

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 <hr/> | Paul Lyttle Darren / Paul??? |
| 4 | Market Trial Approach and industry go-live considerations | Greg Minney |
| 5 | Next Steps and General Business | Greg Minney |

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 NMIs 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 NMIs for each Profile Area
 - Implementation of cross boundary meters to reflect distribution area to distribution area flows
 - Number of Cross Boundary NMIs with Standing Data registered in MSATS
 - Comments identifies 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

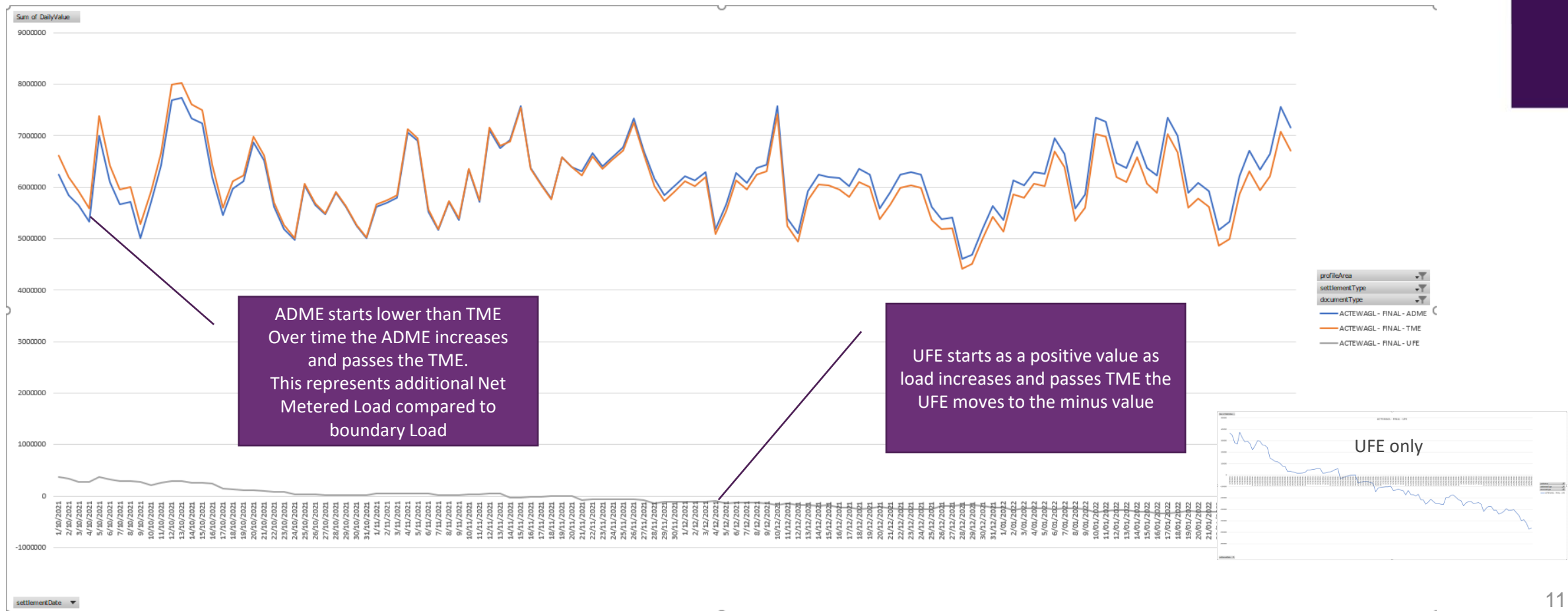
- The following slides take a look at the UFE observations of the Final settlement meetings data.
- Graphs provide examples of data trends
- Not all profile areas have been covered however the same observations can be applied to any profile area.

