

IESS Settlements workshop

Integrating Energy Storage Systems
19 July 2023





Welcome

Ulrika Lindholm



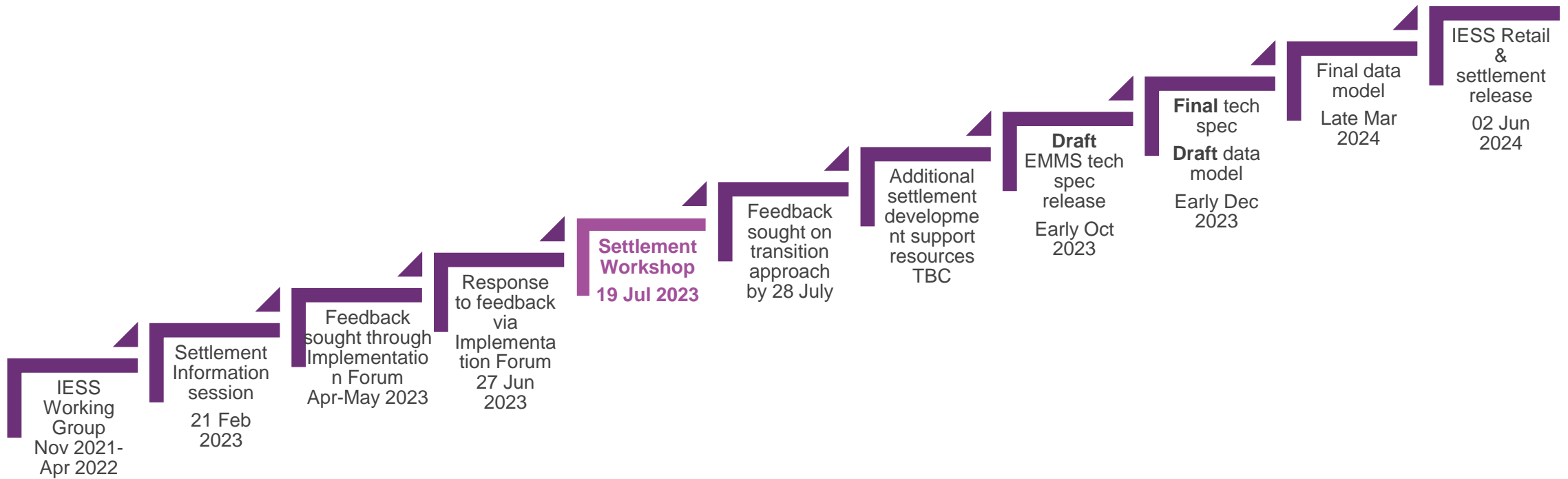
We acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and culture.

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

Engagement on settlement changes


AEMO thanks stakeholders for their participation and feedback received to date.

*Refer to IESS Glossary in Appendix A for full list of acronyms



Ongoing industry readiness engagement via the NEM Reform [Implementation Forum](#) and 1to1 conversations.

NEM Reform Program Engagement

Forums	Forum focus 	Cadence	Approach
Executive Forum	Program overview and status update	Twice yearly (TBC)	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
Working groups	Initiatives	As appropriate	As appropriate

Focus/working Groups for initiatives include:

Initiative working groups

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



To learn more and get involved, please visit

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

Introductions

Session purpose

- Provide market participants with an overview of material Settlement related changes under the Integrating Energy Storage System project.
- Discuss industry transition arrangements aiming to lessen the impacts of the IESS settlements changes.
- Opportunity to seek clarification in conversation with AEMO's Settlement subject matter experts.

Ways of collaborating

Questions and comments are welcome throughout the session, either in the chat or by raising your virtual hand. There will be breaks to verbally answer questions throughout the presentation.

Please introduce yourself (name & organisation) before you speak.

AGENDA

#	Timing (AEST)	Item	Presenter
1	10:30 – 10:40 AM	Welcome	Ulrika Lindholm
2	10:40 – 10:50 AM	Context	Emily Brodie
3	10:50 – 11:30 AM	Settlement changes under IESS	Darren Gatty
4	11:30 AM – 12:15 PM	Industry transition to adapt to IESS settlement changes	Luke Barlow / Emily Brodie
5	12:15 – 12:30 PM	Next steps & close	Ulrika Lindholm

