

## IESS Working Group

Meeting #6
28 September 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.





#	Approx. Time	Topic	Presenter/s
1	10:00 - 10:05	Welcome	Emily Brodie - AEMO
2	10:05 – 10:10	Notes, actions and feedback from previous WG meeting	Ulrika Lindholm - AEMO
3	10:10 - 10:15	Project Update	Emily Brodie - AEMO
4	10:15 - 10:20	Procedures Update	Nicole Nsair - AEMO
5	10:20 - 10:25	Debrief from Electricity Retailer Consultative Forum (ERCF)	Emily Brodie - AEMO
6	10:25 – 10:35	Industry readiness approach for initial release	Greg Minney - AEMO
7	10:35 – 10:50	Classification and exemption policy update	Carla Ziser - AEMO
8	10:50 - 10:55	IESS Risk and Issues Register update	Emily Brodie - AEMO
9	10:55 - 11:00	IESS Forward Plan	Ulrika Lindholm - AEMO
10	11:00 - 11:10	NEM2025 program mobilisation and opportunities to get involved	Ulrika Lindholm - AEMO
11	11:10 - 11:40	Q&A Aggregated Dispatch Conformance	Ross Gillett - AEMO
12	11:40 - 11:45	General questions and close	Emily Brodie - AEMO

**Appendix A: AEMO Competition Law & Meeting Protocol** 

**Appendix B: IESS Risk management approach** 

Please note: This meeting will be recorded for the purpose of compiling meeting minutes.



# 2. Notes, actions & feedback from previous IESS WG meeting



# Notes, actions & feedback from previous IESS WG meeting 31 August

#	Action	Responsible	Status
5.1	IESS WG members to review the new risk outlined on slide 23 of the August meeting pack and provide feedback on if it is characterised effectively and if members agree that it should be on the register. Members to email IESS@aemo.com.au with their feedback.	IESS Members	Closed. No feedback received at this time.



