

Settlement Managers Working Group

31st October 2023



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

We pay respect to Elders past, present and emerging.

SMWG Introduction

Stephen Harrison



Agenda

- Welcome and Session Introduction 10:00 - 10:10
- Reassessing MCL under extreme market conditions 10:10 - 10:30
- CLP consultation – IESS and other changes 10:30 - 10:40
- Settlement Estimates consultation 10:40 - 11:00
- Gas Special Revisions 11:00 - 11:10
- Summer Readiness 11:10 - 11:25
- Projects Update 11:25 - 11:35
- Q&A 11:35 - 12:00

Reassessing MCL under extreme market conditions

Prudentials
Katalin Foran



Why does AEMO have a new way of assessing MCL under extreme market conditions?

- A response to the 2022 winter season
 - Very high prices, very high liabilities, comparatively low credit support held.
 - MCL significantly below what is required under the 2% prudential standard.
 - Extremely high number of trading margin breaches.
 - Some participant defaults and shortfall events.
- Why were MCLs too low?
 - Low MCLs due to overall low forecast volatility adjusted prices (2 to 4 times lower than actuals) used in the MCL calculations.
 - Forecast volatility adjusted prices are based on long term, seasonal statistical averages.
 - The calculations cannot take account of long running extreme market conditions, such as those experienced over May to July 2022.

Methodology key features

- Acts as a **safety valve** and only be triggered after a protracted period of a participant's liabilities significantly exceeding their credit support.
- **Not triggered** under normal market conditions or under short lived price spikes (i.e. heatwaves).
- Gives the **option** for AEMO to reassess MCL, but not compel it to do so.
- **Easy to understand and plan for** ahead of time (i.e. no surprise MCL revisions).
- Allows for a **staged exit** from the reassessed MCL, where participants can request an MCL review, and have part of their guarantee returned by AEMO.

Benefits:

- Reduce the likelihood and size of any shortfall
- Reduce the number of trading limit breaches
- Increase the security of collateral held by AEMO
- Lead to more efficient prudential processes
- Will help to meet the prudential standard

Relevant section of the CLP (clause 9.5)

9.5. Managing extreme market conditions

Extended periods of extreme high *spot prices* can create the potential for significant misalignment between a *Market Participant's* MCL and its accrued liabilities, resulting in repeated OSL breaches and failure to meet the *prudential standard*. AEMO monitors *Market Participants'* current accrued liabilities against their current level of *credit support* and may undertake an MCL review for a *Market Participant* under the conditions and with the modifications set out in this clause.

9.5.1. Current accrued liabilities precondition for review

- (a) If, on any day, a *Market Participant's* average current accrued liabilities (determined under paragraph (b)) over the previous 21 days exceeds the total *credit support* held by AEMO for the *Market Participant*, AEMO may reassess the *Market Participant's* MCL to reflect the average current accrued liabilities, in accordance with clause 9.5.2.
- (b) For the purposes of this clause 9.5, the amount of a *Market Participant's* **current accrued liabilities** is the aggregate of:
 - (i) net *settlement amounts* payable in respect of *billing periods* prior to the current *billing period*, which remain unpaid by, or to, the *Market Participant*, whether or not the payment date has yet been reached; and
 - (ii) net *settlement amount* payable by, or to, the *Market Participant* in respect of *transactions for trading intervals* that have already occurred in the current *billing period*.

9.5.2. Substituted calculation methodology

- (a) If AEMO reviews a *Market Participant's* MCL under this clause, the OSL is to be calculated as the average of the *Market Participant's* current accrued liabilities over the 21 days immediately preceding the date of the review (and not in accordance with clause 5).
- (b) AEMO will not change a *Market Participant's* MCL under this clause if it would be less than the sum of the OSL and PM determined under clauses 5 and 6.
- (c) A *Market Participant* whose MCL has been increased under this clause may request AEMO to conduct a further MCL review, using a recalculated OSL under paragraph (a), if the *Market Participant's* current accrued liabilities:
 - (i) are less than the value of the OSL used for the MCL calculation at the time of the request; and
 - (ii) have been decreasing day on day in the previous 7 days.

9.5.3. Effect on existing security deposits

Once AEMO has received *credit support* that is greater than or equal to the *Market Participant's* revised MCL, any security deposits not required to maintain the *Market Participant's* *outstandings* below their *trading limit* can be applied to payment of monies owing by that *Market Participant* to AEMO according to NER 3.3.13A.

MCL reassessment – trigger and calculation

Key variables for considering an MCL reassessment:

- Amount owed by participant and the amount of collateral held for participant

Trigger for MCL reassessment:

- When current accrued liabilities over the prior three-week (21 day) period > guarantees (\$) held by AEMO for that market participant.

MCL calculation:

- MCL increased in line with average **current accrued liabilities**.
- Reassessed Outstandings Limit (OSL) = average 21-day current accrued liabilities
- Prudential Margin (PM) = unchanged
- Reassessed MCL = Reassessed OSL + PM
- Once new MCL is calculated, standard process for ad-hoc MCL reviews applies. Participant to receive MCL letter, then provide a guarantee to meet MCL.
- Once AEMO has received the guarantee, any SDAs not required can be applied to settlement.

Simplified Example – increasing MCL

Original prudential settings

- MCL = \$10M (OSL = \$8M, PM = \$2M)
- Guarantee held = \$10M

Current accrued liabilities over time (during prolonged extreme market conditions)

- Day 1 - 7 = \$9M
- Day 8 -14 = \$11M
- Day 15 - 21 = \$13M

Triggering MCL reassessment

- Average accrued liabilities over prior 3 weeks = \$11M.
- This is a trigger for MCL reassessment as \$11M average accrued liabilities > \$10M guarantee held
- Under CLP clause 9.5, OSL is reassessed and increases from \$8M to \$11M. PM remains unchanged.

New prudential settings

- New MCL = \$11M+\$2M = \$13M.
- Participant to provide AEMO with an additional \$3M guarantee.

Simplified example – reducing MCL

Participant can ask AEMO to review revised MCL if current accrued liabilities are on a downward trend for 7 days and below OSL.

Revised prudential settings

- OSL = \$11M
- MCL = \$11M+\$2M = \$13M.
- Participant provided AEMO with an additional \$3M guarantee. Total guarantee is \$13M.

