



**MHHS
PROGRAMME**
Industry-led, Elexon facilitated

TMAG Briefing on Replan

December 2022

MHHS Replan Round 3

Round 3 of formal consultation for the MHHS Programme plan opened on **Wednesday 14 December 2022**.

The objectives of the Round 3 consultation process are:

- To consult on a detailed, draft Programme plan including all activities, activity durations, milestones and illustrative dates, sequencing and dependencies, and a developed RAID summary.
- To gauge the overall feasibility and alignment of participants' Delivery Plans to the revised MHHS Plan under consultation and to secure Programme Steering Group (PSG) unconditional Milestone 3 (M3) achievement in terms of participants' readiness.
- To assess the interest in System Integration Testing (SIT) participation from participants to form a Minimum Viable Cohort for progressing SIT.

The ask of participants in Round 3

Your input is critical for us to ensure that we have a realistic and viable Programme plan. **Round 3 is the last round of consultation to meaningfully engage with the content of the plan** before a formal Change Request is issued to rebaseline the Programme Plan in line with the interim plan agreed at PSG on **7 December 2022**. The plan provided in Round 3 reflects industry feedback to date. Therefore, we request the following:

1. Please read the documents that we have made available to you
2. Please respond to the consultation questions that we have posed. In your response you can also ask us questions, and seek any necessary clarifications
3. Send your response into the Programme via the Microsoft form
4. The deadline for responses is **17:00 on 31 January 2023** with those participants interested in SIT requested to respond by **17:00 on 16 January 2023** in line with the agreement at PSG on **7 December 2022**.

Round 3 consultation on the MHHS Programme Replan

This plan

- This draft is a working plan based on information available to MHHSP at the time of drafting. It has not been approved by Ofgem. It is an imperative to challenge and validate all assumptions in the draft with the aim of securing the earliest possible robust implementation date
- The plan review process is designed to arrive at a credible, robust, and achievable plan that sees MHHS implemented as early as possible and preferably no later than the date set out in the existing Transition Timetable, which all programme parties are currently required to operate in accordance with
- The current Round 3 plan as set out in this document follows considerable industry engagement since the Round 2 plan was issued in September. This includes taking into account Round 2 responses, insights from RA2 readiness assessment, account management meetings with core participants, bilateral engagement through the PPC and more recently the outcome of the Migration Options PPIR resulting in the PSG decision to progress with the reverse migration option.
- The approach and associated planning artefacts are significantly more advanced and detailed than those shared previously. The dates set in the plan have been set as realistic but challenging on the basis of the evidence received to date.
- The programme looks forward to working with parties to challenge and identify opportunities to shorten the overall timelines in this plan in order to secure a swift introduction of MHHS and to allow the generation of the benefits that MHHS will bring, in particular for customers and in supporting broader activity to drive towards net zero.

Context for the plan

- MHHS implementation is an essential enabler for realisation of much of the benefits from smart metering, as well as most of the planned benefits attributable to time of use pricing and demand-side flexibility.
- These benefits are much more significant than the £1.5bn - £4.5bn that were directly attributed to MHHS in its business case, which is important to remember
- This means that any delay carries a very heavy cost in delayed benefits
- There must be a continuous focus on realising benefits from the earliest practicable date
- BEIS is also taking a close interest given the importance of MHHS for net zero.

How participants are expected to respond to this consultation

- Further to the letter from Neil Lawrence, participants are expected to provide detailed, granular evidence to the Programme in response to this consultation - the Programme and Ofgem will need this information to take a robust decision
- In the meantime, participants need to be continuing, or commencing if they have not already started, their Design, Build and Test (DBT) activities and following the current Interim Plan that was approved by the Programme Steering Group (PSG) on 7 December 22
- In line with their obligations, we expect all participants to respond to this consultation. At the end of the Round 3 process, the Programme Steering Group (PSG) will be made explicitly aware of those participants who have not provided a genuine response.

