

IESS Metering Service Providers information session

Integrating Energy Storage Systems
Thursday 15 February 2024





Welcome

Ulrika Lindholm



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.

Meeting objectives

Provide metering service providers (MSPs) with:

- An overview of the IESS rule and implementation
- Specific information on the IESS changes that impact MSPs:
 - Changes to NMI classification codes
 - Activities and timing for cutting over grid-scale batteries from two NMIs to one NMI
 - Identifying Small Resource Aggregators.

AGENDA

#	Timing (AEST)	Topic	Presenters
1	10:00-10:05am	Welcome	Ulrika Lindholm
2	10:05-10:10am	Context <ul style="list-style-type: none">• IESS timeline• Overview of changes	Emily Brodie
3	10:10-10:15am	Changes to NMI Classification Codes under IESS and DGENRATR	Rosie Elkins
4	10:15-10:30am	Supporting grid-scale BESS to cutover to ‘bidirectional’ operations	Alice Michener
5	10:30-10:35am	Identification of Small Resource Aggregators	Rosie Elkins / Paul Lyttle
6	10:35-10:40am	Industry transition and readiness for IESS	Emily Brodie
7	10:40-11:00am	Questions and close	Ulrika Lindholm

Appendix

A	IESS glossary
B	AEMO competition law meeting protocol
C	NMI cutover: further information

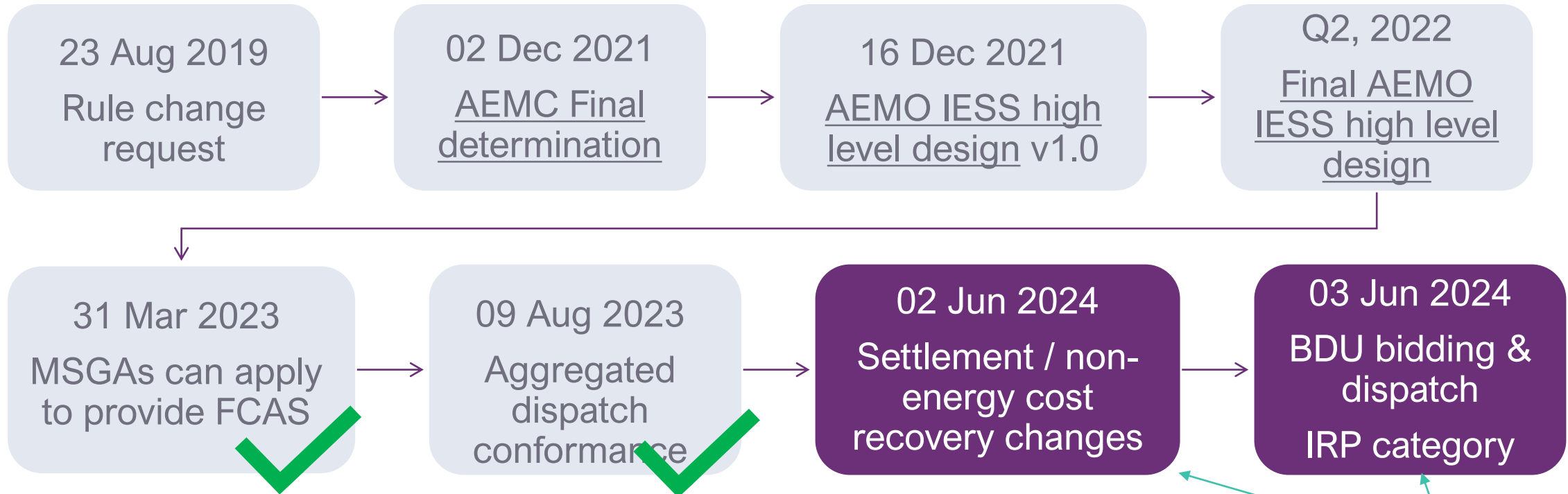
"Please note that this meeting will be recorded by AEMO and may be accessed and used by AEMO for the purpose of compiling minutes. By attending the meeting, you consent to AEMO recording the meeting and using the record for this purpose. No other recording of the meeting is permitted"

Context

Emily Brodie



BACKGROUND: IESS high-level Timeline



MSGA	Market small generation aggregator
FCAS	Frequency control ancillary service/s
IRP	Integrated resource provider
BDU	Bidirectional unit

