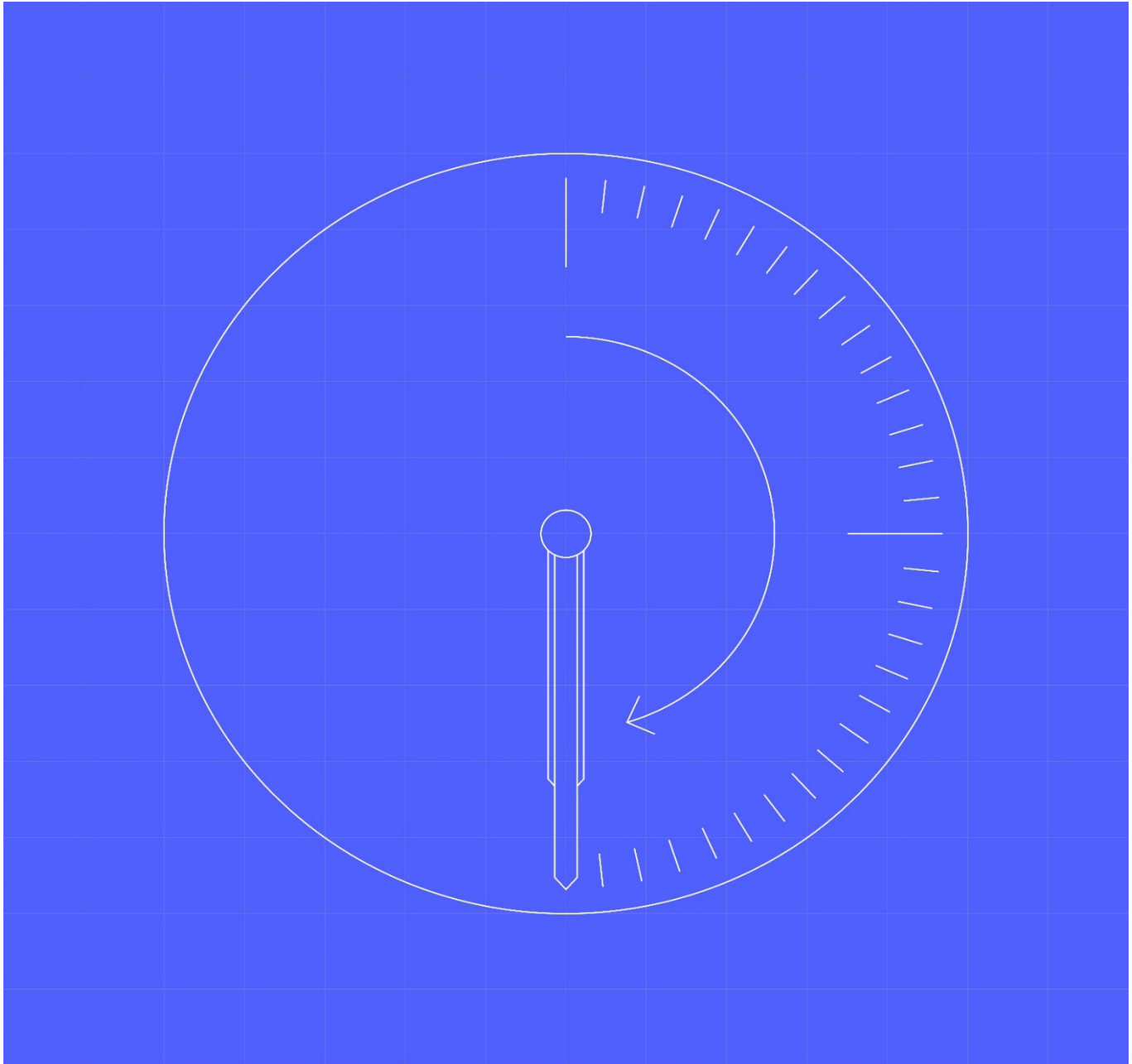




# MHHS – Migration, Cutover and Data Strategy



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## 1.1 Change Record

Date	Author	Version	Change Detail
04/05/2023	Migration Team	0.1	Draft Document for MWG Consultation
24/05/2023	Migration Team	0.2	Updated following MWG Consultation

## 1.2 References

Document	Publisher	Published	Additional Information
MHHS-DEL961 – Migration Design Document v1.0	Migration Team	03/04/2023	
MHHS-DEL953 – Data Assessment Report	Migration Team	21/02/2023	
MHHS-DEL813 – Overarching Test Data Approach and Plan	Testing Team	TBC	
MHHS-DEL1181 – Data Cleanse Plan (Draft)	Migration Team	TBC	

## 1.3 Terminology

Term	Description
BAU Process	This refers to a process within the MHHS arrangements as set out within the MHHS Core Design
CoA	Change of Agent
CoS	Change of Supplier
CSS	Central Switching Service
Data Cleanse Plan	The approach and activities required to improve and populate data prior to Migration start
DC	Data Collector
DS	Data Service
Forward Migration	The process through which MPANs will move from legacy arrangements to MHHS arrangements.
ISD	Industry Standing Data
LDSO	Licensed Distribution System Operator
legacy Arrangements	The existing arrangements set out under the BSC and REC. For the purposes of the Migration Design, this is primarily the REC Metering Services Schedule and the Balancing and Settlement Procedures related to Data Collection.
MHHS	Market-Wide Half-Hourly Settlement
MHHS Arrangements	The new MHHS arrangements as set out in the MHHS Core Design Artefacts.
Migration Design	The technical articulation of how MPANs will move from legacy to new MHHS arrangements.
Migration Period	The period denoted by the Programme as occurring between the M11 and M15 milestones.
MOP	Meter Operator
MPAN	Meter Point Administration Number
MS	Metering Service
Primary MPAN	The MPAN, within a Related MPAN arrangement, for which a Switch is initiated, or a Forward Migration (via an IF-031) is initiated.
Qualified Supplier	A Supplier recognised in ISD as both having passed the relevant System Integration Testing (SIT) requirements or BSC qualification requirements; and declared that their service is operational within the MHHS arrangements.