Replan Round 3 Artefacts and supporting information

[Replan Consultation Round 3 Questions \[for reference\]](#) →

[Milestone Register](#) →

Milestone Tier	Milestone ID	Milestone Title	Milestone Description	Plan Section	Milestone Date
T3	T3-TE-0043	SIT Migration Testing End (Minimum Viable Cohort) (incl. confirmation that Programme participant have submitted their Test Completion Reports to Programme for assurance)	The end of SIT Migration test execution (Minimum Viable Cohort) is approved by TMAG	TE	07 October 2024
T3	T3-TE-0044	Central Parties' UIT environments ready to start connectivity testing (incl. certificates and security compliance)	The final date by which Central Parties are expected to declare that their UIT environments have been stood up, security certificates applied and security compliance achieved, and they are ready to commence connectivity testing.	TE	11 October 2024

[Outline MHHS Plan \(Projects format\)](#) →

[Outline MHHS Plan \(Excel format\)](#) →

[MHHS Summary RAID](#) →

[MHHS Implementation Approach](#) →

48	1	2	DESIGN, BUILD & TEST (P1)							No
49	2	2.1	Design Baseline & Enduring PP Support	Mon 31/10/22	Thu 31/12/23	1009 days	SI Design	SRO Design	No	
68	2	2.2	PP Mobilisation	Mon 31/10/22	Tue 31/01/23	67 days	PP		No	
74	2	2.3	PIT Stub Specification and Delivery	Mon 31/10/22	Wed 31/05/23	153 days	SI DevOps	SI Test	No	
87	2	2.4	PP Design, Build & Test (DBT)	Mon 31/10/22	Mon 15/02/26	861 days	PP	SI Test	No	
355	2	2.5	Pre-qualification Guidance (PIT Guidance)	Mon 31/10/22	Wed 14/12/22	33 days	SI Test	Code Bodies	No	
358	2	2.6	External Programme Dependency Management	Thu 03/11/22	Thu 03/11/22	0 days	CPT	PP	No	
361	2	2.7	System Design & Build - Tier 1 Milestones						No	
363	1	3	SYSTEMS INTEGRATION TESTING (SIT)						No	
364	2	3.1	SIT Preparation	Mon 31/10/22	Mon 30/08/24	501 days?	SI Test	PP.Code Boc	No	
702	2	3.2	SIT Execution	Mon 30/10/23	Mon 21/04/25	386 days	PP	SI Test/LIPA	No	
818	2	3.3	MHHS Testing for Non-SIT LDOs (Functional, Migration, NFT, Operat.	Tue 02/07/24	Fri 24/01/25	149 days	PP	SI Test	No	
820	2	3.4	EZE Sandbox Testing Preparation	Thu 17/11/22	Tue 15/10/24	439 days	SI Test	PP	No	
882	2	3.5	SIT PPs EZE Sandbox Testing Execution	Tue 22/10/24	Thu 31/10/26	572 days	PP	SI Test	No	
885	2	3.6	External Programme Dependency Management	Mon 31/10/22	Fri 30/06/23	174 days	CPT	Code Bodies	No	
895	2	3.7	Systems Integration Testing - Tier 1 Milestones						No	
898	1	4	REGULATORY						No	
899	2	4.1	Baseline MHHS Code Changes	Mon 31/10/22	Thu 04/04/24	374 days	Code Bodies, SI	PP, Olgem	No	
986	2	4.2	Olgem preparation and enactment of SCR powers	Thu 12/09/24	Fri 06/12/24	62 days	Olgem		No	
991	2	4.3	Deliver MHHS Code Changes	Mon 09/12/24	Fri 07/03/25	65 days	Code Bodies		No	
999	2	4.4	External Programme Dependency Management	Thu 12/10/23	Wed 24/01/24	74 days	CPT	Code Bodies	No	
1003	2	4.5	Regulatory - Tier 1 Milestones						No	

[Round 3 Replan Consultation submission form](#) →

[Replan Round 3 Playbacks Schedule](#) →

We have compiled a list of questions raised in Rounds 1 and 2 of the Programme Replan consultation which you can view below:

[Replan Consultation Round 1 & 2 Q&A](#) →

[Replan Consultation Round 2 Walkthroughs Q&A](#) →



**MHHS
PROGRAMME**
Industry-led, Elexon facilitated

MHHS Implementation Approach

MHHS-DEL842

December 2022

v1.0

Round 3 consultation on the MHHS Programme Replan

This plan

- This draft is a working plan based on information available to MHHSP at the time of drafting. It has not been approved by Ofgem. It is an imperative to challenge and validate all assumptions in the draft with the aim of securing the earliest possible robust implementation date
- The plan review process is designed to arrive at a credible, robust, and achievable plan that sees MHHS implemented as early as possible and preferably no later than the date set out in the existing Transition Timetable, which all programme parties are currently required to operate in accordance with
- The current Round 3 plan as set out in this document follows considerable industry engagement since the Round 2 plan was issued in September. This includes taking into account Round 2 responses, insights from RA2 readiness assessment, account management meetings with core participants, bilateral engagement through the PPC and more recently the outcome of the Migration Options PPIR resulting in the PSG decision to progress with the reverse migration option.
- The approach and associated planning artefacts are significantly more advanced and detailed than those shared previously. The dates set in the plan have been set as realistic but challenging on the basis of the evidence received to date.
- The programme looks forward to working with parties to challenge and identify opportunities to shorten the overall timelines in this plan in order to secure a swift introduction of MHHS and to allow the generation of the benefits that MHHS will bring, in particular for customers and in supporting broader activity to drive towards net zero.

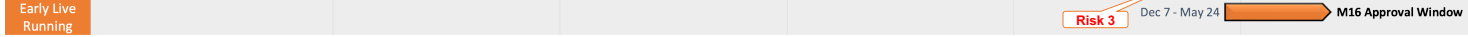
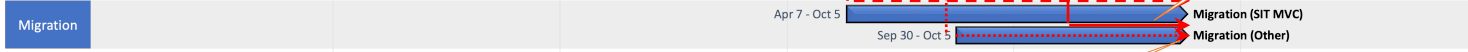
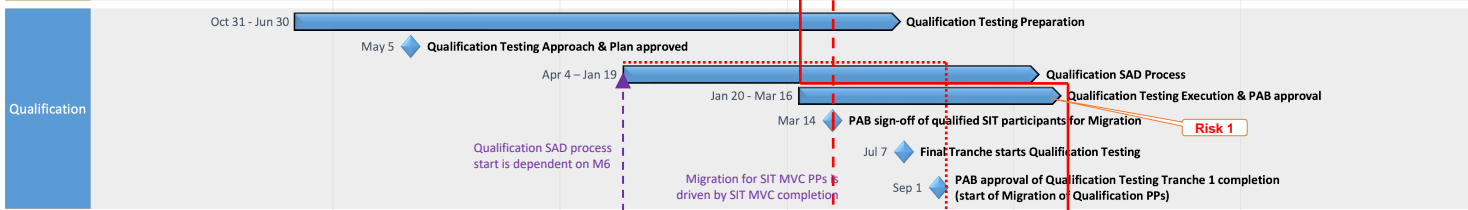
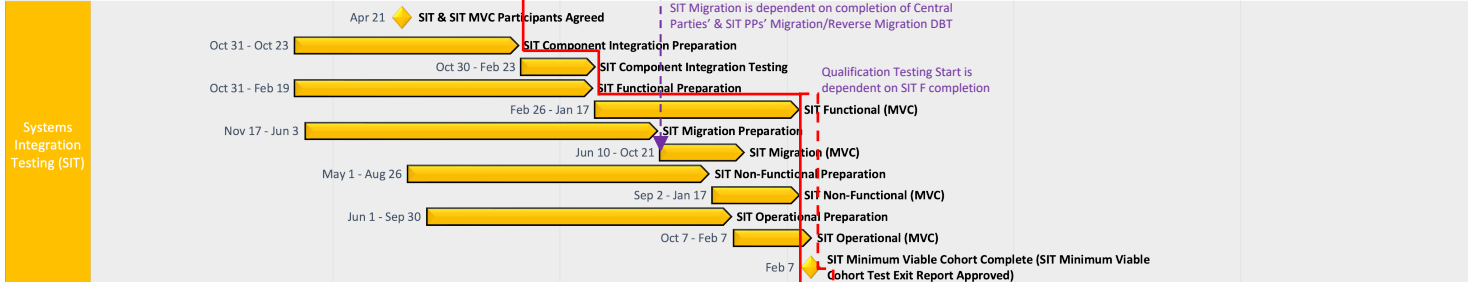
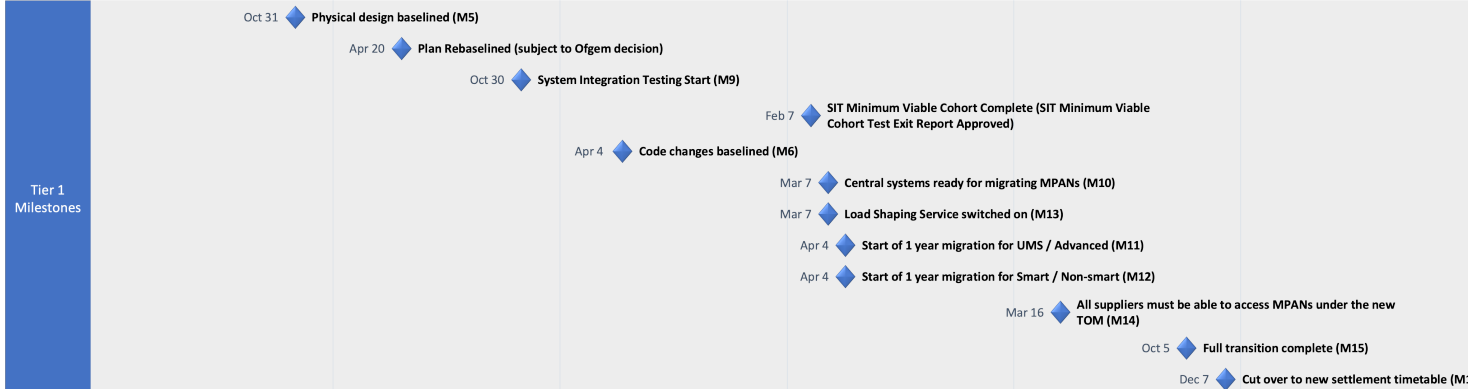
Context for the plan