APPENDICES

A	IESS glossary
B	AEMO competition law meeting protocol

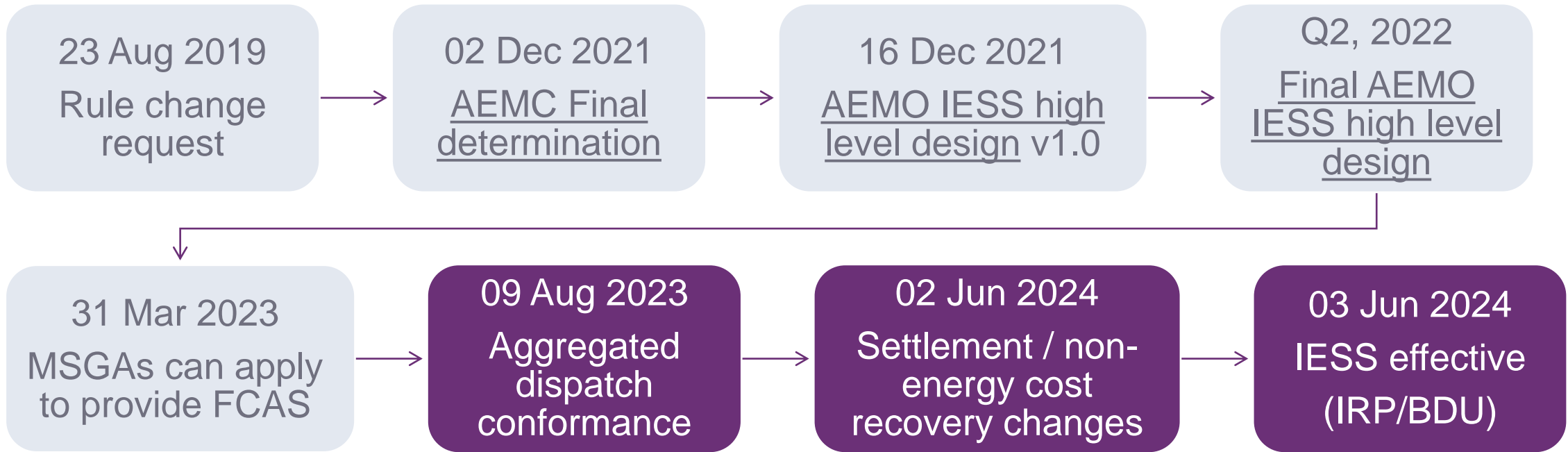
"Please note that this meeting will be recorded by AEMO and may be accessed and used for the purposes of publishing it on the external NEM Reform Program webpage as a resource for industry participants. By attending the meeting, you consent to AEMO recording the meeting and using the recording for this purpose. No other recording of the meeting is permitted"

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

This document relates to Settlement changes

REFERENCES

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

IESS major changes summary

- Key IESS change is how batteries are to be registered, connected and managed in AEMO's systems:
 - A new Integrated Resource Provider (IRP) participant registration type replaces the current requirement to register separately as both a Market Customer and Market Generator when connecting a battery
 - A single DUID is to be used in the bidding and dispatch of both the battery charging and discharge, which replaces the current requirement for separate DUIDs for each energy direction from the battery
 - A single NMI is to be used in the energy settlement, which replaces the current dual NMI configuration that sees the generation and load recorded against different NMIs and separated in the current settlement process.

Major settlement changes

IESS rule significantly alters the calculation method used for **Non-Energy Cost Recovery** (NECR) items:

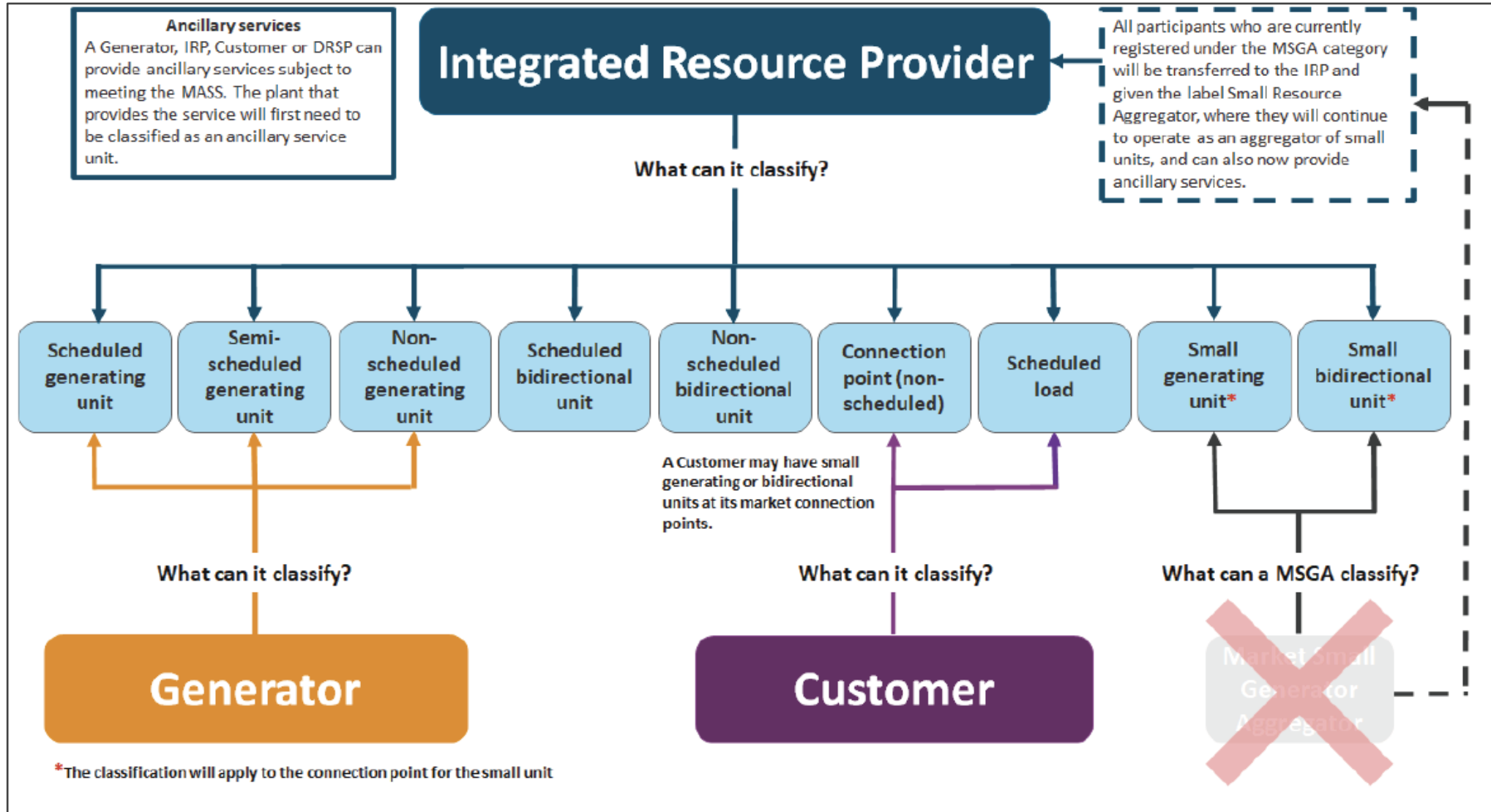
- Recovery calculations are to consider the gross (consumption separate from generation) energy amounts of all participants, rather than currently using net energy (generation – consumption) of specific participant types.
- **Major AEMO database structure changes** required to enable the new calculations, these changes will flow into the Data Model and affect participant reconciliation and reporting activities and also AEMO data provision.
- Embedded network management needs to change to ensure that the parent has the appropriate gross energy volumes available for settlement, which has resulted in the netting of children reads moving to the Metering system.

