



UFE Focus Group Meeting #2

3 December, 2021

Welcome & Housekeeping

- Welcome
- Housekeeping
 - These meetings will be recorded and shared
 - 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	Blaine Miner
2	Key Issues	Darren Gatty & David Ripper
3	Progress Since Go-Live	Darren Gatty & David Ripper
4	Short-term Priorities	Darren Gatty & David Ripper
5	May Release Implementation Approach	Greg Minney
6	Next Steps and General Business	Blaine Miner

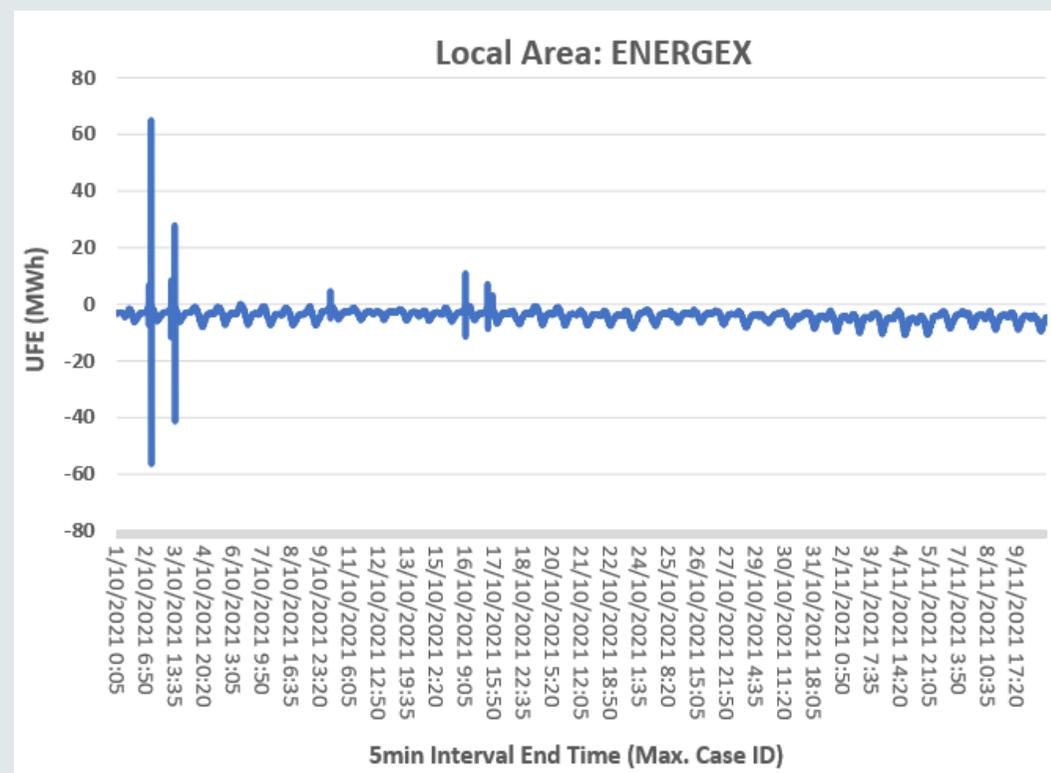
Attendee	Organisation	Attendee	Organisation	Attendee	Organisation	Attendee	Organisation
Darren Gatty	AEMO	Hieu Ngo	Bluenrg	Arunesh Choubey	Red Energy		
Blaine Miner	AEMO	Jayden Harrod	Bluenrg	Mark Reid	Red Energy		
Greg Minney	AEMO	Sarah Lawley	Bluenrg	Nick Gustafsson	Red Energy		
Anne-Marie McCague	AEMO	Sujatha Vutukoor	Brave Energy	Angela Sheehy	Stanwell		
Sarah Pearson	AEMO	Dino Ou	Endeavour Energy	Anatoliy Tsymay	Stanwell		
Kate Goatley	ActewAGL	Justin Wearne	Energetiq	Sara Yakimoff	Stanwell		
Jeff Roberts	ActewAGL	Zahara Magriplis	Energex	Justin King	Stanwell		
Maree Madden	AGL	Justin Chin	Energy Australia	Krishna Vishwanatham	Tally Group		
Urja Desai	AGL	Nick Hickman	Energy Queensland	Paul Willacy	Tas Networks		
Ravi Govindu	Alinta Energy	Andrew Lenga	Engie	Adrian Honey	Tas Networks		
Zulfi Syed	Alinta Energy	Ingrid Farah	Ergon				
Robert Lo Giudice	Alinta Energy	Tim Lloyd	Essential Energy				
Sumitha Thilak	Alinta Energy	Anthony Croce	Infigen Energy				
Therese Sato	Alinta Energy	Carla Adolfo	Intellihub				
Sue Richardson	Alinta Energy	Brian von Oven	Intellihub				
Sen Rajendran	Alinta Energy	Mac Leung	Jemena				
Libby Cheng	Arrow Energy	Andrew Mair	Next Business Energy				
Renee Tragis	Arrow Energy	Matthew Lee	Origin				
Craig Steele	Aurora Energy	Fergus Stuart	Origin				
Kevin Boutchard	Aurora Energy	Greg McLeod	Origin				
Alexander Riseley	Aurora Energy	Greg Szot	Powercor				
Wayne Turner	Ausgrid	Karel Mallinson	Powerlink				