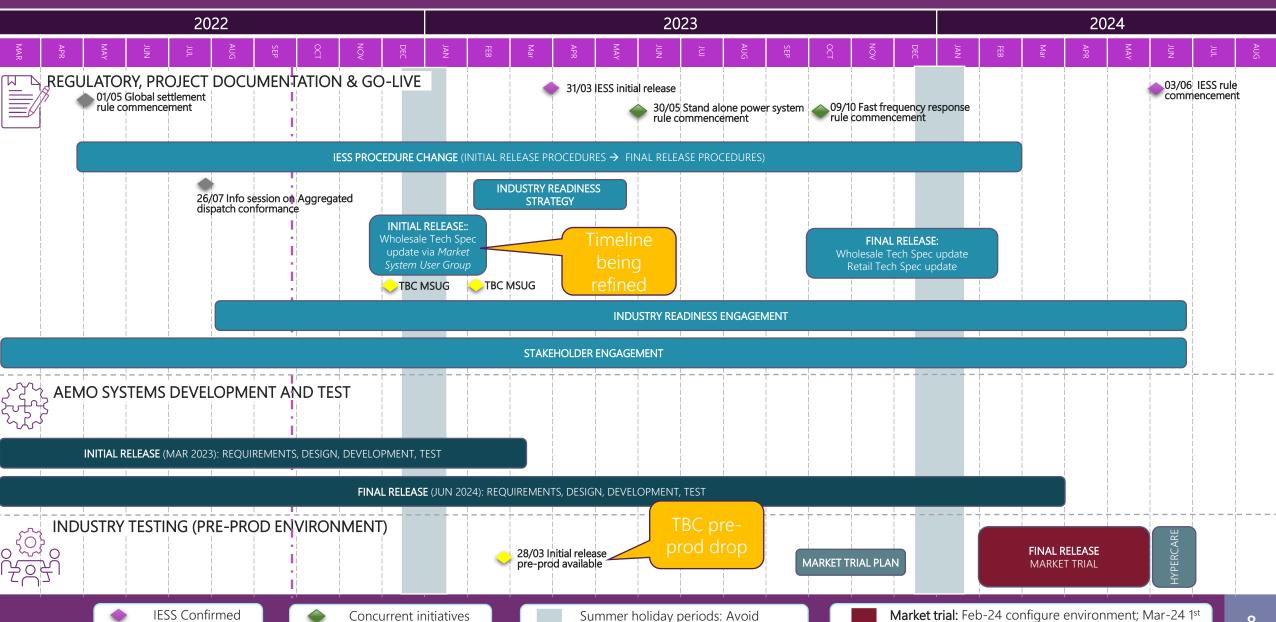
## 3. Project Update

## **IESS** – Indicative Industry Timeline

Completed activities

**IESS** Indicative





industry IESS activities where possible



## 4. Procedures Update

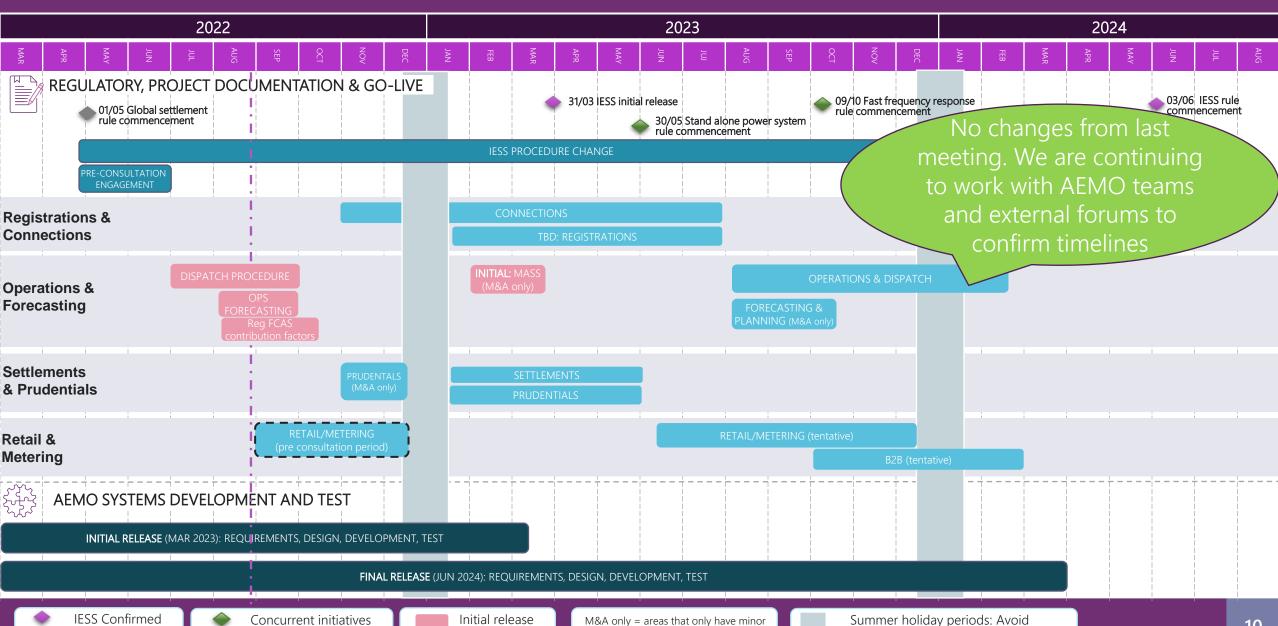
## IESS – INDICATIVE IESS procedure change timeline

Final release

**IESS** Indicative

Completed activities





& administrative changes to procedures

industry IESS activities where possible





### Consultation pages updated

- Dispatch Procedure
- Regulations FCAS Contribution Factors Procedure (Causer Pays)
- Operational Forecasting Documents

### Consultations closed

Inter-network Test Guidelines (closed 16 Sept, final to be published 3 Oct)

### Upcoming consultations (Q4 2022)

- Power system model Guidelines (mid-October 2022)
- Guide to Generator Exemptions and Classifications of Generating Units
- WDR Baseline Eligibility Compliance and Metrics Policy
- RRO PoLR Cost Procedures

