

Industry-led, Elexon facilitated

Testing and Migration Advisory Group (TMAG) #13

18 January 2023

Version 1.0

MHHS-DEL855

Agenda

#	Item	Objective	Туре	Lead	Time	Page
1	Welcome			Chair	10:00-10:05 5 mins	
2	Minutes and actions	Approve minutes. Update on open actions, closing where appropriate	Decision	Chair and Secretariat	10:05-10:10 5 mins	3
3	Programme updates	Provide updates from L2/3 governance groups and wider Programme activity	Information	Programme (PMO)	0 mins	5
4	Qualification update	Update on discussions with code delivery bodies on qualification and activity at the QWG	Information	Programme (Nigel Hunt)	10:10-10:15 5 mins	7
5	Migration and data deliverables	Share the plan for deliverables coming through the MWG and provide an overview of the Data Assessment report	Information	Programme (John Wiggins)	10:15-10:30 <i>15 mins</i>	9
6	SITWG update	 Update on activity at the Systems Integration Test Working Group (SITWG) Provide a view of deliverables coming from the SITWG to TMAG Gain confidence from TMAG on content of test scope 	Discussion	Programme (Dom Mooney / Kate Goodman)	10:30-10:50 20 mins	14
7	NFTWG mobilisation	Update on planned mobilisation of a Non-Functional Test Working Group (NFTWG) in February	Information	Programme (Kate Goodman)	10:50-10:55 5 mins	19
8	Working group report	Provide updates from the DWG, MWG, EWG, QWG and SITWG	Information	Programme (working group leads)	0 mins	21
9	Summary and next steps	Summarise actions/decisions and look ahead to the next TMAG	Information	Chair and Secretariat	10:55-11:00 5 mins	23



Minutes and actions

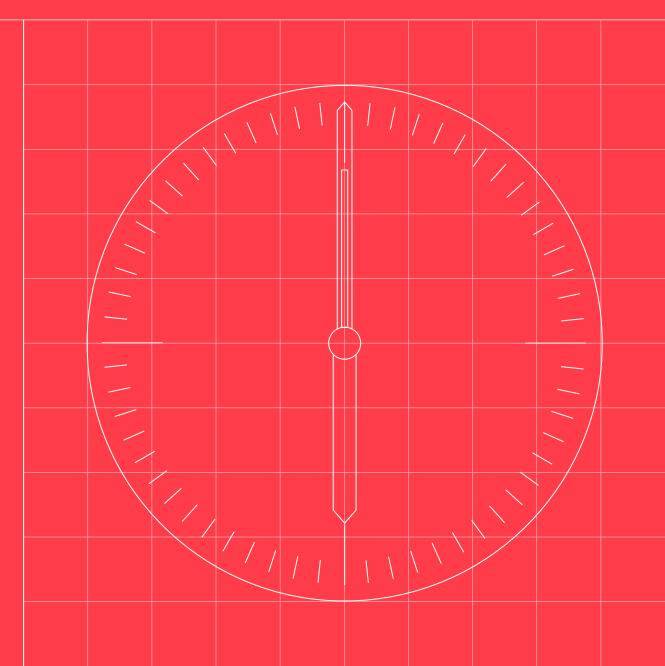
DECISION/INFORMATION: Approve minutes. Update on open actions, closing where appropriate

Chair and Secretariat

5 mins

2





Minutes and Actions review

- 1. Approval of Minutes from last TMAG
- 2. Open Actions and Actions from previous TMAG (actions will be discussed by exception. Please review the action updates ahead of the meeting)

Ref	Date	Action	Owner	Due	Status	Latest Update
TMAG08-02	17/08/22	Respond to Programme replan consultation. Encourage constituents to respond to the consultation	TMAG members	26/08/22	Open - ongoing	Round 2 consultation closed at the end of September. TMAG members are asked to respond to Round 3 of consultation and to encourage their constituents to also respond
TMAG12-01	22/12/22	Issue the Round 3 replan deck as presented in TMAG	Programme PMO	22/12/22	Recommend closed	Shared alongside the 21 December 2022 meeting papers
TMAG12-02	22/12/22	Share concerns on DIP dependencies for delivering their PIT and schedule meeting with the Programme to discuss, if required	Elexon representative	17/01/23	Recommend closed	Concerns shared and clarified offline