Key Issues

Darren Gatty & David Ripper

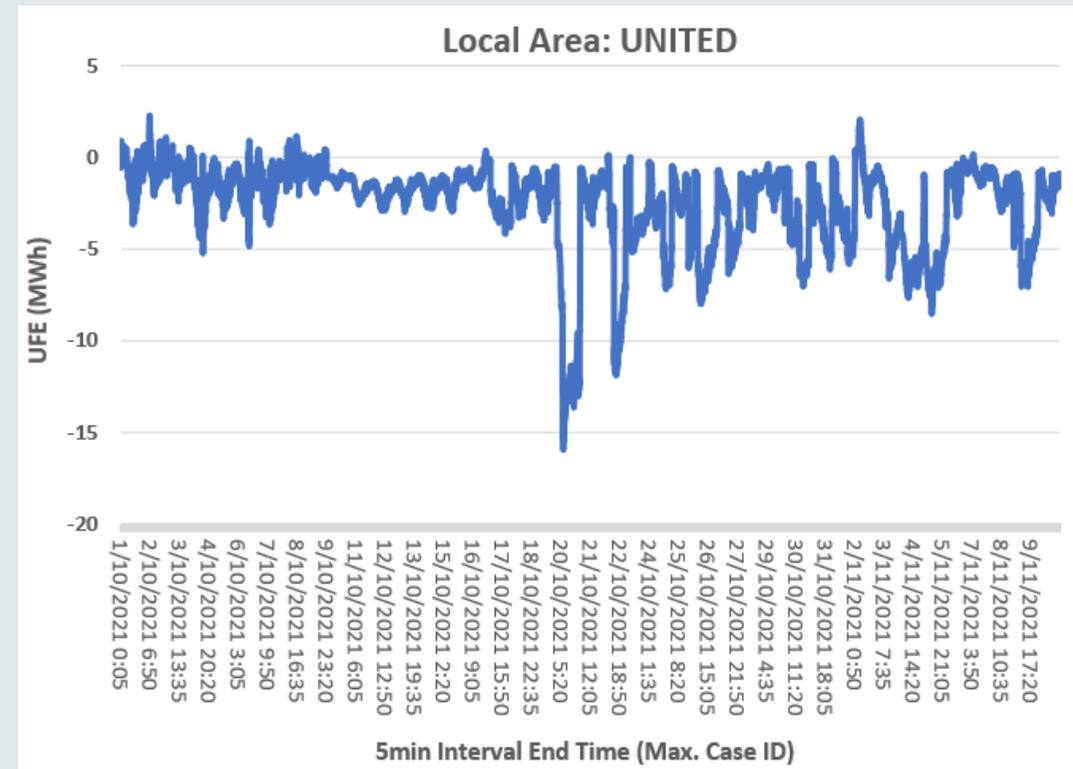
Key Issues – 5MLP Spikes

- 5 Minute Load Profiles (5MLP) are currently creating unexpected and unusual energy spikes (both positive and negative)
- These spikes are impacting the calculation of both trading interval energy and UFE values
- Local Areas, such as ENERGEX and UMPLP, are being impacting, noting that this issue has not been confirmed as being the root cause of all spikes observed
- AEMO is currently in discussions with the AER regarding a potential solution to this issue



