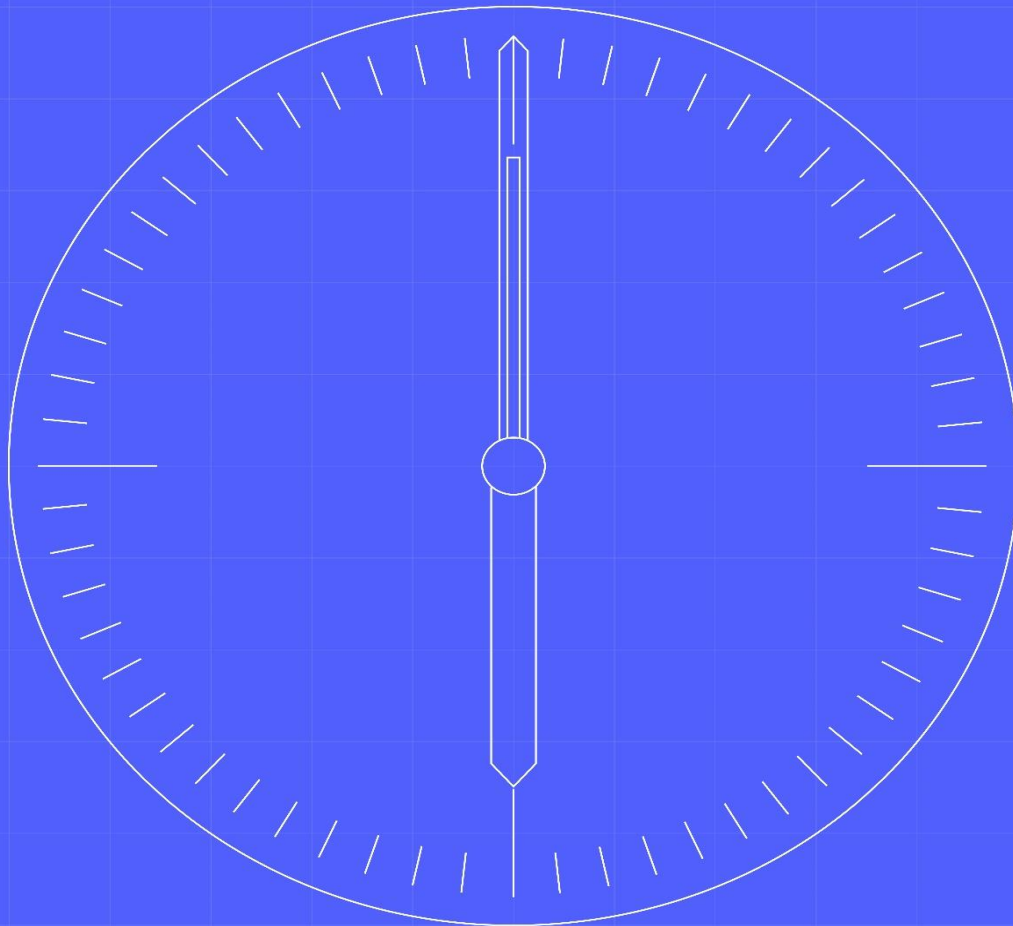




MHHS Design - Baseline report



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1.1 Change Record

Date	Author	Version	Change Detail
19 October 2022	W. Fulton	0.1	Initial Draft
24 October 2022	W. Fulton	1.0	Published

1.2 Reviewers

Reviewer	Role
Andrew Margan	SRO Regulatory lead
Jason Brogden	LDP Industry Programme Expert
Simon Harrison	LDP SI lead
Marc Towers	LDP Quality manager
Smitha Pichrikat	SRO Client delivery manger
Chris Harden	SRO Programme Director
Ian Smith	SRO Design lead

2 MHHS recommendation

2.1 Recommendation to baseline

The MHHS core design has been collaboratively developed with industry over 12 months by four controlled tranches that were subject to formal and transparent review by participants.