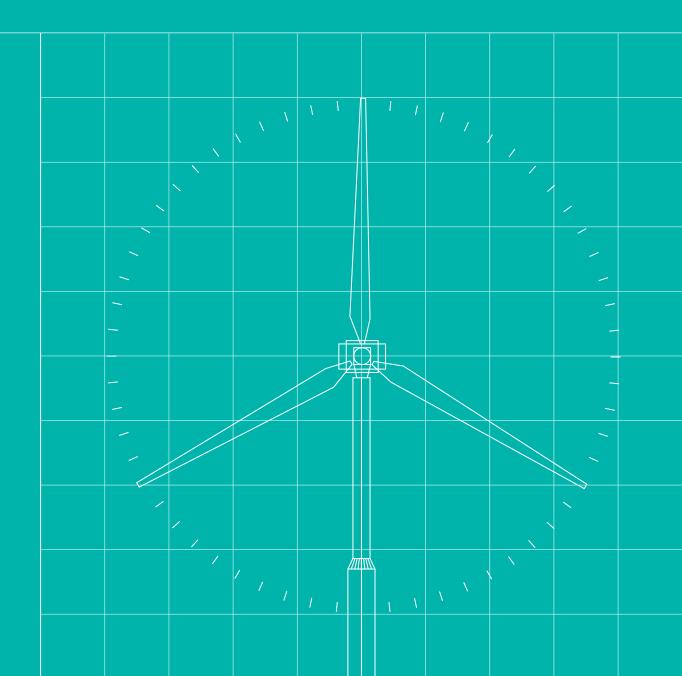
Programme updates

INFORMATION: Provide updates from L2/3 governance groups and wider Programme activity

PMO

3

0 mins – taken as read, questions by exception





Programme Updates

				Wider Programme updates
Programme Steering Group (PSG)	Testing and Migration Advisory Group (TMAG)	Design Advisory Group (DAG)	Cross Code Advisory Group (CCAG)	Round 3 Replan Consultation
Update from PSG 07 December 2022	Update from TMAG 21 December 2022	Updates from DAG 14 December 2022	Update from CCAG 21 December 2022	Round 3 of formal consultation on the updated draft of the MHHS Programme plan opened on Wednesday 14 December 2022. Responses are due by 31 January 2023 with those participants interested in System Integration Testing
 Migration Options Decision – The PSG decided to progress with Migration Option 3 M3 Next Steps – The PSG agreed updated M3 acceptance criteria and reviewed the engagement plan for parties who did not submit evidence in Readiness Assessment 2. M9 Update – The Programme presented an update on the status and timelines for M9 (SIT start). Programme Replan – The PSG approved an updated version of the Interim Plan. The PSG agreed to begin Round 3 of consultation on the programme plan. Change Control – The PSG approved CR012 (increase in 	 Migration update – The Programme updated on Migration Approach and Migration Design activity following approval of Migration Option 3 by the PSG Programme replan – The Programme provided an overview of relevant Test and Migration content in Round 3 of consultation on the Programme plan Qualification/pre-qualification – the Programme update on activity at the Qualification and E2E Sandbox Working Group (QWG) Data Working Group update – The Programme updated on activity relating to consumption data generator at the DWG 	 Work-Off Plan Updates – The Programme updated on the M5 Work-Off Plan. Of the 70 work- off items, the majority had been resolved offline via clarifications and minor amendments. 30 items required deeper discussion and solutions had now agreed for 28 of these. Change marked Design Artefacts would be issued for assurance review, and an extraordinary DAG held 31 January 2023 to complete the M5 Work-Off Plan. Work-Off Items – The Programme highlighted D-012 - E7/E10 Differential Settlement, and D-013 - Registration Service Operating Hours as work-off items which could not be resolved via the Work-Off 	 Horizion Scanning – Code Bodies updated against their relevant code modifications CR012 outcomes – The CCAG discussed next steps for consequential change code drafting following approval of CR012 by the PSG Round 3 replan – The Programme provided an overview of the code draft plan as per Round 3 of consultation on the Programme plan. The Programme highlighted how this had change since Round 2. Prototyping update – RECCo provided an update on Sprint 2 of prototyping activity. A traceability matrix had been created to track design artefacts to the code drafting topic areas 	 (SIT) requested to respond by 16 January 2023. In this round, it is important that responses include Delivery Plans so the Programme can pass Milestone 3 (M3) unconditionally. The Programme is holding Replan Playback sessions during January. Similar to Round 2, the sessions will be grouped around constituencies and will explain the Artefacts that have been provided, walk you through the plan itself, with time allocated for Q&A. Design Artefact Assurance Review: Change marked versions of the updated Design Artefacts on the M5 Design Work-Off Plan have been issued ahead of the Assurance review period starting on Monday 9 January 2023. The purpose of the review is for the Working Group to provide assurance that the changes agreed as part of the Work-Off Plan are accurately reflected in the Design Artefacts. The deadline for assurance comments is Friday 13 January 2023 and an Assurance Meeting will be on Wednesday 25 January 2023 to review any assurance comments and to confirm the recommendation to the Design Advisory Group (DAG) for approval.
 programme code draft scope) and agreed to raise CR013 (commercial impacts) to Impact Assessment. 6. Control Point 1 – The 	 SITWG update – The Programme updated on activity at the SITWG. The TMAG approved the SITWG ToR 	Plan Subgroup. These items had reached an impasse owing to varying views. Yhe items were escalated to DAG to consider next steps. The DAG	 CCAG reporting – The Programme gave provided a new monthly status update. Code drafting progress was on track as per the code draft plan 	The Design Advisory Group conditionally approved mobilisation activities for the Design Authority. The full Design Change Management process will look to be approved at the January DAG. The Design Authority will be made up of constituency representatives. A call for representatives was shared at the December DAG
Programme updated on the outputs of Control Point 1	TMAG meeting content is available here	did not feel able to make a decision and agreed that formal	6. CDWG update – The Programme updated on activity	A webinar will be held on Monday 16 January 2023 on the Design Change
7. DIP Enduring Modification – Elexon provided an overview of the modification delivery plan		Programme Change Requests should be raised for full impact assessment.	at the December CDWG and the agenda items for January	Management process.
 Besign Progress – The Programme provided an update on progress of the M5 Work-Off Plan and the migration design PSG meeting content is available here. 		 3. Post-M5 Design Change Management – The Programme will commence mobilisation of a Design Authority. DAG meeting content available here 	CCAG meeting content is available <u>here</u>	 Other updates: From 1 December 2022, Chris Welby stepped back from the SRO role. Chris continues to work closely with the Programme, lending his considerable knowledge and expertise. Helen Tipton, Elexon's newly appointed Director of Strategic Programmes, has taken on the SRO responsibilities Upcoming webinar on the criteria for the conditionally approved Milestone M3 – participant readiness for Design, Build and Test (DBT)