Key Issues – Metering Data Quality

- Metering data quality issues are still being observed relating to some MDPs.
- These issues e.g. inappropriate zero substitute reads are impacting all Settlement calculations
- The investigation into these issues are requiring significant time commitments from both the AEMO Metering and Settlements teams, prior to statements to be published
- Metering data quality issues also impacts UFE calculations and are likely contributing to some of the observed anomalies
 - For example, the UNITED LA (shown to the right) shows periods of large negative UFE values that may be caused by this issue



Meeting Notes

AEMO confirmed that:

- **Action 2.2.1: AEMO is not currently aware of any specific problems with mismatches between register identifiers and the MDFF, such as the suffix appearing in MSATS as E7, while the meter data and MDFF read E4. AEMO has taken note of the participant's report and will investigate.**
- It has been noticed so far that all of the essential meters have 5-minute metering data provided for them. AEMO will undertake analysis to ensure all remaining tranche 1 meters have 5-minute data, as well look at the numbers of NCONUML that have been created and compare this against distributors' estimates provided from the 5MS TFG and Metering Plan Transition outcomes, etc. AEMO also notes that at the last report, about 2,000 tier 1 basic data streams had not been made active. The analysis AEMO plans to undertake will be the final step in reconciling what was expected to be put in place against what has been put in place. Participants concerned with those forms of metering data provision will be contacted if it is discovered there are still outstanding items.
- It understands that there is industry concern about the current reliability of UFE data, in particular around the integrity of calculations and the way the data is presented. These concerns will be worked through together by AEMO and industry. Further, though it is AEMO's firm intention to deliver global settlement rule commencement on 1 May 2022 as laid out in the current rules, there is an internal process currently underway with the GS steering committee to work through the criteria and overall position required to proceed with 1 May.
- It notes that participants are concerned about the risk of global settlement falling unduly on industry, in particular due to unreliability of UFE calculations and data. However, it should also be noted that the May 2022 Readiness Working Group has been stood up to provide a forum where AEMO and industry can work through these questions, such as whether the current distortions in settlement outcomes as a result of the GS soft-start is a temporary or permanent effect. Short-term anomalies picked up through a settlement revision would represent a different issue again. One potential factor, the application and resolution of 5-minute load profiles, is currently being worked through on the basis of settlement by difference as well as global settlement. If there is an issue which needs to be resolved procedurally, if that can be resolved without impact to the ultimate financial liability of the retailer.
- While negative UFE implies that the tier 1 receives a benefit, the scale of such a benefit is thus far unknown, due to the volume of UFE being assigned, but also how it aligns with prices in each 5-minute interval. The relationships between UFE and price are not yet fully understood. The challenge is that there are a few distortions which may be influencing what we're currently seeing. While there was an assumption that UFE would be positive, the situation has been changed by the introduction of 5MS and the increased penetration of renewables. Once the data is able to progress past the distortions currently being seen, AEMO and industry will be able to get a clean view of UFE values, understand if there is an overrecovery of loss factors from distributors caused by profiling methods and then through the June trend report start understanding what's driving UFE values and how they can be managed.
- UFE values will not represent a single point in time. The soft start has enabled AEMO and industry to understand the starting point for UFE values, and the actions the industry will be taking on an ongoing basis will look at addressing those values against the benefits and the costs for all industry participants. The soft start's purpose is ensure that on 1 May 2022, UFE values are reliable and representative, and there when financial settlement occurred, it could be relied upon also. AEMO understands participants will make use of the soft start period for other activities, but ensuring UFE value reliability is AEMO's purpose in this period. The result of calculations thus far show, as was intended, other underlying factors, to UFE, such as technical losses, etc. Over the next two to three months, AEMO expects a better understanding of underlying UFE factors to develop. AEMO also notes the seasonal effect of UFE from a market perspective, and suggests that participants not unduly rely on the first two months of UFE.
- Current data indicated that LNSPs have largely maintained the correct TNIs assigned to NMLs, including older NMLs. Most of NMLs concerned are cross-boundary NMLs. Where an anomaly is discovered at transmission connection points, AEMO contacts the relevant TNSP to clarify. To date, AEMO has not discovered significant instances of this type of issue.