Registration Service	The service operated by LDSOs
Reverse Migration	The process through which MPANs will move from MHHS arrangements to legacy arrangements.
Secondary MPAN	The MPAN, within a Related MPAN arrangement, for which a Forward Migration occurs when an IF-031 is received for a Primary MPAN.
Switch	The process by which a new Supplier Registration supersedes an existing Supplier Registration, managed by the CSS.

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## 1.4 Programme Milestones

The below Programme milestones are referenced throughout this document.

M9 – Start of System Integration Testing (SIT)

M10 – Go Live of new services

M11 – Start of 1 Year Migration for UMS / Advanced

M12 – Start of 1 Year Migration for Smart / Non-Smart

M14 – All Suppliers must be able to access MPANs under the new TOM

M15 – Full transition complete

M16 – Cutover to the new settlement timetable

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## 2 Introduction, Overview and Scope

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### 2.1 Introduction

This document sets out the strategy and approach that the MHHS Programme will follow, in collaboration with Participants, to develop a suite of policies, processes and other artefacts to support Migration, cutover and data cleansing and population activities.

The strategic principles that will guide the approach that the Programme takes to develop the detailed artefacts are explained within this document. In addition, the timescales under which development will occur are also outlined, and these timelines are aligned with the overarching Programme delivery plan and milestones.

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### 2.2 Overview

The following sections are included within this document:

- **Data**

- **Cleansing / Population of data prior to start of SIT (M9):** Data cuts will be taken from Participants' systems prior to the start of SIT. The exact timing and scope of this activity will be determined within the Test Data Approach and Plan which is being developed within the Testing Workstream. This document references the requirement for this activity, as the work undertaken within the Data Cleanse Plan will identify risks or additional activities required to support the SIT data cut but will not set out the detailed activities required.
- Participants will not be expected to perform any data cleanse activities prior to the data cut taken on the 19<sup>th</sup> August 2023.
- **Cleansing / Population of data prior to start of Go Live / Migration (M10/M11):** This document, at a high-level, describes the data cleansing activities required and the Programme milestones that these activities should be completed by. The detail of how each area of data cleansing will occur, including scope, responsibilities, timescales etc., will be set out within the Data Cleanse Plan, which is due to be produced for industry review and consultation in June 2023.

- **Migration Planning and Governance**

The overarching responsibility for delivery of the Migration will continue to reside with each respective Supplier, who must ensure they can meet their obligations to have become MHHS Qualified prior to M14 and have migrated 100% of their MPANs by M15.

The Programme, however, will take responsibility for managing the overarching planning of Migration, which will ensure that the necessary systems and processes are in place at M10 to enable the MVC / SIT Participants to begin their Migration activities at M11. This will enable Suppliers to carry out their own respective migrations between M11 and M15, once they become MHHS Qualified.

The following requirements will be explored further in this document:

- **Migration Planning Principles:** The approach for Migration Planning is detailed within this document. This provides Participants with a high-level understanding of how the Migration will be planned, the constraints that each Participant may operate under and how the overarching industry plan and individual Participant plans will be centrally coordinated.
- **Migration Governance and Assurance:** This section of the document explains the proposed approach to the Programme's management of the plan, and how the Programme will interact with individual Participants to assure delivery of the overarching plan and the delivery of individual Participant plans. Transitional arrangements will also exist throughout the Migration

period. This may mean that additional reporting and interaction with the code bodies and Ofgem.

- **Migration Preparation:** The go-live of the new services will occur at M10 with the first MPANs being migrated by Suppliers at M11. This document covers the activities required to develop the technical approach to the go-live of the services, and also highlights the data preparation activities and planning activities that the Programme will undertake with each Participant, prior to M11, and then on a rolling basis as each individual Participant becomes MHHS Qualified.

The M14 milestone will denote the point at which all Suppliers and other Participants must be MHHS Qualified. Under the BSC and / or REC, from M14 onwards, Suppliers will not be able to take on new customers if they are not MHHS Qualified. The preparatory requirements related to each Supplier as they become Qualified between M11 and M14 (over the 7 Qualification tranches) will be considered within the plan.

- **Migration Completion:** The M15 milestone denotes the completion of Migration, which will occur when 100% of legacy MPANs have been moved to the new arrangements. There will be several potentially problematic and complex MPANs which will present issues when migrating. This document proposes the approach to identifying those issues within the initial data cleanse analysis, so as not to impact attainment of the M15 milestone.

The expectation is that the M15 milestone, which denotes the migration of 100% of MPANs, should not be prevented by the failure to resolve all legacy data quality issues (as this would be impractical and outside the vires of the Programme). There is an expectation that in some cases, issues will manifest under the new arrangements requiring resolution post-Migration.

Ofgem is currently considering what incentives should be in place for Participants to mitigate risks associated to the attainment of the M15 milestone.

- **Change of Settlement Calendar**

- At M16, the settlement calendar will be changed from 14 months to 4 months. This document references the high-level approach the Programme is expected to undertake to develop the plan which will support the decision making required to execute this change. The design of the change is currently being undertaken within the Transition Design Working Group (TDWG).

- **Reverse Migration Exceptions**

- Following discussion within the Migration Design Subgroup (MDSG), the Migration Working Group (MWG) and the Transition and Migration Design Assurance Group (TMAG), this document sets out the types of MPAN that have been identified for exclusion from Reverse Migration and the approach for considering further exclusions should further evidence be obtained.