Considering the responses received from the industry consultation, the Programme believes that the design is suitably detailed and complete to enable all MHHS participants to start their design and build activities. The Programme seeks to stabilise the design by bringing it under change control, and notes that some participants have already started their design and build activities.

The Programme recommends that the design be baselined, subject to resolving the items on the Work-off list which the Programme does not believe have sufficient materiality to delay the baseline or poses risk for rework.

The Programme commits to resolving the Work-off items according to the timescales agreed with the Design Advisory Group (DAG) and the proposed work-off plan governance is documented in Section 5.

This report justifies this recommendation with supporting information and evidence against the M5 Acceptance Criteria as agreed with DAG.

2.2 Purpose of baselining

A baseline is an agreed snapshot of the Design Artefacts. The purpose of the baseline is to allow Participants to commence their own design and development activities knowing that all changes to the design will be controlled and communicated by the Programme's design change management processes to:

- Ensure all Participants are referencing the same version of Design Artefacts for their planning, design and development activities
- Ensure Code drafting bodies are referencing the same version of Design Artefacts for their code drafting activities
- Enable DAG to oversee changes to the MHHS Design Artefacts

2.4 Key exam question

Taking into account the agreed work off plan, are there any material reasons why the MHHS Design should not be baselined, and do these reasons justify the consequences for the industry of not baselining?

2.3 Consequence of not baselining

- Lack of Design stability – Participants who have commenced or are just about to commence their Design and Build require confidence, due to the resource and cost implications for their organisations, that the Artefacts will not be subject to further debate and change, unless under the change control oversight of DAG. Baselined Artefacts are required to manage change control. Without baselining the Design Artefacts, the Design remains a 'draft'.
- Delayed Design, Build and Replan activities – The lack of a baselined design will delay Participants commitment to commencing their Design and Build activities, and input into Replan activities, thus putting SIT start (M9) at risk
- Delayed Code Drafting - The lack of a baselined Design will delay Code Drafting activities, thus putting M6 at risk

3 Executive summary

1. The MHHS Design is encapsulated in a set of 75 logical and technical Design Artefacts which are underpinned by the core Target Operating Model (TOM) process maps. The list of the Artefacts and their current version number is recorded in the Artefact tracker and can be accessed using the link in Section 8.
2. The Artefacts were developed and reviewed with industry over four staggered tranches. The purpose of this approach was to provide a controlled process to systematically develop stability in the Design. The core processes were defined and agreed in the first tranche and built upon in the subsequent tranches by adding supporting technical information
3. The MHHS Design team used three Working Groups and 13 Sub-Working Groups to engage and consult with industry to develop the Design Artefacts. The Working Group meetings started in November 2021 and to date there have been over 120 Working Group meetings attended by over 3,300 attendees (443 unique persons) representing 86 organisations
4. A series of 14 webinars were attended by over 1,600 attendees to help participants navigate and understand the MHHS Design to support their review
5. MHHS Participants reviewed the Design Artefacts at the end of each tranche and a total of 5,147 comments were received and responded to across all tranches (see Criteria 8 for further information)
6. The Design Artefacts were updated in Tranches 1, 2 and 3 based on MHHS participant feedback and the Artefacts were approved by DAG with conditions
7. The conditions for the Tranche 1-3 DAG approvals have now been met (see Criteria 4 for further information)
8. Tranche 4 was issued for industry review and 3,182 comments were subsequently received and responded to. 67 objections were also received and addressed (see Criteria 8 for further information)
9. The consolidated comment logs for all tranches and the objection log are accessible to all participants and enables participants to view the responses to their own comments as well as view comments and responses for all participants
10. A work-off plan has been created to resolve outstanding matters that are not sufficiently material to delay the Baseline. The MHHS Design team commit to resolving these matters in accordance with timelines agreed with DAG. At the time of writing there were 26 items on the work-off list. The work-off list is currently being validated and will be developed into a plan to be published on Wed 26 Oct 2022 and discussed in the BPRWG and TDWG assurance meetings on 27 Oct 2022.
11. It would be disingenuous to not call out the many learnings the MHHS Programme and participants have taken from this experience. This is the first-time industry has collaborated and attempted to achieve consensus without influence from Ofgem. The general view is that the quality of Artefacts and ways-of-working in Working Group meetings and formal Artefact reviews has improved with every tranche - based on the lessons learnt by the MHHS Design team and industry feedback. New processes such as the dissensus process were developed to create a transparent and objective means to address non-consensus.