- MHHS implementation is an essential enabler for realisation of much of the benefits from smart metering, as well as most of the planned benefits attributable to time of use pricing and demand-side flexibility.
- These benefits are much more significant than the £1.5bn - £4.5bn that were directly attributed to MHHS in its business case, which is important to remember
- This means that any delay carries a very heavy cost in delayed benefits
- There must be a continuous focus on realising benefits from the earliest practicable date
- BEIS is also taking a close interest given the importance of MHHS for net zero.

How participants are expected to respond to this consultation

- Further to the letter from Neil Lawrence, participants are expected to provide detailed, granular evidence to the Programme in response to this consultation - the Programme and Ofgem will need this information to take a robust decision
- In the meantime, participants need to be continuing, or commencing if they have not already started, their Design, Build and Test (DBT) activities and following the current Interim Plan that was approved by the Programme Steering Group (PSG) on 7 December 22
- In line with their obligations, we expect all participants to respond to this consultation. At the end of the Round 3 process, the Programme Steering Group (PSG) will be made explicitly aware of those participants who have not provided a genuine response.

Today



Critical Path (CP)	CPA End Point Objective (M16)	Date	Description
CP1	New Settlement Code (M16)	Dec 26	Programme Critical Path – Any slippage puts M16 at risk. Defined by slowest qualified PP
CP2	First MVC PP Migrate (M11)	Apr 25	Accelerated path post SIT completion for MVC PP's into migration. MVC enter MHHSP testing on CP1, transitioning to CP2 at end of SIT functional
CP3	First Qualified PP Migration Start	Jul 25	Non-SIT early qualification path. Qualification dependent on SIT completion. Non-SIT PP enter MHHSP testing commencing with the SAD process

Risk	Area	Impact
1.	Qualification	The current 12 month window is aggressive based on current assumptions. There is a risk this may need to be extended based on level of testing needed which may impact throughput, of PP delaying M14
2.	Migration Rate	The current migration window is modelled on a high level average throughput of MPAN. In reality, this is likely to vary across PP based on local IT infrastructure. There is a risk the 18 month window will need to be extended, delaying M15 into 2027.
3.	Migration Exit	The exit of migration will depend on the acceptance threshold for MPAN failures. The lower the tolerance, the longer the migration window.

