

UFE Focus Group Meeting #5

15 March 2022



Welcome & Housekeeping

- Welcome
- Housekeeping
 - These meetings will be recorded for minute-taking purposes
 - Please keep yourself on mute when you are not speaking
 - Feel free to use the chat or come off mute should you have any questions or comments
 - Questions which cannot be answered on the day will be captured and answered asap
 - We will endeavour to circulate 'Notes' within a week of the focus groups
 - Actions will be captured, shared and completed as required
 - Any questions, concerns or suggested agenda items can be sent to GSMSDR@aemo.com.au

Agenda

NO	AGENDA ITEM	RESPONSIBLE
1	Welcome	Greg Minney
2	Short-term Priorities <ul style="list-style-type: none">Participant lead data population activities	Paul Lyttle
3	Discussion Topics: <ul style="list-style-type: none">Updated Overview of UFE by Local areaNMI Classification updates for GS commencement	Paul Lyttle Greg / Darren
4	Market Trial Approach and industry go-live considerations	Greg Minney
5	Next Steps and General Business	Greg Minney

Attendee	Organisation	Attendee	Organisation	Attendee	Organisation	Attendee	Organisation
Paul Lyttle	AEMO	Megan Ide	Electranet	Robert Larkin	SA Water		
Karyn Bowie	AEMO	Dino Ou	Endeavour Energy	George Raybould	SA Water		
Greg Minney	AEMO	Justin Wearne	Energetiq	Angela Sheehy	Stanwell		
Darren Gatty	AEMO	Zahara Magriplis	Energex	Anatoliy Tsymay	Stanwell		
David Ripper	AEMO	Justin Chin	EnergyAustralia	Sudeshna Nanda	Stanwell		
Tui Grant	AEMO	Nick Hickman	Energy Queensland	Sara Yakimoff	Stanwell		
Jeff Roberts	ActewAGL	Jo Sullivan	EnergyAustralia	Justin King	Stanwell		
Mark Riley	AGL	Ingrid Farah	Ergon	Deepak Sood	Tango Energy		
Lori Scarano	AGL	Melissa Ferris	Essential Energy	Adrian Honey	TasNetworks		
Maree Madden	AGL	Lauren Macey	Essential Energy	Paul Willacy	Tas Networks		
Zulfi Syed	Alinta Energy	Fiona Ninness	Essential Energy	Prameesha Weerasinghe	ZEN Energy		
Ravi Govindu	Alinta Energy	Jeff Roberts	Evoenergy	Heath Winning	ZEN Energy		
Sumitha Thilak	Alinta Energy	Carla Adolfo	Intellihub	Sridhoran Aiswarya	TBC		
Therese Sato	Alinta Energy	Mac Leung	Jemena				
Craig Steele	Aurora Energy	Fergus Stuart	Origin				
Alexander Riseley	Aurora Energy	Matthew Lee	Origin				
Kevin Boutchard	Aurora Energy	Karel Mallinson	Powerlink				
Wayne Turner	Ausgrid	Dean Knight	Powerlink				
Justin Betlehem	Ausnet Services	Nick Gustafsson	Red Energy				
Hieu Ngo	BlueNRG	Mark Reid	Red Energy				
Sujatha Vutukoor	Brave Energy	Christophe Bechia	Red Energy				

Short-term Priorities

Paul Lyttle, Greg Minney & Darren Gatty

Participant Lead Data Population

- Participant population activities to allow for reflective calculation of UFE
 - All active tier 1 Basic NMI's to deliver metering data to AEMO
 - Quantity of outstanding meters for each Profile Area
 - Creation, Activation and data delivery for non contestable unmetered loads
 - Quantity of active NMI's for each Profile Area
- Implementation of cross boundary meters to reflect distribution area to distribution area flows
 - Number of Cross Boundary NMI's with Standing Data registered in MSATS
 - Comments identify the Number of Greenfield sites within registered totals

Participant lead population activities

Current Status

Profile Area	Tier 1 Basic Meter with No Active Datastreams	NCONUML NMIs (Completed)	Registered Cross Boundary NMIs	Cross Boundary Comments
ACTEWAGL	5	32	0	
AURORA	4	1965	0	
CITIPOWER	0	5622	21	Total Includes 7 Greenfield
COUNTRYENERGY	0	6305	15	
ENERGEX	0	32883	4	
ENERGYAUST	0	200	13	Total Includes 3 Greenfield
ERGON1	0	9848	1	
INTEGRAL	0	7605	0	
POWERCOR	19	9141	6	
TXU	2	6059	5	
UMPLP	7	9471	0	
UNITED	0	8840	15	Total Includes 11 Greenfield
VICAGL	30	3866	9	Total Includes 3 Greenfield
Total	67	101131	89	

Participant Lead Data Population Summary

- Tier 1 Basic metering data
 - Majority of remaining meters are within 2 Profile areas (49): Total outstanding 67
 - 7 Profile Area have NO outstanding T1 basic meters
- Non contestable unmetered load activity completed with metering data delivered
- Cross Boundary meters
 - Total of 89 cross boundary NMIs have been registered in MSATS
 - Within the total of Cross Boundary NMIs 24 have a status of Greenfield
 - Impact of greenfield – These have registered standing data, but metering data is not being received, so impact on respective UFE calculations is yet to be seen