4 Out of scope

1. Transition design

Transition design was agreed to be out of scope of the core Design that would form the basis of the M5 Design Baseline. This is due to needing to address core Design first as well as the lack of clarity on the migration approach that will be approved. The migration approach is a key feed into the Transition design phase. Currently four migration options are being considered. The Migration Working Group have progressed industry conversations via an evaluation framework which has been worked through based on qualitative evidence from participants to date. For the Programme to recommend a migration approach, another key information gathering exercise has been agreed. This will be progressed shortly to request information against all options under consideration, to present to Ofgem for a decision later this year.

This decision feeds into the Transition design phase. Assessment and feedback from participants indicates that they would prefer to start core design and de-link transition design to reduce complexities during their Design, Build and Test phases.

2. Smart Energy Code (SEC) Modification Proposal MP162

SEC Modification Proposal MP162 delivers the changes to the Data Communications Company (DCC) required to deliver the Meter Data Retrieval (MDR) role within the TOM. This is being progressed to implementation through the SEC governance processes and therefore is not included within the scope of M5 Design baseline. The MHHS Programme has been proactively involved in MP162 to ensure that it meets the requirements of the Programme and this will be managed as a Programme dependency.

3. Retail Energy Code (REC) Change Proposal CP R0044

REC Change Proposal CP R0044 delivers the changes to CSS required to support the receipt from Metering Point Registration System (MPRS) and sending to DSP of the Meter Data Retrieval (MDR) appointments required to support access to smart meters for MDR agents. This is being progressed to implementation through the REC governance processes and therefore is not included within the scope of M5 Design baseline. The MHHS Programme has been proactively involved in REC CP R0044 to ensure that it meets the requirements of the Programme and this will be managed as a Programme dependency.

5 Work-off plan governance

1. How can I locate the work-off plan

The work-off plan can be located using the link in 'Section 8 – Key evidence'. The work-off plan is available for all Participants to view and is currently being developed into a delivery plan with supporting information. The work-off plan will be completed on Wed 26 Oct, and reviewed in the BPRWG and TDWG assurance meetings on 27 Oct 2022.

2. How will the work-off plan be governed?

The MHHS Design team will deliver the work-off plan. DAG will monitor the delivery of the work-off plan to its completion. DAG will report to the MHHS Programme Steering Group (PSG) if any issues arise regarding the delivery of the work-off plan.

3. How will changes to the Artefacts be agreed?

The approach used to develop the MHHS design (i.e. pre-M5) will be used to deliver the work-off plan, i.e. using the sub-Working Group /Working Group structure, participants' formal review and commenting on Artefacts and ultimately DAG approval.

The LDP SI (Systems Integrator) Design Assurance will manage the change control to the actual baselined Artefacts in accordance with the Programme change management controls.

4. What format will the changes to Artefacts be presented in for the purposes of review and approval?

The Artefacts will be presented in the current formats until the Enduring Design Hub (iServer) implementation is complete.

5. Will there be continuity with the existing Design team for resolving the work-off plan?

The existing design Subject Matter Experts will continue to support the delivery of work-off items.

6. Who owns the prioritisation of the work-off plan and how is this determined?

The MHHS Design team will recommend priorities and a delivery timeline to DAG based on materiality, time to resolve and impact on the Programme's critical path. DAG will be responsible for reviewing and approving the priorities and timeline.

7. Will work-off items be subject to a Programme Change Request?

No. The items on the work-off list are conditions of the M5 baseline approval and are not subject to Change Requests. Please note that there are items on the work-off list that place an obligation on the Programme to monitor and assess inflight industry activity (e.g. Load managed areas). The Programme's commitment is to undertake impact assessments and facilitate sub-Working Group conversations as needed, to understand the change required and agree Programme positions. The changes to the Design may result in a requirement for a Change Request.