Stage Entry	Stage Exit	Basis for Durations	R2 Delta
WIP	Replan CR Approved	As per interim plan agreed at December PSG. R3 starts on 14 Dec	+4 mths
WIP	PIT Exit – Helix & DIP	Design, Build and Test will continue for SIT participants up to a c. 1 month prior to Component Integration Testing (CIT) marking the start of SIT on 30 Oct. PIT needs to be completed for all Central Parties and SIT participants before CIT as shown. DBT continues for Qualification Participants up to Final tranche starting Qualification (not shown)	-4 months (M9)

DIP & Helix PIT completion	MVC SIT Completion	Component Integration Testing (CIT) starts with DIP and Helix which marks the start of SIT. This takes place between Oct 23 and Feb 24. Commencing CIT is dependent on SIT test and script preparation being complete by 30 Oct 23, running in parallel with DBT for SIT Participants. CIT is bounded by the first and last central party exiting PIT and completing CIT testing. Other MVC and SIT participants will be scheduled within the CIT window. SIT Functional testing starts on completion of CIT. SIT Functional testing is a major component on the critical path, with qualification testing dependent on completion. SIT functional testing has been modelled on three cycles of testing and is on the critical path through SIT.	-4 months (M10)
CIT Test Script Preparation			

UIT Set Up SIT MVC Functional Completion	All Non SIT PP's Qualified	Qualification window is assumed to take 14 months and further discussions are on-going with the code bodies to fully define the testing needs. The entry & exit from qualification will be controlled by PAB which sits monthly. Qualification testing, excluding completion of the Self Assessment Document (SAD), is assumed to take 6 months per tranche, plus 2 months for PAB governance and mobilisation of production environments. The start of the SAD process is dependent on M6. On completion of Qualification, participants will be able to join the production environment and commence migration. The last Participant will enter Qualification 8 months before qualification completes at M14	-1 month (M14)
---	----------------------------	--	----------------

WIP	M8	The sequence and duration of code drafting have been agreed by CCG and already underway. The overall duration through code drafting activities will be extended by 2 months as a result of PSG decision to approve CR012 which has been factored into the plan. Code drafting is not on the critical path as there is sufficient slack in the plan. M6 needs to be achieved by M8	+9 months
-----	----	---	-----------

MVC SIT Completion	MPAN Migrated	18 month migration is assumed based on high level modelling scenarios to provide sufficient time between MVC Go Live and last tranche migrating. Failed migration rate will be key (see risk) and profile assumed to follow S curve	No Change
--------------------	---------------	---	-----------

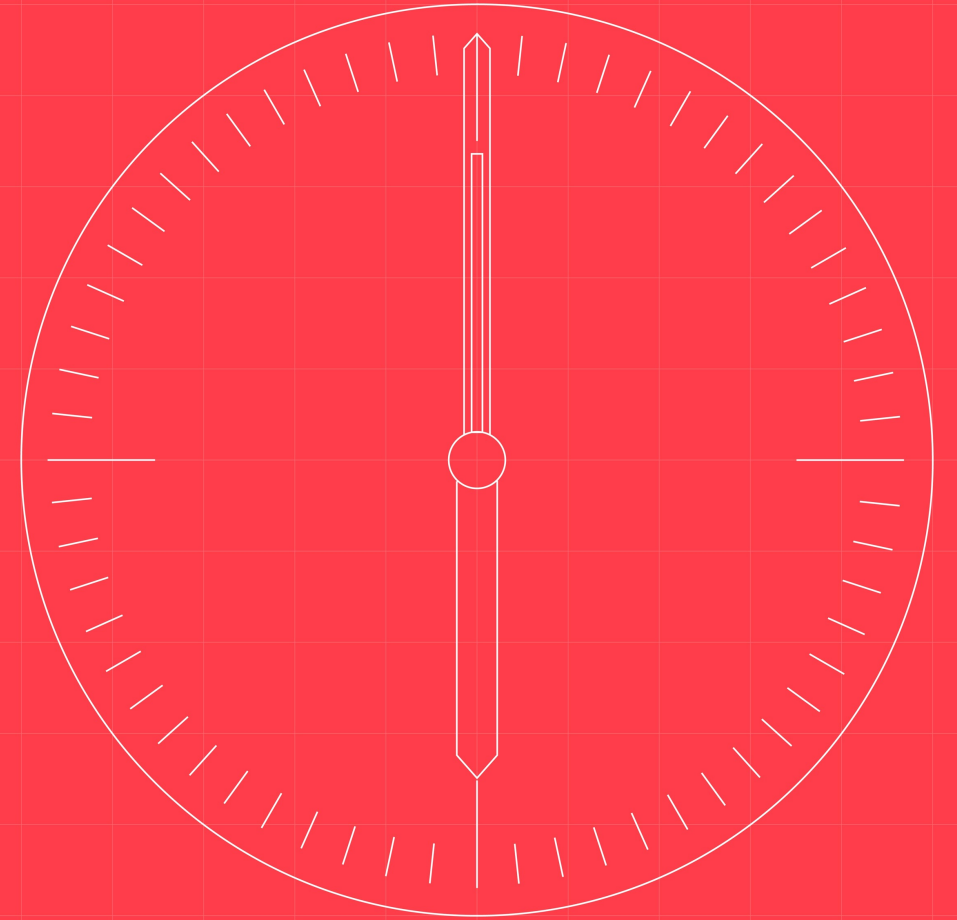
Early Live Running	Cutover to New Settlement Code	M16 will be subject to assessment against a set of criteria to demonstrate to BSCCo that the MHHs arrangements are stable and fit for purpose to cutover to the new Settlement Timetable. The earliest date assumed is 2 months after M15 with a window allowed with a 6 month backstop so that the focus is on achieving the criteria.	Up to -6 month
--------------------	--------------------------------	---	----------------