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### 3 Intended Audience

These parties are:

- The Registration Services,
- Suppliers,
- Data Collectors / Aggregators,
- Meter Operators,
- The DIP Service Provider,

- Metering Services (i.e., MSS, MSA),
- Data Services (i.e., SDS, ADS, UMSDS),
- EES,
- LDSOs (i.e., DNOs and iDNOs),
- Meter Administrators,
- The DCC, operating Smart Metering and CSS,
- ESO,
- Elexon Central Services,
- Electralink (DTN),
- REC and BSC Performance Assurance Boards
- UMSOs

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## 4 Assumptions, Risks and Dependencies

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### 4.1 Assumptions

- Migration processes will be executed in accordance with the Migration Design approved within the MHHS Programme.
- SIT Migration testing will be successfully completed within the SIT phase of the MHHS Programme.
- The MHHS Programme will dynamically plan, manage and assure the migration of legacy MPANs to MHHS arrangements.
- Suppliers will be assigned a qualification tranche on a non-discriminatory basis, as set out in the BSC.
- A maximum daily threshold will be agreed which will constrain the total number of MPANs that can be migrated nationally and regionally per day. A capacity will be assigned to meet the requirements of each individual Supplier's Migration Plan on a non-discriminatory basis below the overall thresholds.
- Each Supplier's Migration Plan will be agreed with the Programme but will be constrained by the maximum daily threshold and the available capacity as per the previous assumption. A methodology will be developed by the programme (and agreed via TMAG) which will support the allocation of capacity to Suppliers on a non-discriminatory basis.
- There will be Advanced meters operating under both NHH and HH arrangements when Migration starts.
- All Unmetered Sites will be operating under HH arrangements when Migration starts.
- If a Supplier is MHHS Qualified, they will not be able to 'choose' to reverse migrate an MPAN. An MPAN will only ever undergo Reverse Migration when it is being settled under the new MHHS arrangements and is Switched from a MHHS Qualified Supplier to a Supplier who is not MHHS Qualified. For this reason, a Reverse Migration cannot occur via a CoA Migration.
- If a Supplier of Last Resort (SoLR) were to take place during the Migration period, Ofgem would have to give particular consideration to the portfolio and the MHHS status of the losing Supplier, as well as the MHHS status of the gaining Supplier and their agents, before determining the appropriate process for moving customers over.
- Changes made by legacy agents and Suppliers to support migration design will be covered under code bodies existing BAU change implementation and assurance processes. This will ensure that changes are made to both legacy Agent (MOP, DC, DA) and Supplier systems and services to

support the Migration Design in advance of M10. This refers to the ability to support a forward migration and a reverse migration irrespective of MHHS qualification status.

- The Programme will report on Migration performance to Ofgem and Code Bodies, the day-to-day governance of each Suppliers Migration Plan will be undertaken by the Programme.
- Migrations will only take place on working days. The initiation of migrations will occur from midnight Monday to 4pm Friday, this assumption will be tested in the development of the Migration processes and controls.
- From M14 onwards, all new connections will be under the MHHS arrangements.

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## 4.2 Risks

- All Suppliers and Agents will need to have made changes to their services and business processes by M11 to support the Migration of MPANs away from their portfolios when a Migration occurs at a minimum, regardless of their qualification plans. There is a risk that Parties who have not made these changes will cause data quality issues impacting consumers and settlement and this has been raised with the relevant code bodies to mitigate.
- All Suppliers and Agents who are not qualified by M11 may have to operate the Reverse Migration process (to Switch consumers whose MPAN is under the MHHS arrangements) and therefore they must have made changes to their services and business processes by M10. There is a risk that Parties who have not made these changes will cause data quality issues impacting consumers and settlement.
- Under legacy arrangements, the CoA process, and the CoA coincident with a CoS process can be subject to a high exception rate. By re-using the CoA process for the purposes of Migration, without materially changing the process, there is a risk that Migration is also impacted by a similar level of error.
- Large Suppliers who are not part of the MVC / SIT, will have a more limited window to migrate their portfolios prior to M15 after they have become MHHS Qualified. The Migration Plan will allocate sufficient capacity to Suppliers to enable them to complete their migration, irrespective of the point at which they become Qualified between M11 and M14.
- A higher than assumed number of participants qualify in the later tranches, limiting the window for all MPANs to be migrated within. The setting of maximum daily migration thresholds needs to support this scenario.
- Data Cleansing activities are not completed in time to support M11.
- The M15 milestone will only be achieved once 100% of all traded and Registered MPANs have been migrated, a risk exists that some Participants do not achieve this milestone, impacting the ability for the programme and industry to close legacy services and systems. Ofgem are currently considering an incentive scheme for Suppliers to mitigate this risk.

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## 4.3 Dependencies

- There is a dependency on all Suppliers and Agents to make changes (as per the Migration Design) by the start of the Migration period, including Suppliers and Agents that are not planning to be Qualified at the start of the Migration period. They will still need to be able to follow the Migration process where they are losing customers to a Supplier who is going to migrate them to the new arrangements.
- Equally, if unqualified Suppliers intend to switch consumers that have already migrated to the MHHS arrangements (between M11 and M14) they will need to operate the Reverse Migration process.
- Legacy MOPs and DCs will need to have implemented specific changes, prior to the start of the Migration period, to support forward and reverse migration processes.



- The data cleansing activities that have been set out in the Data Cleanse Plan are undertaken to minimise data quality issues by M11.
- There is dependency on Ofgem creating an incentive scheme for Suppliers to hit M15.

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## 5 Data Strategy and Approach

The Data Assessment Report, which was approved by TMAG in February 2023, identified several areas of data which required attention from the Programme and required Participants to perform further activities in order to be ready for the M10 and M11 milestones.

The recommendation for progressing the population and improvement of data was to develop a Data Cleanse Plan which would set out the activities, policies, ownership and timescales required to undertake this activity. The Data Cleanse Plan will be developed throughout April, May and June 2023 and approved at TMAG in June 2023. This data cleanse plan will be applicable to all programme participants and all programme participants will be engaged by the programme in the lead up to the Migration window.