6 MHHS Design acceptance criteria

Design Baseline Acceptance Criteria
1. DAG believe the Design meets the TOM requirements
2. DAG believe the Design meets the agreed design principles
3. DAG believe the Design is complete and sufficient to enable participants to commence their own detailed design, and that the LDP Systems Integrator (SI) have appropriately assured it
4. DAG believe all open material design issues have been resolved, and any residual issues and work-off plans are agreed
5. DAG believe the change request process and the SI facilitation thereof is appropriate
6. DAG believe the Design is defined appropriately to allow code drafting to reflect the design without further design debate or further clarifications
7. Participants have had the opportunity to engage in developing and reviewing the Design Artefacts
8. Participant contributions have been used or participants have received reasonable justification as to why not
9. Participants know what to expect post M5
10. Participants, as experienced industry technical persons, believe the Design Artefacts can be used to start their detailed design activities and any associated sourcing of software and services
11. The Cross-Code Advisory Group (CCAG) was kept updated of Design progress to enable development of the code resource plan
12. CCAG believe the Design is defined appropriately to allow code drafting to reflect the design without further design debate or further clarifications

7 Performance to acceptance criteria

Criteria 1:

DAG believe the Design meets the TOM requirements

Key considerations:

1. Does the Design relate to the MHHS TOM?

The MHHS Design has been developed by deconstructing the MHHS TOM (as per the materials issued by the Code Change Development Group (CCDG) and Architecture Working Group (AWG)) into processes that are required to facilitate the new TOM services.

2. Has the Design remained true to the MHHS TOM?

Being an industry-led design, the industry (i.e., Programme participants) have collaborated in developing the Design in its entirety. The development of the Design has undergone intensive scrutiny by industry SME's and stakeholders in the Working Groups and all engagement with Programme Participants has been recorded and is transparent (i.e., all Design review comments, responses, objections and dissensus matters are accessible to all participants).

Through this engagement the Working Groups have identified the processes required to facilitate the TOM services and have defined the process steps, requirements, interfaces and data movements between services, as well as other technical specifications.

All these outputs have been subject to scrutiny from Working Group members and formal Artefact reviews by Programme Participants. As stated in Acceptance Criteria 7, industry have robustly engaged in developing the Design by means of over 120 working group meetings, attended by over 3,000 attendees and examined via 5,147 comments received during the formal reviews.

As the detailed design evolved the MHHS Design team sought to clarify minor augmentations to the TOM i.e. the incorporation of ESS into the system landscape and the clarification on the interface modification required to inform the DSP of the appointed MDR. These augmentations have been documented in MHHSDEL622 - TOM Augmentation Record.

Criteria 2:

DAG believe the Design meets the agreed design principles

Key considerations:

1. Does the MHHS Design adhere to MHHS Design principles?

The MHHS Working Groups have endeavoured to ensure that the Design adheres to all the principles. The MHHS Design team have not received any objections from Programme Participants about not adhering to the Design principles.

Regarding Design Principle 12 - *“Design will be articulated with sufficient breadth and detail required to enable regulatory code drafting in addition to enabling Service Design, Build, Test & Operate.”*

The MHHS Design team and the Retail Energy Code Company (RECCo) undertook a code draft prototyping exercise to test the suitability of the MHHS Design Artefacts for code drafting. The prototyping exercise confirmed that the Design Artefacts contained suitable detail to support code drafting but it must be acknowledged that the prototype covered a limited breadth of the Design (approx. 10% of the Design) and that the remainder of the Design is untested. Acceptance Criteria 12 provides further information on this matter.

Criteria 3:

DAG believe the Design is complete and sufficient to enable participants to commence their own detailed design, and that the SI have appropriately assured it

Key considerations:

1. Do the Design Artefacts provide an integrated and holistic coverage of the Design?

The design is encapsulated in a set of 75 logical and technical Design Artefacts, segregated by service, which allow parties wishing to build a new TOM service to start their internal DBT. It further allows elements of consequential change to be developed. The structure of the Design is underpinned by core TOM process maps which describe interactions between all TOM services including interface definitions.