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

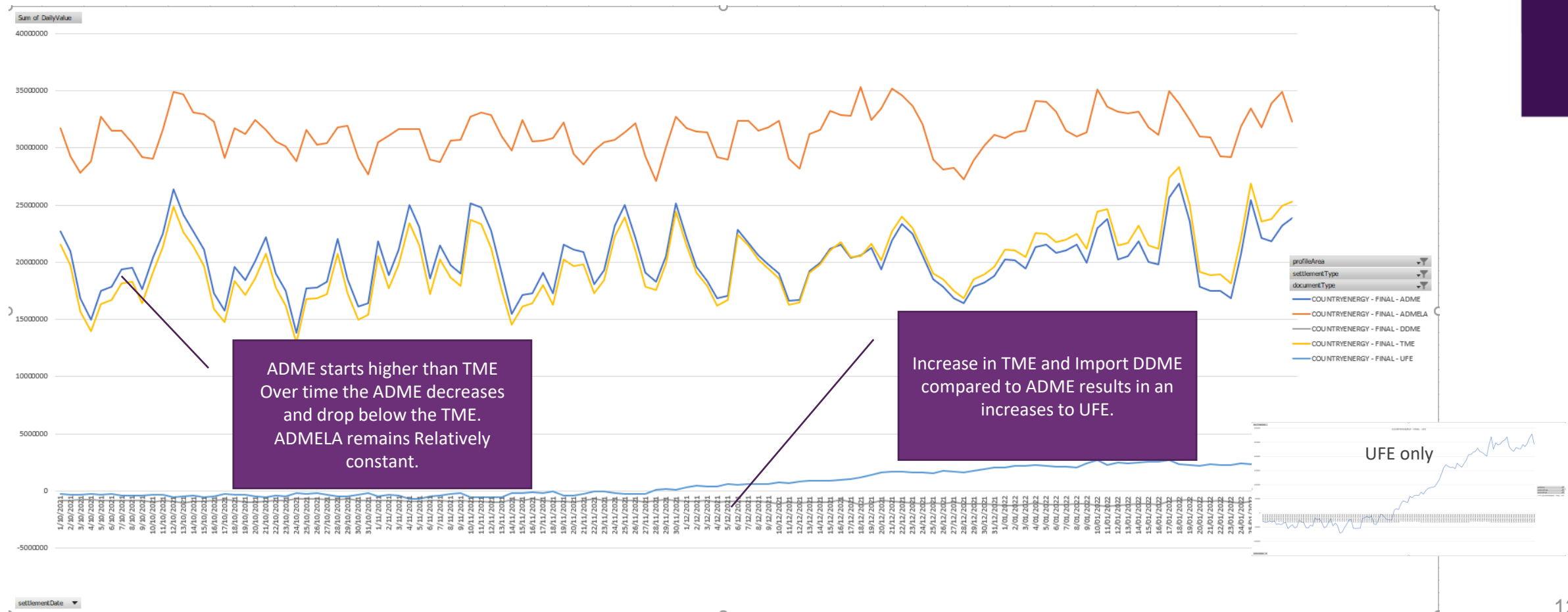
ACTEWAGL Profile Area

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



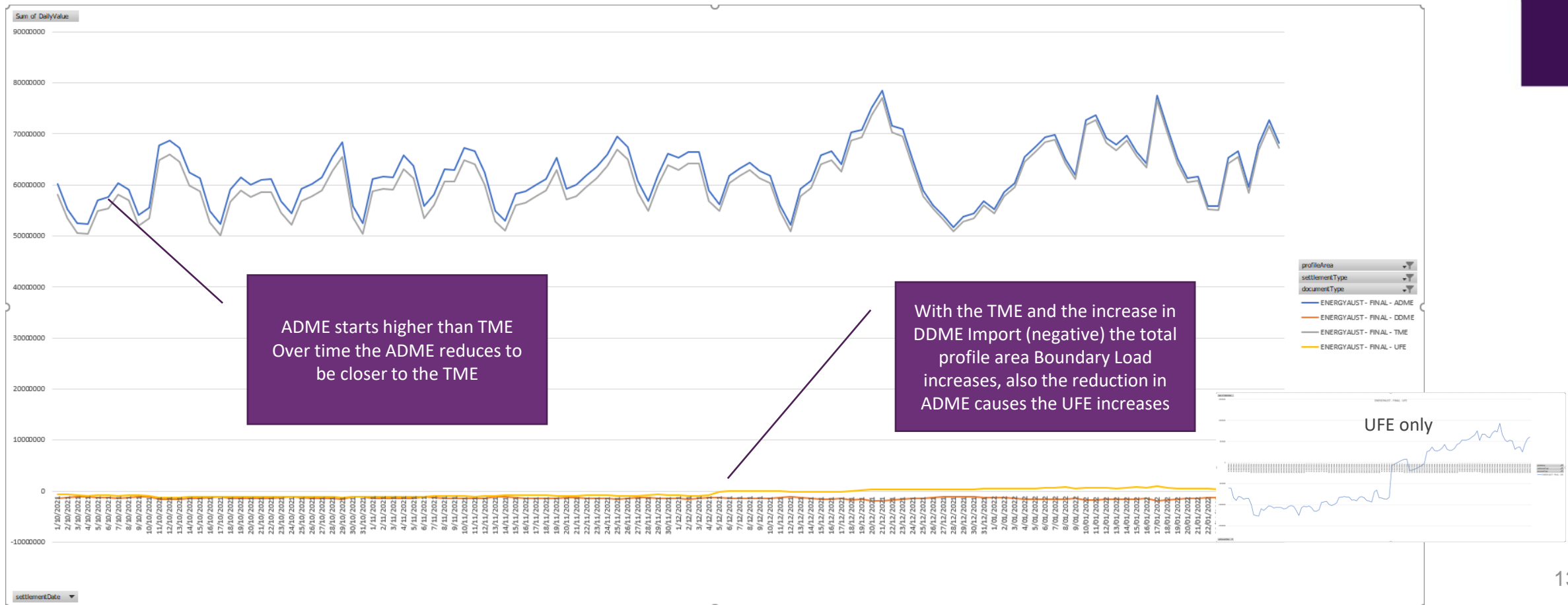
COUNTRYENERGY Profile Area

- Increase in TME and Import DDME with a Decrease in ADME, results in a rise UFE. To be applied to a relatively constant ADMELA