The data strategy to support the Programme deliverables is based on the following principles:

- 1. Data cleansing activities must be practical and proportionate to meet the requirements of the Programme. This means that data should be cleansed prior to Migration start in order to avoid greater costs caused by complexity related to exception handling, either within the Migration period, or under the new MHHS arrangements.**
- 2. Data cleansing activities will be prioritised so that those which realise the greatest value to Participants are undertaken.**
- 3. Each activity will have its own set of quality criteria which must be achieved at an industry level. The Programme will set the criteria using a risk-based approach to ensure that the correct balance is achieved between Programme delivery and quality outcomes.**
- 4. Planning and targets will be aligned to Programme milestones and achievable targets will be set.**
- 5. Participants will be obligated to meet individual targets, set out in the Data Cleanse Plan, and failure to achieve those targets will be reported to the MHHS Programme, code bodies and Ofgem. It will also be monitored as part of migration planning readiness to determine a Participants suitability to commence migration.**
- 6. The Programme will provide a centralised reporting function where performance will be measured and impact to Programme milestones assessed.**

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### 5.1 Precursor Industry Initiatives

Several industry initiatives are underway which will have a direct impact on the population and / or quality of data which the new MHHS arrangements will be dependent upon.

The following initiatives are being tracked by the Programme and are essential to the overarching Programme data strategy:

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#### 5.1.1 New data stored within the Registration Service (R32 and CP1558)

The Data Assessment Report provides more detail on the REC and BSC changes to be implemented in June 2023 as part of the above code change proposals. This document seeks to clarify the approach the Programme will take to managing the dependencies of these changes.

It is important to note that the MHHS Programme had assumed that management of R0032 and CP1558 activities was outside the scope of the Programme, as per CCDG and associated early Programme output. Industry change processes have placed this responsibility onto the Programme, so these are new activities that had not previously been planned for.

**Completeness of data:** Following implementation of these CPs, not all data will be populated. Certain data must be populated prior to the start of SIT (M9) and prior to the start of Migration (M11). The Data Cleanse Plan will identify the criticality of data and the processes and timescales required to support it being populated. This analysis will also set out the required quality criteria targets that should be met by the relevant Programme milestones.

As previously referenced within the principles, the criteria will be set to ensure that Programme delivery is not adversely or disproportionately impacted by a failure to achieve certain targets. Ultimately, it will be the responsibility of Participants to meet the given targets to avoid more complex and costly exception processes post-Migration.

**Additional Programme-led activities:** Whilst the code changes will deliver the database changes and data flow changes to support the new MHHS arrangements, it may be impractical for Participants to use 'business as usual' processes to organically populate or improve data. Additional activities which could be more effective may include traditional data migration activities e.g., data extraction, transfer and data load between Participants.

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### 5.1.2 Unmetered Suppliers transfer to HH Settlement (P434)

There is a current industry initiative underway to transfer all NHH unmetered supplies to HH, which will also include cleansing of existing industry data. The Programme will continue to track this activity as a dependency as the Migration Design is predicated on an assumption that all unmetered supplies will be HH prior to their migration to the new arrangements. The cleaning of this data will be undertaken under existing code governance so will not be considered within the Data Cleanse Plan.

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### 5.1.3 CT Advanced Meters Settled HH (P432)

A BSC modification is in progress, however the dates associated to the transfer of NHH CT Advanced meters do not align to the start of Migration at M11. Based on this outcome, and the exclusion of NHH WC Advanced meters from this change, the Migration Design supports the migration of both NHH and HH Advanced Meters.

The migration of NHH Advanced Meters will be significantly more complex than the migration of Advanced Meters that are already HH. The Data Migration Plan will identify the risks and issues present and set out activities Participants must (or may) undertake to mitigate these risks.

The Programme is aware that Ofgem is intending to publish their decision on this MOD by the end of July.

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### 5.1.4 New Registration Service and EES Data

Several data items have been identified which will require population by M10 when the new production services are deployed. The requirement for a 'Migration Playbook' is explained further in this document. This playbook will include activities to migrate data (via a traditional extract, transform and load (ETL) approach) or services to create data (based on legacy data that is already held) at the point of 'Go Live' at M10.

In addition, the data cleanse plan will also set out activities which will be performed over 2023 and 2024 (prior to M10) which will include Supplier, DNOs and MEMs leading on and supporting cleansing activities. Further detail will be set out in the Data Cleanse Plan rather than this strategy document.

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## 5.2 Data Cleanse Plan

The following activities will be undertaken to develop and execute the Data Cleanse Plan:

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<b>Activity</b>	<b>Date</b>	<b>Deliverables / Description</b>	<b>Related Programme Milestone</b>
<b>Undertake Technical Working Group sessions</b>	03-Apr-2023 to 17-Apr-2023	Specific technical sessions will occur in April to validate the recommendations of the Data Assessment Report and develop the draft Data Cleanse Plan. It will be at this point that risks to the SIT data cut (impacting M9) will be identified and fed into the Testing Workstream to be incorporated into their plan.	M9, M10, M11, M15
<b>Develop draft Data Cleanse Plan for review</b>	11-May-2023 (MWG)	A draft version of the Data Cleanse Plan will be Reviewed by MWG.	M10, M11, M15
<b>Update and finalise Data Cleanse Plan and issue for consultation</b>	02 June 2023	Consultation period (extended due to the school holiday).	M10, M11, M15
<b>TMAG approval</b>	29 June 2023	TMAG approval of Data Cleanse Plan.	M10, M11, M15
<b>Develop reporting capabilities</b>	01-Jul-2023 to 01-Sep-2023	The Programme will develop reporting capabilities to track industry and individual performance against the plan. The Data Cleanse Plan will identify which elements of the plan will require tracking and how they can be tracked. (This may be a mixture of existing code body reporting, Programme reporting via EES data or via reporting submitted by Participants).	M10, M11, M15
<b>Participants undertake data improvement activities</b>	01-Jul-2023 to M10	Participants will undertake activities in line with their obligations set out in the plan.	M10, M11, M15
<b>Programme Reporting to Code Bodies</b>	01-Jul-2023 to M10	The Programme will report on an exceptional basis, risks or issues related to the plan, to the relevant PAB body.	M10, M11, M15
<b>Data migration to populate data prior to Go-Live (if required)</b>	M10	If identified as a requirement within the plan, data will be populated as part of the M10 Go-Live activities.	M10

## 6 Migration Planning and Governance

This section of the document sets out the Programme’s intended strategy and approach to developing the policies, processes, and requirements for the management of the Migration period.