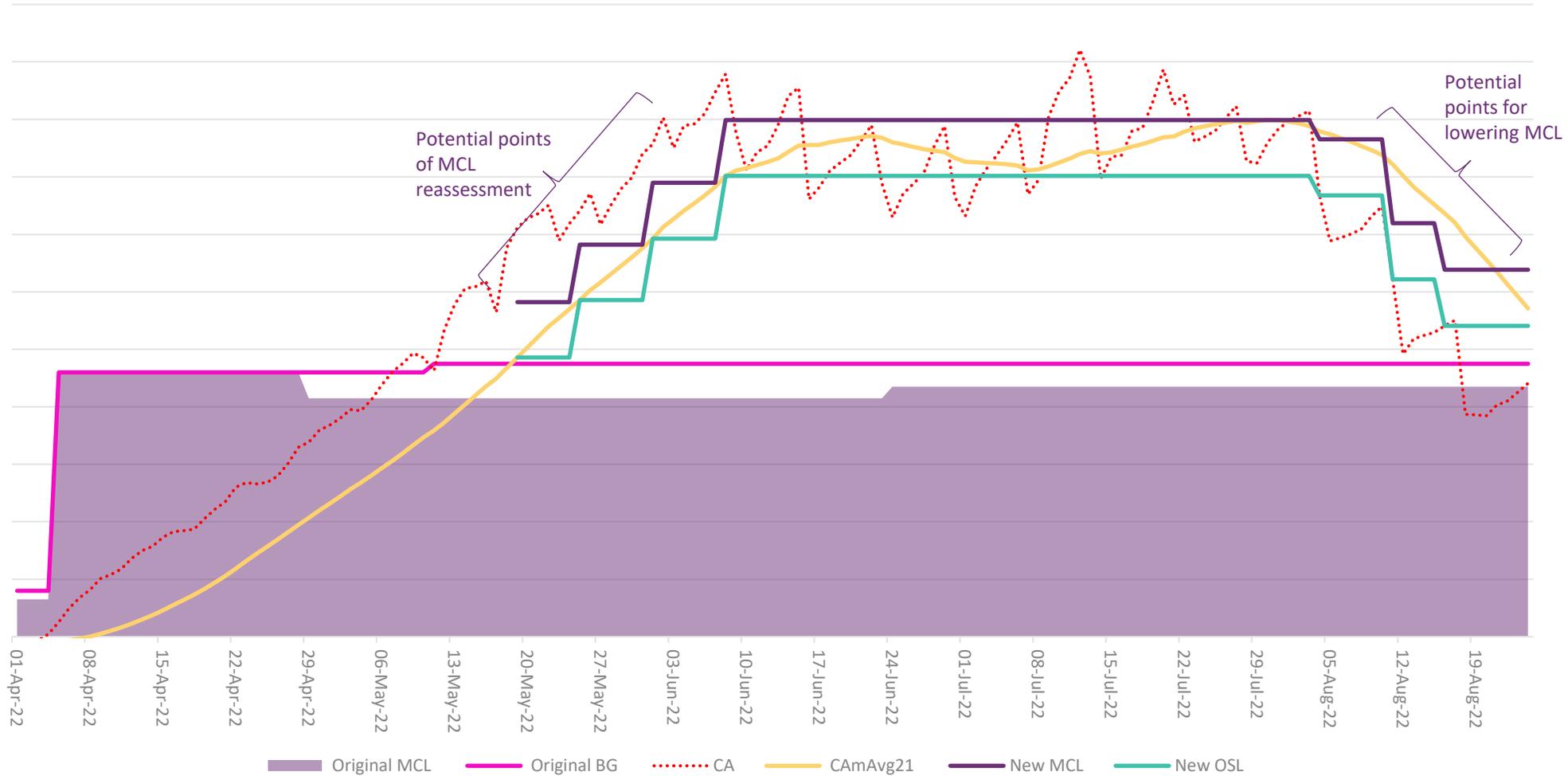
Current accrued liabilities over time

- Last 7 days - fallen from \$9M to \$7.5M
- Average over past 21 days = \$9M

Triggering MCL reassessment

- Participant can ask for MCL to be reassessed. OSL = average current accrued liabilities over past 21 days.
- New OSL = \$9M
- New MCL = \$9M + \$2M = \$11M
- AEMO to return \$2M in guarantee to participant.
- If current accrued liabilities continue to fall, participant can request additional MCL reviews and potentially have further guarantee returned
- Floor is the standard MCL calculation, i.e. for this example, the original guarantee of \$10M.

MCL reassessment example



What does this mean for participants?

- AEMO can already review MCL if load/generation or reallocations change, this change just represents an additional trigger point for an MCL review.
- Participant should always be aware of their prudential position and obligations, and how those may change based on market conditions.
- This is particularly crucial during extreme market conditions/events when MCL could be reassessed according to CLP clause 9.5 requiring additional guarantees.
- The MCL amount is a minimum requirement and participants should make their own assessment of their likely prudential obligations, and how these could change over time.
- Participants can always provide additional guarantees above MCL. This is a prudential risk management strategy employed by a significant number of participants in times of high/volatile market prices.
- Being proactive also allows participants to manage the timing constraints of procuring bank guarantees.
- An MCL reassessment according to CLP clause 9.5 would only happen after 3 weeks of accrued liabilities being above guarantee levels. By then participant should be aware of the likely need for additional collateral before AEMO does the reassessment.
- Participants who think they may be asked to provide additional guarantees and should be proactively talking to their financial institution prior to AEMO's request.

CLP consultation – IESS and other changes

Prudentials

Katalin Foran



Overview

- 3 main areas of change proposed:
 - Terminology updates relating to the IESS Rule
 - Account for ancillary services payments and costs in prudential settings.
 - Improve prudential determinations for new participants with bidirectional energy flows.
- AEMO's consultation webpage for the proposal is at: <https://aemo.com.au/consultations/current-and-closed-consultations/credit-limit-procedures-iess-and-related-changes>

Terminology updates

Reasons for change

- IESS Rule, effective from June 2024

Outline of changes

- Updates to terms such as load and generation with terms such as adjusted consumed energy (ACE) and adjusted sent-out energy (ASOE).
- Introduction of new market participant category of integrated resource provider (IRP).

Key takeaway – calculation of MCL remains unchanged, changes reflect terminology updates only.