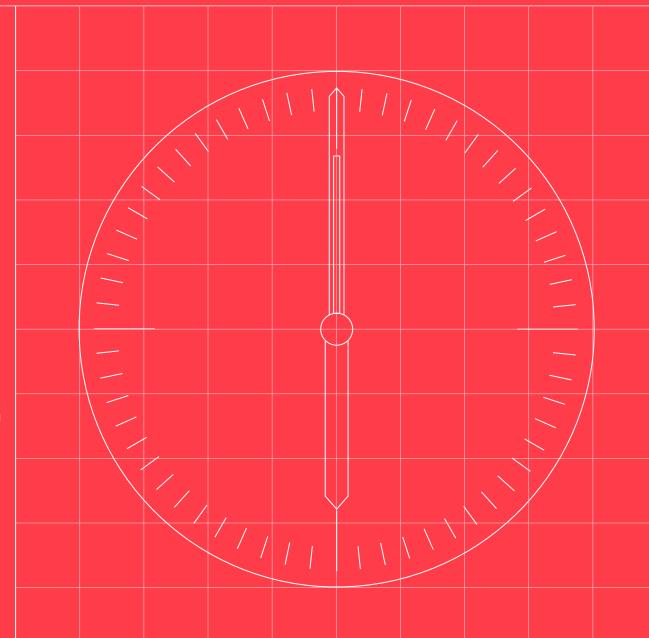
Qualification update

INFORMATION: Update on discussions with code delivery bodies on qualification and activity at the QWG

Nigel Hunt

5 mins





Latest progress from QWG -

- Bi-weekly Meetings set up to support progress of Qualification plans and deliverables.
 collaborative development in parallel with the SITWG for common material.
- Replan session 17-Jan-23 to align Code Delivery Body plans with Round 3 Consultation process.
- PIT Guidance to be provided by 27-Jan-23 (Pre-Qualification Guidance).
- Session agreed to understand Readiness Review process and how it aligns to the Qualification Self-Assessment process on 11-Jan-23.
- Qualification Approach produced by BSC and currently under review.



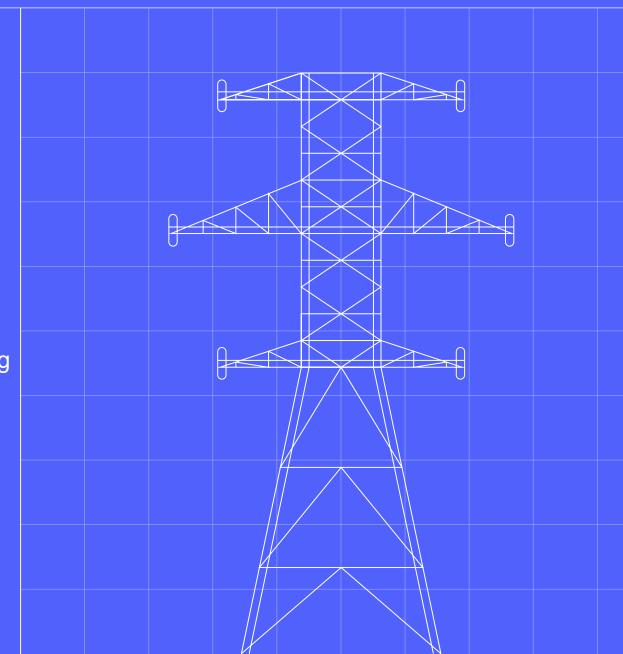
Migration and data deliverables

INFORMATION: Share the plan for deliverables coming through the MWG and provide an overview of the Data Assessment report