Participants will enter Migration in a phased manner over an extended period as SIT and each qualification tranche completes. A phased entry to Migration will help to drive early achievement of benefits for SIT / MVC Programme Participants from 2025.

Although the revised Migration period now spans 18 months, as opposed to 12 months in the original MHHS Transition Timetable, this is not a like-for-like comparison due to the timings driven by phasing, as described above. The alternative would be to take a “big bang” approach to implementation where we would lose the

early realisation of benefits and likely have delays from a slower delivery pace to the Programme, as described below:

- Phasing has allowed the early realisation of benefits starting with SIT / MVC Programme Participants migrating sooner, followed by Qualification in parallel enabling all remaining Programme Participants to qualify by M14.
- The timelines for Migration are driven by this phasing approach with the Programme having taken the opportunity to reduce later Migration windows because of the ramp-up of Migration volumes delivered by phasing.
- The earliest that SIT / MVC Participants will be able to start Migration and start realising benefits is at M11 in April 2025.
- Qualification starts in January 2025 once SIT Functional Testing is complete, allowing the first Qualification Tranche to complete testing and start Migration in September 2025.
- The last Suppliers are planned to complete Qualification and start Migration at M14 in March 2026.
- The original MHHS Transition Timetable planned 9 months for M14-M15 but in this re-plan we have been able to reduce this to less than seven months. This is due to the ramp up of migrations in the period M11-M14, while allowing for reasonable migration volumes for those Programme Participants that come through the last tranches of Qualification.

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## 6.1 Migration Planning Principles

The Migration is predicated on a Supplier initiated model for the migration of each individual MPAN.

The ability of Suppliers will however need to be constrained, via a maximum daily threshold, to mitigate the risk that certain core services (such as CSS, Smart Metering, Central Settlements, DTN or individual Registration Services) become overwhelmed by higher-than-expected volumes on a given day.

Equally the Migration window, defined by the Programme as occurring between the M11 and M15 milestones, is finite in nature and must successfully support the migration of all MPANs in this period.

To mitigate these risks, the Programme is setting out the following overarching principles:

- 1) The Programme will be responsible for setting the maximum daily thresholds related to the total number of MPANs which can be migrated on a given day within Great Britain.**
- 2) The Programme will be responsible for setting the maximum daily thresholds related to the total number of MPANs which can be migrated on a given day by each LDSO.**
- 3) Each Supplier will agree a Migration plan, with the Programme, which will set out the daily volumes they must migrate on each given day.**
- 4) The allocation of capacity to each Supplier will be undertaken using an agreed methodology so as not to disadvantage individual Suppliers or impact the M15 milestone.**
- 5) The Programme will operate a flexible and dynamic planning capability to ensure that capacity is allocated in a manner that mitigates issues which could impact the attainment of M15 (such as changes to Supplier qualification dates, underperformance of individual Suppliers against agreed plans etc.).**

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## 6.2 Migration Modelling Assumptions

We have undertaken further work in support of the re-plan to review and enhance the Migration Modelling and validate the proposed 18-month Migration Period.

Whilst the responsibility to migrate their portfolio by M15 will reside with each Supplier, the Programme will undertake a role to centrally manage the end-to-end industry plan, ensuring that each Supplier has the

capacity to undertake their respective migrations, by approving and monitoring each Supplier's Migration plan.

To support this activity, the Programme will develop tools, systems and processes to enable the modelling, reporting and operational delivery of the migration.

The key assumptions / sensitivities which underpin the model are described in the below sections.

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### 6.2.1 Qualification

The phasing of when Suppliers will be Qualified between M11 and M14 will have a significant impact on the overarching plan and the risks associated with achieving the M15 milestone.

Currently a high degree of uncertainty exists regarding when Suppliers (and their Agents) will choose to become Qualified (although this has been refined based on R3 responses and ongoing engagement).

Scenario modelling has been undertaken which demonstrates the impact of Supplier entry into MVC/SIT and the subsequent seven qualification tranches. The key sensitivities identified through this modelling are:

- Having Suppliers with combined portfolios of 10m+ MPANs within the MVC / SIT cohort enables a controlled 'ramp-up' and successful migration of their portfolios without exceeding a nominal maximum daily threshold volume of 150k Migrations.
- However, these Suppliers may not wish to migrate at very high pro-rata volumes which would result in a lower daily rate than that required later in the plan.
- Having Suppliers with large portfolios entering the initial tranches of Qualification reduces risk related to M15 completion, if these Suppliers migrate their portfolios at a fast rate. While this would help to de-risk the migration window, Suppliers will not be given preferential treatment based on portfolio size.
- Having Suppliers with large portfolios (or larger numbers of individual smaller Suppliers) become qualified in later tranches increases risk, pushing higher volumes into the later months within the plan and requiring high Migration volumes to occur at the same point in time that complex exceptions must also be resolved.
- Suppliers entering SIT or the initial tranches of qualification (both large and small) migrating their portfolios at a faster rate (noting that all Suppliers will have different appetites for migration speed/volume) will create greater available capacity in the later stages of migration (mitigating the previous two risks).