Access the IESS web page for all document change timelines and consultation pages:

https://www.aemo.com.au/initiatives/major-programs/integrating-energy-storage-systems-project/integrating-energy-storage-systems-procedure-changes



# 5. Debrief from Electricity Retailer Consultative Forum (ERCF)





- AEMO engaged the ERCF on Wed 21 Sept 2022 regarding the potential Industry impacts associated to terminology changes related to the IESS Rule
- The rule makes extensive changes to NER Chapter 10 (Glossary), including:
  - · deleting existing defined terms (removing altogether or replacing with new terms)
  - introducing new defined terms
  - amending defined terms to reflect registration and classification changes and incorporate the new IRP
- AEMO sought to understand what, if any, of the terminology changes were likely to have a material impact for participants' systems and processes
  - For example, some terminology changes will have an impact for AEMO procedures (e.g. first-tier load, second-tier load) but may not have a large impact for Industry
  - Other changes will be minor from an AEMO procedure and system perspective but may have a material impact for Industry
- Examples of terminology changes relevant to the retail space were provided to the ERCF members
- AEMO noted that it is the responsibility of participants to ensure they check the rule themselves to understand any other terminology changes that may have an impact
- Note IRPs may become retailers and classify end user connection points (under the Market Customer label); Procedures
  will need to be reviewed and we will explore the implications of this as part of the consultation



# 6. Industry readiness approach for initial release





	Initial release 31-Mar-2023	Final release 03-Jun-2024
Scope	SGAs can provide FCAS; aggregated dispatch conformance for hybrids	<ul> <li>IRP registration</li> <li>BDU classification</li> <li>BDU bidding</li> <li>New non-energy cost recovery settlement processes</li> </ul>
AEMO's readiness	Required by the release date	Required by the release date
Participant readiness	Optional participation any time from the release date	Affected participants need to be ready for mandatory changes by the release date (or by the end of the grace period)
Note	<ul> <li>Participant numbers uncertain</li> <li>AEMO will monitor likely uptake for 'day one'</li> </ul>	<ul> <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>



## Readiness approach – initial release

- IESS initial release does not require cross-industry coordination
- Optional participation, only AEMO needs to be ready
- Consolidated view to be presented at October meeting

### **AEMO** progress reporting

- Reporting against established implementation milestones and solution readiness criteria, for example:
  - ✓ Procedures updated and published
  - ✓ Tech Specs for interface updates available
  - ✓ Completion of AEMO development and testing
  - ✓ Capability deployed to pre-prod for participant testing
  - ✓ Availability of registration processes and information to support participants' uptake of initial release capability

## Engagement with SGAs & aggregates

- To establish:
  - intention to adopt initial release capability
  - likely timing
- Publication of *Industry go-live plan to* communicate key AEMO and (if required) participant activities for the production implementation and activation of initial release capability.



# 7. Classification and exemption policy update



# Classification and exemption policy update

- AEMO intends to consult on the Guide to Generator Exemptions and Classifications of Generating Units in Q4 2022
- In preparation for this, AEMO have been looking at how the classification-related IESS Rule changes for will be implemented
- Today we'll step through a few of these proposed positions to:
  - Provide you with early insight of what's to come in the consultation paper
  - Take any early questions and/or feedback before we enter into the formal consultation





The transitional arrangements allow for **generating systems** to opt in to Aggregate Dispatch Conformance from 31 March 2023.

Eligible generating systems:

- comprise >= 1 scheduled resources;
- where AEMO gives separate dispatch instructions for each scheduled resource.

In the current IESS Rule, **only** Integrated Resource Systems are eligible for ADC after 3 June 2024 [4.9.2A(a)]. An IRS must have bidirectionality.

AEMO are working with the AEMC to ensure that generating systems eligible for ADC under the transitional arrangements continue to be eligible after 3 June 2024, by making a minor adjustment to the IESS Rule.