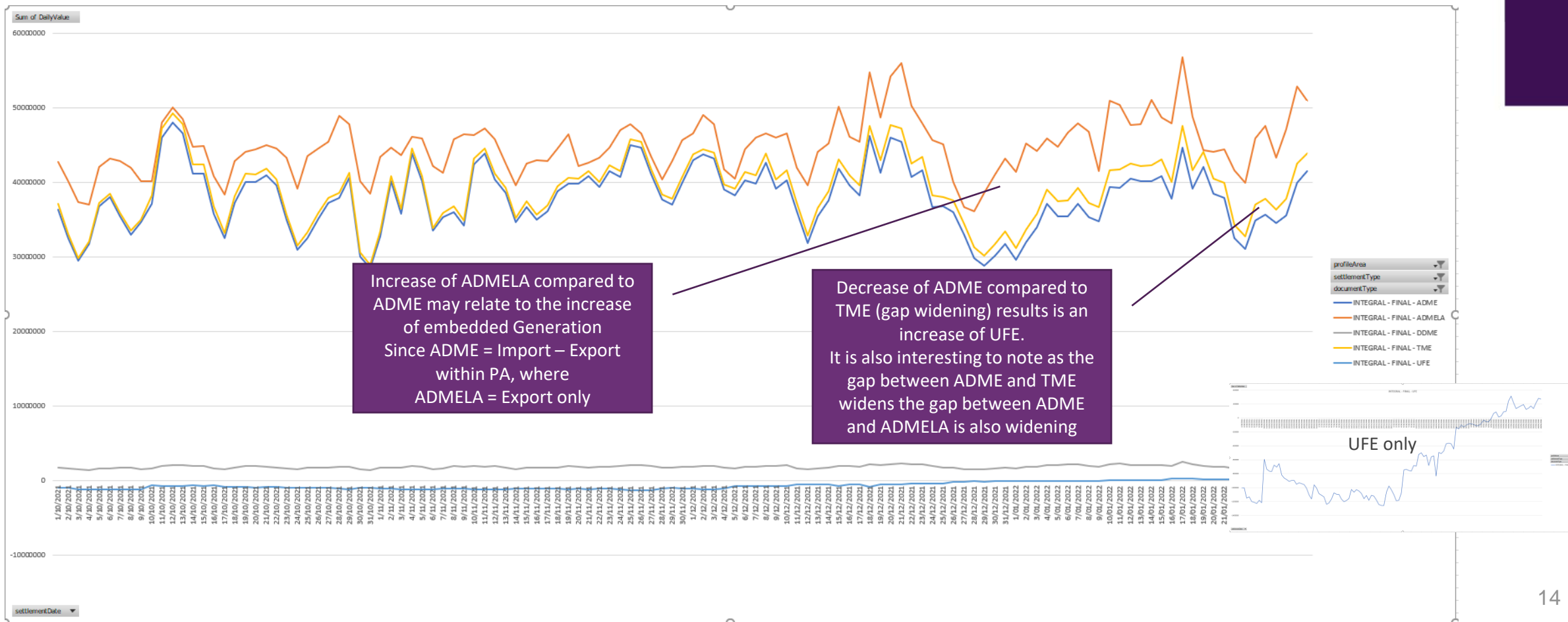
ENGYAUST Profile Area

- 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