Incorporating AS into MCL calculations

Reasons for change

- To date ancillary services have been excluded from MCL calculations as was small in comparison to energy and reallocations.
- Ancillary service cost have grown and now in some cases can have meaningful impact on MCL calculations.
- There are growing number of participants (such as batteries) whose business model relies in a large part on ancillary service payments.
- As ancillary services are excluded from MCL calculations, participants who are paid by AEMO for ancillary services, have a higher MCL calculated than indicated by their actual prudential risk.
- A small number of participants who pay for ancillary services, have a lower MCL calculated than indicated by their actual prudential risk.

Outline of changes

- Introduce a new term into the OSL component of the MCL calculations ($MCL = OSL + PM$)
- New term will be AEMO's estimate of the dollar value of the participant's average daily ancillary service transactions related trading amounts.
- Participants who receive ancillary service payments – may have a decrease in MCL (in some cases to zero).
- Participants who make ancillary service payments – may have an increase MCL. Very few participants impacted as any increase in MCL would be small, and likely be lower than rounding effects (up to nearest 10K under 250k, and nearest 100k for above for MCL).

Key takeaway – the inclusion of ancillary service costs in the MCL calculation will mainly impact participants whose business model relies on providing ancillary services by reducing their MCL (in some cases to zero) to be in line with their prudential risk.

MCL for participants with ‘Significant Bidirectional Flows’

Reasons for the change

- CLP is not set up to take account of bidirectional flows when calculating prudential requirements for **new** market participants.
- Currently the minimum MCL is \$10,000 and is triggered if there is **any** load, irrespective of how small it may be. Generation is **not** taken into account.
- As increasing number of participants have bidirectional flows (i.e. batteries/hybrid systems) this process needs to be standardised.

Outline of changes

- Separate MCL calculation for new participants with significant bidirectional flows.
- Significant Bidirectional Flows – participants with bidirectional units where difference between the output and consumption attributable to the unit in a relevant period is anticipated to be less than 30%.
- Opted for simple approach of setting MCL starting at \$10,000 for up to 100MW of capacity, increasing by \$10,000 for each additional 100MW of capacity.
- This simplified MCL calculation will cover the prudential risk adequately for a wide range of unit sizes, while keeping it simple for new participants.
- The calculation will only apply to new participants, and typically within 2-3 months of normal operations, MCL can be recalculated, using the standard MCL calculation, taking into account both load and generation.

Key takeaway – all new batteries will have an MCL starting at \$10,000 for up to 100MW of capacity, growing in increments of \$10,000 for every additional 100MW of capacity (i.e. having to provide a minimum \$10,000 guarantee to AEMO when registering). Once operational for a few months, MCL will be recalculated to reflect actual load/generation and ancillary service transaction patterns.

MCL for participants with ‘Significant Bidirectional Flows’

Capacity (MW)	OSL	PM	MCL
Up to 100	\$8,000	\$2,000	\$10,000
100 - 199	\$16,000	\$4,000	\$20,000
200 – 299	\$24,000	\$6,000	\$30,000
300 – 399	\$32,000	\$8,000	\$40,000
400 – 499	\$40,000	\$10,000	\$50,000
500 – 599	\$48,000	\$12,000	\$60,000

Settlement Estimates Consultation – IESS and other changes

Prudentials

Ben Beikoff

Pedro Riveros



Overview

- Consultation in progress on the **NEM Settlement Estimates Policy**
- Settlement Estimation applies for any whole day in the Outstanding period where neither Final or Prelim data is available, and consists of:
 - Interim billing runs: based on INITIAL meter data, **not** published via Data Interchange
 - Daily billing runs: no meter data available, published via Data Interchange

Prudential Day	Week 1							Week 2							Week 3							Week 4							Week 5							Week 6																							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat																	
Mon Wk 5	Final							Preliminary							Preliminary							Interim							D	D	PD																												
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Fri Wk 5								Preliminary							Preliminary							Preliminary							Interim	Daily	PD																												
Mon Wk 6								Final							Preliminary							Preliminary							Interim							D	D	PD																					

PD = Prudential Day

Proposed changes to the Policy

- i. Minor terminology updates relating to IESS Rule
 - ii. Accounting for MSRPs in the Policy
 - iii. Simplifying the settlement estimations data hierarchies
 - iv. Improving settlement estimations in the absence of meter data at the TNI level
 - Removal of the flawed regional scaling factor methodology – example shown later
 - Replaced with multiple linear regression model
 - Worked example of the regression model now available upon request, will be published alongside the draft report
- AEMO's consultation webpage for the proposal is at:
<https://aemo.com.au/consultations/current-and-closed-consultations/nem-settlement-estimates-policy-consultation---iess-and-related-changes>
 - Draft Policy published alongside consultation paper

Terminology updates

Reasons for change

- IESS Rule, effective from June 2024.

Outline of changes to Policy

- Updates to terms such as load and generation with terms reflecting energy quantities.
 - See draft Policy for specific definitions.

Key takeaway – no changes to the calculation of settlement estimations from this, it reflects terminology updates only.

Accounting for MSRPs in the Policy

Reasons for change

- SAPS Rule became effective on 30 May 2023, relevant guides and procedures are being updated to accommodate this change.

Outline of changes to Policy

- To include the current practice for estimating energy in a Regulated SAPS for MSRPs (Market SAPS Resource Providers).
 - i.e. Use the latest metering data available regardless of quality, otherwise an estimate of zero is used.

Key takeaway – to update the Policy to include the settlement estimations methodology for MSRPs.

Simplifying the settlement estimations data hierarchies

Reasons for change

- The Policy currently outlines four data hierarchies, catered to four specific participant categories.
 - Does not apply to all market participant categories.
- Current hierarchies contain data sources and estimation methodologies that add insufficient value to the estimation process.

Outline of changes to Policy

- Changing to a single concise hierarchy applicable to all market participant categories.
- Changing the first priority data source to use the latest metering data available, regardless of quality.
- Removal of scaling factors
 - Replacing the use of regional generation static regional scaling factors with the appropriate DLF at the relevant TNI.
 - Regional scaling factors (aggregated reads)
 - TNI scaling factors
 - Participant scaling factors

Key takeaway – to update the Policy to have just one concise hierarchy for simplicity and removing/replacing estimation methodologies that don't add value to the estimation process.