IESS rule:

- **Does** change the non-energy cost recovery calculations
- **Does not** change the calculations for settlement of base energy
- **Does not** change metering data interfaces or most NMI reconciliation “RM” reports
- **Does** change the MMS Data Model data structures related to the Settlement of base energy, potentially affecting participants’ downstream processes.

IRP classification from 3 June 2024

Source: Australian Energy Market Commission, [IESS Final Determination](#), 02 Dec 2021. p iv.



Changes to Settlement under IESS

Darren Gatty

A decorative graphic in the bottom right corner consisting of several overlapping rectangular blocks in various shades of purple, ranging from dark to light.

Contents of this section

- IESS settlement related changes:
 - Data flow
 - Data model tables
 - New energy transactions table fields
 - New genset table example
 - Comparative examples of energy settlements
 - Non-energy cost recovery changes
 - Embedded network management calculations

Data flow changes from 2 June 2024

Current Data Structure:

Participant Type	Market Customer	Market Customer (Battery - Load Only)	Market Generator (Battery - Gen Only)	Market Generator	Market Small Generator Aggregator
MSATS Configuration	AggFlag = Y Class: SMALL, etc	AggFlag = Y Class: WHOLESAL	AggFlag = N Class: GENERATR	AggFlag = N Class: GENERATR	AggFlag = Y Class: NREG (PID must end *SGA)
Reads Received	Aggregate Reads (imports & exports)	Aggregate Reads (exports only)	Individual Reads (imports only)	Individual Reads (imports & exports)	Aggregate Reads (imports & exports)
Table Reads Settled In	setcpdata	setcpdata	setgendata	setgendata	setsmallgendata
Billing Week Summary	billingcpdata	billingcpdata	billinggendata	billinggendata	billinggendata

- The current data split into 3 settlement tables allows separation of the participant types for things like data requests and fee calculations
- With IESS all reads will be settled via the single **Energy_Transactions** table, with an IRP registered participant able to have all of these read types
- Market registered batteries will be updated for IESS to have a single NMI and DUID, as shown below

IESS Data Structure:

Participant Type	Market Customer	IRP (Single NMI / DUID for Battery)	Market Generator	IRP
MSATS Configuration	AggFlag = Y Class: SMALL, etc	AggFlag = N Class: TIRS, DIRS	AggFlag = N Class: GENERATR, etc	AggFlag = Y Class: NREG
Reads Received	Aggregate Reads (imports & exports)	Individual Reads (imports & exports)	Individual Reads (imports & exports)	Aggregate Reads (imports & exports)

IESS data model table changes

Current Tables*	Replacement Tables**
SETCPDATA	Settlements.Energy_Transactions (table for settling all ACE & ASOE, by ParticipantID/ConnectionPointID) Settlements.Energy_GenSet_Detail (additional detail at the genset level for the market generators, including DUID and Station information, as per current setgendata)
SETGENDATA	
SETSMALLGENDATA	
ENERGY_CUSTOMER_SUMMARY	Settlements.Energy_Transactions_Summary (Energy_Transactions grouped by ParticipantID/RegionID)
ENERGY_GENERATOR_SUMMARY	
SETCPDATAREGION	Settlements.Energy_Region_Summary (Energy_Transactions grouped by RegionID)
SETGENDATAREGION	
BILLINGCPDATA	Billing.Energy_Transactions (Sum for the billing week by ParticipantID/ConnectionPointID)
BILLINGGENDATA	Billing.Energy_GenSet_Detail (Sum for the billing week by ParticipantID/GenSetID)

* Reference: [MMS Data Model v5.1](#) and [v5.2 from May 2023 Technical specification](#)

** Subject to change pending development and testing outcomes.

Data Model table DAILY_ENERGY_SUMMARY will remain with new columns added, similarly additional fields will be required in many of the recovery tables.