Industry SME's have participated in Working Groups and formal reviews to develop and scrutinise the coverage and integrity of the Design in its entirety. The breakdown of the MHHS Design Artefacts can be viewed in Table 7.

The Artefacts were developed and reviewed using a staggered tranche approach. The purpose of this approach was to provide a controlled process to systematically develop stability in the Design. The core processes were defined and agreed in the first tranche and were built upon in the subsequent tranches by adding supporting technical information.

2. Has appropriate consideration been given to Security whilst developing the Design?

The Security Design Working Group (SDWG) is a closed Working Group (i.e., membership and information access was limited to nominated persons). The SDWG has overseen the development of a collection of Security Artefacts which were issued for formal review by SDWG as part of the wider Design review process. Management of the SDWG comment responses followed the same process as all the other Design Artefacts and the Security Artefacts have been updated according to the comments received from the members.

A SDWG Assurance meeting is taking place on 28 October to obtain consensus that the Security Artefacts can be baselined. The outcome of the meeting will be reported to DAG at the 31 October Baseline meeting.

3. Has the Lead Delivery Partner (LDP) SI appropriately assured the MHHS Design?

Whilst the LDP SI is not responsible for providing assurance to DAG, the LDP SI assurance approach and findings report has been shared with DAG for information.

Herewith a copy of the key headlines from the report:

- *The design represented by the MHHS Artefacts provides full coverage for the TOM at an acceptable level of quality and the design can be baselined (with a suitable and agreed work-off plan for open matters)*
- *The Senior Responsible Owner (SRO) Design team has effectively engaged with and responded to Programme Participants throughout the development of the Artefacts*
- *Opportunities to improve the quality of the design content exist and actions are recommended to reduce the risk of ambiguity or interpretation that could impact all participants entering Design Build and Test (DBT). These recommendations seek to minimise the need to change the MHHS Artefacts – e.g., adding acceptance criteria for requirements where these are not apparent from the requirement*

The LDP SI has recorded 27 observations, several of which are positive, or have been resolved by the SRO Design team. The findings with the highest rating impact are listed below, and the LDP SI and the MHHS Design team will work together post M5 to address the LDP SI assurance findings.

- *The design for transition (and migration) has yet to be defined, this will have an impact on participants and the programme timelines*
- *Assurance analysis has highlighted an opportunity to decompose a number of compound requirements in method statements and other artefacts to support consistent participant interpretation of the lower-level detail for build and test*

Criteria 4:

DAG believe all open material design issues have been resolved, and any residual issues and work-off plans are agreed

Key considerations:

1. Have the conditions of the Tranches 1-3 been addressed?

The DAG approvals for Tranches 1, 2 and 3 were subject to the resolution of 23 dependencies and 44 design issues.

- Dependencies
 - 21 dependencies have been resolved. Details of the dependencies and the updated Artefacts are listed in the Artefact tracker
 - 1 dependency relates to transition design and has been included in the work-off list
 - 1 dependency related to MP162

- Design issues
 - 31 design issues have been resolved. Details of the design issues and the updated Artefacts are listed in the Artefact tracker
 - 11 design issues were closed as no changes were required to the Artefacts after discussions with the relevant participant / Working Group
 - 2 design issues are on the work-off list

The status of the Design issues and dependencies and information about the updated Artefacts was published in the Tranche 4 Summary Report to DAG. This report confirmed that 41 design issues and 19 dependencies were resolved. This was discussed in the 10 August 2022 DAG meeting and no objections were raised in the meeting.

2. Is there traceability of Tranche 1-3 condition resolutions?

The line of sight from the original participant comment to Design Issue / Dependency to the associated change to Artefacts can be obtained using the Consolidated Comment logs and Design Artefact Tracker.

3. Are there any material design issues identified in Tranche 4?

No material design issues were identified in Tranche 4.