John Wiggins

15 mins





Migration Deliverables PoaP: January to April 2023

The MHHS Programme, in collaboration with MWG and TMAG, will focus on the following activities over the first half of 2023 to develop and finalise the two primary deliverables; namely, the Data Assessment Report (February 2023) and the Migration Cutover and Data Strategy (April 2023).

	= MWG 🔷 = TMAG 🧼 = Extraordinary TMAG 🔷 = Workstream Deliverable															
	January 2023				Februa	ruary 2023 March 2023			2023	April 2023						
W/C	09	16	23	30	06	13	20	27	06	13	20	27	03	10	17	24
ctivities	Development of Data Assessment Report			Report	Report Refinement & Finalisation											
		1		 		1				 		 				
			Devel	opment of Migra	ation Cutover &	Data Strategy		1 1			\rangle	Strategy	Refinement & F	inalisation		
Migration				i 												
Mig	Bilateral Participant Discussions															
		i I		-		-				1		 				
es																
ston																
Mile		TMAG	Ass	Issue Draft essment Report		TMAG		rdinary Report IAG Approved		TMAG	lssu	le Draft Strategy for Review		7	MAG (Potentia Fxtraordin	l) Strategy ary Approved
				for Review				, in a supproved				<i></i>			TMAG	ary rappiered
WG Outputs	 Review Input in	ent on data-rel of data asses to updated mo ck on noted st	sment skeleto delling assum	n	RecomReview	completed da mendation to a updated mod ick on draft str	approve data elling outline	report	FeedbaFinalise	draft strategy ack on noted st modelling out n key strategy	trategy topics tline			v completed m imendation to a		

Note: To support document development and finalisation, material will be shared as part of meeting papers for participant review and commentary, and there will be standard document review timeframes. In contrast to the process established for Design-related artefacts, formal consultation and assurance periods will not be introduced to support the finalisation of these deliverables.



Data Assessment Report

Scope & Objectives

- The objective of the Data Assessment Report is to describe the quality of the data as it is currently held in the existing arrangements, and the activities that need to take place prior to and during migration to cleanse the data/add further data to achieve an adequate quality.
- The Data Assessment Report is not intended as a full plan of the data cleansing/data addition activities, but will be the document upon which such a plan is based. It is intended to assign agreed roles and responsibilities but not contain a schedule of activities, targets, milestones, reporting, monitoring and governance.

Data Assessment Section	Торіс	Key Questions For Discussion
Data-Related Settlement Issues	Past change programmes (e.g. P272)Data domains/items	Will all Advanced metering be HH prior to migration?Will certain MPANs be excluded from migration until defined criteria met?
Current issues	Data domains/itemsKnown performance issues	 Which domains have known significant data quality issues associated to them which could negatively impact migration?
Issues foreseen for MHHS	Data domains/itemsPopulation and cleansing	Which identified issues need to be prioritised?Which issues could be mitigated prior to migration (or as stand alone initiatives)?
Addressing the data issues	 Existing initiatives (e.g. P432, P434, CP1558, R0032, R004) Additional activities required 	What are the key initiatives for which dependencies exist?Which initiatives will need further activities to be initiated within the MHHS Programme?
Roles and Responsibilities	 Defined roles and responsibilities 	 Which party is the data master for a relevant data item? Which party or parties is responsible for any activities to identify or resolve data quality issues?
Risks, Assumptions, Issues and Dependencies	 Underlying risks, assumptions, issues and dependencies (where applicable) 	What data is required to support testing and migration?External initiatives which are required to ensure data is of a standard to migrate?



January to February 2023

Analysis of MHHS data items

- Utilise data design artefacts to identify the core data required to support migration.
- Determine which data is existing, new or transformed from existing data.
- Identify the party responsible for the quality of the data.
- Document the services which master that data or require what data to operate migration or BAU processes.