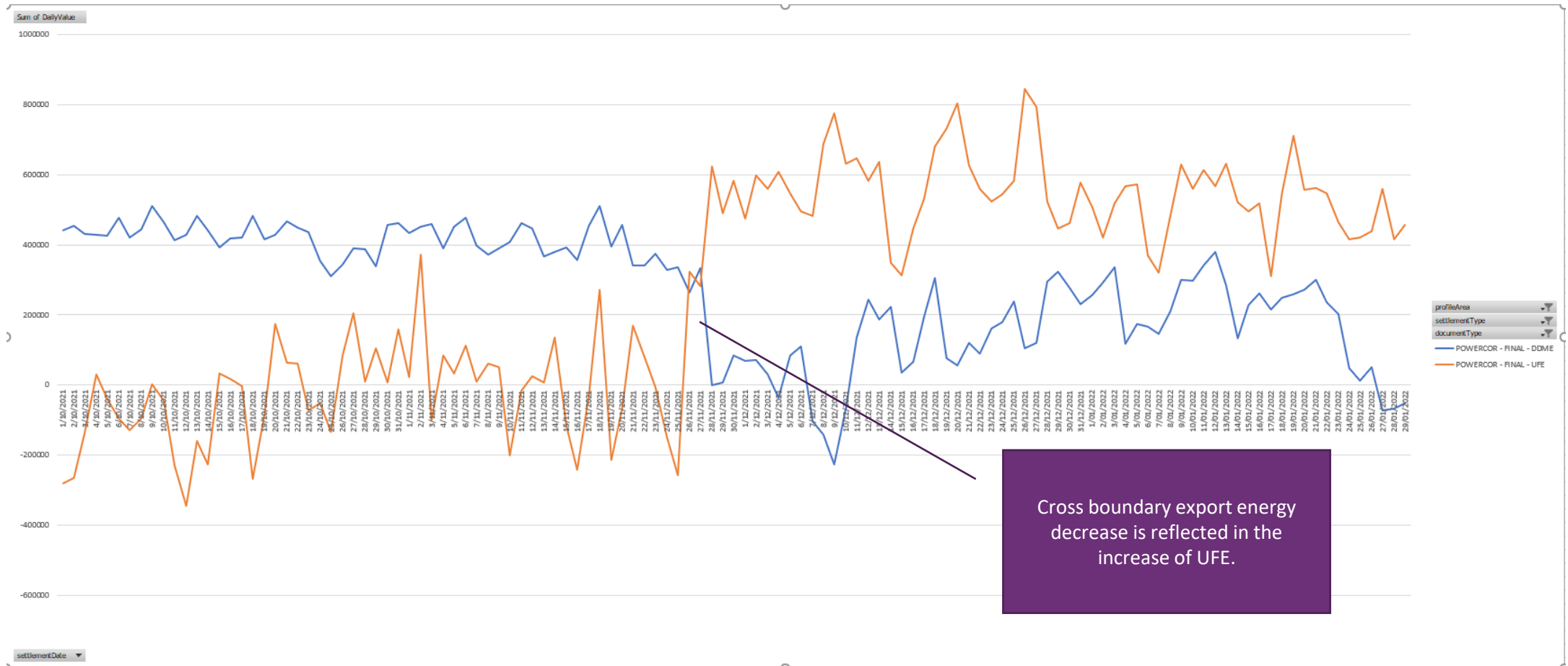
INTEGRAL Profile Area

- 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.