New Energy_Transactions table fields

Field name *	Data type	Description
SettlementDate	DATE	The Settlement Date
VersionNo	INTEGER	The Settlement Run Number
PeriodId	INTEGER	The Settlement 5Min Period Id (1 to 288)
ParticipantId	VARCHAR	The Participant ID Identifier
ConnectionPointId	VARCHAR	The Connection Point ID for the Participant, this may be a TNI or the generators Connection Point ID
RegionId	VARCHAR	The Region ID associated with the ConnectionPointId
CE_MWh	NUMBER	The Consumed Energy in MWh, sum of the DLF adjusted metered exports from the grid (always negative)
DME_MWh	NUMBER	Distribution Metered Energy in MWh, the portion of CE_MWh that is distribution connected for UFE allocation
UFEA_MWh	NUMBER	The Unaccounted For Energy Allocation in MWh (negative with normal UFE, positive with negative UFE)
ACE_MWh	NUMBER	The Adjusted Consumed Energy in MWh [CE_MWh + UFEA_MWh]
ASOE_MWh	NUMBER	The Adjusted Sent Out Energy in MWh, sum of the DLF adjusted metered imports to the grid (always positive)
Total_MWh	NUMBER	The Total Energy in MWh [ACE_MWh + ASOE_MWh]
RRP	NUMBER	The Regional Reference Price
TLF	NUMBER	Transmission Loss Factor Applied for the energy amount**
ACE_Amount	NUMBER	The ACE dollar value amount with TLF applied [ACE_MWh x RRP x TLF]
ASOE_Amount	NUMBER	The ASOE dollar value amount with TLF applied [ASOE_MWh x RRP x TLF]
Total_Amount	NUMBER	The total dollar value amount with TLF applied [ACE_Cost + ASOE_Cost]
Case_Id	NUMBER	The Meter Case ID associated with the Settlement Run Number
Meter_Type	VARCHAR	Indicator of the type of energy (Generator/Customer/NREG/BDU) for fee calculation purposes only
Aggregate_Read_Flag	INTEGER	Indicator of whether the read record was received as part of the Aggregate Reads
Individual_Read_Flag	INTEGER	Indicator of whether the read record was received as part of the Individual Reads
LastChanged	DATETIME	The Date time of the record update

* Subject to change pending development and testing outcomes.

** TLF applied will be derived from the net energy flow at the ConnectionPoint/TNI when dual TLFs exist i.e. the sum of ASOE and ACE where negative (ACE > ASOE) results in the primary (load) TLF being applied and where positive in the secondary (generation) TLF being applied.

New genset detail example

- The new Energy_GenSet_Detail table will be at the genset level, as per the current setgendata table, where genset and NMI are one-to-one.
- As well as STATIONID/DUID/GENSETID identifiers currently stored in setgendata, the new table will also contain the NMI (MeterID field) and the ConnectionPointID, to facilitate reconciliation.
- The below example attempts to show the relationship between the 2 new tables, noting this is a draft design, so the final data model may end up looking slightly different.

New main settlement table aggregated to ConnetionPointID: Settlements.Energy_Transactions

Settlement Date	Version No	Period Id	Participant Id	Connection PointId	Region Id	CE_ MWh	DME_ MWh	UFEA_ MWh	ACE_ MWh	ASOE_ MWh	Total_ MWh	RRP	TLF	ACE_ Amount	ASOE_ Amount	Total_ Amount	Case_Id	Meter_Type	Aggregate_ Read_Flag	Individual_ Read_Flag	IRP_Flag	LastChanged
2/06/2024	1	1	XXXBATT	VCPID1	VIC1	-20	-20	0	-20	30	10	\$10	0.98	-\$196	\$294	\$98	9999	BDU	N	Y	Y	3/06/2024
2/06/2024	1	1	XXXGEN	VCPID2	VIC1	-0.5	-0.5	0	-0.5	40	39.5	\$10	0.98	-\$5	\$392	\$387	9999	GENERATOR	N	Y	N	3/06/2024