Quantify data quality

- Document existing industry initiatives to populate new data (e.g. R32)
- Identify existing industry initiatives to improve data quality
- Identify known quality issues via engagement with parties
- Review existing performance data (if it exists)
- Identify where no initiatives currently exist to improve data quality and/or populate new or transformed data

Produce initial assessment report

- Identification of areas of risk which require further analysis of actual data
- Identify additional industry initiatives required to populate or cleanse data (pre SIT or migration)
- Identify status of data required for SIT
- Consolidated view of existing initiatives to implement new data structures / populate data for each relevant data item



Data Assessment Skeleton

Report Section	Key Items
Data populated from existing Registration Service data	 MPAN parameters - data associated to the attributes of the metering point (e.g. LLFS, import/export, domestic premises and connection type) Settlement parameters – data associated to the arrangements under which the metering point is currently settled (e.g. SSC, PC) Meter technical data – data associated to the metering device(s) installed at a metering point (e.g. meter serial number, GUID) Appointment Data – legacy agent appointment data
Transactional data	 Data provided legacy agents for each MPAN migration – MTDs for traditional, advanced and smart meters; meter readings for traditional, advanced NHH and smart meters without communications New data created at point of migration
Current Industry initiatives to populate MHHS data	 Document scope of initiatives Data quality aspects to initiatives Milestones and plan Identified risks / gaps for MHHS migration purposes
Known or assumed industry data quality issues	 Code performance assurance issues and risks Party feedback
Data mastership by domain / service	 Identification of service which masters data (ownership) Identification of service(s) which are reliant on data Identification of centralised service(s) where data is accessed
Data requirements for test phase	 Analysis collated into high-level strategy for obtaining test data Plans and approach to obtain test data by domain / service
Required data quality initiatives	 By domain / service – when improvements are required to complete by to align to programme milestones Data extracts / further detailed analysis required to quantify Identification and prioritisation of data risks / issues Proposed individual treatment plans



SITWG update

INFORMATION:

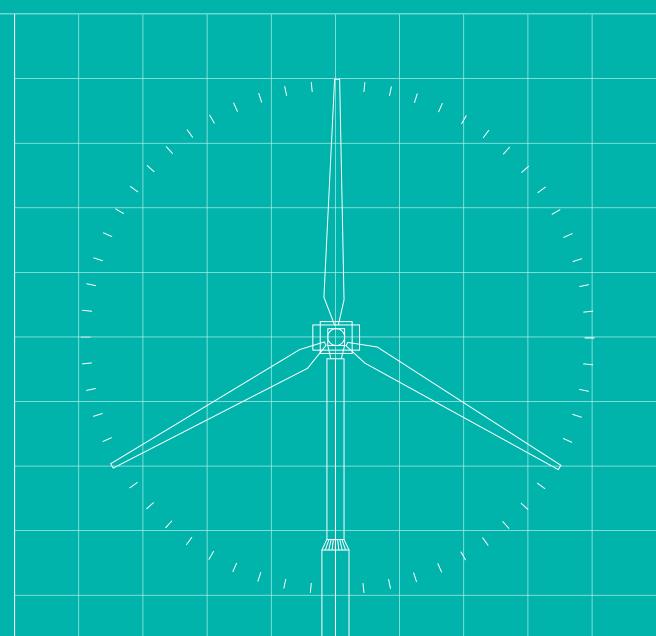
6

- Update on activity at the Systems Integration Test Working Group (SITWG)
- Provide a view of deliverables coming from the SITWG to TMAG
- Gain confidence from TMAG on content of test scope