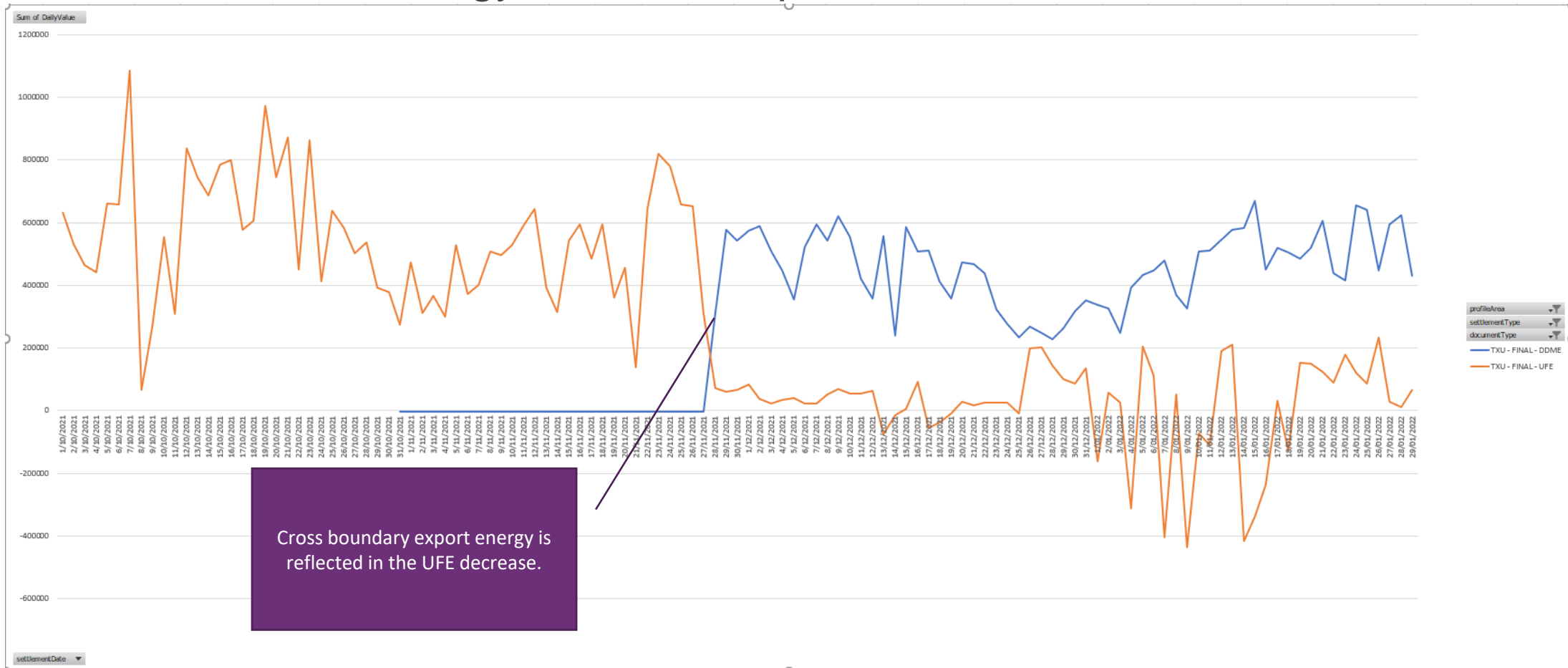
POWERCOR Profile Area

- 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



Cross boundary export energy is reflected in the UFE decrease.

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:

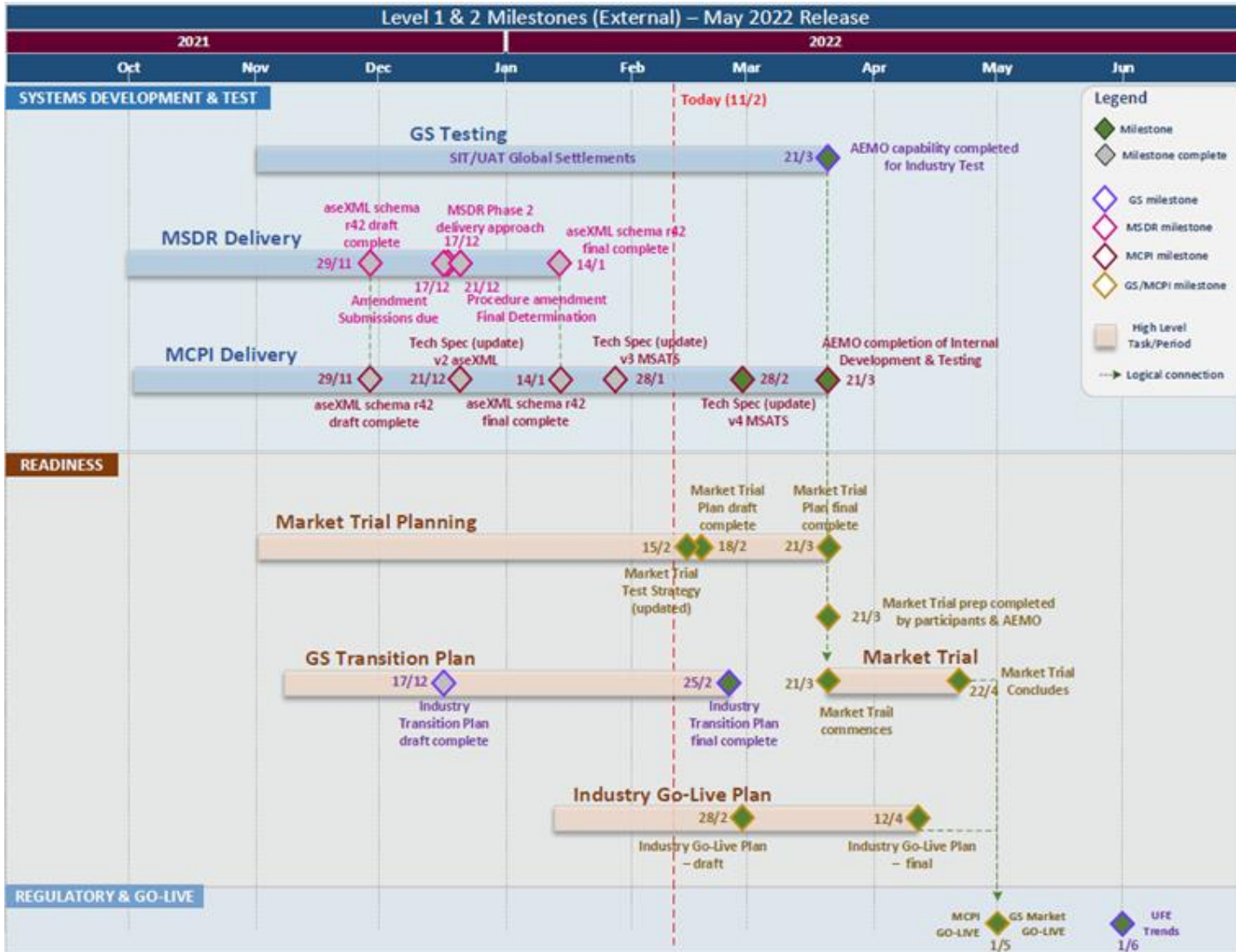
- Configuration of transmission connected sites at points below bulk measurement points for an area
- Classification of connection points for wholesale and bulk supplies
- Resolution Approach:
 - AEMO is confirming (in test environment) the classification and mapping of both Transmission and Distribution 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