Risk 1

Risk 2

Risk 3

Example of Programme Phase IA Design, Build & Test (PIT)



Design, Build & Test (DBT) - Overview

We have separated DBT into parts:

- (1) **‘DBT1’: Market Interfaces & Services**, comprising the following: Central Parties, Suppliers’ MHHS-related Interfaces, Metering Services, Data Services, Registration Services, EES, Network Operations Services’ MHHS-related Interfaces (principally related to DUoS billing) and UMSO Services
- (2) **‘DBT2’: Supplier and Network Operations Services Back-End Systems**, separated from DBT1 to remove the Back-End Systems’ DBT from the critical path as far as possible and decoupling from those changes required for SIT entry. DBT2 comprises system and process changes delivered by Participants that will not be tested in SIT or Qualification Testing but are needed for MHHS. We expect that for Suppliers, DBT2 might include sales-related systems (PCW interfaces, CRM, other sales channels), customer-facing systems (customer communications, billing, customer T&Cs, digital customer platforms, vulnerable customer management, debt management), energy procurement (pricing, demand forecasting, network invoicing). We expect that for Network Operations, DBT2 might include systems for asset management, forecasting and other operational purposes.

DBT1 will be carried out by all parties. It refers to the design, build and test activities required to enter into either SIT or Qualification Testing, depending on the path the party intends to take.

This will include:

- Design, Build and Test of all the Market interfaces that will be utilised for SIT or Qualification Testing.
- Covering any scope deemed part of SIT or Qualification scope by the programme
- Any aspects within their estate which may not be explicitly covered by the programme but are required to ensure business processes work within SIT

MHHS SI will...

- Provide the Pre-Qualification Guidance document describing expectations for PIT exit
- Assure Design and Testing activities of participants during this duration

Participants are...

- Required to provide evidence in line with the Pre-Qualification Guidance that all requisite activities are complete ahead of entry into SIT, including DBT1 PIT evidence
- Demonstrate readiness in order to commence SIT Component Integration as the first SIT test stage

DBT2 is most relevant to SIT participants who can divide their delivery plans into scope required for SIT and scope needed to complete Qualification/go live but that does not impact SIT (e.g. consequential change – see note 1).

DBT2 comprises system and process changes delivered by Participants that will not be tested in SIT or Qualification Testing.

This will include:

- Any aspects within their estate which may not be explicitly covered by the programme but required to ensure business processes work post Go-live but does not impact the progress of SIT (e.g. consequential change)

MHHS SI will...

- Support clarity on the scope between DBT1 & DBT2 through the Consequential Change Impact Assessment Group (CCIAG)

Participants are...