## **Eligible scheduled resources** scheduled generating unit semi-scheduled generating unit scheduled bidirectional unit scheduled load\*

<sup>\*</sup>system must also comprise at least one generating unit/bidirectional unit



## Threshold for scheduling obligations

- ➤ Under the current rules (2.2.2), scheduling obligations come in where generating units (or groups of) are above 30 MW.
- ➤ In making the IESS Rule, 2.2.2(a1) was added to clarify that BDUs above 5 MW capacity would become scheduled.
- ➤ The IESS Rule has some ambiguity around groups of production units that are greater than 30 MW, and are a combination of generating units and BDUs.

AEMO is proposing a minor rule amendment to remove this ambiguity and change 2.2.2(a) and 2.2.3(a) to refer to part of a group of 'production units' rather than 'generating units'.

AEMO is proposing that, where the total capacity of production units is ≥ 30 MW, the generating units are to be classified as scheduled/semischeduled.

The treatment of BDUs is not proposed to change.





Example 1	29 MW	3 MW
	Semi-scheduled	Non-scheduled
Example 2	35 MW	3 MW
	Semi-scheduled	Non-scheduled
Example 3	15 MW	15 MW
	Semi-scheduled	Scheduled



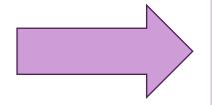
## Semi-scheduled DC-coupled units

In its Classification and Exemption guide, AEMO will clarify the conditions where DC-coupled units could be classified as semi-scheduled generating units.

These conditions have generally been set out in the IESS Rule. AEMO are proposing further specificity around non-intermittent capacity to avoid any possibility of detrimental impacts to operations.

#### **Under the IESS Rule:**

- A bidirectional unit that is a coupled production unit can be classified as a semi-scheduled generating unit if AEMO is satisfied that the output of <u>some or all generating plant comprised in the</u> <u>bidirectional unit is intermittent [2.2.7(c1)(1)].</u>
- Except for auxiliary load, the bidirectional unit will not consume electricity delivered from the national grid at the connection point for the bidirectional unit [2.2.7(c1)(2)].
- Maximum registered capacity for the semischeduled generating unit is limited to the intermittent capacity [2.2.7(c3)].



AEMO Pror	posed terms for 2.2.7	(c1)	(1)
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The non-intermittent capacity must be less than 5 MW

- Agreed with AEMC in Final Determination.
- Aligns with scheduling requirements for BDUs in an IRS.

The non-intermittent capacity must be less than 2.5% of the intermittent capacity, unless the participant commits to providing a self-forecast for dispatch purposes.

- 2.5% reflects the average dispatch error of intermittent capacity in the NEM.
- Required to avoid a detrimental impact on AEMO's operations.



# Engagement for the Classification and exemption policy update

- Given the updates will be broad and numerous, AEMO are keen to engage effectively when updating this guide
- Proposed engagement options:
  - Information session
  - Presentation to peak industry bodies (CEC)
  - 1 to 1 meetings as required
  - Written feedback

Do these engagement options give industry appropriate opportunity to digest the information paper and ask questions and provide feedback?



## 8. IESS Risk and Issues Register



## IESS Risk and Issues Register: Items for discussion September 2022

Category	Comment
New risks/issues	
Existing risks/issues for consideration	None identified by IESS Working Group or AEMO
Current issues	
Risks with 'high' or 'critical' rating	

- Updated risk register:
  - Distributed with this slide pack
  - Published on the <u>IESS Working Group page</u>

Please raise proposed changes to the risk register at any time via <a href="mailto:iess@aemo.com.au">iess@aemo.com.au</a>