New detailed settlement table at GenSet level: Settlements.Energy_GenSet_Detail

Settlement Date	Version No	Period Id	Participant Id	StationID	DUID	GenSet Id	MeterID	Connection PointId	Region Id	CE_ MWh	DME_ MWh	UFEA_ MWh	ACE_ MWh	ASOE_ MWh	Total_ MWh	RRP	TLF	ACE_ Amount	ASOE_ Amount	Total_ Amount	Case_Id	LastChanged
2/06/2024	1	1	XXXBATT	BATT1	BATT1	BATT1	NMI1111111	VCPID1	VIC1	-20	-20	0	-20	30	10	\$10	0.98	-\$196	\$294	\$98	9999	3/06/2024
2/06/2024	1	1	XXXGEN	GEN1	GEN1	GEN1	NMI1111112	VCPID2	VIC1	0	0	0	0	20	20	\$10	0.98	\$0	\$196	\$196	9999	3/06/2024
2/06/2024	1	1	XXXGEN	GEN1	GEN1	GEN2	NMI1111113	VCPID2	VIC1	-0.5	-0.5	0	-0.5	10	9.5	\$10	0.98	-\$5	\$98	\$93	9999	3/06/2024
2/06/2024	1	1	XXXGEN	GEN1	GEN1	GEN3	NMI1111114	VCPID2	VIC1	0	0	0	0	10	10	\$10	0.98	\$0	\$98	\$98	9999	3/06/2024

Energy settlement example

Current Calculations

Market Customer

Imports = 10MWh

Exports = 30MWh

TA = AGE x TLF x RRP

TA = (10 - 30) x 0.95 x \$50

TA = -\$950

Market Generator

Imports = 27MWh

Exports = 5MWh

TA = AGE x TLF x RRP

TA = (27 - 5) x 0.95 x \$50

TA = \$1045

Total Statement Amount
= -\$950 + \$1045
= **\$95**

New Rule

All Participants

TA = AGE x TLF x RRP

Where AGE = ACE + ASOE

ACE = - (30 + 5) = -35MWh

ASOE = 10 + 27 = 37MWh

TA = (-35 + 37) x 0.95 x 50

TA = \$95

Total Statement Amount
= **\$95**

IESS Calculations

All Participants

TA = (ACE x TLF x RRP) +
(ASOE x TLF x RRP)

ACE TA = -35 x 0.95 x \$50
= -\$1662.50

ASOE TA = 37 x 0.95 x \$50
= \$1757.50

Total Statement Amount
= -\$1662.50 + \$1757.50
= **\$95**

Changes to non-energy cost recovery

Non-Energy Cost	Current Recovery	IESS Recovery
FCAS Contingency Lower Services	Market Customer participants based on the net energy (imports – exports) from setcpdata	All participants based on ACE from Energy_Transactions
NMAS Network Support Control Ancillary Services (NSCAS) including test payments		
Energy or FCAS Contingency Lower Directions		
RERT (Reliability and Emergency Reserve Trader)		
Market Suspension		
APC (Administered Price Claim)		
FCAS Contingency Raise Services	Market Generator and Market Small Generator Aggregator participants based on the net energy (imports – exports) from setgenda and setsmallgenda	All participants based on ASOE from Energy_Transactions
FCAS Contingency Raise Directions		
NMAS System Restart Ancillary Services (SRAS) including test payments	All participants based on the net energy (imports – exports) from setcpdata , setgenda and setsmallgenda	All participants based on ACE and ASOE from Energy_Transactions
Non-Energy and Non-AS Directions		
FCAS Regulation Services Costs	“Causer Pays” method from those Market Generators with Market Participant Factors (MPFs), with the residual from Market Customers net energy from setcpdata	Same, but with the residual from all participants ACE

Note: Unaccounted for Energy (UFE) while technically not a NECR item, does also move from being only allocated to Market Customers (when their NMIs are consuming energy in an interval only) to being allocated to all participants based on the DME (distribution connected consumed energy). This means generator auxiliary load can result in UFE being allocated to generator participants, for their embedded generators only.

Changes to Embedded network management calculations

- The embedded network calculations for the parent NMIs will move from the Settlements system to the Metering system, so that the parent calculation is completed before being aggregated with the other reads of the parent FRMP
- Embedded network children are unaffected by the changes for IESS, the Local Retailer (LR) on their read is no longer relevant for settlements
- A simplified example below shows the reads for a single parent and child NMI on an embedded network, plus a single non-embedded NMI:

NMI	FRMP	LR	TNI	Imports	Exports	
NMI0000001	PARENTFRMP	GLOPOOL	VXXX	1	4	Single embedded network Parent NMI
NMI0000002	CHILDFRMP	PARENTFRMP	VXXX	2	2	Single embedded network Child NMI
NMI0000003	PARENTFRMP	GLOPOOL	VXXX	0.5	3	non-embedded normal NMI

Current Settlements calculation, aggregating all classes at once with parent netting:

FRMP	LR	TNI	Imports	Exports	
PARENTFRMP	GLOPOOL	VKT2	-0.5	5	negative imports (1 - 2 + 0.5 = -0.5) moved to exports

FRMP	LR	TNI	Imports	Exports	Net	
PARENTFRMP	GLOPOOL	VXXX	0	5.5	-5.5	current volumes billed

With IESS first Metering will net the child from the parent:

FRMP	LR	TNI	Imports	Exports	
PARENTFRMP	GLOPOOL	VXXX	-1	2	negative imports (1 - 2 = -1) move to exports
PARENTFRMP	GLOPOOL	VXXX	0	3	final netted parent read

Then Metering will aggregate this netted parent with other reads:

FRMP	LR	TNI	Imports	Exports	Net	
PARENTFRMP	GLOPOOL	VXXX	0.5	6	-5.5	final volumes to bill by Settlements

- There will be a change to the RM16 report as this will contain the Parent read after the children NMIs have been subtracted. This change also applies to parents of child NMIs that are market generators.
- Participants will still be able to reconcile RM16 with settlements values in statements, but will no longer be able to easily reconcile RM16 against RM21/27, without first performing the embedded network parent calculations
- Most embedded network parents will not see any change in the total energy \$ amount billed however for the very limited embedded networks having children with a different TNI than the parent, the altered energy volumes applying each TLF, will result in a change.