- Expected to provide evidence of DBT2 testing in order to complete Qualification

Note 1: Definition of Consequential Change (@ 1 Dec 22):

A consequential change is defined as change required by parties to enact the core industry design being delivered by the Programme within their own system and process landscapes

Design, Build & Test (DBT) - Roles and Responsibilities (RACI)

Activity	SRO Function	LDP				Central Parties	Industry Parties	PSG or delegated to other Governance Body	Code Bodies	IPA	Sponsor (Ofgem)	Elexon Board
		CPT	PMO	PPC	SI							
Establish Design Baseline & Enduring PP Support	C	A	C	C	R	C	C	C, DAG	C	I	I	
Complete PP Mobilisation	I	I	I	C	I	A, R	A, R	C, PSG	C	I	I	
Complete PIT Stub Specification & Delivery	C	A	I	C	R	C	C	C, TMAG	I	I		
Complete PP Design, Build & Test (DBT)	I	I	I	C	I	A, R	A, R	C, TMAG	I	I	I	
Undertake DBT Monitoring and Assurance	C	A	I	C	R	C	C	C, TMAG	I	I	I	
Document Pre-Qualification Guidance (PIT Guidance)	C	A	C	C	R	C	C	C, TMAG	C	C		
Complete External Programme Dependency Management	A	R	C	C	C	C	C	C, PSG	C	C	I	

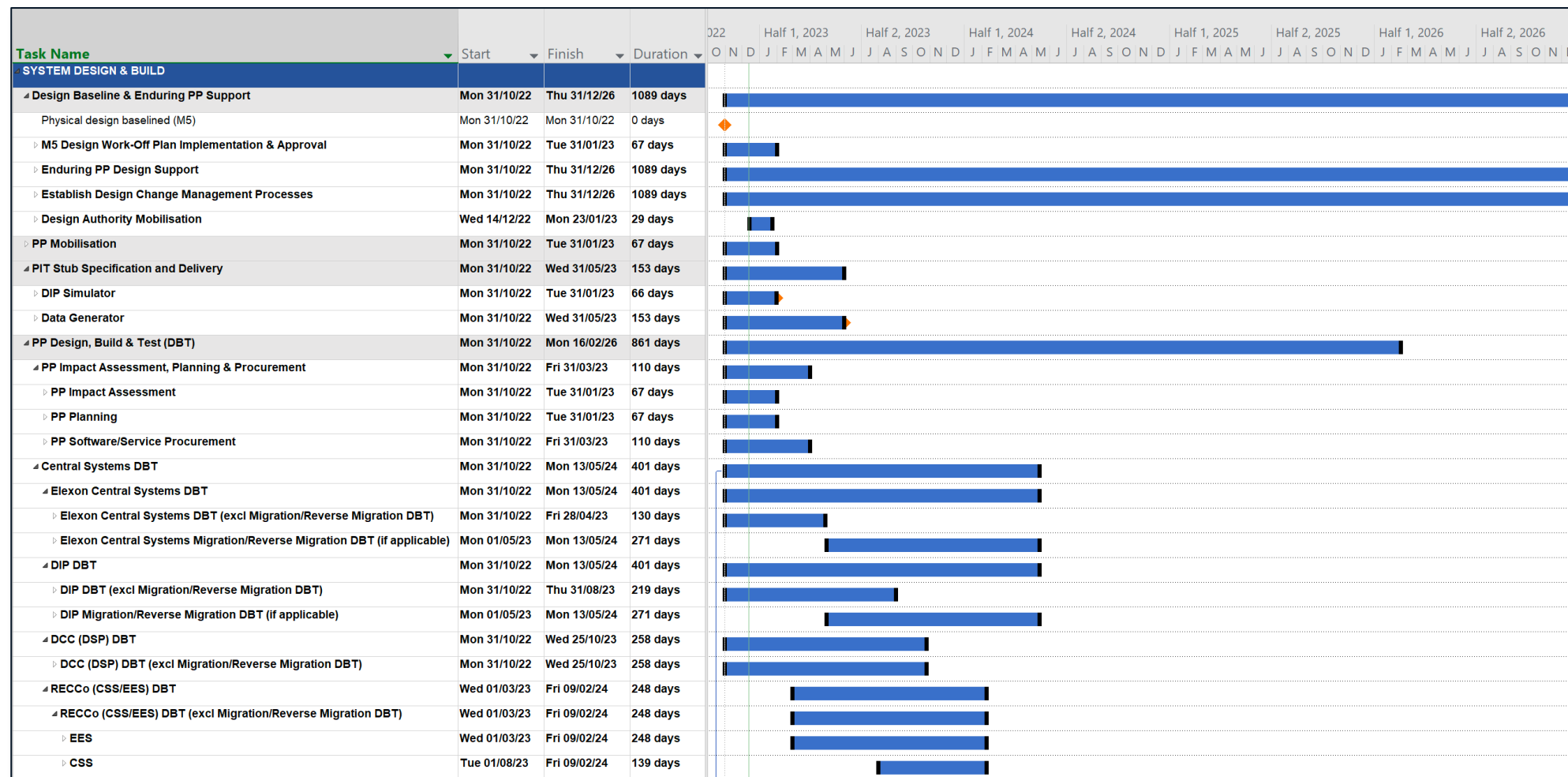
RACI Key	
R	Responsible
A	Accountable
C	Consulted
I	Informed