GS Transition Approach

Greg Minney & Paul Lyttle

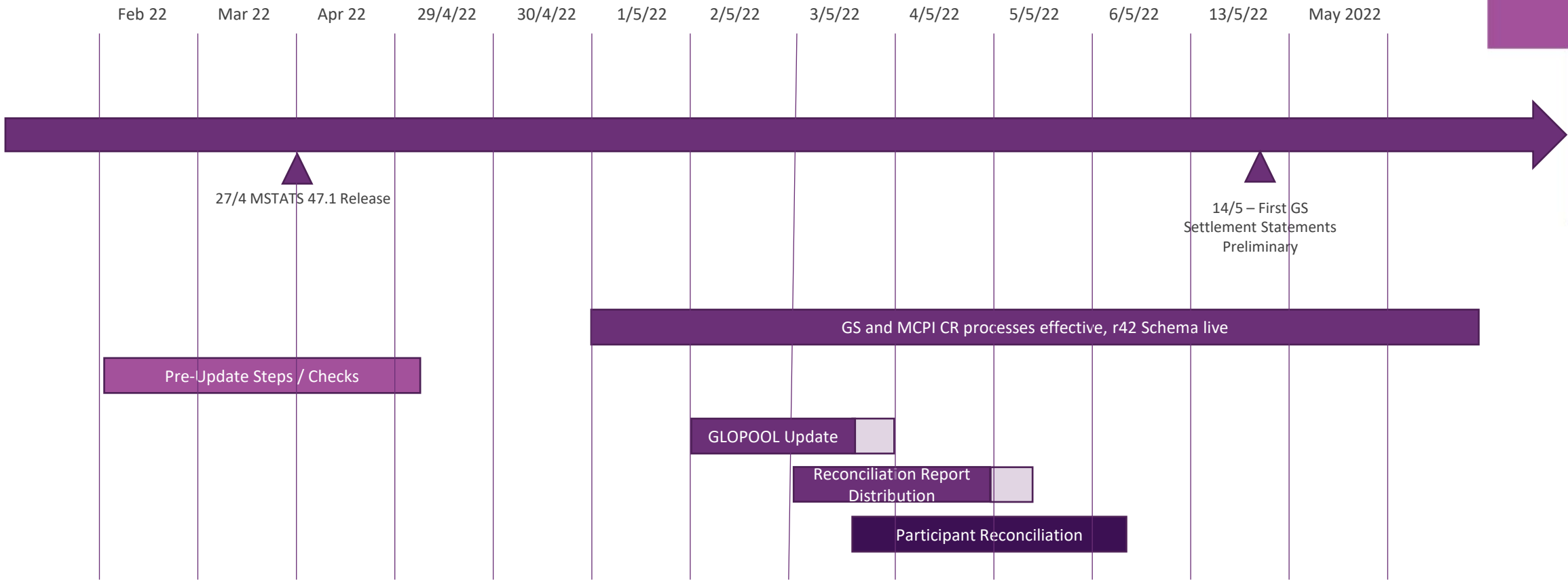
May 2022 Implementation Approach and Market Trial

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

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

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.



For more information visit

aemo.com.au