Progress Since Go-Live

Darren Gatty & David Ripper

Progress Since Go-Live

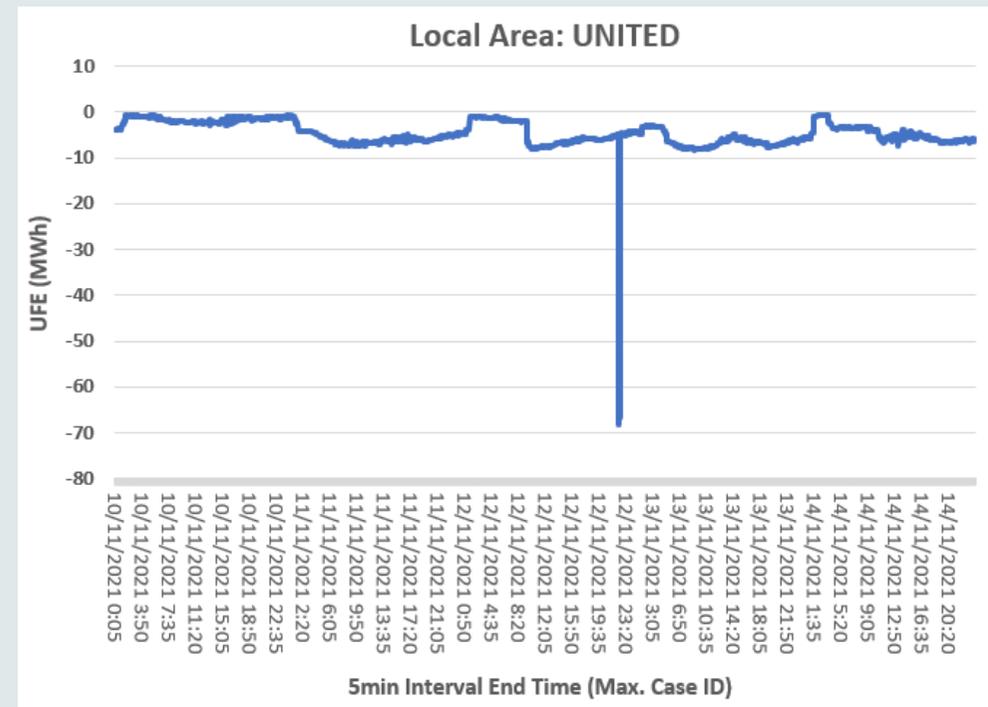
- Responses have been provided to a number of participant queries, hopefully improving participant understanding of how the data is being delivered and what it represents
- One clarification recently provided, related to how the UFE data flows into the SETCPDATA table in the MMS Data Model, particular care needs to be taken with interpreting the signs of this data
 - The signs in the settlements system are the opposite of the retail system, as a negative energy is required for participants to be charged for energy consumption
- The below table displays how the data will appear in the SETCPDATA table. In this example the retailer is exporting 10MWh from the grid (consumption) for this TNI/Period and also importing 2MWh to the grid (generation), so are charged for 8MWh without any UFE

Scenario	SETCpdata UFEA	INENERGY	XNENERGY	Energy Charged (TA)	RRP	TLF	Charge (EP)
No UFE	0	2	10	-8	\$40.00	1.1	-\$352.00
"normal" UFE	-1	2	11	-9	\$40.00	1.1	-\$396.00
"negative" UFE	1	3	10	-7	\$40.00	1.1	-\$308.00

- In the “normal” UFE scenario the negative UFEA value must be multiplied by -1 before being added to the ENENERGY field, in order to increase the amount of energy being charged for
- In the “negative” UFE scenario the positive UFEA value is added to the INENERGY field to decrease the amount being charged (Energy Charged = INENERGY – XNENERGY)