The qualification plans of Suppliers will be actively monitored on an iterative basis, as each Supplier's intent becomes known (or changes) this will be fed into the modelling. The modelling will also be used to support Programme discussions with Suppliers to inform Supplier decision making in terms of their migration approach. Ultimately Suppliers will be operating within constraints (such as migration thresholds discussed later in this document) which must also be taken into consideration when Suppliers make informed decisions about when they wish to become Qualified, noting that the allocation of Qualification tranches will be determined on a non-discriminatory basis.

The migration planning approach will support the code bodies qualification activities, noting that the migration design, as a core requirement, needs to support Exelon's non-discriminatory approach to the assignment of qualification tranches to Suppliers.

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### 6.2.2 Migration Proving

To mitigate consumer and settlement risks, there is a need for a controlled 'ramp-up' of initial volumes in order to assure the performance of the Central Services and to ensure that the Migration Design is fit for purpose in an operational environment. Each MVC / SIT Supplier will be expected to operate their own

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individual 'ramp-up' and each individual Supplier, that becomes Qualified via the seven tranches of Qualification, will also be expected to operate their own individual ramp-up. In addition, a phased set of onboarding activities will be undertaken as Participants become MHHS qualified through the seven Qualification tranches.

Initial modelling has been undertaken to validate the impact of the 'ramp up' – where migration volumes are increased in a controlled manner to mitigate settlement and consumer impact. The need to resolve exceptions has also been considered within this model. The key planning sensitivities are:

- The requirement to have a controlled start needs to be planned for and contingency allocated to enable any remedial activities which may be required within the early life of the new services. This will occur within the first six-month period.
- As each Supplier begins their own Migration, following qualification by the seven tranches, they will require their own 'ramp-up' and subsequent 'ramp-down'.
- The maximum daily threshold must be set at a reasonable volume so as not to introduce significant cost to central industry services (e.g., CSS, Smart Metering, EES, Helix etc.) who must reinforce their systems.

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### 6.2.3 Daily Migration Thresholds

It is proposed that a maximum daily volume threshold is agreed, which will form the basis of non-functional requirements, to which central and regional services will operate.

Initial modelling suggests that an achievable volume would be in the range of 150,000 to 200,000 MPANs per day, however additional modelling and engagement with industry is required to define a volume target that provides enough capacity to support the mitigation of risks set out in this document previously.

The upper threshold will be agreed with MWG and approved by TMAG. Setting a threshold of 150,000 MPANs means that, should the expected planned volumes fail to be realised at any point (due to early life performance issues / individual Suppliers failing to meet their planned migration targets), this could result in the M15 target becoming unachievable.

To mitigate the risks identified in this document, such as higher than expected numbers of Suppliers qualifying in later tranches, and to support each Suppliers' migration in a fair and reasonable manner, setting higher 'peak' volumes may be beneficial. This would mean that the 150,000 to 200,000 range would be the daily 'planned for' volume, but that the centralised systems should be capable of supporting higher volumes. These volumes could then be used to manage peak activities (such as contract rounds), provide greater flexibility to support Supplier plans (to mitigate any contention between Supplier plans) or act as a contingency if the overarching plan fails to realise the required volumes and puts M15 at risk.

The Programme is aware that centralised service providers, such as the DCC, EES, Elexon Central Services and Registration Services, will require certainty regarding maximum daily volumes. The Migration of 33 million MPANs within an 18-month window will require an unprecedented migration rate, although individual Suppliers have conducted similar exercises within their own portfolios (e.g., re-platforming / bulk change of Agents), albeit at lower volumes and for shorter periods of time.

Central services, such as the CSS, will require changes to their existing SLAs to manage the volume; for example, the existing CSS daily SLA is 280k peak volume (for Switches and Change of Agents combined), an increase to 430k would be required to support existing Switching requirements and an additional 150k migration threshold. REC CP R093 has been raised to support the setting of capacity thresholds.

In addition, all central service providers will need to enhance their Service Management Regime to support an increase in volume. Even with a low exception rate of 1%, this would generate 1500 exceptions daily which would require resolution quickly to avoid consumer or settlement impact. The Data Cleanse Plan will support mitigation of this risk, although Suppliers and other Participants will be required to invest in the capabilities to resolve exceptions that occur in line with their Licence and Code obligations.

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## 6.3 Migration Delivery, Governance and Assurance

In line with the principles set out above, the Programme will be responsible for the creation of an end-to-end Migration plan. It is proposed that the creation of the processes and procedures required to support the plan will commence in Q3 2023. The creation of these processes will be undertaken in conjunction with MWG, and artefacts approved via the TMAG.

**The following functional capabilities will be designed and built by the Programme, with a Migration Planning and Modelling Tool (MPMT), which will enable:**

- 1) **A forecasting model which will allow each individual Suppliers Migration plan to be added to an overarching Migration plan.**
- 2) **Ability to load individual Supplier’s Migration Plans.**
- 3) **Ability to load actual MPAN migrations to dynamically update plan on a frequent basis. (Daily or Weekly loads will be validated).**
- 4) **Ability to dynamically change individual and overarching forecasts based on actual data.**
- 5) **Ability to produce reports by Participant to support planning (forecasting) and performance (actuals).**
- 6) **The Programme will mobilise an operational function, the Migration Control Centre (MCC) which will operate the MPMT and engage on a day-to-day basis with their peers within Central Services, Suppliers and LDSOs.**

The following high-level plan is proposed:

<b>Activity</b>	<b>Date</b>	<b>Deliverables/ Description</b>	<b>Related Programme Milestone</b>
<b>Threshold Volumes Reviewed</b>	Jul-2023 (MWG)	The Programme will present the proposed threshold volumes which will be split between GB and LDSO.  GB thresholds will impact Smart metering, CSS, EES and Elexon Central Systems (and will define their Migration related non-functional requirements)	M09/M10M11/M15
<b>TMAG Approval of Threshold Volumes</b>	Aug-2023	Approval of volumes proposed	M09/M10M11/M15
<b>Design Processes, Procedures, and Service Capabilities related to the MPMT and MCC</b>	Q1 2024 to Q2 2024	1) Design MPMT functional requirements  2) Design MCC processes and policies	M11/M15
<b>TMAG Approval</b>	Jul-2024	Approval of the artefacts developed	M11/M15
<b>Build and Test MPMT</b>	Q3 2024 – Q4 2024	The Programme will build the capabilities to deliver the requirements	M11/M15
<b>Deployment of MPMT and MCC</b>	Jan-2025	The MCC will become operational utilising the deployed MPMT	M11/M15

## 6.4 Migration Preparation

It is proposed that Migration planning preparation activities start in Q3 2024. At this point the processes and policies will have been agreed and the timings for when individual Participants will be completing qualification activities will be understood to a reasonable level of confidence.

