> <li>• Dispatch procedure</li> <li>• Discussion of potential scope and timing of rule change</li> </ul>   | <p><u>Mthly meeting</u></p> <ul style="list-style-type: none"> <li>• Debrief on ERCF discussion (if appropriate)</li> <li>• Potential discussion on procedure changes relating to settlement, prudentials, forecasting and planning</li> </ul>   | <p><u>Mthly meetings</u></p> <ul style="list-style-type: none"> <li>• Debrief on feedback received on Dispatch procedure and Implementation Strawperson</li> <li>• Ongoing procedure consultations</li> <li>• Discussion on approach to updating Technical Specifications</li> </ul> |
| Other IESS engagement | <ul style="list-style-type: none"> <li>• ✓ Continued early engagement on non-rules consultation on Dispatch procedure</li> </ul>   | <ul style="list-style-type: none"> <li>• HLD update &amp; Draft external strawperson published (late June/early July)</li> <li>• Dispatch procedure Issues Paper published (~21 July)</li> <li>• Dispatch procedure Stakeholder Information Session (~26 July)</li> <li>• Industry feedback on Strawperson register and proposed risk management regime (15 July)</li> <li>• Discussion on retail procedures to Electricity Retail Consultative Forum (ERCF)</li> <li>• Tentative: phone calls to WG members to understand initial thinking on readiness</li> </ul> | <ul style="list-style-type: none"> <li>• Forecasting and planning minor and administrative changes consultation begins</li> <li>• Industry feedback due on draft strawperson (12 August)</li> <li>• Industry feedback due on Dispatch procedure Issues Paper (12 August)</li> <li>• Tentative cont'd: phone calls to WG members to understand initial thinking on readiness</li> </ul> | <ul style="list-style-type: none"> <li>• Publish final strawperson (1 September)</li> <li>• Publish final Dispatch procedure (1 September)</li> <li>• IESS test plan development for initial release (October)</li> </ul>  |

**Stakeholder enquiries may be sent to the IESS mailbox:**  
[IESS@aemo.com.au](mailto:IESS@aemo.com.au)

**Legend**  
 Black text = stakeholders are invited to participate  
 Purple text = action by AEMO



# 9. General questions and close

# I ESS project contact



[iess@aemo.com.au](mailto:iess@aemo.com.au)



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



For more information visit

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

# Appendix A: Forum expectations and competition law



# 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 behaviour 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.