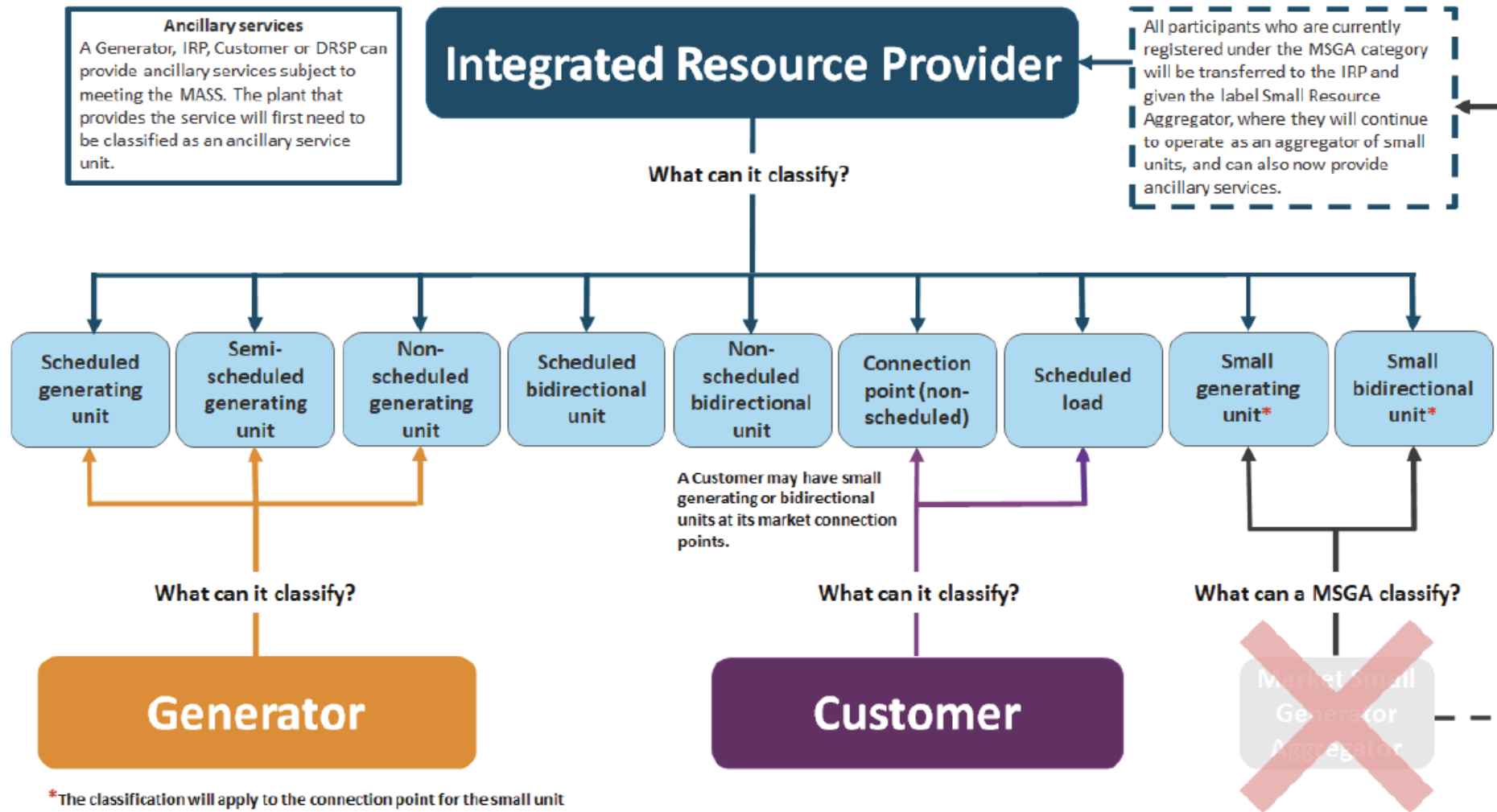
- REFERENCES**
- [AEMC IESS rule change](#)
 - [AEMC Implementing IESS rule change](#)
 - [AEMO IESS High Level Design and Implementation Strawperson](#)
 - [AEMO IESS Participant Toolbox](#)

Focus of this session

Changes introduced by the IESS rule

IMPLEMENTATION DATE	CHANGE	DESCRIPTION
Sun 02 Jun 2024	IESS retail & settlement changes	<p>Significant changes to the calculation method to be used for Non-Energy Cost Recovery (NECR):</p> <ul style="list-style-type: none"> • Recovery calculations are to consider the gross (consumption separate from generation) energy amounts of all participants, rather than current approach using net energy (generation – consumption) of specific participant types • Major settlements database structure changes are required to enable the new calculations, these changes will flow into the Data Model and affect: <ul style="list-style-type: none"> – Participant reconciliation and reporting activities – AEMO data provision – Embedded network management changes to ensure that the parent has the appropriate gross energy volumes available for settlement.
Sun 02 Jun 2024 (SGAs) On and from Mon 03 Jun 2024 (other)	Registration changes	<p>Introduction of Integrated Resource Provider (IRP) participant type for:</p> <ul style="list-style-type: none"> • IRS Participants (mainly BESS participants) • Small Generator Aggregators • Participants with pumped hydro
Mon 03 Jun 2024	Bidding & dispatch changes	Bidirectional unit (BDU) bidding and dispatch, with impacts for BDU participants and bidding system vendors/developers.

AEMC final rule – IRP classifications



IESS high-level impacts to MSPs: Retail & metering

PARTICIPANT TYPE	STANDING DATA	METER DATA INTERFACES / FORMAT	B2M INTERFACES	ENERGY PROFILING & AGGREGATION	ENERGY ALLOCATION	RM REPORTS
Metering Co-ordinator	X					
DNSP	X					
TNSP	X					
Accredited Embedded Network Managers	X					
Accredited Metering Data Providers	X					
Accredited Metering Providers, Cat A & B	X					

NOTE: AEMO has **not identified any participant impacts** in the following operational components / applications:

- METER DATA INTERFACES / FORMAT
- B2B INTERACTION
- aseXML – no schema change
- MSATS BROWSER – will only see new/amended NCCs in existing fields

For more details, see also [IESS participant impact assessment](#)

IESS high-level impacts to MSPs

Following sections will provide more detail of each impact to MSPs and how / when these changes will be implemented.

NMI classification code changes

- 3 new NCCs and 2 amended NCCs
- AEMO consulted on necessary NCC changes via the [IESS Retail Electricity Market Procedures](#) consultation

DGENERATR NCC transition

- To distinguish distribution-connected generators from transmission-connected generators so can correctly allocate UFE.
- See also [NCC transition plan](#)

TIRS/DIRS NCC transition (BDU cutover)

- BESS will move from 2 NMIs (gen/load) to 1 NMI (bidirectional)
- See also [BDU transition and cutover plan](#)

Identifying small resource aggregators

- New IRP category can classify a range of different resources/connection points
- SGAs will become IRPs that are able to classify *small bi-directional units* and *small generating units*
- AEMO is considering re-purposing the MSATS 'Role Category' field to enable IRP and SRA identification.