Improving settlement estimations in the absence of meter data at the TNI level

Reasons for change

- Current methodology uses like-day energy and regional scaling factors
- Regional scaling factors can be abnormal when using like-days
- Accuracy of this method been decreasing since 2013 and has recently caused material impacts.
- A regional scaling factor for every participant in a region has the issue of ‘same size does not fit all’.

$$\text{Regional Scaling Factor} = \frac{\text{Region Demand (Previous day)}}{\text{Region Demand (Like - day)}}$$

Outline of changes to Policy

- Replace the regional scaling factor method with a **multiple linear regression model**.
- Uses the latest 28 days of available meter data to calculate a specific value per participant and NMI Classification.
- The regression model will use predictor values such as:
 - Business day vs non-business day
 - Period ID
 - Region demand
- Replace the data source for participant energy from settlement values to meter data values.

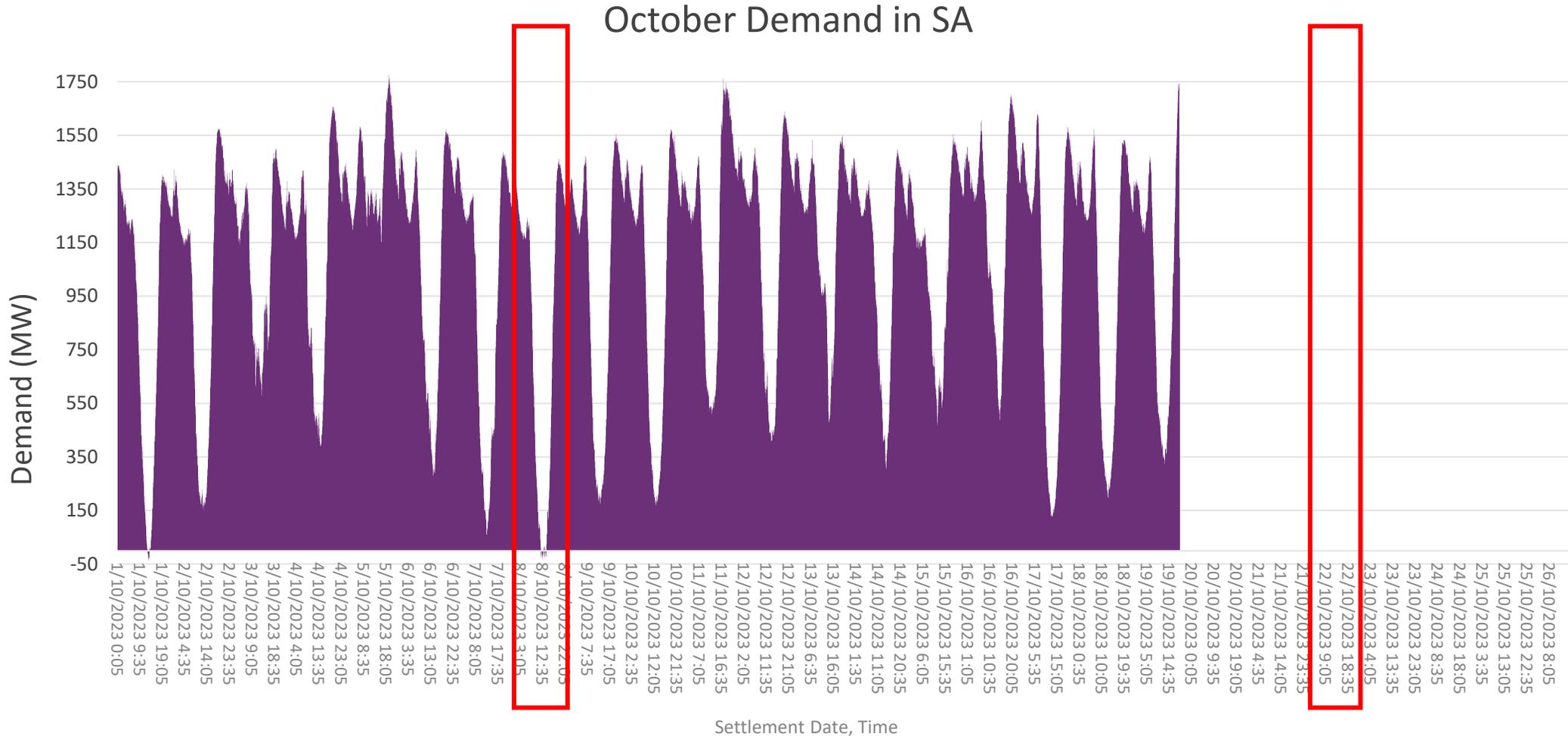
Key takeaway – a new multiple linear regression model to replace the flawed like-day regional scaling factor method for determining settlement estimations at the TNI level.

Scaling Factor anomalies are here!

- Recent South Australian region demand has hit record lows
- Several participants affected on Monday October 23rd
- Big fluctuations on outstandings in both directions

- We have been working on a solution, and is expected to be implemented as part of IESS project in June 2024
 - Multiple linear regression model