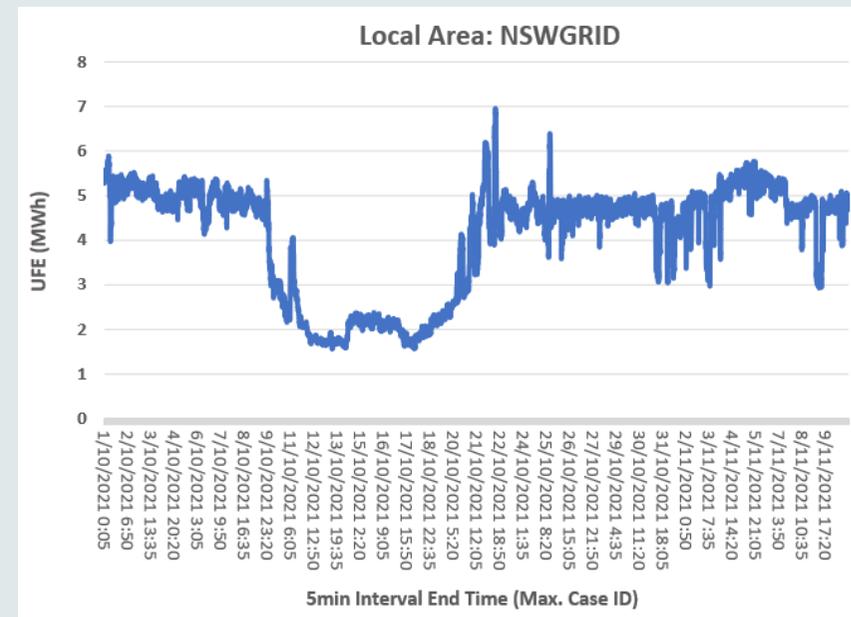
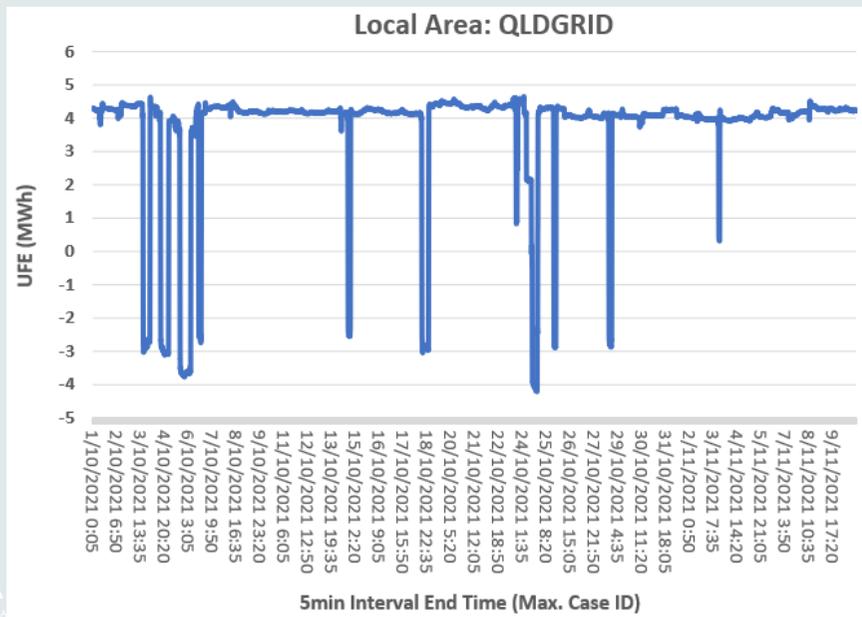
Progress Since Go-Live

- Detailed reviews of each Local Area have begun, identifying any strange patterns in the UFE trend that appear outside of the known major issues or unexpected data for investigation
- As an example, the ENERGEX Local Area has a TNI (QMGL) where there appears to only ever be TME calculated with no ADME values associated with this TNI
- The TNI only has 2 BULK classification NMIs associated with it, the TNSP has been requested to confirm if they are emergency supplies
- There have also been some spikes in recent data where the cause does not appear to be the 5MLP issue, as there is no offsetting spike of the opposite sign



Progress Since Go-Live

- Investigations have begun into the current calculations resulting in UFE values in the NSWGRID and QLDGRID Local Areas (LAs), these should have no UFE calculated
- Around 14 NMIs have been identified where the current MSATS configuration results in TME being recorded against these LAs and since there is no ADME being calculated, this TME is currently considered entirely UFE
- As part of the soft start calculations, this UFE is being allocated to the transmission connected loads within these LAs, which is not appropriate
- These NMIs may have been reassigned from a LNSP area due to changes in connection characteristics, with the current configuration not impacting settlements by difference processes