Changes to NMI Classification Codes under IESS



Rosie Elkins



CONTEXT

- [IESS rule](#) requires AEMO to distinguish distribution-connected generators from transmission-connected generators for the purpose of correctly allocating unaccounted for energy (UFE).
- [AEMO’s IESS implementation program](#) has entered the industry readiness phase of the project. This session is specific to the NMI Classification Code (NCC) changes needed for IESS industry readiness.
- AEMO consulted on NCC changes through the [IESS Retail Electricity Market Procedures consultation](#), including:

NCC	Rationale for change
TIRS	New code to identify transmission-connected IRS and replace existing requirement for two NMIs
DIRS	New code to identify distribution-connected IRS and replace existing requirement for two NMIs
DGENERATR	New code to differentiate between distribution and transmission connected generation
GENERATR	Amendment to allocate code to transmission-connected generation only, given new DGENERATR code above
NREG	Amendment to reflect new terminology, IRP Small Resource Aggregator classification of small BDUs in addition to small generating units, and stakeholder feedback

NCC CHANGE SCOPE

NCC	APPROACH FOR EXISTING FACILITIES	APPROACH FOR FACILITIES REGISTERED FROM JUNE 2024
TIRS	AEMO to apply new code to transmission-connected IRS as part of individual BDU cutover, timing agreed via <i>BDU transition and cutover plan</i>	
DIRS	<p>AEMO to apply new code to distribution-connected IRS as part of individual BDU cutover, timing agreed via <i>BDU transition and cutover plan</i></p> <p>NOTE: For distribution connected IRS/ BDU that are transitioning to DIRS, the DGENRATR transition will occur first, with an effective date of 2 June 2024 (IESS settlements go-live). When they transition, the DGENRATR NMI and the LARGE/DWHOLSAL NMI will then be transitioned to a single DIRS NMI later in consultation with the FRMP.</p>	AEMO to apply code to as part of BAU registration process
DGENRATR	<p>AEMO to transition existing distribution-connected generation and the generation side of distribution-connected storage to new DGENRATR NCC for IESS settlement go-live (Sun 02 Jun 2024)</p> <p>AEMO to publish <i>draft NCC transition plan</i> early Dec for industry comment.</p>	
GENERATR	No transition required for existing transmission-connected generation	
NREG	<p>No transition required for existing small resource connection points</p> <p>NOTE: Existing SGAs will be moved to the IRP registration category for Sun 02 June 2024 (IESS settlements commencement). This does not impact their NCC which will remain as NREG.</p>	No change to application of non-registered NMI Classification Codes (LARGE, SMALL, NREG) which continue to be applied by LNSP

DGENERATR TRANSITION PLAN



#	AEMO ACTIONS	INDUSTRY IMPACTS & ACTIONS	PLANNED (MARKET) TIME	COMMUNICATION CHANNEL
TRANSITION PLANNING				
1	AEMO to identify distribution-connected generators (currently around 180)	No action required	Nov 2023	n/a
2	AEMO to engage with affected participants and the Implementation Forum on the DGENERATR transition plan i.e. what is changing and why; and when and how those changes will occur.	Participants can choose to provide feedback on the DGENERATR transition plan	Early Dec to late Jan	<ul style="list-style-type: none"> Email to NEM Reform Implementation Forum members and affected Participants
PREPARE PRE-PRODUCTION ENVIRONMENT				
3	AEMO to update and validate NMIs with DGENERATR code in pre-production by using the “bulk change tool”.	<ul style="list-style-type: none"> No action required Affected participants can choose to request a list of their NMIs that will be changing from GENERATR to DGENERATR via iess@aemo.com.au. Please note that there may be some delay in receiving the list because creating it is a manual process. 	Early April 2024, aligning with phase 1 of IESS market trial*	n/a
4	AEMO to notify affected participants of NCC change in pre-prod	Affected participants can choose to undertake test activities against the new NCC. See <i>IESS Industry testing and market trial plan</i> for details of the testing that will be available.	Early April 2024, aligning with phase 1 of IESS market trial*	<ul style="list-style-type: none"> CR notification to all roles on the NMI (MC, MDP, MP, FRMP, LNSP) Email to NEM Reform Implementation Forum members and affected Participants
5	INDUSTRY TESTING AND MARKET TRIAL COMMENCES IN PRE-PRODUCTION		Tue 02 Apr 2024	<ul style="list-style-type: none"> Email to NEM Reform Implementation Forum members and affected Participants
PREPARE PRODUCTION ENVIRONMENT				
6	MSATS release	No action required	TBC for Sun 02 Jun 2024	<ul style="list-style-type: none"> Support Hub notification NEM program notifications
7	IESS SETTLEMENT CHANGES GO-LIVE		Sun 02 Jun 2024	<ul style="list-style-type: none"> Support Hub notification Email to NEM Reform Implementation Forum members and affected Participants
8	AEMO to update and validate NMIs with DGENERATR code in production	No action required	Update on Mon 03 Jun 2024 retrospective to Sun 02 Jun 2024	n/a
9	Notifications sent to affected market participants	Affected participants accommodate new NCC in their NEM activities	Mon 03 Jun 2024	<ul style="list-style-type: none"> CR notification to all roles on the NMI (MC, MDP,MP, FRMP, LNSP) Email to NEM Reform Implementation Forum members and affected Participants

Supporting grid-scale BESS to cutover to 'bidirectional' operations

Alice Michener



Overview

- All currently registered, scheduled battery storage facilities will be included in the cutover and will become BDUs.
- Each battery storage facility is currently assigned two NMIs, one for load, one for generation.
- As part of the BDU cutover,
 - Only one NMI is required for each BDU.
 - In most cases, the NMI currently used for generation will be retained and assigned to the BDU.
 - The NMI currently used for load will be made extinct effective after the cutover date.
 - Where one TNI for load and other TNI for gen, one of these TNIs will be retained.
- The following slides provide further detail of required activities for involved stakeholders.