Industry transition to adapt to IESS settlement changes

Luke Barlow / Emily Brodie



CONTEXT – IESS SETTLEMENTS

CHALLENGES

- Material changes to the non-energy cost recovery framework leading to significant changes to NEM settlement table structures.
- Consequential impacts to participants, both for their settlement function and in other operational areas that draw energy data (directly or indirectly) from the discontinued settlement tables e.g. trading, forecasting, strategy etc.

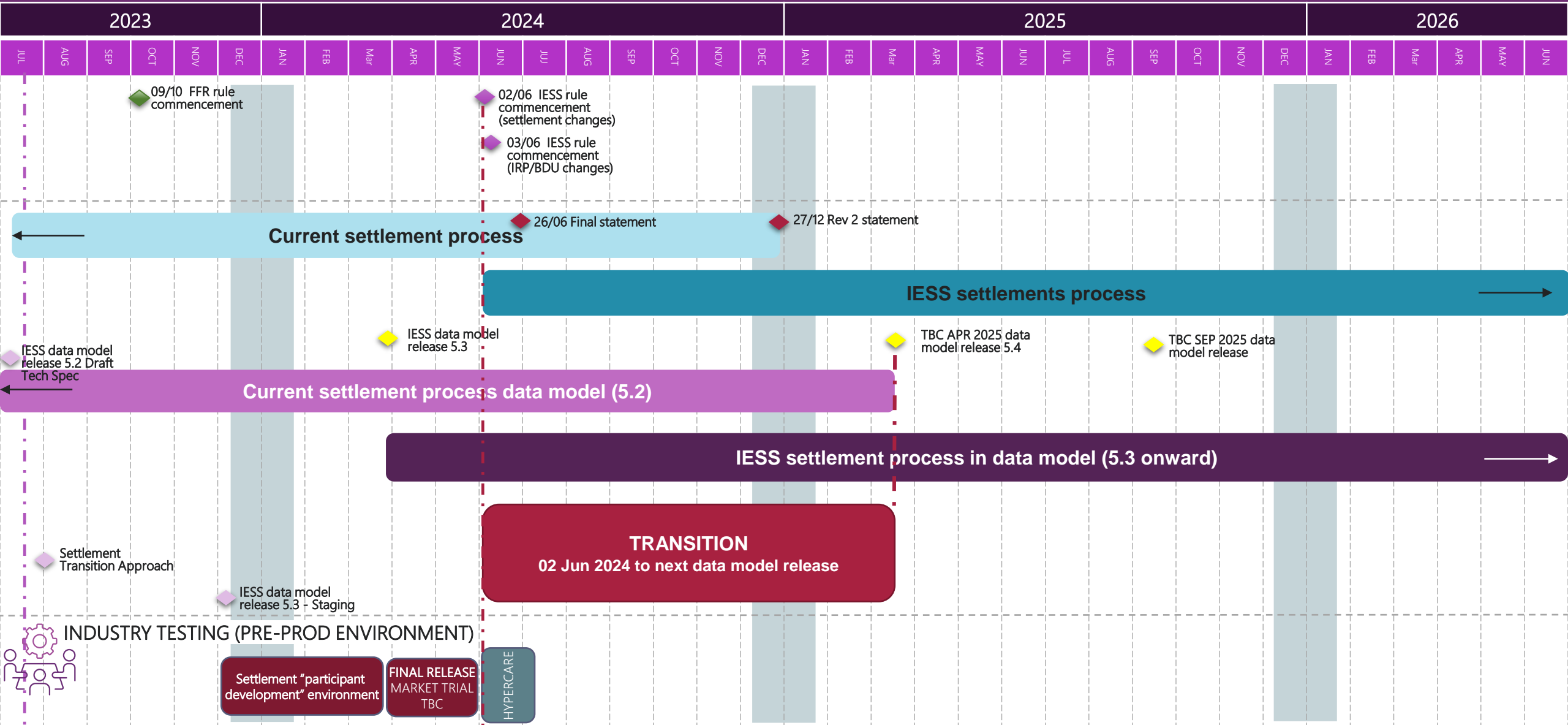
APPROACH

- Consider providing more time and support for participants to adapt:
 - Earlier tech spec and data model release where feasible
 - AEMO to provide a transition approach
 - AEMO to provide additional settlement development support.
- Seeking feedback on transition approach via:
 - Implementation Forum
 - Program Consultative Forum
 - This information session
 - 1to1 discussions with participants.