Dom Mooney

20 mins





SITWG Update

Latest progress from SITWG (9th Jan) -

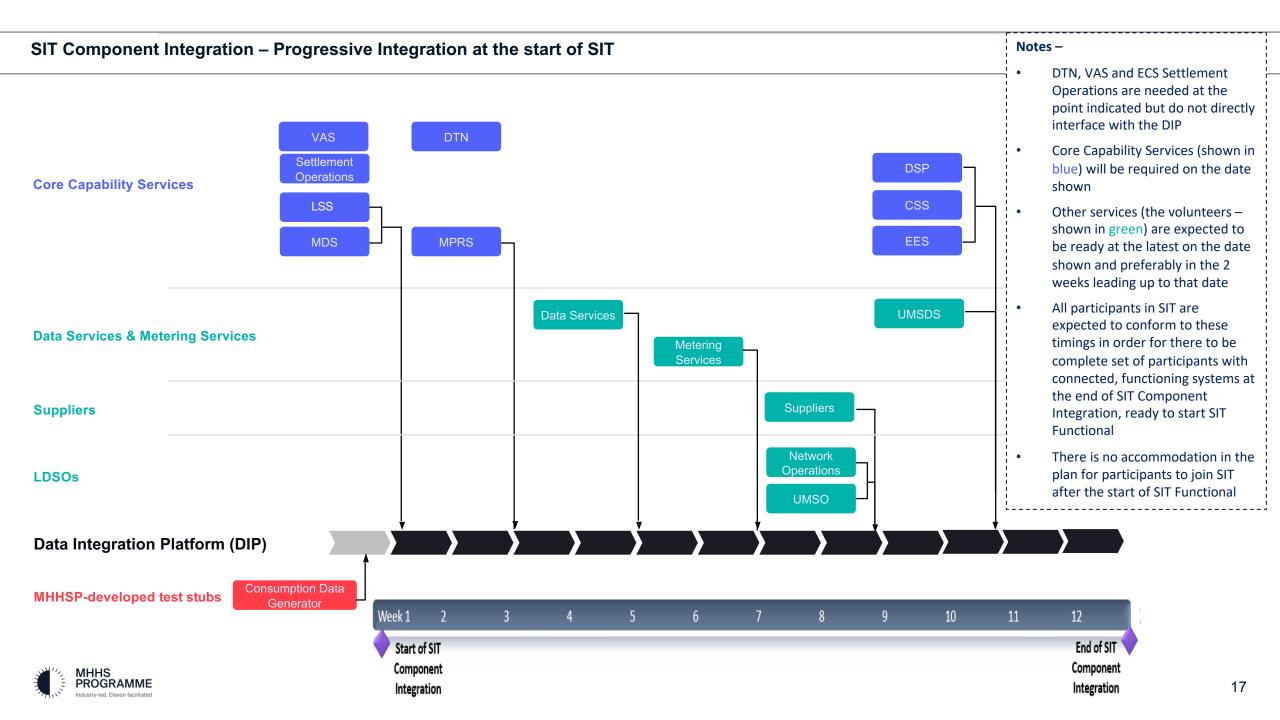
- Attendance is high and general engagement is very constructive.
- Topics covered this month:
 - Briefing on Replan Round 3 Consultation
 - SIT Plan, Approach and Scope:
 - Walkthrough of the SIT Readiness and Execution PoaPs
 - Presentation and discussion on test scope summary high-level scope document to be released by 20th Jan (earlier if possible) and an extraordinary SITWG scheduled to review with attendees on 24th Jan
 - Discussion on Software providers and service providers in SIT, further development planned within the extraordinary SITWG
 - Overview of CIT and Functional Test Approach & Plan Deliverables
 - SIT entry/exit criteria
 - Overview of PIT



SIT Deliverables Outlook (For Information)

SIT Stage	Deliverable	Target Date Ready for TMAG Approval
	Test Approach & Plan	05 May 2023
	Test scenarios	02 June 2023
Component Integration Test	Test scripts	01 September 2023
	Test Readiness Report	23 October 2023
	Test Completion Report	23 February 2024
	Test Approach & Plan	05 May 2023
	Test scenarios	02 June 2023
Functional Test	Test scripts	01 September 2023
Functional Test	Test Readiness Report	19 February 2024
	Test Completion Report (Minimum Viable Cohort)	17 January 2025
	Test Completion Report (Other Participants)	21 April 2025
	Test Approach & Plan	07 July 2023
	Test scenarios	04 August 2023
Migration Test	Test scripts	03 November 2023
Migration Test	Test Readiness Report	03 June 2024
	Test Completion Report (Minimum Viable Cohort)	21 October 2024
	Test Completion Report (Other Participants)	21 April 2025
	Test Approach & Plan	03 November 2023
	Test scenarios	01 December 2023
Non-Functional Test	Test scripts	01 March 2024
Non-Functional Test	Test Readiness Report	26 August 2024
	Test Completion Report (Minimum Viable Cohort)	17 January 2025
	Test Completion Report (Other Participants)	21 April 2025
	Test Approach & Plan	06 December 2023
	Test scenarios	03 January 2024
Operational Test	Test scripts	03 April 2024
Operational Test	Test Readiness Report	30 September 2024
	Test Completion Report (Minimum Viable Cohort)	07 February 2025
	Test Completion Report (Other Participants)	21 April 2025





SIT Scope – Component Integration



SIT Component Integration

- Verify ability to take on ISD for each component within MHHS Architecture:
 - Download ISD dataset applicable to the component
- **Verify ability to send/receive IF/PUB** for each component within MHHS Architecture:
 - Send each type of IF message (one example of each IF message type valid for the component)
 - Receive each type of PUB message (one example of each PUB message type valid for the component)

Verify DIP routing:

• Route each type of IF message according to Always, Primary and Secondary





Network Operations Service

DUoS Tariff Maintenance (BP010)

 Maintain DUoS Tariff ID and evidence in DUoS Billing - When a change occurs in Energy Direction, Domestic Premise Indicator or Connection Type (or any combination of these items), verify that DUoS Tariff ID is correctly updated by verifying result of DUoS Billing

IF/PUB messages (various BPs)

- Generate MPAN Enquiry and accept Response Verify that a correct MPAN Enquiry (IF-051) can be generated by the Service and sent to the DIP and the resulting response (IF-052) accepted by the Service
- Accept all valid PUB with varying data combinations For each PUB the Service can receive, verify that the Service
 accepts all a message with each Event Code, with/without repeating blocks and with any other complex data appropriate to the
 PUB (NOTE definition of "acceptance" is receipt at interface/adapter)