Engagement with BESS participants

AEMO has made BESS participants aware that they should engage with their MDPs and MPBs in the lead up to, and during, the cutover process.

This includes:

- Communicating in advance their scheduled BDU cutover date.
- Articulating when they expect to see changes in the NMI, as part of the planning process.
- Communicating regularly throughout the NMI cutover process as activities begin and complete (per BDU cutover and transition plan).
- Confirming the result of go/no-go decision in the lead up to cutover day, and (if applicable) any rescheduled cutover dates.

Required activities

The following activities will occur from cutover day onwards.

	AEMO	Participants			
		Metering Providers Category B (MPB)	Meter Data Providers (MDP)	DNISP, TNSPs and Registered Network Service Providers	Financially Responsible Market Participants (FRMP)
Responsibility	<ul style="list-style-type: none"> ✓ AEMO will consolidate NMI data streams, moving load data streams over to the gen NMI. 	<ul style="list-style-type: none"> ✓ Consolidate the meter(s) and register(s) from the load side over to the gen side 	<ul style="list-style-type: none"> ✓ Send data to AEMO for the retained NMI only from midnight on the cutover day (retrospectively). 	<ul style="list-style-type: none"> ✓ Ensure that changes applied by AEMO are reflected in their systems, and AEMO changes are not overridden 	<ul style="list-style-type: none"> ✓ Update their systems to reflect changes applied by AEMO ✓ Review their settlement statements after cutover

NMI cutover: MSATS example

Current

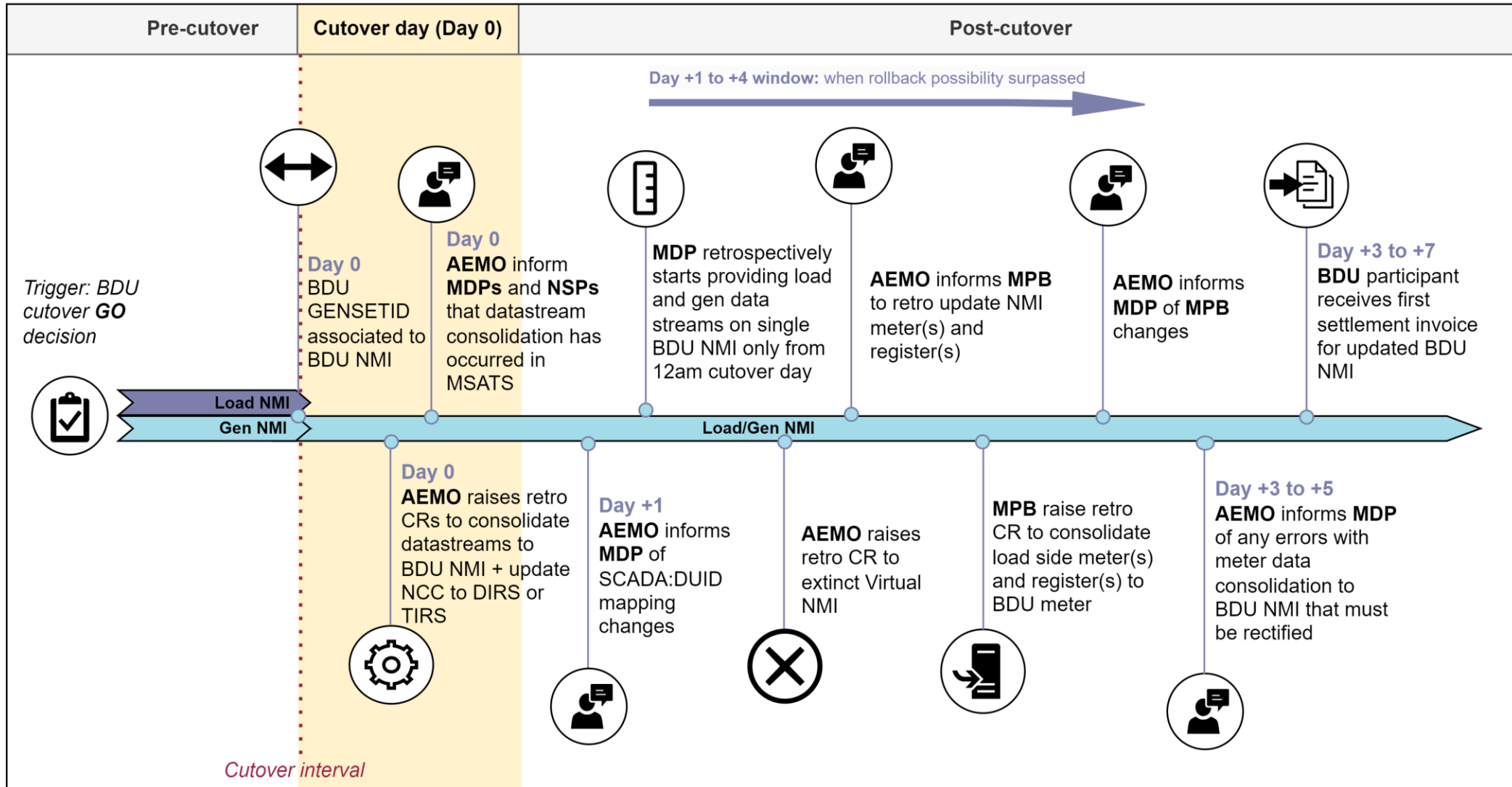
METER ID/NMI	NMI CLASS CODE	NMI STATUS CODE	TNI CODE	DATA STREAMS	METER REGISTERS
2001111111	GENERATR	A	SZZZ	B1	B1
S111111111	LARGE	A	SZZ1	E1	E1

Post-cutover

METER ID/NMI	NMI CLASS CODE	NMI STATUS CODE	TNI CODE	DATA STREAMS	METER REGISTERS
2001111111	DIRS/TIRS	A	SZZZ	E1,B1	E1,B1
S111111111	LARGE	X	SZZ1	E1	

IESS Indicative NMI Cutover Timeline

This diagram outlines the high-level approach AEMO intends taking to cutover existing batteries with separate load and gen NMIs to a single, existing NMI.
 Cutover to occur in line with the BDU cutover.
 Days and times depicted are indicative only and represented by all day types, i.e. not business days only.