IESS settlement update

PLANNED PARTICIPANT SUPPORT	ADDITIONAL SUPPORT REQUESTED	STATUS
Implementation design description	✓	Published: AEMO IESS settlements change summary – June 2023
	✓ Additional information session	<ul style="list-style-type: none"> Scheduled for Wed 19 Jul, 10:30am to 12:30pm
Draft tech spec and data model	Earlier publication	<ul style="list-style-type: none"> Draft EMMS tech spec currently planned for early Oct 2023 Draft MSATS tech spec currently planned for mid Sep 2023 Draft data model currently planned for early Dec 2023 AEMO is assessing feasibility of earlier publication and will update industry late July 2023
Final tech spec and data model	Earlier publication	<ul style="list-style-type: none"> Final tech spec currently planned for early Dec 2023 Final data model planned for pre-prod deployment late March 2024 AEMO is assessing feasibility of earlier publication and will update industry late July 2023
	Transition period	<ul style="list-style-type: none"> Transition approach (next slide) allows participants more time to change to IESS data model Under discussion with Implementation Forum and NEM settlements specialists throughout July
	Settlement development support	<p>AEMO is investigating the potential for an IESS settlements “participant development” environment:</p> <ul style="list-style-type: none"> Would provide a static view of populated settlement table data structures supporting data model 5.3 Would allow participants to test data ingestion processes and downstream data processing using new data structures Would not necessarily replicate production settlement runs. <p>Under discussion with Implementation Forum and NEM settlements specialists throughout July</p>

IESS – INDICATIVE Settlement transition



Transition options suggested by participants

OPTIONS		AEMO RESPONSE / ANALYSIS
Participant suggestions for IESS settlements transition:		
1	Backload historical data into new table structures to support testing	Historical data could not be recalculated for the new rule, just forced into the new table structure in a way that may not always be consistent.
2	Provide data models at least 6-12 months ahead of market trials. Current planning sees ‘final’ data model in pre-prod mid March ahead of June go live. ‘Draft’ data model available Dec 2023	<ul style="list-style-type: none"> • See slides below on possible additional support and next steps.
3	Provide a view that mimics the old tables for a period to allow transition (e.g. 1 year)	<ul style="list-style-type: none"> • Not technically possible to populate <u>all</u> deprecated tables within the settlements database given processing constraints and new data format. • The provision of data for <u>a few</u> data model settlement tables may be possible, with several limitations as discussed on the next slides.
4	Update the ‘proposed to be deprecated’ tables in parallel to the new for a period to allow transition (e.g. 1 year).	As above.

Transition option raised by AEMO (1/2)*

*Adaption of participant suggestion that AEMO “provide a view that mimics the old tables for a period to allow transition.”

SUGGESTED APPROACH:

- From IESS settlement start (02 Jun 2024), will support Data model legacy settlements report (for all runs) by continuing to populate setcpdata, setgendata and setsmallgendata from the data in the new (IESS) table structure
- Would remain in place only until the following data model release, 6-12 months after the IESS data model go-live
- Other deprecated tables such as setcpdataregion, energy_customer_summary and billingcpdata would **not** continue to be updated from IESS commencement
- All market battery reads would be populated to setgendata once current dual NMI configuration is replaced by the IESS single NMI/DUID structure
- Generator exports (field EXPENERGY in setgendata) would be populated with ACE, so would not reconcile with the DLF adjusted meter read, due to the impact of UFEA
- Fields in the legacy tables that do not have equivalent fields in the new tables, for example CPRRP (= RRP * TLF) in setcpdata, would no longer be populated.

Transition option raised by AEMO (2/2)

BENEFITS

- Allows participants more time to manage downstream settlement data impacts
- Allows participants to use data from the 'old' tables that would be closely aligned with the 'new' IESS settlement information (ACE/ASOE).

DRAWBACKS

- From IESS settlement start, would not allow participants using the 'old' tables to reconcile against the new IESS settlement statements
- Participants would need to carefully assess and understand the data impacts on any downstream processes that are dependent on the 'old tables'
- From IESS commencement, AEMO Settlements team would not be able to provide reconciliation support to participants using the 'old' tables.

Participant support option being considered

- AEMO is investigating the potential to support participant development through:
 - Providing early availability of the MMS Data Model scripts v5.3
 - Providing a set of full size current (v5.3) and legacy (v5.2) versions of settlement reports to allow population of the IESS data structures in data model v5.3
 - Data will not necessarily replicate production settlement runs
 - Allowing participants to test data ingestion processes and downstream data processing using new data structures.