## 9. IESS Forward Plan

## Forward plan – IESS Stakeholder engagement



	SEP 2022	OCT 2022	NOV 2022	BEYOND	Stakeholder may be sen
Monthly meeting	<ul> <li>Mthly meeting</li> <li>Debrief on ERCF discussion on Retail &amp; Metering</li> </ul>	Mthly meeting  Debrief on feedback received on procedure consultations  Debrief on B2B WG discussion (if appropriate)	Mthly meeting  Debrief on feedback received on procedure consultations  Discussion on approach to updating Technical Specifications  Debrief on B2B WG discussion (if appropriate)	Mthly meetings  Ongoing procedure consultations	mailbox: IESS@aemo
Other IESS engagement	<ul> <li>Industry feedback deadline closed for Operational forecasting changes (2 September)</li> <li>M&amp;A consultation completed on Internetwork test guidelines (5-16 September)</li> <li>Publish final strawperson and Dispatch procedure (14 September)</li> <li>Publish final Regulation FCAS Contribution Factors Procedure (14 September)</li> <li>Publish final operational forecasting documents (19 September)</li> <li>Discussion on Business to Business procedures at the B2B Working Group (late September)</li> <li>Early discussions on retail and metering procedures through ERCF (21 September)</li> </ul>	Ongoing 1to1s readiness conversations with WG members and broader industry	Standard Consultation commences on Guide to Generator Exemptions and Classifications of Generating Units (timing TBC)  M&A consultations on  Wholesale Demand Response Baseline Eligibility Compliance and Metrics Policy (timing TBC)  Retailer Reliability Obligation – Procurer of Last Resort Cost Procedures (timing TBC)  Ongoing 1to1s readiness conversations with WG members and broader industry	<ul> <li>Discussion on Technical Specifications at Market System User Group</li> <li>Consultation on Carbon Dioxide Equivalent Intensity Index Procedures (Q1 2023)</li> </ul>	<ul> <li>Standing as monthly m</li> <li>Notes, action feedback from WG meeting</li> <li>Project upda</li> <li>Procedures u</li> <li>Industry Risk register</li> <li>Forward Plan</li> </ul>

ler enquiries ent to the IESS

no.com.au

### genda neetings

- ns and om previous
- update
- k and Issues
- n (this page)