Communications between AEMO and MSPs

AEMO proposes the below communications between MSPs and AEMO.

Ref.	Day	Timing	Comm	From	To	Via
1	Day 0: Cutover Day	After data stream consolidation CRs are raised in MSATS on the cutover day	AEMO informs MDPs and NSPs that data stream consolidation has occurred in MSATS.	AEMO	MDP NSP	MSATS CR (auto)
2	Day +1	Day after cutover day, once NMI cutover activities in flight.	AEMO informs MDP of SCADA:NMI mapping changes.	AEMO	MDP	Email notification (manual)
3	Day +1 to +4 window	Once AEMO has received confirmation no rollback required, and Load side NMI has been made extinct via CR in MSATS.	AEMO raises CR to extinct Load side NMI.	AEMO	MPB	MSATS CR (auto)
4	Day +1 to +4 window	Once AEMO has received confirmation no rollback required.	AEMO informs MPB to retro update NMI meter(s) and register(s), consolidating the Load side to the Gen side being retained for BDU.	AEMO	MPB	Email notification (manual)
5	Day +1 to +4 window	Once AEMO has confirmed with MPB that they are going ahead with their changes.	AEMO informed MDP of MPB changes to retro update NMI meter(s) and register(s).	AEMO	MDP	Email notification (manual)
6	Day +1 to +4 window	Only if errors found in data received from MDP after consolidation expected.	AEMO informs MDP of any errors in the data received from midnight on cutover day. E.g. if data not consolidated to the retained NMI properly or received for part-day, etc.	AEMO	MDP	Email notification (manual)

Note: Does not reflect any communications between BESS participants and MSPs.

Other changes due to cutover: TNI changes and TLF values

Informational only; no action for MSPs.

This applies where there are dual (one for load side and one for gen side) TLFs for BDUs.

- Sites with a separate Load side TNI and Gen side TNI will retain one of these TNIs.
- Sites will have one TNI and dual TLF values post-NMI cutover.
- TLF values will not change due to BDU transition, i.e. load and gen TLF values will both be retained as-is against the TNI that gets assigned to the BDU.

Current

DUID	TNI CODE	Load TLF value	Gen TLF value
LOAD	SZZ1	0.9880	NULL
GENERATOR	SZZZ	NULL	0.9990

Post-cutover

DUID	TNI CODE	Load TLF value	Gen TLF value
BDU	SZZZ	0.9880	0.9990

Other changes due to cutover: SCADA MDFR report

Informational only; no action for MSPs.

- Daily report from AEMO to MDPs containing DUID level SCADA data.
- There will be changes to SCADA signals as part of the BDU transition
 - From cutover time on the cutover day, all existing signals will stop updating and new signals will apply. More information is available in the Appendix and the BDU Cutover & Transition Plan published on the IESS website.
 - The new BDU DUID will existing in production up to two weeks in advance of the cutover day, meaning three DUIDs will exist in parallel in production.

Report structure when all three DUIDs are running in parallel:

- **New BDU DUID:** zero values against the new BDU DUID until cutover time, and then non-zeros from cutover time onwards.
- **Existing load/gen DUIDs:** for old DUIDs, expect 0s or NULLs against old load/gen DUIDs from cutover time until DUIDs deactivated.



Identification of Small Resource Aggregators

Rosie Elkins/ Paul Lyttle



What is a Small Resource Aggregator?

Small Resource Aggregator

An Integrated Resource Provider who has classified a *small resource connection point* as one of its *market connection points* in accordance with clause 2.2.8.

What is an SRA?

- “Small Resource Aggregator” is a **label** applied to an IRP in relation to *small resource connection points* it has classified as its *market connection points*.
 - Multiple labels may apply to the same IRP depending on what it has classified, e.g. *Market Customer* in relation to end user connection points or scheduled load.
- All Small Generation Aggregators (SGAs) in the market today will be transitioned to the IRP registration category and will become SRAs in relation to their *small resource connection points*. See [IRP Transition Plan](#) for details.

Why do participants need to identify SRAs?

- Different obligations apply in relation to these labels in NER, as well as a few AEMO procedures (e.g. Metrology procedure part B). Participants need to identify SRAs for the same reasons they need to identify SGAs today (operations and compliance) – noting the current “SGA” PID suffix will no longer be used post go-live.
- Note IRP is a **FRMP Role** – a new role is not being created for IRP, or for any IRP “label”.

What is the issue with identifying SRAs today?

- *Small resource connection points* are identified in MSATS using the NMI Classification Code “NREG”.
- Two pieces of information are needed to identify an SRA:
 - *small resource connection point* (NREG)
 - **where** the FRMP is an IRP – **this is not currently readily identifiable in MSATS.**

Proposed approach to SRA identification in MSATS

- Use the existing ‘role category’ field in the CATS_PARTICIPANT_ROLES table to identify all participants that are registered as IRPs.
 - This field is populated by AEMO and is accessible via C1 report.
 - Distinguishes between IRPs with and without retail authorisation for MSATS CR validations. “SGA” category will be removed.
- Participants would need to use both role category values, in combination with the NMI Classification Code (NREG), to determine where the SRA label applies.