UFE Observations

Paul Lyttle

UFE Observations and Usage Assumptions

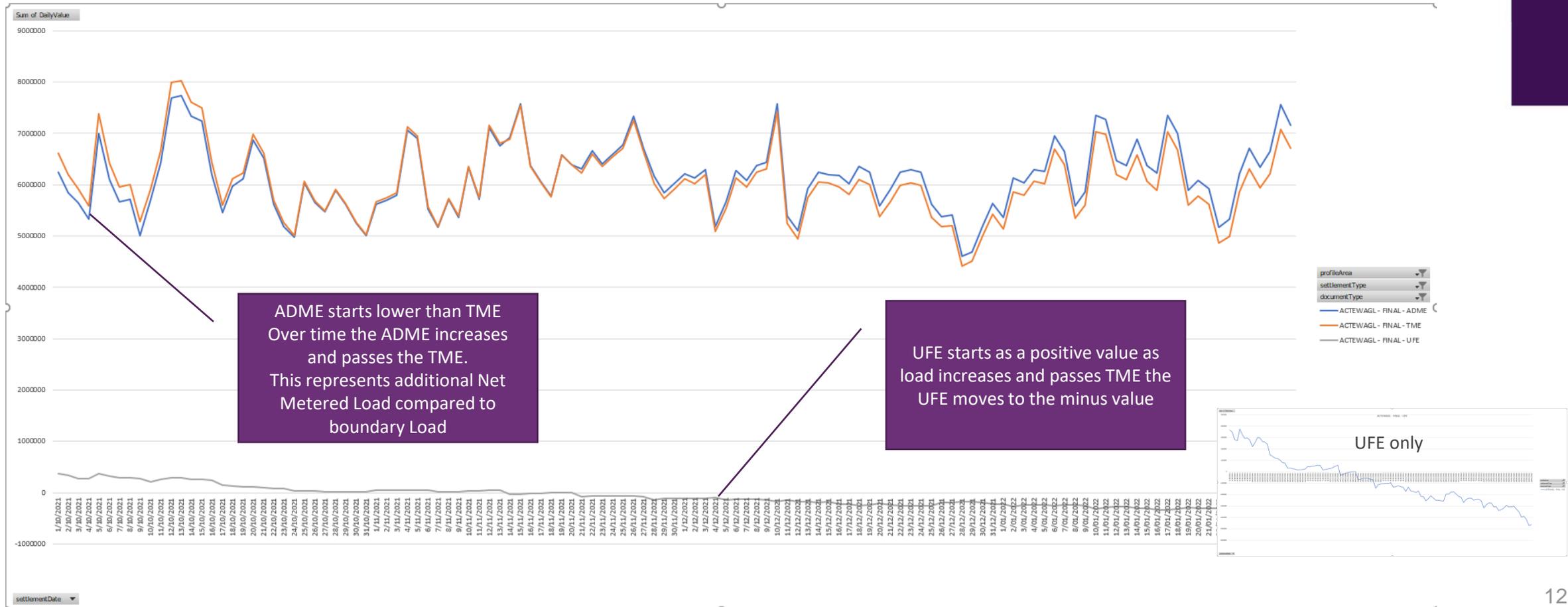
- The following slides take a look at the UFE observations of the Final settlement meetings data
- Graphs provide examples of data trends
- Not all profile areas have been covered however the same observations can be applied to any profile area

UFE Calculations

- $UFE = TME - DDME - ADME$
- $UFEA = UFE \times (DME/ADMELA)$
- $UFEF = UFE/ADMELA$
- **UFE** is total unaccounted for energy for a Local Area
- **TME** is total energy inflows into a Local Area (TNSP to DNSP connection points and cross boundary inflows for receiving DNSP)
- **DDME** is cross boundary energy outflows from supplying DNSP
- **ADME** is the aggregate of energy flows for each connection point in a Local Area
- **UFEA** is the allocation of Local Area unaccounted for energy for a Market Participant
- **DME** is the load component (ME- x DLF) at a connection point in the Local Area
- **ADMELA** is the aggregation of all DME amounts in a Local Area