Meeting Notes

NO QUESTIONS

Short-term Priorities

Darren Gatty & David Ripper

Short-term Priorities

- Resolution of major issues, prior to the revision of associated trading weeks, to ensure optimal accuracy, including UFE
- Complete the analysis of all Local Areas to identify any material issues
- Support the completion of all residual Participant led transitional activities e.g. creation and maintenance of XBOUNDARY, NCONUML and DWHOLESALE NMIs
- Work with MDPs to achieve improved metering data quality and completeness
- Prepare for, and complete, internal development and testing of the full Global Settlement capability

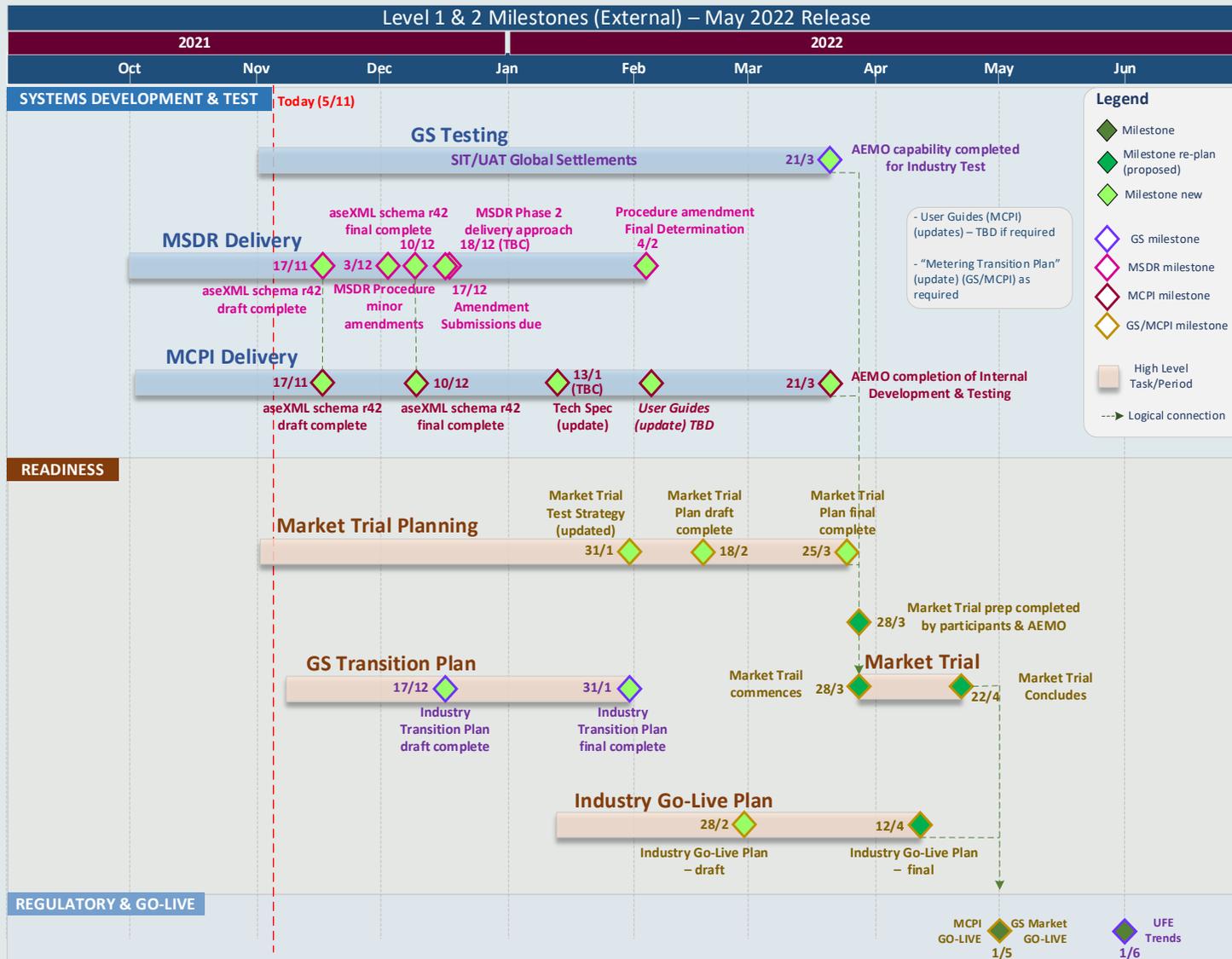
Meeting Notes

NO QUESTIONS

May Release Implementation Approach

Greg Minney

May 2022 Release Timeline and implementation approach



- May Release incorporates MCPI, GS and release of r42 aseXML Schema in support of MSDR
- May Release will incorporate consolidated market trial period to exercise both MCPI and GS capability
- MSDR implementation, timings, deliverables and engagement approach to be developed for 7 November 2022 go-live
- MCPI MSDR focus group to be established to address data transition, compliance holidays, blind / scripted data updates
- Transitional activities for GS and MCPI to be incorporated into GS transition Plans and Industry Go-Live plans for May release as needed
- Given the scope of transitional requirements for May 2022, and planned tranche 2 5-minute metering rollout plans, the TFG will cease operation with transition and go-live plans addressed via the May 2022 RWG

Meeting Notes

AEMO confirmed that:

- Tranche 2 meters (type 4 and 4a meters installed from a particular date under 5MS rules), numbering over 2 million meters, will be converted from 15/30 minute output to 5-minute output over the course of the next year, with all expected to be completed by December 2022. This will mean that the 2 million Tranche 2 meters will no longer be profiled to five minute, which in turn will improve accuracy at 5 minutes for settlements and UFE.
- Neither MS DR or MCPI activities will impact UFE outcomes. Information about MS DR and MCPI delivery is shared to provide an understanding to the UFE FG at the May 2022 program level perspective, and well the MS DR delivery in November 2022.
- The shared point isolation field, is new MSATS field to be delivered as part of May 2022 releases. It will be populated by LNSPs, and to be allowed to populate, values in CR 2000 and 5000 will need to be included. As with all inbound CRs from MSATS, distributors will populate that as part of the CRs, and affected participants, such FRMPs, etc, are then notified under the standard CATS notification process. To receive links to material on CR changes in relation to the shared point isolation field, please reach out to GSMSDR@aemo.com.au.