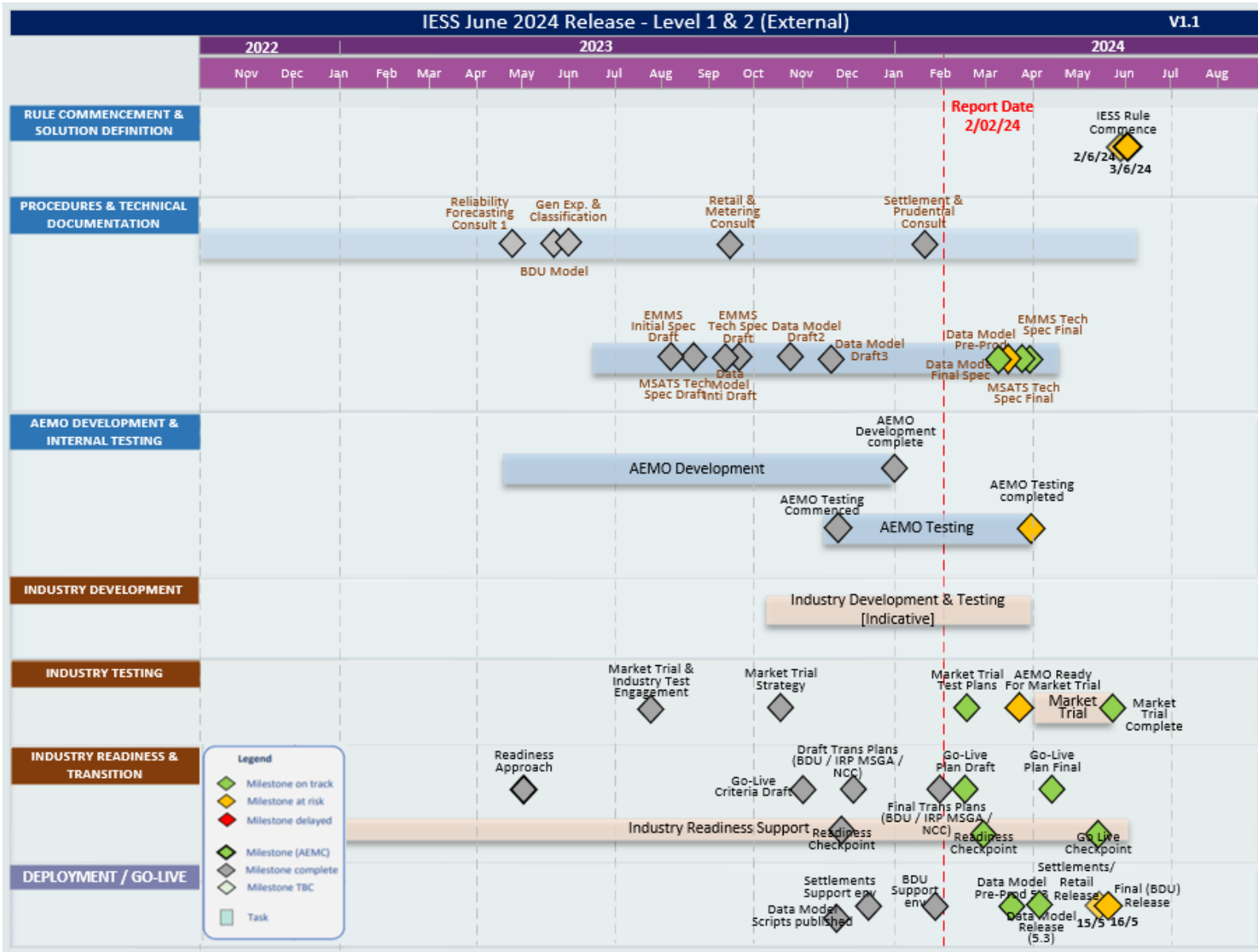
New role category	Description	Key CR validations
IRP	FRMP is registered as an IRP and has a retail licence.	
IRPNRL	FRMP is registered as an IRP and does not have a retail licence (NRL = “no retail licence”).	May NOT classify LARGE, SMALL and NCONUML.

Industry transition and readiness for IESS

Emily Brodie



IESS timeline update @ 02 Feb 2024



IESS milestones are monitored and discussed monthly via the [Implementation Forum](#) and [Program Consultative Forum](#)

- Nominate via email to nemreform@aemo.com.au

Key areas of participant support

- ✓ Engagement via forums, workshops, 1to1 discussions etc
- ✓ Technical documentation*
- ✓ Transition, test and go-live plans*
- ✓ Sandpit environment for beta testing ahead of market trial (PDSE)
- ✓ Market trial (pre-production) from 02 Apr to 24 May 2024

*Publication dates and links available on following slide and via monthly [Implementation Forum](#)