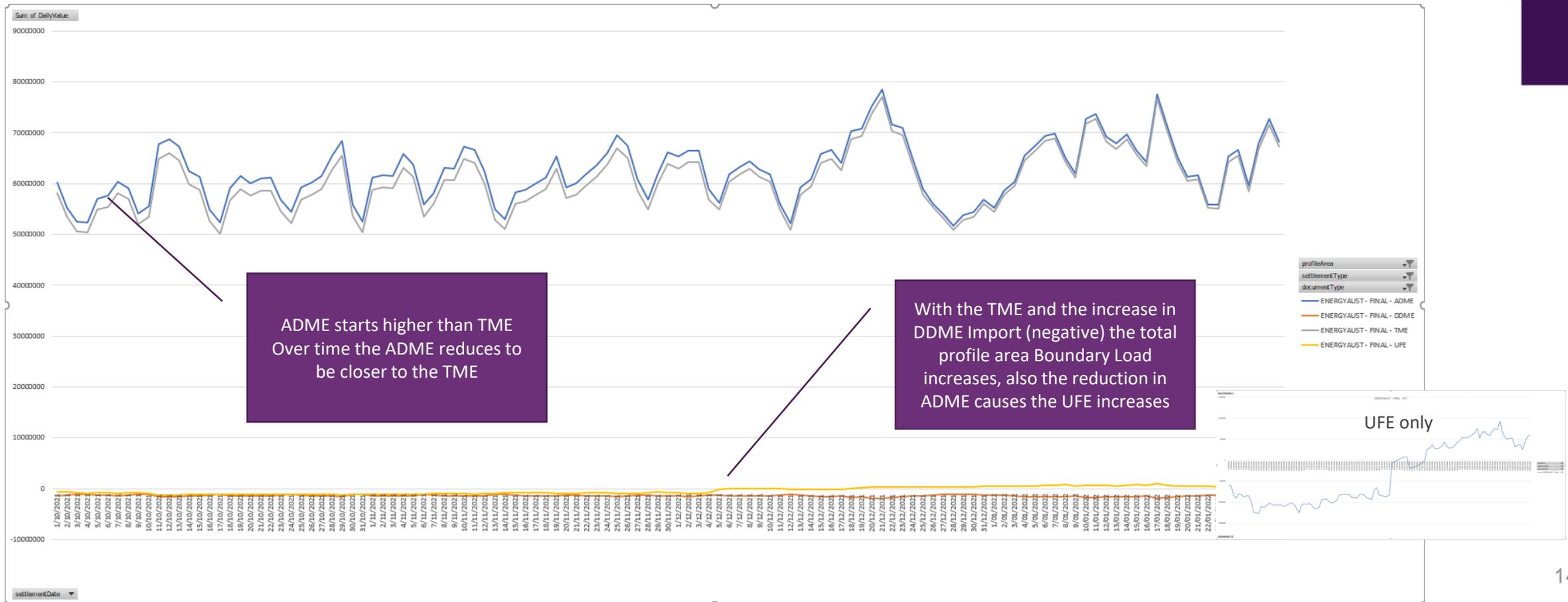
ACTEWAGL Profile Area

- Increase in ADME for the ACTEWAGL Area may be related to the registering of Basic meter Datastreams and the receiving of Meter Reads



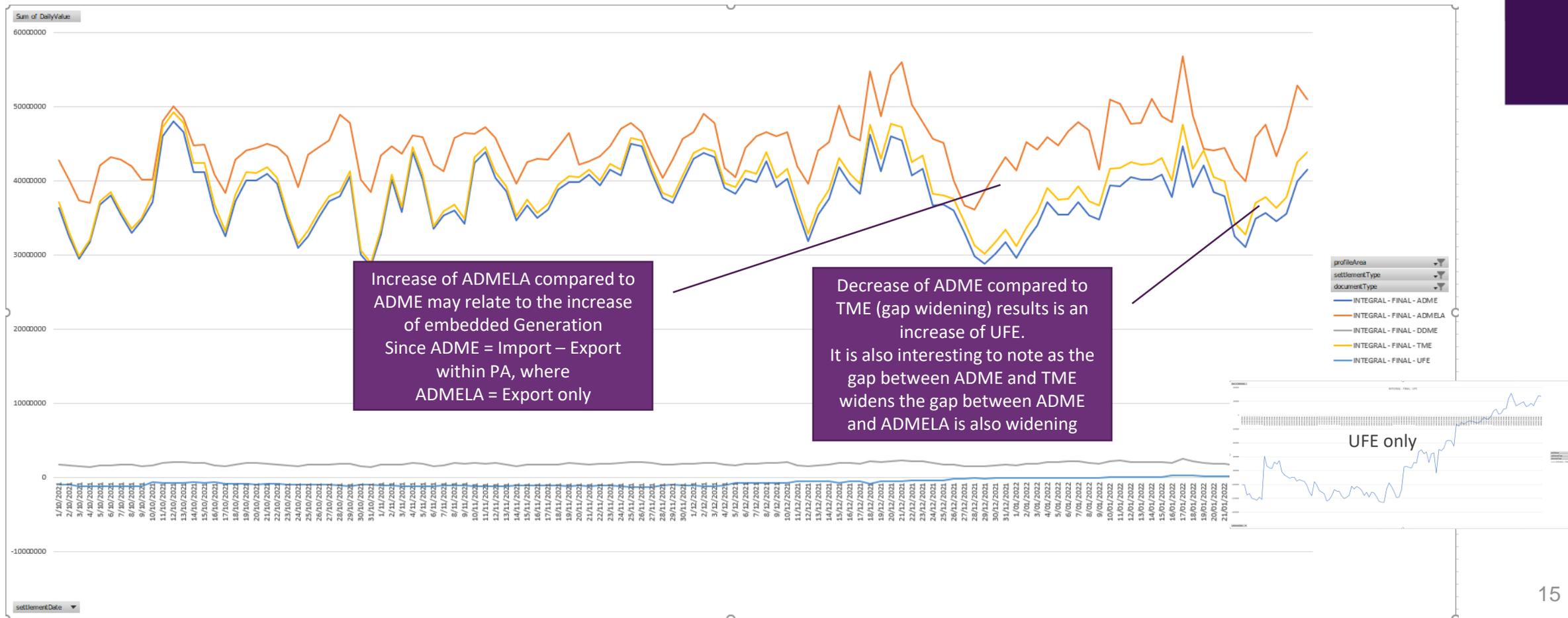
ENGYAUST Profile Area

- The increase of TME for the ENGYAUST area compared to ADME increased the amount of UFE
- Increase in Cross Boundary import will also increase the UFE