Supplier

Meter-to-Bank

Consumption (BP004, 005, 016)

- Advisory Notification Verify that Supplier successfully sends IF-024 demonstrating all boundary conditions for field values and combinations of fields.
- Traditional, Smart (no comms) Verify that Supplier successfully sends IF-041 demonstrating all boundary conditions for field values and combinations of fields.
- Smart Verify that Supplier successfully receives IF-021 demonstrating all boundary conditions for field values and combinations of fields.
- Unmetered Verify that Supplier successfully receives IF-021 demonstrating all boundary conditions for field values and combinations of fields.

SIT Scope – SIT Functional Examples (contd)



• Supplier (contd)

Meter-to-Bank (contd)

Consumption (BP004, 005, 016)

- Advisory Notification Verify that Supplier successfully sends IF-024 demonstrating all boundary conditions for field values and combinations of fields.
- Traditional, Smart (no comms) Verify that Supplier successfully sends IF-041 demonstrating all boundary conditions for field values and combinations of fields.
- Smart Verify that Supplier successfully receives IF-021 demonstrating all boundary conditions for field values and combinations of fields.
- **Unmetered** Verify that Supplier successfully receives IF-021 demonstrating all boundary conditions for field values and combinations of fields.
- Meter Reads Smart Verify that Supplier successfully receives IF-041 demonstrating all boundary conditions for field values and combinations of fields.
- Meter Reads Advanced Verify that Supplier successfully receives IF-041 demonstrating all boundary conditions for field values and combinations of fields.
- Annual Consumption Verify that Supplier successfully receives IF-040 demonstrating all boundary conditions for field values and combinations of fields.
- Consumption Amendment Verify that Supplier successfully sends IF-027 demonstrating all boundary conditions for field values and combinations of fields and successfully receives IF-028 response. Verify that Supplier successfully receives related IF-021 and subsequently IF-014 in case of a rejection by MDS.



Non-Functional Test Working Group (NFTWG) mobilisation

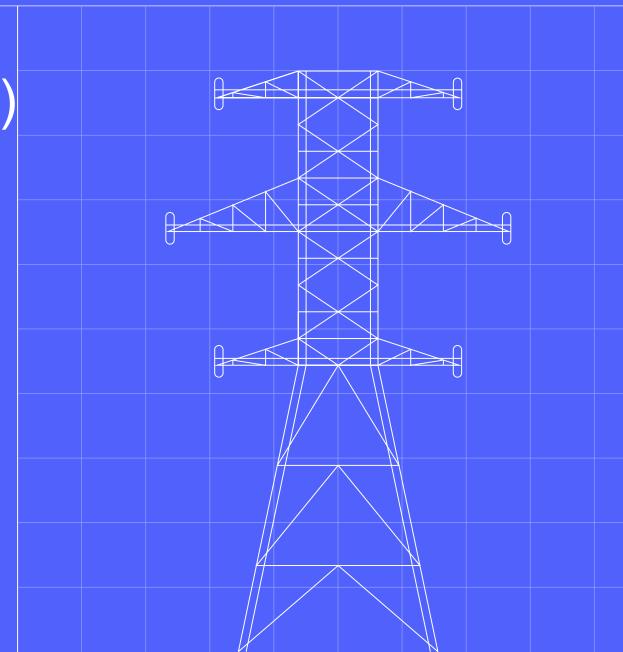
INFORMATION: Update on planned mobilisation of a Non-Functional Test Working Group (NFTWG) in February

Kate Goodman

5 mins

7







Work being done currently

- Analysis of NF requirements for each requirement, deciding whether it should be:
 - Assured by the SI Design Team and/or
 - Demonstrated by testing and if so, in which Test Phase(s)
- Clarification queries being raised on Design
- Forming views on SIT NFT

Logistics

- Meetings will be held monthly schedule TBC
- A call for attendees will follow shortly via the Clock and other MHHS governance groups
- The NFTWG will sit below the TMAG. Decisions and escalations will come to TMAG