Black text = stakeholders are invited to participate

members

1to1s readiness conversations with WG

Purple text = action by AEMO



# 10. NEM2025 program mobilization and opportunities to get involved

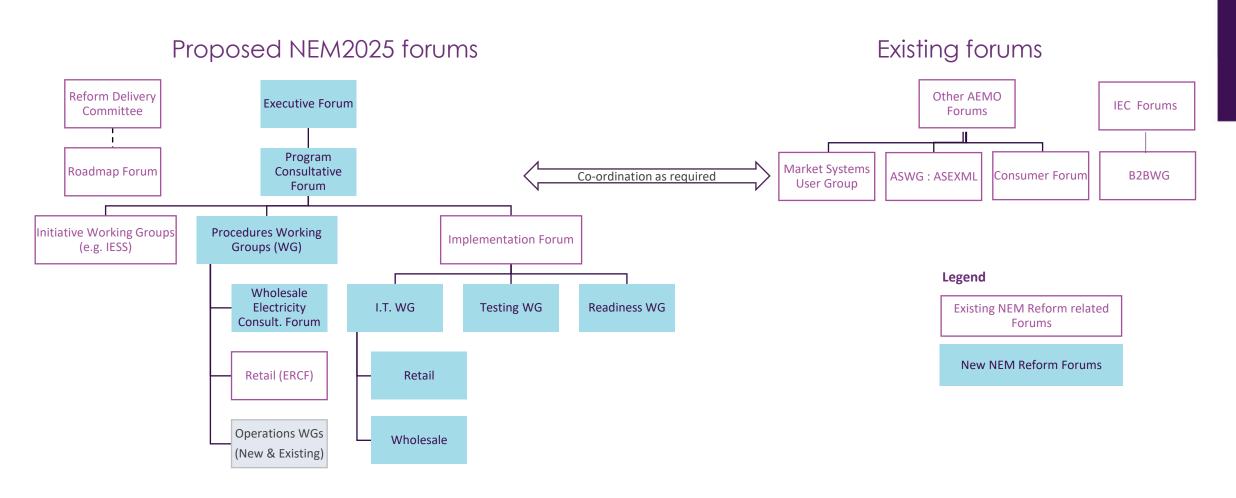




- AEMO's co-ordination of reform implementation over the coming years spans multiple initiatives and implementation timeframes, as reflected in the <u>NEM Reform Implementation Roadmap</u>.
- Given the in-flight initiatives with Final Rules Determination status, and more landing shortly, it is timely stand up the engagement structures required for co-ordination.
  - The Reform Delivery Committee maintains the Roadmap and provide strategic advice on its development.
  - AEMO will reintroduce a Program Consultative Forum (PCF) and Executive Forum to provide over-arching engagement across reform implementation.
  - Initiative specific working groups such as the IESS Working Group will continue to be established to consult on high level design. These working groups will transition into procedures and implementation forums as initiatives enter execution stage.
  - Consideration being given to establishment of Procedures WG for co-ordinated consultation, with sub-groups on Wholesale, Retail and Operations.
  - Existing Implementation Forum will continue to focus on detail implementation requirements including testing, technical implementation.
- Proposed forum and working group structure (overpage) to be tabled at the first PCF meeting on 5
   October.



# Proposed NEM Reform Implementation Forum and working group structure







### Program Consultative Forum

### **Objective:**

 To collaborate with participants and intending participants on matters relating to the planning, coordination and implementation of the NEM2025 Program.

#### Cadence:

Monthly

#### Forum kick-off:

5 October

### Membership

Open for nominations from stakeholders.

#### **Executive Forum**

### **Objective:**

 To provide a channel to facilitate engagement between AEMO and executive-level representatives from market bodies, market participants and consumer groups on matters relating to the implementation of the NEM2025 Program.

#### Cadence:

Six monthly

#### Forum kick-off:

TBC

### Membership:

Open for nominations from stakeholders.



# Participant Consideration for Forum Membership

### PCF:

- Project Director or Senior Business Sponsor role with broad reform implementation focus
- Understand that some Participants may not group all reforms under single program
- Implementation focus rather than regulatory engagement.

#### **Executive Forum:**

Senior executives with business ownership responsibilities.

### Implementation Forum (existing forum):

- Project Manager / release business owner
- Consideration of initiative readiness and implementation progress
- Expect membership to vary for some participants based on initiative impacts.
- Approach has been communicated at several other AEMO forums, please co-ordinate membership registrations within your organisation.
- Nominations received through <u>NEM2025@aemo.com.au</u> with initial meeting on 5<sup>th</sup> October.



# 11. Q&A Aggregated Dispatch Conformance

## ADC FAQ (1)



#	QUESTION	EXAMPLE		
1	Why does an aggregate containing a	Targets (MW):	BESS = 100	SF = 100
	scheduled BESS have to be a Target aggregate?  Scheduled units currently conform with a target to support power system	<ul> <li>During the trading interval, SF output reduces below its forecast to 50 MW due to cloud cover</li> <li>If the BESS meets its individual target of 100 MW (rather than increasing above its target to 150 MW to firm the SF over-forecast), then:</li> </ul>		
	security and reliability. In implementing ADC, AEMO is maintaining this	Aggregate Error under ADC		
	reasoning for scheduled generating units and scheduled loads i.e. an aggregate containing one or more scheduled units must adhere to a target.	= (SF target + BESS target) - (SF a = (100 + 100) - (50 + 100) = 50 MW under-target error AEMO will report aggregate non		continues
		Individual Errors under individual conformance		
	grid	SF Error  = SF target - SF actual  = (100 - 50)  = 50 MW under-target	BESS Err = BESS ta = (100 - 1 = 0	arget - BESS actual
		Ignore because semi-scheduled	On target	t, OK
		How does AEMO (and the individual unit monitoring		





#	QUESTION	RESPONSE
2	Why can't an aggregate with a scheduled BESS be treated as a Cap aggregate for conformance monitoring purposes?	<ul> <li>AEMO cannot simply stop monitoring for aggregate under-target error as a Cap aggregate because this would incorrectly treat the whole system as a semi-scheduled generating unit.</li> <li>This is not appropriate when only the scheduled BESS is available (no wind, or solar overnight) and causes a risk to power system security if the BESS is allowed to consistently under-dispatch without being monitored</li> </ul>
3	Why does an aggregate containing a scheduled load have to be a Target aggregate?	<ul> <li>Similar to Q1 above</li> <li>Scheduled units currently conform with a target to support power system security and reliability. In implementing ADC, AEMO is maintaining this reasoning for scheduled loads and scheduled generating units i.e. an aggregate containing one or more scheduled units must adhere to a target.</li> </ul>