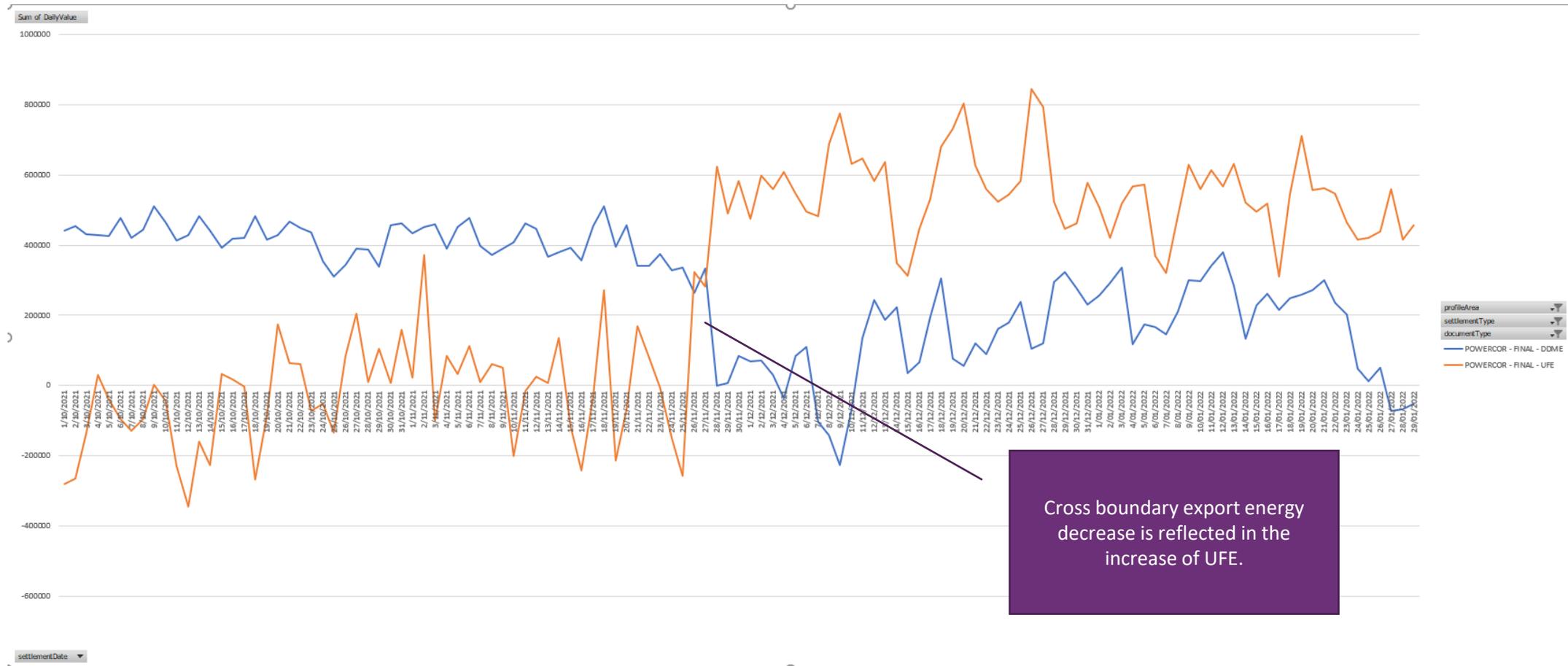
INTEGRAL Profile Area

- Increase in ADMELA relative to ADME means there is a larger quantity of load compared to the net gen and load for the same period