Suppliers will be engaged to understand their preferences around migration volumes, the length of their individual migration plans etc.

Whilst the plan may extend some flexibility to Suppliers to choose when and how they migrate; they will be constrained by the threshold volumes previously discussed and the requirement for the Programme to ensure that all MPANs are migrated by M15 (and all Suppliers are treated in a non-discriminatory manner).

At M11, the Participants within the MVC will be ready to begin migration activities and the Programme will validate with these Participants that the initial volumes are correct. They will also finalise the live plan in the run up to the M11 start.

The planning activities will be aligned to other readiness checks undertaken to verify that individual Suppliers and Agents are ready to commence execution of their respective plans. These planning and readiness activities will then be performed on a rolling basis as each Participant becomes qualified across the 7 qualification tranches.

The high-level plan to prepare for Migration will be as follows:

Activity	Date	Description	Related Programme Milestone
<b>Agree migration plans with each Supplier within the MVC and SIT</b>	Oct-2024 - Dec-2024	The MCC and Suppliers will have agreed a plan aligned to their qualification date, with the MCC managing the overarching thresholds and full completion by M15.	M11/M15
<b>Finalise Initial live plan</b>	31-Mar-2025	Finalise live plan with each MVC Supplier for M11 start	M11
<b>Agree Migration Plans with each Supplier on a rolling basis (aligned to the Qualification Tranches)</b>	Jan-25 to M14	The MCC will liaise with the code bodies and individual Suppliers to agree and amend Migration plans as the qualification tranches progress.	M11/M15

### 6.4.1 Qualification Management

The programme will work closely with the code bodies to track each Participants progress against their qualification activities, ensuring that each Suppliers individual migration plan aligns to those activities.

Any risks associated to each Participants migration plan will be tracked by the programme, primarily to identify and mitigate risks to the overarching programme plan, which includes the ability to achieve the M15 milestone.

The code bodies will be entirely responsible for qualification activities and the allocation of Participants to one of the 7 qualification tranches, which shall be done on a non-discriminatory basis.

The programme shall engage each Supplier to agree individual plans once they have been allocated a tranche via their interaction with Elexon. The responsibility for meeting the M15 milestone will be the responsibility of each Supplier.

The programme will, however, provide a centralised 'command and control' planning function which will assign capacity to each Supplier to support their individual plans, enabling each Supplier, irrespective of



size, to enter any of the 7 qualification tranches and have enough available capacity to meet their M15 obligations.

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## 6.5 Migration Reporting and Quality Management

The Migration Design artefacts highlight a number of reports that are expected to be used to report on the progress of the Migration Period. Further analysis of the available reports and the reports that will be required to support the migration period will be carried out by the Programme. This will include reporting on the number of completed migrations that have taken place.

In addition, the design of the MCC may identify additional reporting which may be required to validate that all stages of the migration process have been executed correctly (e.g., tracking of data flows etc.). It is not currently envisioned that individual parties will be required to provide reporting to the programme, as reporting can be obtained from centralised services (such as the EES or from the DTS).

A quality criteria will be developed which will set out how the migration of an individual MPAN will be deemed to have been 'successful', noting that Participants will also be subject to the performance targets set out in the respective industry codes.

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## 6.6 Migration Completion

The successful completion of the Migration at M15 will be enabled by the planning and assurance techniques discussed in this document previously.

These activities will be focused on ensuring the following risks do not materialise:

- 1) **A number of MPANs exist at the end of the plan that cannot be migrated due to data quality issues.**
- 2) **Due to systemic issues with the plan, the M15 milestone cannot be achieved without exceeding the agreed threshold volumes.**

The Migration planning activities will consider what additional capabilities are required to mitigate these risks.

In addition, the reporting requirements will be captured to validate that all MPANs have been migrated and no registered and traded legacy MPANs exist within the following centralised services:

- Each Registration Service:
  - No MPANs still recorded as being settled under the legacy arrangements.
  - No MPANs with legacy MEM, DC, and DA appointments.
  - All DAs associated to traded and registered MPANs have received a D0209 ceasing their appointment.
- Elexon Central Systems:
  - The CDCA will check that no data is submitted by DAs to Elexon for settlement dates post M15.

More detailed analysis is required, via industry engagement under the Migration Working Group, to identify all of the risks and issues that will exist at M15 and draw out additional activities required to support M15. This will enable the creation of a set of acceptance criteria that will define how the attainment of the M15 milestone is measured.

Additionally, approaches and techniques will be developed to ensure that no MPANs exist within the old arrangements by M15, this will be achieved by ensuring all MPANs are migrated by the Registered Supplier and no orphaned MPANs exist (e.g., MPANs without registrations are terminated by DNOs).

Consideration will also need to be given to decommissioning activities that need to be carried out following the end of the Migration period.

The proposed timings to undertake these activities are set out below:

Activity	Date	Description	Related Programme Milestone
Define the Acceptance Criteria for M15 achievement	Sep-2023	The acceptance criteria will be reviewed and discussed at MWG	M15
Identify reporting requirements	Oct-2023	Develop reporting requirements with MWG review	M15
Approve acceptance criteria and reporting requirements	Nov-2023	Approval at TMAG and Performance Assurance Board	M15

## 7 Cutover to New MHHS Arrangements

It is a requirement on the Programme that a Cutover Plan is created to support the mobilisation of the new MHHS services at M10. The plan will, at a high level, describe the activities (and sequence of activities) which must occur at M10.