Demand in South Australia



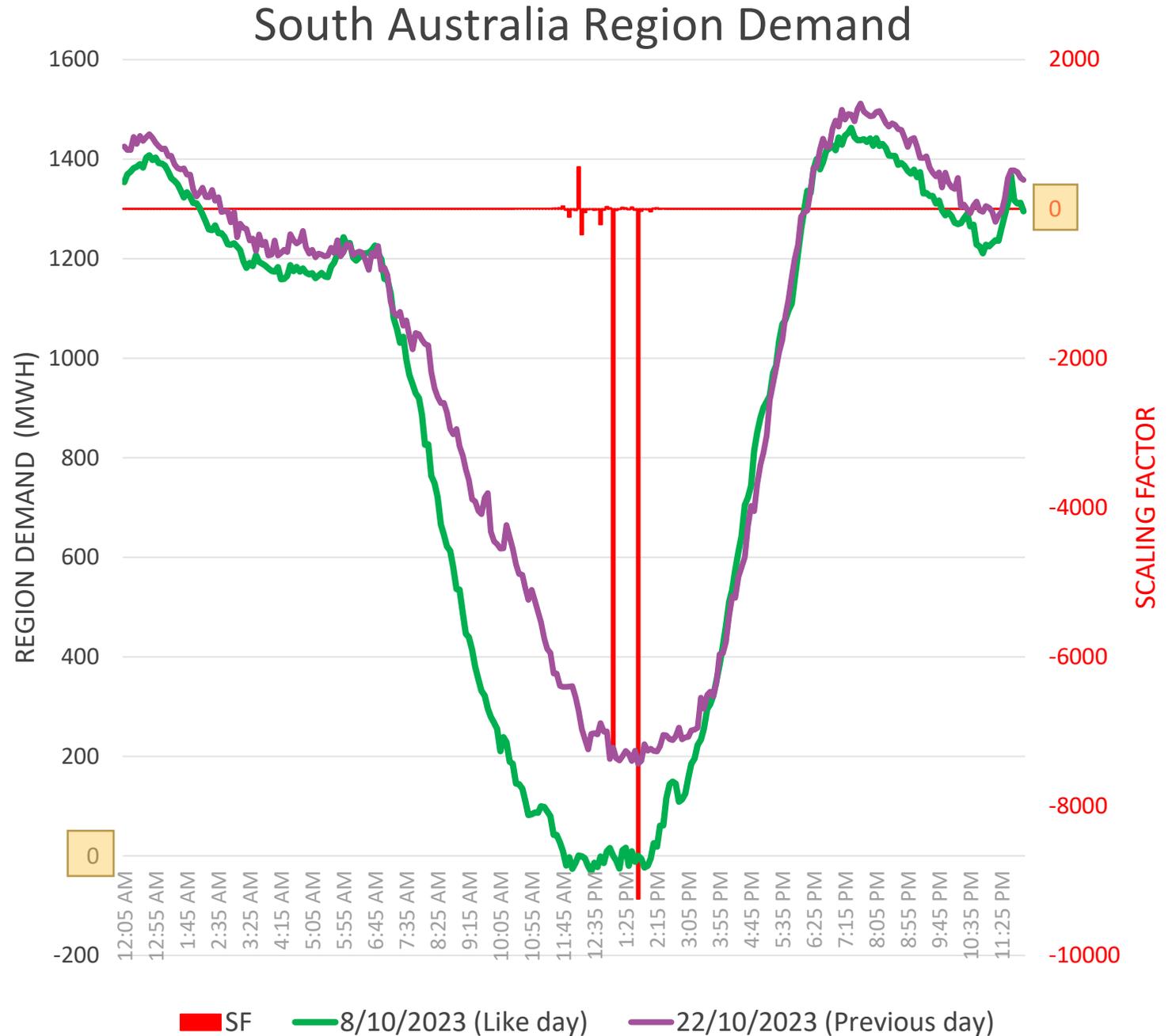
Like-day: the same day of the week from the most recent billing period for which preliminary data is available and published.

What happened?

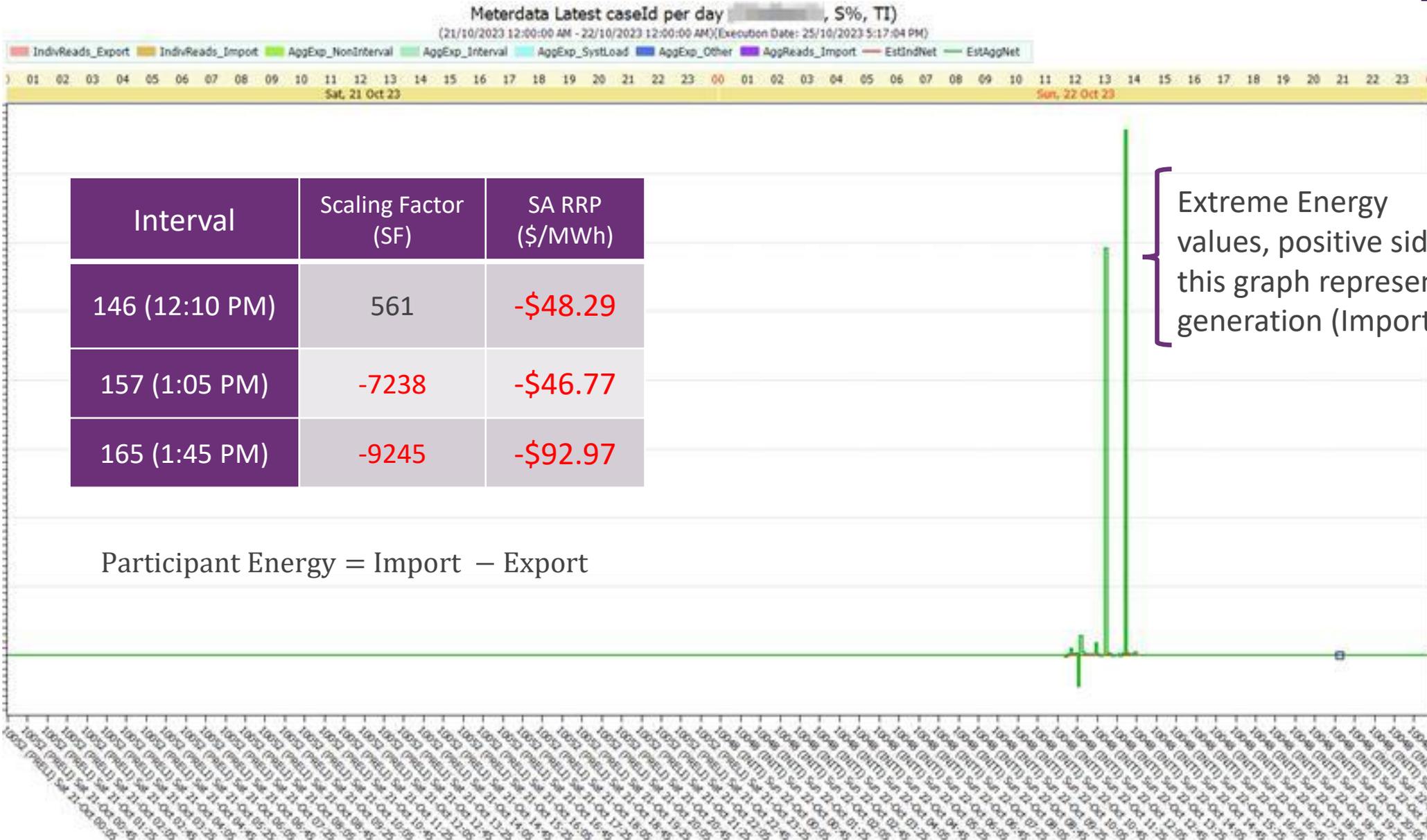
Regional scaling factor (SF) formula:

$$SF = \frac{\text{Region Demand (Previous day)}}{\text{Region Demand (Like - day)}}$$

Interval	Demand (previous day)	Demand (like-day)	Scaling Factor (SF)
146 (12:10 PM)	291.51	0.52	561
157 (1:05 PM)	217.14	-0.03	-7238
165 (1:45 PM)	184.89	-0.02	-9245



Scaling factor impact on estimation



When is the prudential position fixed?