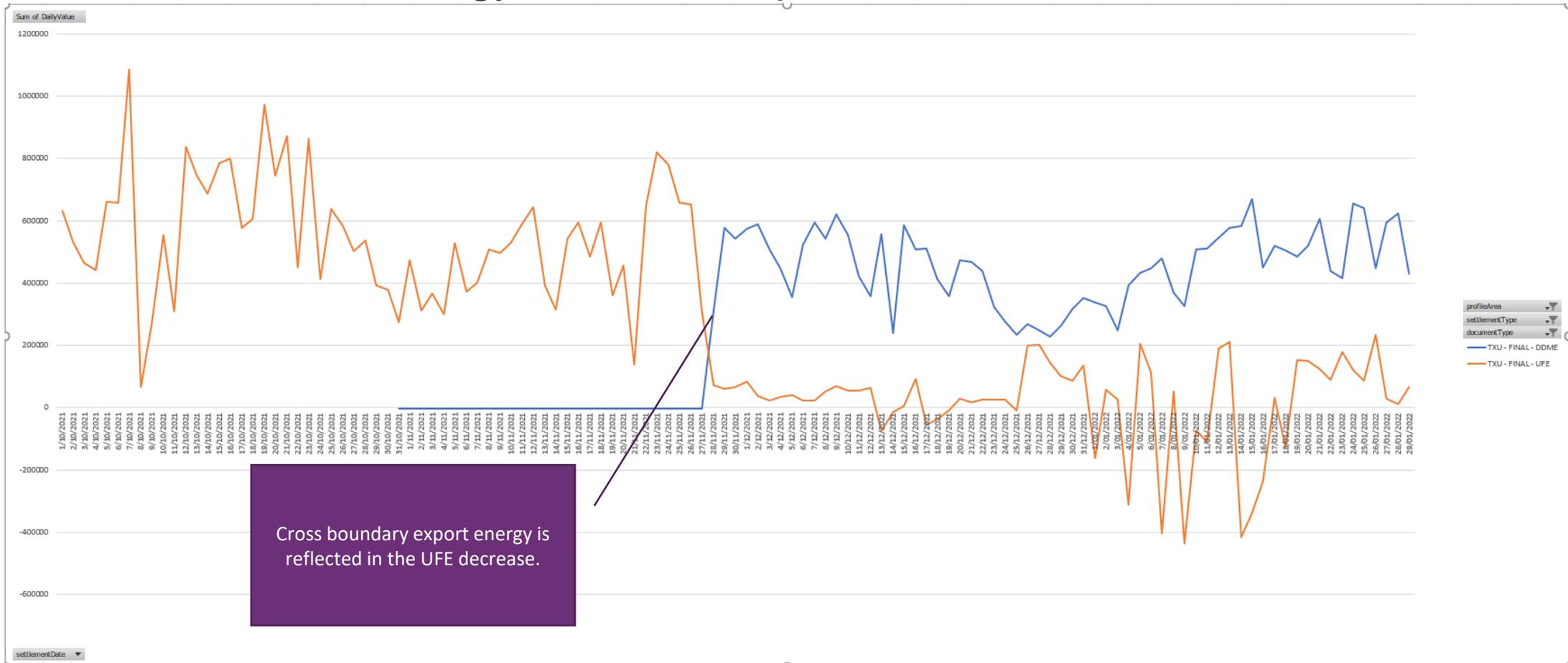
POWERCOR Profile Area

- Registration of 2 cross boundary connections has decreased the amount of export energy



TXU Profile Area

- Registering of 2 export cross boundary connections has decreased the total amount of energy for the TXU profile area



Graph notes

- Where data is advised as remaining relevant the graphical display appears to follow the same pattern for the compared data types and appear to remain at a constant spacing.
- UFE logic if an ADME graph line is above the TME the UFE would be negative, if the TME is above the ADME the UFE will be positive.
 - $UFE = TME - DDME - ADME$
 - $100 - 0 - 120 = -20$ UFE ADME above TME
 - $100 - 0 - 80 = +20$ UFE TME above ADME
- When the gap between the TME and ADME widens the UFE value will get bigger (positive or negative) – excluding DDME.
 - $100 - 0 - 80 = +20$ UFE or $100 - 0 - 120 = -20$ UFE
 - $100 - 0 - 60 = +40$ UFE or $100 - 0 - 140 = -40$ UFE Increased
- When the gap between the TME and ADME reduces the UFE value will get smaller (positive or negative)
 - $100 - 0 - 80 = +20$ UFE or $100 - 0 - 120 = -20$ UFE
 - $100 - 0 - 90 = +10$ UFE or $100 - 0 - 110 = -10$ UFE Reduced
- When the gap between the ADME and ADMELA widens the UFE will be allocated over a large values, resulting in a reduced UFEA per MWh.
 - $UFEA = UFE \times (DME / ADMELA)$
 - $UFEA = 20 \times (100 / 1000) = 2$
 - $UFEA = 20 \times (100 / 2000) = 1$ Larger ADMELA

NMI classification at complex sites – impact on UFE reported

AEMO Investigations have identified some key scenarios where the complexity of implemented connection and metering is resulting in UFE values and allocations inconsistent with procedures

These scenarios are concentrated in a limited number of Local Area and do not impact current *settlement by difference results*

Examples include:

- Configuration of transmission connected sites at points below bulk measurement points for an area
- Classification of connection points for wholesale and bulk supplies
- Resolution Approach:
 - AEMO is confirming (in test environment) the classification and mapping of both Transmission and Distribution connection points to ensure energy flows are appropriately reflected in values for TME, ADME and UFEA
 - Updates will also be reflected in Market Trial / Preprod environment
 - Updates to configuration will be backdated – with impacts noted in subsequent revision cycles
 - Impact to UFE for impacted areas is dependent on the load and generation characteristics of the connection points in question