#	QUESTION	RESPONSE
4	Do I need to apply for a NER 5.3.9 alteration if I add a BESS to my existing VRE generating system?	Yes, the AEMC considered this in its <u>IESS final determination</u> :  "Where an existing Generator wants to add a battery to its generating system (whether through having a separate inverter or creating a DC-coupled system) it will be changing the characteristics and technical capability of its system. The final rule maintains the existing arrangement where this type of activity would trigger NER clause 5.3.9, which is the procedure to be followed by a Generator proposing to alter a generating system. This issue is being considered as part of the Connection Reform Initiative, jointly sponsored by AEMO and the Clean Energy Council."
5	Do I need to apply for a NER 5.3.9 alteration if I opt into ADC and it requires further control system changes?	AEMO is currently determining whether the NER 5.3.9. process is appropriate. We are exploring different options with stakeholders and expect to form a view in due course.



## 'Dynamic' aggregated dispatch conformance

## **Industry feedback**

- Some participants have stated a preference for 'dynamic' ADC
- For example, for a VRE/BESS (target) aggregate:
  - Opt-in to ADC when excess VRE can charge BESS instead of being spilled (subject to any individual conformance requirement by AEMO)
  - Opt-out of ADC when VRE firming from BESS is at sub-optimal time, conformance is only on an individual unit basis





#### What it could look like

- Automated and 'self-serve' option for participants to frequently opt in and out of ADC
- Changes subject to a gate closure and minimum mode time, to support efficient forecasting and dispatch operations

#### **Considerations**

- Introduces complexity into control systems for both participants and AEMO, particularly Automatic Generation Control (AGC)
- Must be consistent with AEMO and AER being able to effectively monitor dispatch conformance



## 'Dynamic' aggregated dispatch conformance

#### **Approach**

- Implement 'static' ADC rather than dynamic for the IESS Rule deadline (31 Mar 2023) because:
  - Dynamic ADC is much more complex, and would therefore require more time and resources to implement
  - Unable to appropriately assess the power system security implications of dynamic ADC before the March 2023 deadline
- However, given the potential market and system benefits, industry and AEMO to consider introducing a form of dynamic ADC outside of the IESS project

### **Timeline**



IESS PROJECT 31 Mar 2023

• 'Static' ADC introduced and supported.

WHOLESALE CONSULTATIVE FORUM (or similar)

Ongoing from Apr 2023

#### Participants & AEMO to:

- Gain experience with 'static' ADC, before considering the 'dynamic' approach
- Consider 'dynamic' ADC:
  - Objectives
  - Principles
  - NER, market procedure & system design implications
  - Relative priority for the industry
  - Implementation





#### 'Static' ADC readiness

- AEMO is assessing the necessary technical assessments for an existing aggregate opting in to ADC
  - Includes consideration of whether the level of change required to participant systems is significant enough to trigger a NER 5.3.9 or S5.2.2 process.
- Initially, ADC is designed as a 'static' choice.
- AEMO is reaching out to existing aggregates to understand extent and timing of ADC opt-in.

#### Path to dynamic ADC

- Participants to provide use cases and any other relevant feedback on 'dynamic' ADC via iess@aemo.com.au
- Wholesale Consultative Forum (or similar) to establish process for considering 'dynamic' ADC and its priority in relation to other industry reforms.



## Refresher: 'static' ADC

- ADC registration
- Transitions for existing batteries
- Technical characteristics that might require individual unit dispatch

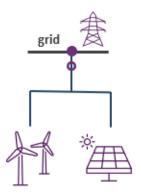


### **ADC** registration

- Participant can apply to AEMO to opt into ADC for nominated DUIDs as part of registration (static NOT dynamic).
- AEMO determines whether that Aggregate System is a Cap Aggregate or Target Aggregate

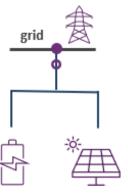
#### Cap aggregate

 Generating system behind a connection point with semi-scheduled generating units only