- If participant is in trading limit breach:
 - Based on an assessment on the scaling factors and participant impact a prudential adjustment could be done. It will reflect in the position and the dashboard on the same day.
- Data will naturally correct itself once an Interim bill run processes INITIAL meter data
 - At D-3 if all processes run as per usual prudential dashboard will show the new data.

Prudential Day	Week 1							Week 2							Week 3							Week 4							Week 5																				
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat														
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Thu Wk 5	Final							Preliminary							Preliminary							Preliminary							Interim	Daily	PD																		

If abnormal SF were for Sunday estimation.

Monday prudential Position, will reflect it

Interim run with Sunday data will resolve the issue for Wednesday position

However,...

- If a participant uses data interchange (DI) to see AEMO data in its own system:
 - The correction of the SF abnormal data will only be visible when Preliminary is published.
 - That is, for Sunday Oct 22nd abnormal scaling factors, Participants get the fix by Friday 3rd of Nov when the Prelim is posted.
- Prudential team is requesting internally for a DI report to:
 - Allow participants to subscribe for **interim settlement/billing** data.
 - Subscribing to such report will be like the existing NEM confidential settlements/billing data for prelim, final and revisions.
- Please let us know at prudentials@aemo.com.au if you would be a subscriber of such report.

Run type	NEM confidential <u>meter data</u>	NEM confidential <u>settlements data</u>	NEM confidential <u>billing data</u>	NEM confidential <u>prudential data</u>
Daily	Not published	Published	Published	Published daily. Prudentials is an aggregate of all this information.
Interim	Not published	Not published	Not published	
Preliminary	Published	Published	Published	
Final	Published	Published	Published	
Revision 1 & 2	Published	Published	Published	

Gas Special Revisions

Gas Settlements
Nipun Saxena



Agenda

1. At a Glance

- Definition
- NGR obligation
- Special Revision guidelines

2. Special Revisions issued since June 2021

- Financial impact

At a Glance

- Special Revisions are conducted to correct any errors that materially affect the participants.
 - Can be conducted within 18 months of issue of a revised statement
 - Affected Market participants are informed within 5 business days of AEMO deciding if the error is material.
 - Timetable is communicated to the market well in advance for any feedback regarding the publishing/payment dates.
- [NGR part 19 \(249\)](#) provides the relevant information regarding special revision which is supplemented by the [Gas market settlement Revision guideline](#) published on AEMO website.

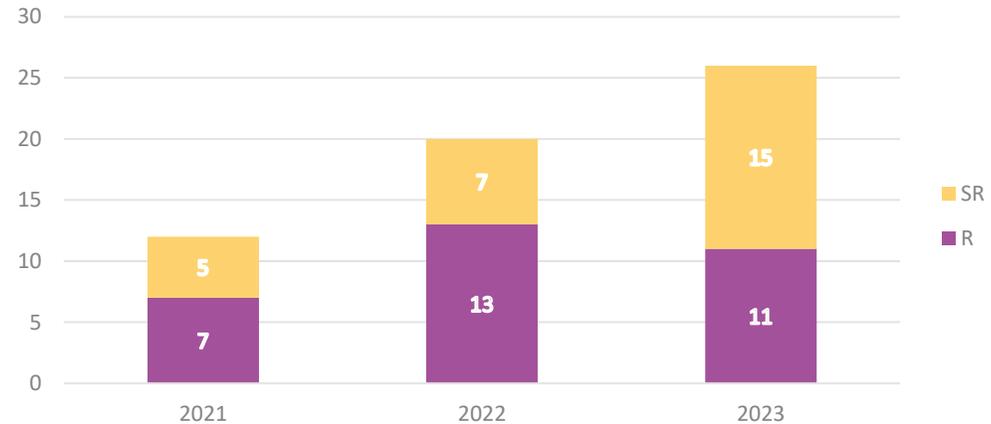
Financial Impact

- Jun 2021 – Dec 2021
- Special Revisions published – 6
- Net Market Impact - \$3,556,717.65

- Jan 2022 – Aug 2022
- Special Revisions published – 8
- Net Market Impact - \$7,706,049.35

- Oct 2022 – Nov 2022
- Special Revisions Published – 2
- Net Market Impact - \$3,686,182.16

Number of Revisions/Special Revisions settled since Jun 2021



Current Process

- AEMO relies on responsible parties to inform about any changes to metering data outside the 6 month revision period.
- Once information is received, AEMO runs an impact assessment as per the Gas Market Special Revision Guideline to calculate the financial impact.
- If the impact is greater than the defined threshold, the affected participants are informed and a settlement timetable is prepared.

Under Consideration...

- AEMO to proactively check for any basic meter updates on a regular basis
- MDA to inform AEMO as soon as there are any updates to Interval metering data irrespective of the magnitude.
- AEMO might also consider to just look at the metering data closer to the expiry i.e. 18 months after the revision statement has been issued if not informed by responsible parties so the absolute latest data is used for Special revisions if required.

Other Gas market updates

- DWGM and STTM Special Revision financial threshold review due by 24 Nov 2023, email feedback requested from relevant market participants via AEMO Settlements Communication No. 565
- LNG summary reports detailing changes in AEMO's LNG Reserve, as required by NGR286C(2) due to be published on AEMO website by 1 November for the previous April to September period.

Summer Readiness

Prudentials

Sarah Gould

Cheryl Huang

Suchita Balasubramanian



Agenda

- **Melbourne Office Move and Bank Guarantees**
- **Austraclear Refresher**
- **Christmas Contacts**



Melbourne Office Move

Prudentials
Sarah Gould

Melbourne Office Move

We're moving!