Meeting notes

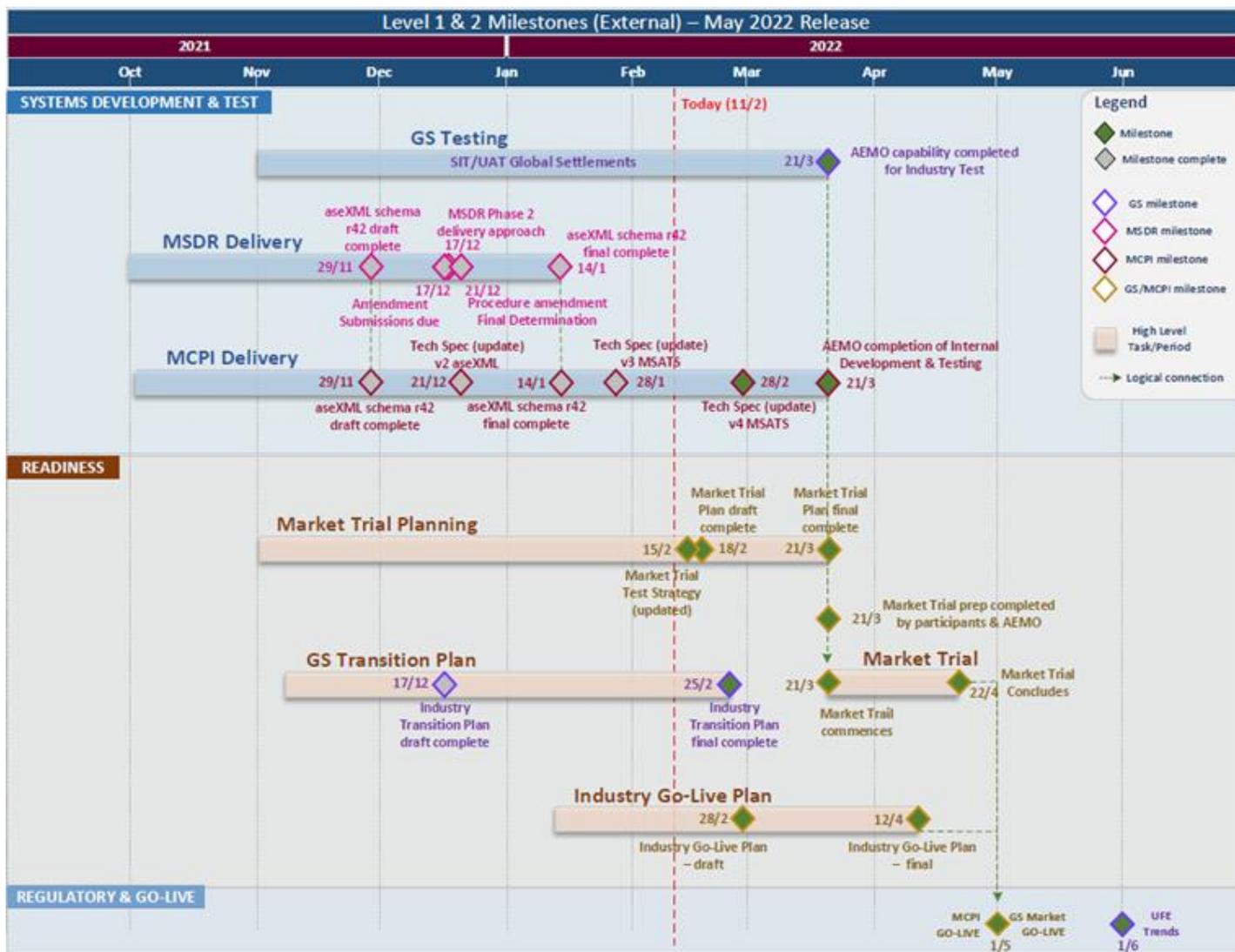
- Cross Boundaries:
 - 89 registered Cross Boundaries. In response to question from Alinta, AEMO confirmed the 24 cross boundaries in the 'Greenfield' status are yet to be finalised.
 - Live data will be available in May (possibly April)
 - Ausnet Services noted there is no cross boundary between TXU and Powercor
 - Origin queried if a similar exercise had been done with the revisions. GM confirmed there has been movement in the profile areas and is being worked though by the business team at present.
- Ergon asked that if embedded generation is increasing UFE, then should we be revisiting the application of UFE to these connections? AEMO advised that embedded generation impacts UFE calculations due to being included in the ADME volumes, but are not "increasing UFE". Under NER 3.15.5(c) UFE is allocated to Market Load not generation, any revisiting of this approach is not currently being considered by AEMO.
- PL explained the graphs further in the Graph notes (slide 18).
- Origin enquired if AEMO had gone to TNI level to analyse those TNIs that have a high percentages of UFE to identify what is causing this. AEMO responded noting some investigation had been completed at the TNI level but the presence of 'Virtual TNIs', where the TME is not recorded against the same TNI as the ADME is recorded, makes this difficult to perform in a number of the LA's.
- AEMO confirmed the analysis is not creating 12 month profiles:– data can only run from October (UFE soft start 1 October) so profiles will grow over time as the analysis is rolled forward. 1st October to 1st May will be separated out.