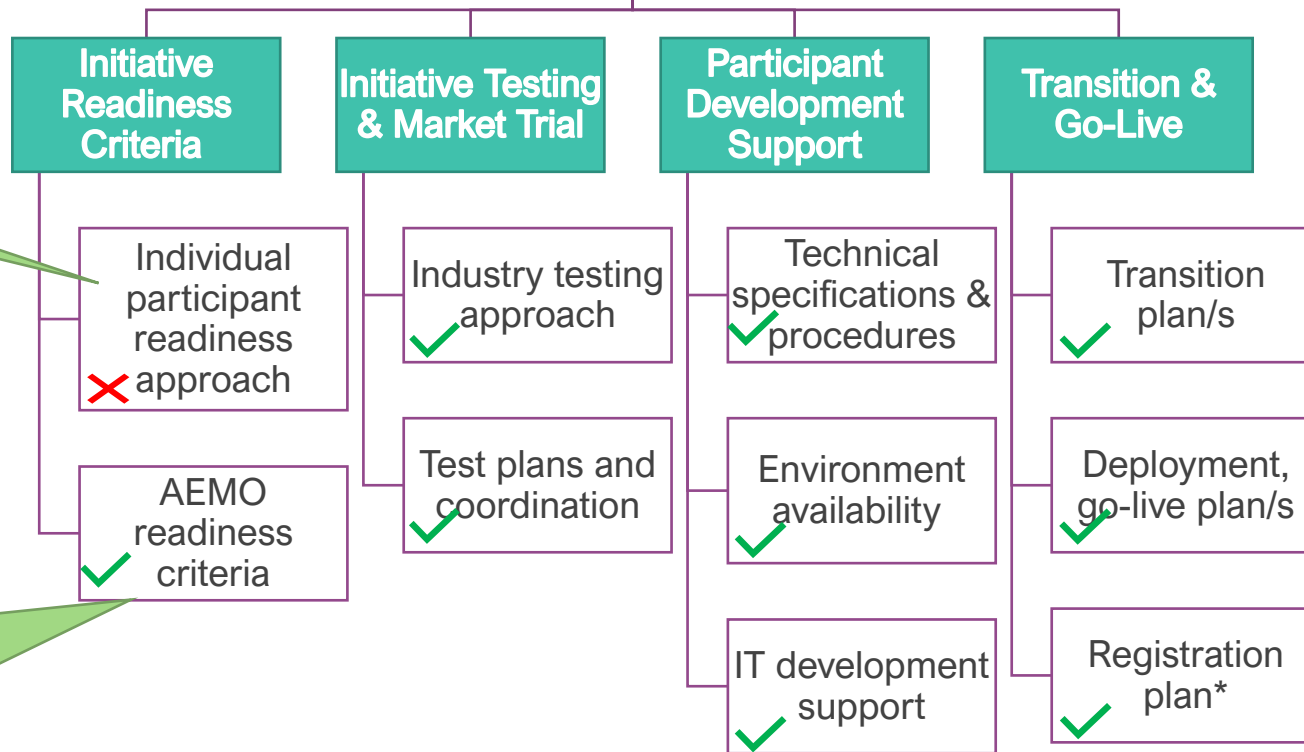
Context: NEM Reform program industry strategy

NEM REFORM READINESS STRATEGY (ALL INITIATIVES)

IESS JUNE 2024 READINESS APPROACH

Individual participant (or participant category) readiness is **NOT** a dependency for go-live.

- AEMO Market systems updated and tested
- AEMO business needs to be ready to operate
- AEMO IT support needs to be in place



IESS readiness approach adopts the standard NEM Reform program framework

**Reaccreditation not required for existing participants*

RISK & CONTINGENCY MANAGEMENT ✓

INITIATIVE READINESS REPORTING & GO-LIVE CRITERIA MANAGEMENT ✓

Where to access available resources

Background & planning

- [IESS Retail Electricity Market Procedures consultation](#)
- [Participant impact assessment](#)

Industry readiness & go-live

- [IESS June 2024 Readiness approach](#)
- [IESS Industry testing and market trial strategy](#)
- [DRAFT IESS Industry testing and market trial plan](#)
- [NMI classification code transition plan](#)
- [BDU transition and cutover plan](#)


Technical documentation

- [EMMS Technical Specification - June 2024](#)
- [MSATS Technical Specification - June 2024](#)
- [EMMS - Technical Specification - Data Model v5.3](#)

Participant development support

- [PDSE fact sheet](#)

Resources available through IESS Participant Toolbox at AEMO's website




The screenshot shows a webpage titled "Integrating Energy Storage Systems Participant Toolbox". On the left is a navigation menu with the following items: "March 2023 release", "August 2023 release: Aggregated dispatch conformance", "June 2024 Retail and Settlement release" (which is highlighted), and "June 2024 Registration, classification, and bidding release". The main content area features the heading "June 2024 Retail and Settlement release". Below the heading is a paragraph: "The Participant Toolbox is a central location for useful resources to help market participants understand and prepare for the changes associated with the Integrating Energy Storage Systems rule's implementation. This page pertains to the 2 Jun 2024 IESS release that comprises of retail and settlement changes." This is followed by another paragraph: "Resources are added to this page progressively over the course of AEMO's preparation and implementation of the changes." At the bottom of the main content area, there is a link: "To access resources for other IESS releases, click here." Below the main content area is a section titled "Resources".

Link: <https://aemo.com.au/initiatives/major-programs/integrating-energy-storage-systems-project/integrating-energy-storage-systems-faqs/june-2024-retail-and-settlement-release>

Or contact the project directly at IESS@aemo.com.au

NEM Reform Program engagement

Forums	Forum focus 	Cadence	Approach
Executive Forum	Program overview and status update	Three times yearly	Nomination
Reform Delivery Committee (RDC)	Long term strategic perspective	Quarterly	Nomination
Program Consultative Forum (PCF)	Inflight initiatives status & co-ordination	Monthly	Open
Implementation Forum	Implementation of reforms	Monthly	Open
Electricity Wholesale (EWCF) & Electricity Retail (ERCF) Consultative Forums	Procedures working groups	Monthly	Open
Testing working group	Testing	Monthly	Open
Focus groups	Initiatives	As appropriate	As appropriate



To learn more and get involved, please visit

- [AEMO | NEM Reform Program Forums](#)
- [AEMO | Industry meetings calendar](#)
- or contact the program at NEMReform@aemo.com.au.