New address:

Level 12, 171 Collins Street

Melbourne VIC 3000

Move in date: Monday 04 December 2023

Settlement Communication reminders will be sent out closer to the date

Bank Guarantee

- Updated bank guarantee proforma
 - To include the new AEMO Melbourne office address
 - Will be available on the AEMO website in November
- Advise your bank relationship managers
- AEMO will send a copy of the new proforma to all financial institutions that currently have guarantees with AEMO
- Reach out to prudentials@aemo.com.au with any questions or concerns
- Settlement Communication reminders will be sent out closer to the date



Austraclear Refresher

Prudentials
Cheryl Huang

Austraclear Service Release 16 (SR16)

- Go live on Mon 20th November 2023
 - Installation is now available for the new production version
[Austraclear Service Release 16 scheduled for 20 November 2023- File Deployment Production GUI \(asxonline.com\)](#)
 - Mandatory connectivity test: Sat 18th November 2023 (possibly from 2pm to 4pm)

- Enhancements in SR16

[Austraclear Service Release 16 Enhancements \(asxonline.com\)](#)

- Contact Austraclear for more information

ASX Austraclear Service Desk

ASX Settlement Corporation

t: 1300 362 257 | Intl: +61 2 8298 8474| f: 1800 172 248

e: austraclear@asx.com.au | w: www.asx.com.au

Austraclear Assured Mode Operations

- What is Assured Mode Operations?
 - Operations to ensure orderly settlement after an event when Austraclear is unable to communicate with the Reserve Bank Information and Transfer System (RITS).
- Who decide to invoke Assured Mode after such an event?
 - Joined decision between the Reserve Bank of Australia and Austraclear.
- Assured mode test
 - Austraclear conducts the test every year to increase the knowledge of this operation.
 - The test exercises this operation with all interested participants, especially the settlement banks.
 - Has your bank participated in the exercise this year?

Austraclear Refresher

- Changes that might impact your settlements:
 - Austraclear account changes
 - Bank account changes
- Things that you can do to mitigate risks in your settlements:
 - Avoid changes near settlement dates.
 - Inform AEMO prudential team about any changes to Austraclear.
 - Request for a \$ test.
- Prepare for holiday season:
 - Provide AEMO your settlement and prudential contacts for the holiday period.
 - Ensure Austraclear access and tokens are handed over before staffs go on leave.
 - Check if you bank contact's leave plan and ask for a backup contact.
 - Keep your bank contact's details handy.
 - Opt-in for early payment.



Christmas Contacts

Prudentials

Suchita Balasubramanian

Christmas Contacts

- Settlement communication emails will be sent soon
- Provide at least two staff members' contact details for the holiday period
- Provide Prepayment/SDA instructions earlier than usual
- Early payment is strongly recommended to avoid any delays
- Recommended to provide extra Credit support or Cash to manage prudentials
- Manage your subscriptions through settlements direct
- Request for a refresher Prudentials and Clearing training to manage Summer risks

Projects Update

AEMO NEM Settlements

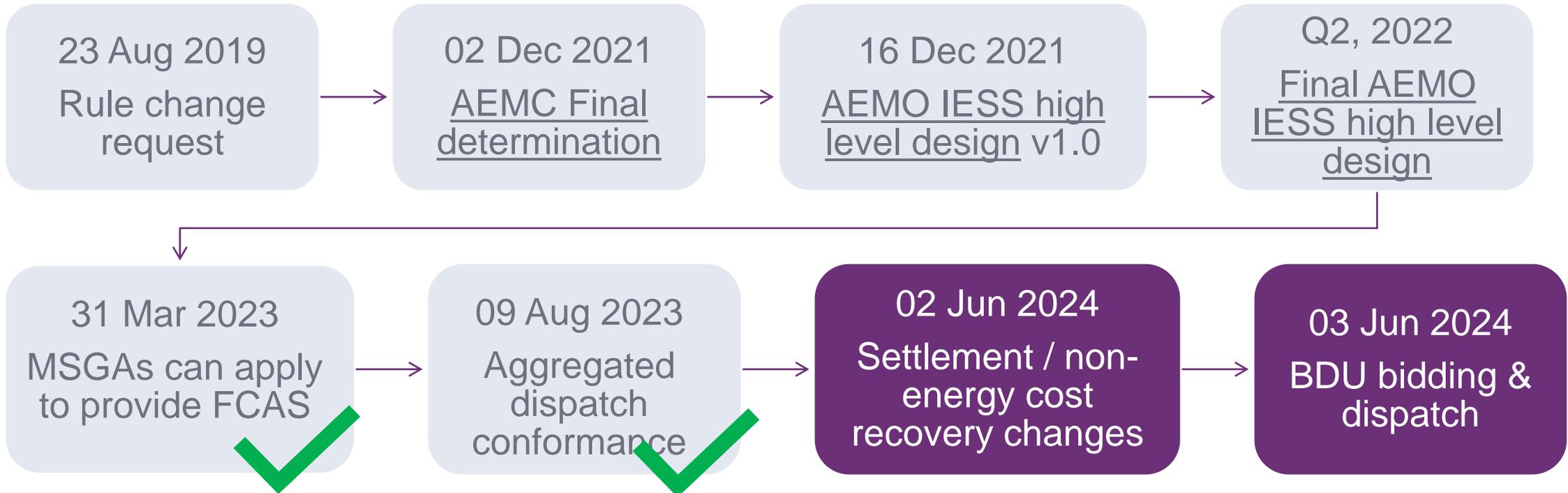
Darren Gatty



NEM Settlements Projects Summary

- FFR went live on 09/10/2023
 - Very Fast Raise and Lower (1sec) services are now being dispatched and settled
 - Data Model v5.2 was released to include the new services in the existing table structure
 - Updated V5.0 of the [Settlements Guide to Ancillary Service Payment and Recovery](#) has been published to our website
- IESS is getting close, with go live in June 2024
 - More detail on following slides
- FPP is the next major change underway
 - Introduces frequency performance payments and charges
 - Alters the recovery methodology for the Regulation FCAS services, moving away from the current causer pays approach
 - Dec 2024: Non-Financial Operation commences (to be confirmed)
 - 8 June 2025: Financial Operation commences