GS Transition Approach

Greg Minney & Paul Lyttle

May 2022 Implementation Approach and Market Trial

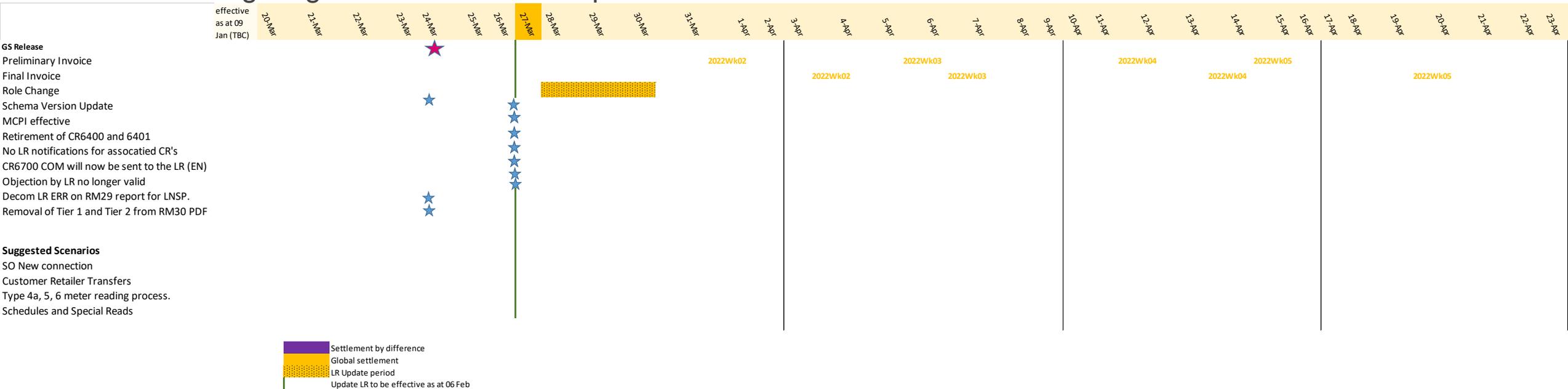
Update



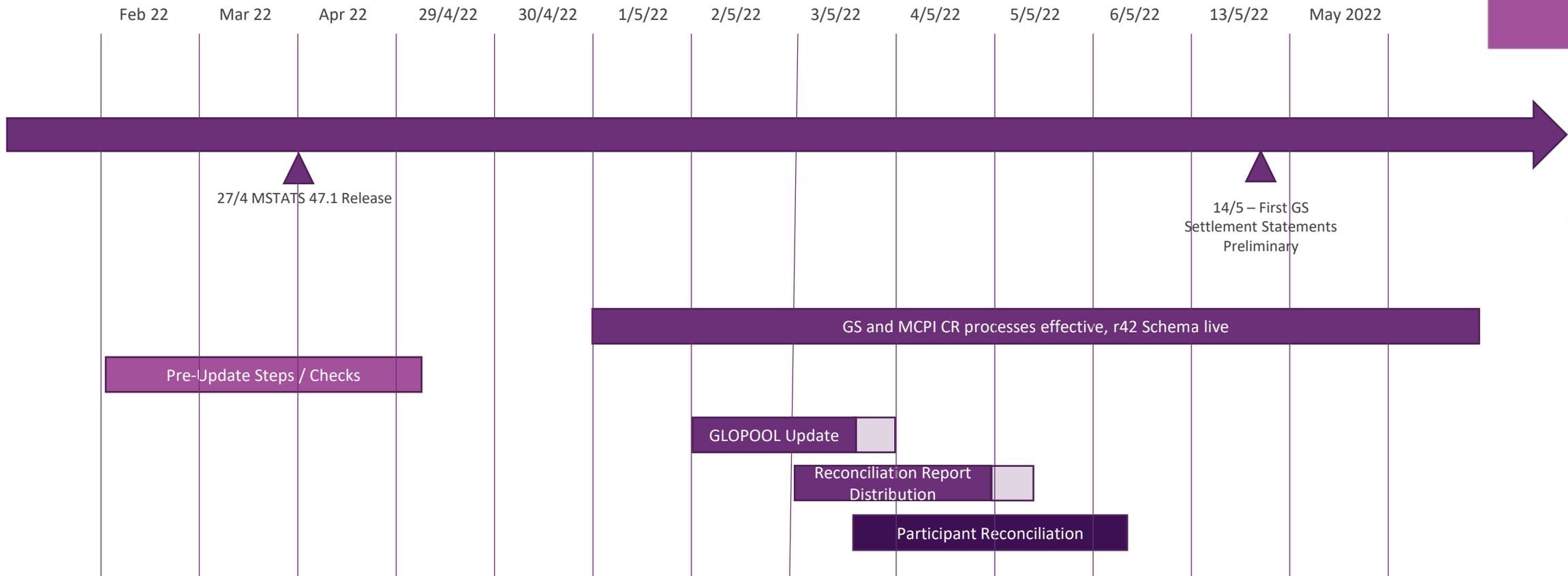
- Market Trial commencement will incorporate GS Transition – with 26th March representing cutover data during Market Trial
- Participant preference to backdate GLOPOOL participant commencement date preferred to allow comparison with production settlement runs. **Date of backdate 9 Jan 2022**
- Pre-production environment will be refreshed (**23rd Feb**) with production data to support operation of Market trials