Focus/working Groups for initiatives include:

Initiative working groups

Strategic and foundational focus groups (IDX/IDAM/PC)

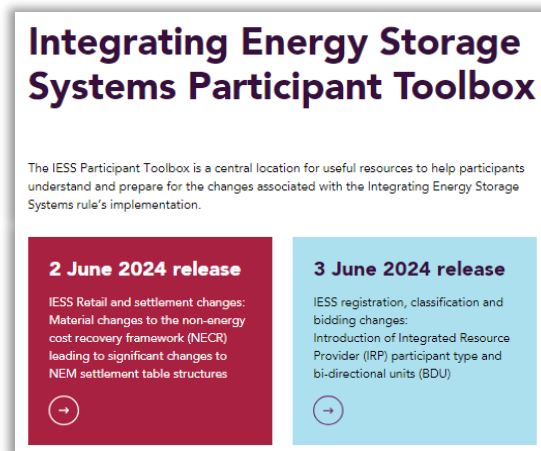
Questions & Close

Ulrika Lindholm



FAQs

Note that FAQs are available through the IESS Participant Toolbox at AEMO's website. These are updated on an ongoing basis.



Integrating Energy Storage Systems Participant Toolbox

The IESS Participant Toolbox is a central location for useful resources to help participants understand and prepare for the changes associated with the Integrating Energy Storage Systems rule's implementation.

2 June 2024 release IESS Retail and settlement changes: Material changes to the non-energy cost recovery framework (NECR) leading to significant changes to NEM settlement table structures	3 June 2024 release IESS registration, classification and bidding changes: Introduction of Integrated Resource Provider (IRP) participant type and bi-directional units (BDU)
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Link: <https://aemo.com.au/initiatives/major-programs/integrating-energy-storage-systems-project/integrating-energy-storage-systems-faqs>

Or contact the project directly at IESS@aemo.com.au

Session close



IESS@aemo.com.au



[AEMO | IESS Participant toolbox](#)



APPENDIX A

Glossary



IESS Glossary

Term	Definition
5MPD	5-minute pre-dispatch
ADC	Aggregated Dispatch Conformance
ADG_ID	Aggregate Dispatch Group identifier for an Aggregate System
AGC	Automatic generation control
ASL	Ancillary service load
ASU	Ancillary service unit
B2B	Business-to-business
B2M	Business-to-market
BDU	Bidirectional unit
BESS	Battery energy storage system
CR	Change request
CRMP	Cost recovery market participant
DRSP	Demand response service provider
DUID	Dispatchable unit identifier
FRMP	Financially responsible market participant
IESS	Integrating Energy Storage Systems rule
IRP	Integrated resource provider

Term	Definition
IRS	Integrated resource system
MSATS	Market settlements and transfer solutions
MSGA	Market small generation aggregator
MT PASA	Medium-term PASA
NCC	NMI classification code
NECR	Non-energy cost recovery
NEM	National electricity market
NEMDE	National electricity market dispatch engine
NMI	National metering identifier
PAE	Profiling and allocation engine
PASA	Projected assessment of system adequacy
PD	Pre-dispatch
PDM	Participant Data Model
PMS	Portfolio management system
SCADA	Supervisory control & data acquisition
SoC	State of charge
UFE	Unaccounted for energy
WDRU	Wholesale demand response unit

APPENDIX B

AEMO Competition Law – Meeting Protocol



AEMO Competition Law - Meeting Protocol

AEMO is committed to complying with all applicable laws, including the Competition and Consumer Act 2010 (CCA). In any dealings with AEMO, all participants agree to adhere to the CCA at all times and to comply with appropriate protocols where required to do so.

AEMO has developed meeting protocols to support compliance with the CCA in working groups and other forums with energy stakeholders. Before attending, participants should confirm the application of the appropriate meeting protocol.

Please visit: <https://aemo.com.au/en/consultations/industry-forums-and-working-groups>

APPENDIX C

NMI cutover: further information



Real Time Systems (SCADA)

The following applies for participants who receive Energy MW targets and/or Ancillary Service enablement values via SCADA systems.

- **Automatic Generation Control (AGC) MW targets:**
 - No changes will occur. Participants will continue to receive AGC MW targets via existing mechanisms.
- **Backup Market Management System (MMS) signals (outside of AGC) will change as follows**

Backup signal type	Signal name	Values currently received	Values received post cutover
MMS 5 min target	MWB	Two positive-sign signals received (one for each DUID) OR One signal received, can be positive or negative.	Once signal received that will have either positive or negative values.
Regulation FCAS enablement	ARA and/or ALA	One signal received per signal name, can be positive values only.	One signal received, can be positive values only.
Contingency FCAS enablement	1RA/6RA/5RA /FRA/1LA/6LA/5LA/FLA	One signal received per signal name, can be positive values only.	One signal received per signal name, can be positive values only. Signal will now apply to whole unit, not either of charge/discharge side of BESS.

SCADA Cutover

AEMO is proposing to establish new ‘ICCP’ IDs for all MMS backup signals.

- This means cutover can be planned in advance and will occur automatically.
- At cutover time, all existing signals will stop updating and new signals will apply.
- *What's involved for participants here?*
 - On site - will need to program new points (at the RTU) and link to the NSP master station.
 - AEMO anticipates this could be done in advance of cutover.
 - AEMO/NSP/site would need to test new linkage works well before cutover.

An alternative option is reuse existing ICCP IDs.

- Cutover would need to be done manually in and in real-time
- Carries a potential for data gaps.
- NSP involvement not required as existing links are already tested and online.
- Participants may need to update logic on site if using this option.

AEMO plans to engage NSPs next month regarding these changes.

AEMO will also reach out to each affected participant to understand their preference during February/March, so that New ICCP IDs can be agreed on by mid-April.

ICCP	Inter-Control Center Communications Protocol
MMS	Market Management System
RTU	Remote Terminal Equipment
NSP	Network Service Provider

NOTE: AEMO will update its IESS BDU Transition and Cutover Plan to include activities relating to SCADA Cutover.