Design, Build & Test - Plan-on-a-Page (PoaP) 1 of 2

This draft is a working plan based on information available to MHSP at the time of drafting. It has not been approved by Ofgem. It is an imperative to challenge and validate all assumptions in the draft with the aim of securing the earliest possible robust implementation date.

The plan review process is designed to arrive at a credible, robust, and achievable plan that sees MHHS implemented as early as possible and preferably no later than the date set out in the existing Transition Timetable, which all programme parties are currently required to operate in accordance with.

The programme looks forward to working with parties to challenge and identify opportunities to shorten the overall timelines in this plan in order to secure a swift introduction of MHHS and to allow the generation of the benefits that MHHS will bring, in particular for customers and in supporting broader activity to drive towards net zero.



Design, Build & Test (DBT) - Key RAID Items

RAG Statuses will change as the Consultation process proceeds

A fuller list of RAIDs and a full exposition of content is documented in the RAID Summary

This draft is a working plan based on information available to MHSP at the time of drafting. It has not been approved by Ofgem. It is an imperative to challenge and validate all assumptions in the draft with the aim of securing the earliest possible robust implementation date.

The plan review process is designed to arrive at a credible, robust, and achievable plan that sees MHHS implemented as early as possible and preferably no later than the date set out in the existing Transition Timetable, which all programme parties are currently required to operate in accordance with.

The programme looks forward to working with parties to challenge and identify opportunities to shorten the overall timelines in this plan in order to secure a swift introduction of MHHS and to allow the generation of the benefits that MHHS will bring, in particular for customers and in supporting broader activity to drive towards net zero.

ID	Issue	Current Impact
I068	Migration Design has not been defined as part of M5 and remains open. This information influences Participant design due to the provisions that will need to be built to facilitate the migration window i.e., running new world and old-world processes within a single system / set-up	Medium

ID	Assumption	Assumption Uncertainty
A117	The expected impact of reverse migration on Participants' DBT plans has been factored into the latest replan as long as the indicated timescales (for completing the Migration design) are met	Medium
A079	There may be a need for adapter(s) due to unique system infrastructure and operational requirements	Medium
A118	DAG will be responsible for the approval of design-related Tier 2 and 3 milestones, until / unless an alternative governance group is established	Medium
A082	Any MHHS-related code changes required after MHHS code changes are implemented (M8) will be managed by the relevant code	Medium

ID	Risk	Potential Impact
R286	Migration Design needs to be understood early otherwise there is a risk of DBT re-work for some Participants	Medium
R274	If adapters are required, the plan may need to allow additional time to procure and test adapter services	Medium
R290	It may not be known how long build will take until detailed design is complete and IT vendors have confirmed their plans – Participants may not have E2E view until all plans have been defined	Medium

ID	Dependency	Manage-able?
D101	Confirmation of DTN changes required for new market roles (e.g. SDS to be able to access the continuing DTN flows that are part of MHHS design)	In process
D093	DBT cannot complete unless Central Parties (central capabilities) are ready for SIT – i.e. DIP, ECS, DSP, MPRS. DTN is assumed to also be a part of this (to be validated)	Yes
D094	Participants' DBT is dependent on the E2E design providing detail of data items and PKI / security requirements, etc.	Yes