Market Trial

- Feedback from participants was in favour of backdating the Global Settlements effective date
 - To enable this to occur the update of the LR to GLOPOOL will still commence on the planned date of the 28th
- In line with the proposed release of code into production ahead of the 1st May, we have updated this plan and targeted the release for the Thursday 24th March
- The GLOPOOL update is expected to take up to 3 days to complete
- When GLOPOOL is applied it will have an effective date of 09 January and settlement runs will reflect metering data in production at that time
- Profile Weightings will reflect those in production at that time



High level Timeline



Industry Go Live Approach – Participant Implications

MSATS 47.1 release – Production release scheduled for 27th April, during scheduled Maintenance window

- Outage for MSATS, MDM and B2B during release
- Outage commencement and communication via support Hub Bulletins
- r42 schema will be deployed during this release
- Participants should ensure MSATS schema preferences are updated in production by 18th April
- CR changes for population of mandatory fields will not take effect until 1/5

GS and MCPI Commencement – 1 May 2022

- No MSATS outage on 30th April
- From 1/5 CRs (including in-flight) will be validated against GS and MCPI process for LR and SPIF values, CR Com not sent to previous LR
- NMI create backdated prior to 1/5 to align metering commencement and LR role with process documented for exceptions
- MDPs cease delivery of metering data to previous LR
- Participant updates of own systems with LR changes – timing determined by participant
 - MSATS validations will apply to submitted CR's

Industry Go Live Approach – Participant Implications

GLOPOOL transition – 2 & 3 May 2022

- No MSATS outage whilst update is in progress
- AEMO to update LR Roles, and identified FRMP roles, to reflect GS processing, expected timing 20Hours
 - progress updates will be provided during the process, from commencement, with 6 hourly status
 - MSATS Standing Data updates will not be reflected in MDM during GLOPOOL transition
 - During MSTATS update NMI discovery results impacted for LR value ie dependent on stage of Bulk update previous value or GLOPOOL may be returned
- AEMO to distribute reconciliation reports following MSATS Update, 48 Hours run time
 - Status updates to be provided at process commencement, and daily until completion
 - reconciliation reports issued on Participant by participant basis
- AEMO to synchronise Standing data with eMDM (approx. 3 hours)
 - Metering data delivered will be accepted, but not ingested during this process. Participants may note some delay in processing acknowledgements, and build up of unacknowledged transactions or Stop file.
 - AEMO to notify participants prior to this step commencing
 - Participants will not be able to view Interval Reads via MSATS
 - During synchronisation step there will be some delays in report responses
 - Update process will run for 2-3 hours – timing to be confirmed

First GS Settlement Statements Issued – 14th May 2022

- Preliminary invoice and statements for week 19 Incorporate financial settlement of UFE
- RM Reports issued as per current process

Industry Go Live Approach – AEMO

Communications and Support processes

Production Support Communication and issue processes in place for MSATS 47.1 release and 1 May procedure commencement

- Participant issues with Schema upgrade and systems processing exceptions via Support Hub
- Incidents to be raised via Infra following BAU Process
- If multiple issues identified for GS/ MCPI transaction processing single Q&A session to be established

Communication of Status and progress during GS Transition:

- Bulk Change progress will be provided via Program Comms
- Timing and completion of reconciliation reports will be confirmed via Program Comms
- Reconciliation reports provided based on contact details specified

Industry Q&A following issue of Preliminary Settlement statements Week

- Participant questions collated via GSMSDR mailbox
- UFE Focus group scheduled to respond, following assessment

Participant queries regarding interpretation of UFE / GS information

- Questions / queries via GSMSDR mailbox
- Settlement Issues via BAU settlement process

Meeting notes

- r42 schema will be released on the 24th March into the production environment, so changes to schema preferences will need to be completed this week.
- Industry go-live plan: AEMO requested feedback from participants who have not already done so. (forward to GSMSTR@aemo.com.au)

Next Steps and General Business

Greg Minney

Next Steps



- Next UFE FG meeting: **Wednesday 13th April 2022**
- Please send through any questions or proposed agenda items to GSMSDR@aemo.com.au

Meeting notes

Other Business:

- Origin noted revision quality data is a concern and an industry update is needed. AEMO agree to communicate the impacts of load allocations and path forward once the analysis is finalised.
- Off Market Settlements:
 - AEMO confirmed that to date there had been no feedback received to date regarding the scenarios and suggested AEMO involvement in Off Market Settlements under Global Settlement
 - AGL provided some scenarios where by a events could be addressed by a single settlement revision “run” covering, for example a years settlement weeks. It was acknowledged that this would require a significant level of change to systems and require rules support – necessarily requiring a cost benefit analysis
 - Origin indicated, although significant events necessitating consideration of Off Market Settlements, the event threshold would likely be different for different participants and that the move to Global settlement necessitated these arrangements to be addressed in a multi-lateral rather than bi-lateral arrangement. Origin will provide AEMO with some background on a previous FCAS event of the type that may trigger these arrangements.

Next Meeting

- Industry update and Settlements communication to be included in the next meeting.



For more information visit

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