BACKGROUND: IESS high-level Timeline



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

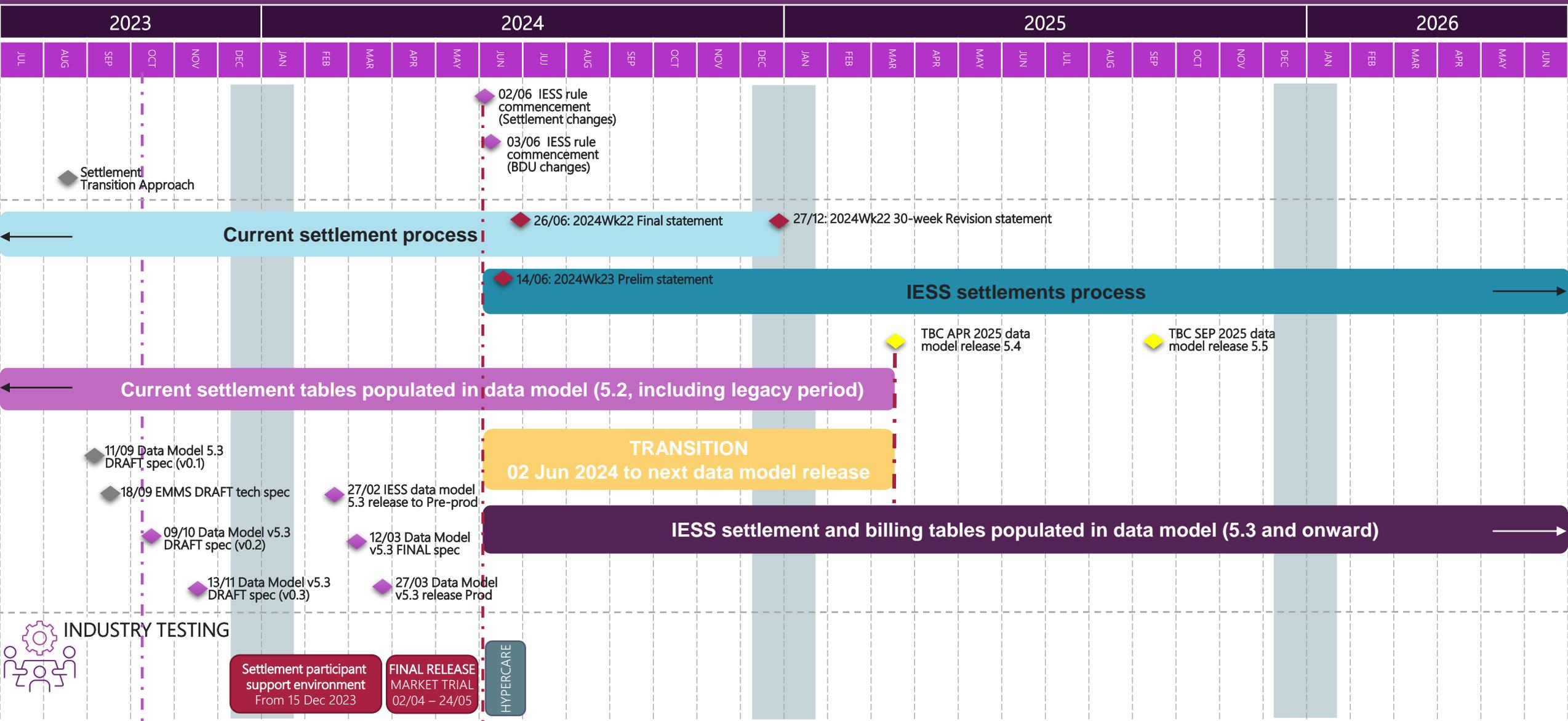
REFERENCES

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

IESS June major changes summary

- The headline change in the Integrating Energy Storage Systems (IESS) rule change is how batteries are to be registered, connected and managed in AEMO 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
- An additional major change with the IESS rule significantly alters the calculation method to be used for the 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 settlements database structure changes are required to enable the new calculations, these changes will flow into the Data Model and impact participant reconciliation and reporting activities and 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 settlement timeline and transition



- ◆ IESS Confirmed
- ◆ Indicative
- ◆ Concurrent initiatives
- ◆ Completed activities
- Summer holiday periods: Avoid industry IESS activities where possible
- Market trial (Pre-production) 02 Apr to 25 May 2024

Where to access IESS resources

Industry Presentations

- [5 Oct Settlements Transition and Q&A Session Slides](#)

Guides

- [IESS Settlements change summary](#)
- [IESS Data Model Settlements Mapping Explainer](#)
- [Settlement Report – Format updated for IESS](#)

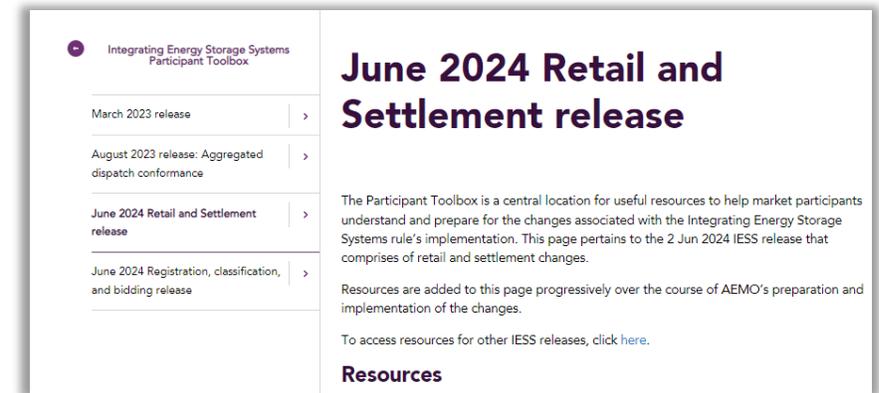
Industry readiness & Go-Live

- [IESS June 2024 Readiness approach](#)

Technical documentation

- [EMMS Technical Specification - June 2024](#)
- [MSATS Technical Specification - June 2024 v0.01](#)
- [EMMS - Technical Specification - Data Model v5.3](#)

Resources available through IESS Participant Toolbox at AEMO's website



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

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



Q&A

Or email support.hub@aemo.com.au



For more information visit

aemo.com.au