#### **Target aggregate**

 Generating system behind a connection point with one or more scheduled generating units (such as a scheduled battery gen/load) and may include other schedule loads







Timing	Transition activities
From 31 Mar 2023	<ul> <li>For all two-DUID scheduled batteries, AEMO will apply ADC linkage to DUIDs, to allow conformance monitoring to occur:</li> <li>Currently, battery DUIDs registered for FCAS Regulation are suspended in AEMO's Conformance Monitor</li> <li>ADC linkage will allow AEMO's updated Conformance Monitor to monitor dispatch conformance for these batteries</li> <li>AEMO will not require participant to make any system changes         <ul> <li>A exception might be for participants to interface with the updated DISPATCH_UNIT_CONFORMANCE report with:</li> <li>Additional aggregate error record</li> <li>Declarations of aggregate non-conformance</li> </ul> </li> </ul>
From 03 Jun 2024	<ul> <li>All two-DUID scheduled batteries (capable of linearly transitioning from consuming to producing electricity) will transition to the single DUID BDU model</li> <li>AEMO's updated Conformance Monitor will automatically transition from the two-DUID model (with ADC linkage) to the single DUID model</li> </ul>



# Technical characteristics that might require individual unit dispatch conformance

Characteristics	Description				
Network Support	Constraint to ensure delivery of a network support and control				
	ancillary service under a network support agreement				
Quality of Supply	Limits to manage voltage unbalance, negative sequence voltage,				
	harmonics, flicker or voltage step changes				
System Strength	System strength limit				
Transient Stability	Transient stability limit for a fault on a network element				
Voltage Stability	Steady state voltage collapse or voltage stability limit				



### 12. General Questions & Close



### IESS project contact



iess@aemo.com.au



https://aemo.com.au/initiatives/majorprograms/integrating-energy-storage-systems-project



For more information visit

aemo.com.au



# Appendix A: AEMO Competition Law & Meeting Protocol



## AEMO Competition Law & Meeting Protocol

AEMO is committed to complying with all applicable laws, including the Competition and Consumer Act 2010 (CCA). In any dealings with AEMO 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.



## Appendix B: IESS Risk management approach





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

TIMING	ACTIVITY	RESPONSIBILITY
Prior to monthly IESS WG meeting	<ul> <li>AEMO to:</li> <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>	AEMO
At monthly IESS WG meeting	<ul> <li>IESS WG to review and discuss by exception:</li> <li>New or existing risks/issues that have been identified as requiring consideration</li> <li>Current issues</li> <li>"High" or "critical" risks:</li> <li>➤ Check probability and impact</li> <li>➤ Discuss additional mitigations</li> <li>➤ Discuss actions</li> </ul>	IESS WG
After monthly IESS WG meeting	<ul> <li>AEMO to:</li> <li>Update register considering input from IESS WG</li> <li>Post updated register on its website</li> </ul>	AEMO





ISK MATRIX				•		,			
Likelihood	Probability	Qualitative Description			CONSEQUENCE				
Almost Certain Likely Possible	>90%	Will occur in most circumstances		LIKELIHOOD	Immaterial	Minor	Moderate	Major	Extreme
Likely	51% - 90%	Can be expected to occur in most circumstances		<b>Almost Certain</b>	Medium	Medium	High	Critical	Critical
Possible	11% - 50%	May occur, but not expected in most circumstances		Likely	Low	Medium	High	Critical	Critical
Unlikely	1% - 10%	Conceivable, but unlikely to occur		Possible	Low	Medium	High	High	Critical
Rare	<1%	Will only occur in exceptional circumstances		Unlikely	Low	Low	Medium	Medium	High
				Rare	Low	Low	Medium	Medium	High
Consequence	Qualitative Description								
Immaterial Minor Moderate Major	Minor issue of little concern			TREND KEY					
Minor	Isolated case, some small disruptions								
Moderate	Requires attention, inconvenience		<b>†</b>	IMPROVING					
Major	Requires urgent attention, impact days		<b>↔</b>	NO CHANGE (STABLE)					
Extreme	Wide damage, lasting weeks, impact high		Ţ	WORSENING					