- The timeline and implementation approach shown at slide 18 is a consolidated view of external milestones. In terms of overall industry change, the milestones which appear on the timeline are some of the key milestones from a B2M perspective. The market trial strategy will look to understand what we will be testing as an industry during that market trial period. The intent of the timeline is not to track individual participant progress. Each participant should have plans they're working to, and be considering interaction with other milestones. At the market trial stage, participants will expected to have been through UAT and other preparations including having data and test conditions aligned.
- In regards to LR FRMP moving to GLOPOOL, this will be plotted in the GS transition plan, picking up on what was worked through with the 5MS TFG, such allowed timings, the approach, and expectation to receiving reconciliation files. There is a version of the GS transition plan which AEMO intends to update by 17 December. There will also be a summary of the approach provided at the 14 December session of the Readiness Working Group.
- The May 2022 Transition Focus Group is currently in abeyance, with its scope rolled into the Readiness Working Group. This is due to the low level of transition activity expected between now and May 2022..
- "Tranche 1 meters" refers to around 20,000 meters which needed to be 5-minute capable before 1 October. These were type 1 to 3 meters, along with a subset of type 4 meters. "Tranche 2 meters" refer to those needing to be converted to 5-minute capability by December 2022. These are type 4 and 4a meters.
- An MS DR Focus Group will be stood up in late January or early February 2022, and will focus on data transition plans from January to November next year, including updating certain mechanisms, how mechanisms will be populated and maintained, and including any capabilities associated with large updates. Nominations for the MS DR Focus Group will be called for prior to the end of 2021.

Next Steps and General Business

Blaine Miner

Next Steps

- Next UFE FG meeting is expected to occur in late Jan/Feb 2022, exact date is still to be determined
- Please send through any questions or proposed agenda items to gsmsdr@aemo.com.au
- Have a great festive season!

Meeting Notes

NO QUESTIONS