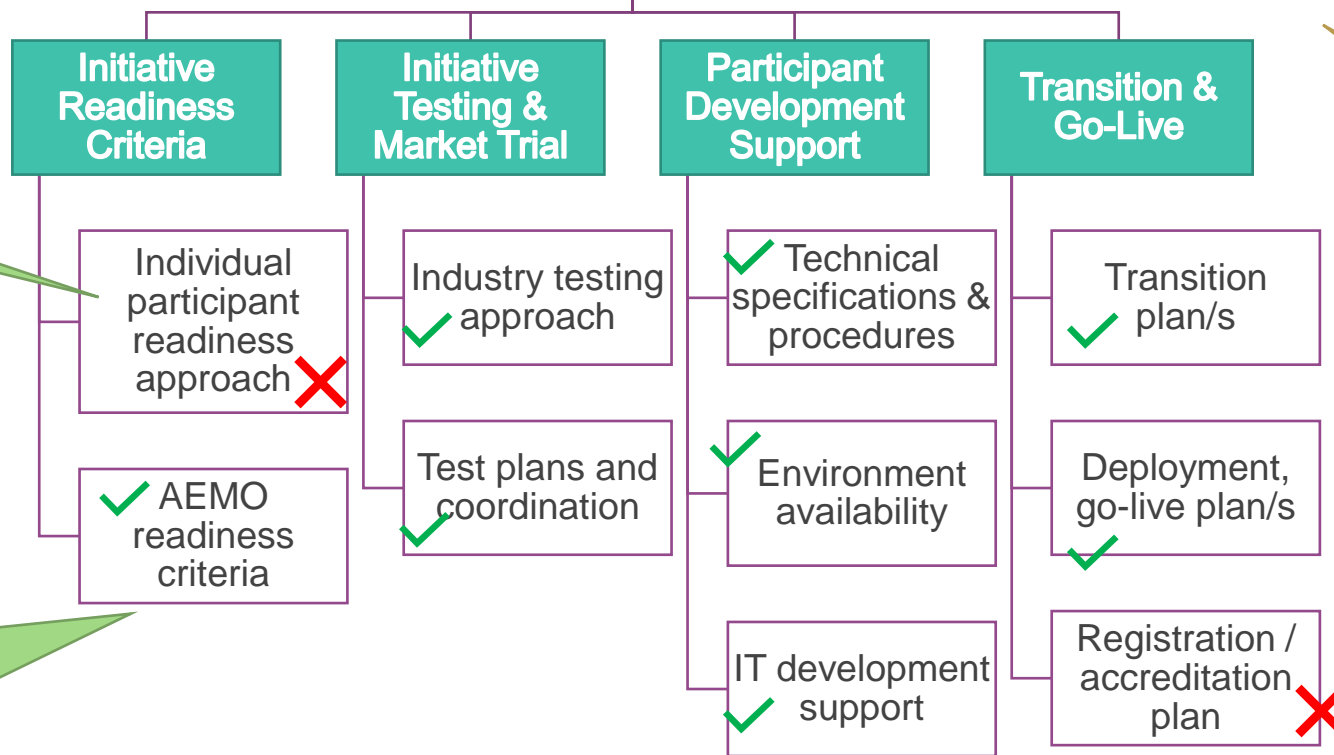
Context: NEM Reform program industry strategy

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

RISK & CONTINGENCY MANAGEMENT ✓

INITIATIVE READINESS REPORTING & GO-LIVE CRITERIA MANAGEMENT ✓

IESS readiness approach: Indicative timing

ELEMENT	DOCUMENT	IF / ITWG ENGAGEMENT	FINAL	STATUS
STRATEGY	Readiness approach	28 Mar 2023	26 Apr 2023	Complete
	★ Participant impact assessment	26 Apr 2023	TBC	On track
READINESS CRITERIA	★ Go-live criteria and monitoring	Oct 2023	Q4 2023	Not started
TEST / TRIAL	★ Market trial & industry test strategy	Jul 2023 (Implementation Forum)	Oct 2023 ITWG	Not started
	★ Detailed market trial/industry test plan	Dec 2023 ITWG	Jan/Feb 2024 ITWG	Not started
TRANSITION	Reclassifications: <ul style="list-style-type: none"> • SGAs become IRPs • Existing BDUs become IRPs • Relevant loads & generators ASUs 	n/a	15 Dec 2023	Not started
	NMI classification codes where a new code needs to apply (links to NCC go-live plan)	Nov 2023	Dec 2023	Not started
	Bi-directional units: <ul style="list-style-type: none"> • Existing BDUs to single DUID participation, including consolidating NMIs & moving to single bid forms. • “New” BDUs start single DUID participation 03 Jun 2024 	Aug/Sep 2023	Dec 2023	Not started
GO-LIVE	New NMI classification codes (links to NCC transition plan)	Oct 2023	Dec 2023	Not started
	★ Go-live plans for data model releases (wholesale and retail)(TBC)	Dec 2023	Feb 2024	Not started

Next steps & Close

Ulrika Lindholm



Next steps

ACTION	RESPONSIBLE
Consider conducting a detailed impact assessment against all areas of your operations. <ul style="list-style-type: none"> Please consider checking all areas affected by removal of SETGEN and SETCP settlement data tables and introduction of new tables. 	Participants
AEMO to explore value of transition approach and development environment with participants before a decision is made to proceed (given the significant extra development and testing work required)	AEMO
Participants to consider pros and cons of transition approach and development environment for their business	Participants
Participants to provide feedback to AEMO by Fri 28 Jul via iess@aemo.com.au	Participants

The project team welcome ongoing queries and feedback through the IESS mailbox or 1to1 conversations.

Session close



iess@aemo.com.au



[IESS Project](#)



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>