The Cutover Plan will be supported by a Migration Playbook which will set out the sequence of activities that each service must perform.

The expected scope of services will include:

- Elexon Central Services
- Each DNO / Registration Service
- Each Supplier and Agent within the MVC/SIT
- All other Supplier and agent legacy services (who will have made changes to support forward and reverse migration)
- The Central Switching Service
- DCC Smart Metering
- The Electricity Enquiry Service
- The DIP

As a minimum, the plan will consider the following key activities:

- The issuing of Production Certificates to enable communication to and from the DIP by each service.
- The population of required reference data within each service (e.g., ISD/MDD).
- Extract and Load of data between centralised services to support new MHHS data requirements (the data which will be subject to this activity will be identified within the Data Cleanse Plan).
- The sequence in which each service is brought online (note: as the services are loosely coupled via the DIP it is expected that this activity will be low risk).
- Any required interface initiation / validation activities (e.g., subscription to webhooks, test message transmission utilisation production interfaces etc.).

The high-level plan to develop the Cutover Plan is described below:

Activity	Date	Description	Related Programme Milestone
Develop a Plan for MWG review	Q1-2024	The proposed plan will be reviewed and discussed at MWG.	M10
Approve Cutover Plan	May-2024	Approval at TMAG	M10

## 8 Change of Settlement Calendar

At M16 the settlement calendar will be shortened to meet the requirements of the MHHS Target Operating Model.

A governance model needs to be developed by the Programme and approved by the BSC Panel, which sets out the criteria by which that decision is made as well as the activities that must be performed, and the associated timescales that they must be performed within, to support that decision.

The approach and the mechanics of the change will be developed with the Transition Design work-stream. This activity is currently underway and will complete prior to Q3 2023. Following this activity, it is proposed that supporting assessment criteria are developed which will set out the decision making and monitoring required to verify that the changes can be implemented in line with the design.

The plan for this activity is as follows:

Activity	Date	Description	Related Programme Milestone
Programme undertakes assessment of required criteria	01-Oct-2023 to 01-Nov-2023	The Programme engages BSC and other parties in formulating the approach and plan to determine the required criteria	M16
MWG review of proposed plan and criteria	Jan 2024 MWG	Participants review the proposed approach	M16
Refinement and further review	Feb-2024 to March-2023	Further review and engagement once full scope is understood	M16
Criteria and plan approved	Apr-2024	Due to the criticality to settlement, it is expected that this will be approved by PSG and the BSC PAB	M16

## 9 Reverse Migration Exceptions

Several potential exception cases were identified by Participants following a request for evidence at the March MWG. The evidence is currently being reviewed by the Programme and will be discussed further at the June MWG.

It is likely that exceptions will be made to Reverse Migration, such as Complex Sites. It is also possible that prior to M11, other exceptions that may require exclusion from Reverse Migration will be further considered. The expectation is that these exceptions will be relatively low in volume.

If MPANs are to be excluded from Reverse Migration the Programme has identified two methods which would be used to exclude MPANs:

Method	Pro	Con
The MPAN would only be migrated post M14, when all Suppliers are MHHS Qualified, meaning Reverse Migration would not occur.	Consumer choice / Supplier Switching would not be impacted as the MPAN would continue to operate under the legacy arrangements.	Suppliers' Migration plans would need to account for MPANs which couldn't migrate prior to M14, meaning they may have to operate legacy processes for longer than they wish, and they may not be able to complete Migration until post M14.
The MPAN would not be able to Reverse Migrate once migrated to MHHS arrangements.	Suppliers' Migration plans would not be impacted, and they could migrate all of their portfolio prior to M14.	legacy Suppliers would not be able to gain the MPAN until they had become MHHS Qualified, impacting consumer choice and impacting Suppliers commercially.

At the April MWG, Participants were asked for feedback on each option. Whilst these options present different risks, when reviewed in the context of preventing the Reverse Migration of Complex Sites and Shared Metering Points, it was agreed that the first option would be preferable.

Currently there has been no compelling evidence to support the prevention of Reverse Migration for other types of MPANs.

The Programme's recommendation will be to present the case for Complex Sites and Shared Metering Points being excluded from Reverse Migration to PSG.

## 10 Creation of New Export MPANs

There is a significant backlog of Export MPANs that are awaiting creation by Suppliers, in compliance with their License Conditions, to support premises which are currently operated under the FIT scheme and have Smart meters installed (for which Export data is not currently reflected in settlement).

The number of Export MPANs that are awaiting creation was estimated at 800,000 by CCDG. Due to the high volumes involved, the creation of these MPANs will add a significant overhead to the activities Suppliers, Metering Services and DNOs will be performing during the Migration period. This activity must be considered alongside existing Migration activity to avoid constraining the capacity of said Participants to undertake their Migration-related responsibilities.

An initial approach was proposed within the CCDG that the Export MPAN should be created within one month post the migration of the related Import MPAN. The Programme has raised this position with Ofgem, who are investigating the current obligations on Suppliers, as well as confirming their position on what actions participants should be undertaking prior to the Migration Period commencement at M11 and which activities they should be undertaking between M11 and M15.

If it is a requirement that the creation of export MPANs is to occur within the Migration Period several options as to how this activity can be practically undertaken require evaluation. This evaluation should consider:

1. The business processes operated between Suppliers and DNOs and the suitability of those processes to operate at high volume. This includes the actual volumes of Export MPANs which will require creation.
2. The triggers and timescales under which the Export MPAN should be created (noting that the one-month proposal would not be achievable for Suppliers who are not Qualified).
3. The role that the MHHS Programme takes in managing this process.

Further work to progress this requirement will be initiated by the Programme in Q3 2023.