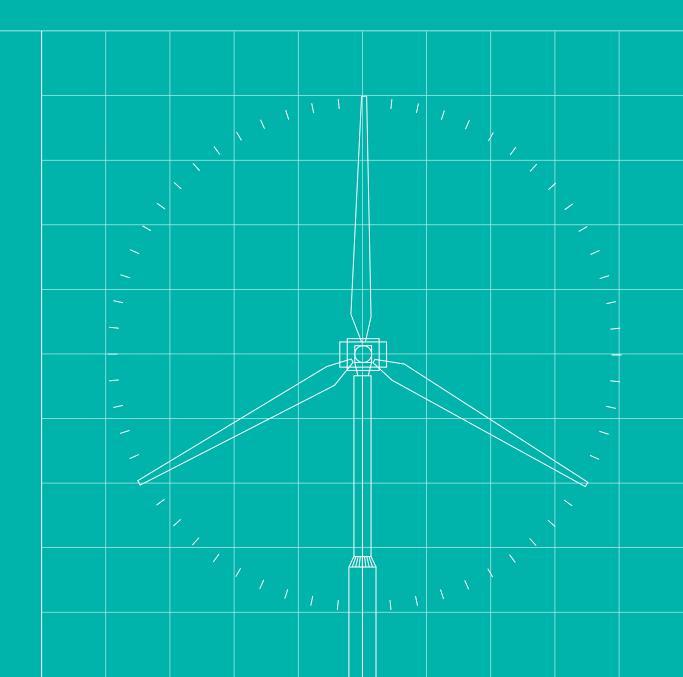


Working group report

INFORMATION: Provide updates from discussion at the DWG, MWG, EWG, QWG, and SITWG

Programme (working group leads as required)

0 mins – taken as read, questions by exception





TMAG Working Group report – January 2023

	Data Working Group (DWG)	Migration Working Group (MWG)	Environments and Configuration Management Working Group (EWG)	Qualification and E2E Sandbox Working Group (QWG)	Systems Integration Test Working Group (SITWG)
Upcoming deliverables	 Overall Test Data Approach and Plan (planned 31 Jan 2023, to come to February TMAG) 	 Data Assessment Report (planned 28 February 2023, to come to February TMAG) Migration Cutover and Data Strategy (planned 28 April 2023, to come to April TMAG) 	 Environments Approach and Plan (final version planned to come to February TMAG for decision) 	 Qualification Test Approach and Plan (planned to come to May 2023 TMAG) 	 CIT & Functional Test Approach & Plans (Apr 23) CIT & Functional Test Scenarios (May 23) CIT & Functional Test Scripts (Aug 23)
Next month's agenda items	19 January 2023 1. Overall Test Data Approach & Plan	 12 January 2023 1. MWG deliverables PoaP 2. Data Assessment Report 3. Migration Strategy Discussion & Development 	 January 2023 Feedback on Template and Catalogue process Update on Environment Approach & Plan Round 3 replan Release and Configuration Management approach 	 14 February 2023 Progressing Qualification Test Approach and Plan PIT overview Continued alignment with SIT and PIT 	 02 February 2023 Further of CIT & Functional Test Approach & Plan content Initial review of key principles and sections of the CIT & Functional Test Data Approach & Plan
Agenda items from last month	 01 December 2022 1. Principles of populating Day 0 test data 2. Consumption Data Generator 	 08 December 2022 1. Migration option recommendation 2. Migration PoaP 3. Update on migration design 4. Migration Strategy development 5. High-level migration modelling 	06 December 2022 1. Environments and Approach Plan and TMAG approval	 January 2023 Round 3 replan SIT Plan, Approach, Scope PIT overview Defining MHHS qualified entities Confirming MHHS qualified entities 	 09 January 2023 Round 3 replan SIT Plan, Approach, Scope Overview of CIT and Functional Test deliverables SIT entry/exit criteria PIT overview
TMAG escalations	None	None	None	None	None



Summary and next steps

INFORMATION: Summarise actions/decisions and look ahead to the next TMAG

Chair and Secretariat

5 mins



Summary and next steps

Next steps:

- 1. Confirm actions and decisions from meeting
- 2. Date of next TMAG: 15 February 2023

TMAG Agenda Roadmap – a rolling view of upcoming TMAG agenda items:

Meeting dates	18-Jan	15-Feb	15-Mar	19-Apr
Relevant milestones or activities	Round 3 replan consultation			
Agenda items	 Qualification update Migration and data deliverables Test Data Approach and Plan SITWG update NFTWG mobilisation 	 Test Data Approach and Plan Approval Data Assessment Report part 1 approval Environments Approach and Plan review NFTWG mobilisation 	 Review of E2E Testing & Integration Strategy (scheduled after the replan and other documents have been baselined) 	 Migration, Cutover & Data Strategy approval CIT & Functional Test Approach and Plans approval Data Assessment Report part 2 approval
Standing items	 Minutes and actions review Programme updates Working group report Next steps and agenda roadmap 	 Minutes and actions review Programme updates Working group report Next steps and agenda roadmap 	 Minutes and actions review Programme updates Working group report Next steps and agenda roadmap 	 Minutes and actions review Programme updates Working group report Next steps and agenda roadmap

If you would like to propose an agenda item for TMAG, please contact the PMO (PMO@mhhsprogramme.co.uk)