4. Is there a work-off plan?

As part of the industry consultation processes the MHHS Design team and participants have identified matters that are not sufficiently material to delay the baseline but must be addressed post baseline. The MHHS Design team commit to resolving these matters via a work-off plan and in accordance with timescales agreed with DAG.

5. Are there any work-off items with critical severity?

The severity of the work-off items is recorded in the work-off plan and there are no Severity 1 or 2 items in the work-off plan.

6. Are there adequate controls to manage the work-off plans?

The governance for the work-off plan is documented in Section 5 - Work-off plan governance

Criteria 5:

DAG believe the change request process and the SI facilitation thereof is appropriate

The LDP SI has prepared an approach and process to manage design change, largely mirroring the processes from the Faster Switching programme. This process introduces a Design Change Working Group to act as the 'front door' for all design changes and perform triage on change requests, design and test issues and other possible change activities. The group will be open to MHHS participants and proceedings will be published on the Collaboration Base.

The process includes provisions for impact assessment, the role of the Design Authority, release management and a small change process. The detail of the process is documented in the MHHSDEL714 Design Management Approach* and an overview of the approach and participant support process can be viewed in Appendix 1 and Appendix 2.

After baselining the MHHS Design, the LDP SI will execute their 'design cutover schedule' and activities include updating the Programme change management process to align with the design change management processes, communicating updated processes to DAG and MHHS participants via a webinar, and publishing supporting material on the MHHS Website and Collaboration Base. (See Criteria 9 for more information on post M5 communications)

*MHHSDEL714 Design Management Approach provides detail of how the SI will manage design engagement with participants. The approach covers:

- Design change management
- Release management
- Design Working Groups – design authority, design issues resolution group, design support group etc. - the document includes high level terms of reference
- Participant issue and query submission and management processes
- Design reporting dashboards
- Participant design assurance

See appendix 4 for the proposed schedule to transfer Design change management from SRO Design team to LDP SI.

Criteria 6:

DAG believe the Design is defined appropriately to allow code drafting to reflect the design without further design debate or further clarifications

See Criteria 12

Criteria 7:

Participants have had the opportunity to engage in the development and review of the Design Artefacts

Key considerations:

1. Have the Programme Participants had sufficient opportunity to engage in developing the Design?

The MHHS Design team used three Working Groups and 13 Sub-Working Groups to engage and consult with industry to develop the Design Artefacts. The Working Group meetings started in November 2021 and to date there have been over 120 working group meetings attended by over 3,300 attendees (443 unique persons) representing 86 organisations. Attendance to the Working Group and Sub-Working group meetings were open to all participants, except the Security Design Working Group, where membership and information access was limited to nominated persons.

Table 8 provides a breakdown of the Working Groups and Sub-Working Groups.

2. Have the Programme Participants had sufficient opportunity to engage in reviewing the Design?

The Design Artefacts were published for industry review by MHHS participants at the end of each tranche. Access to the Artefacts was open to all participants, except the Security Artefacts, which were limited to the members of the Security Design Working Group.

Participants had the opportunity to review the Artefacts in every tranche and submit comments to the MHHS Design team. The period for the first review was generally two weeks, however tranche 4 allowed seven weeks due to the quantity of the Design Artefacts being issued for review.

Once the MHHS Design team reviewed the comments and updated the Artefacts, participants had the opportunity to review the responses to their comments and the updated Artefacts during the Assurance review period (two weeks) and raise any associated issues in the Assurance review meeting, which occurred in the final week of the Assurance period.

This process was modified for tranche 4, partly due to lessons learnt in earlier tranches and partly due to feedback from industry. In tranche 4, participants had the opportunity to first review comment responses and raise any objections before changes were applied to the Artefacts. The allocated time for the objection period was one week, and thereafter Participants had two weeks to review the responses to the objections and updated Artefacts and raise any issues in the Assurance review meeting.

Tranche	First review	Objection period	Assurance review
1	Three weeks	n/a	Two weeks
2	Two weeks	n/a	Two weeks
3	Two weeks	n/a	Two weeks
4	Seven weeks*	One week	Two weeks**

* Artefacts were published for review as-and-when they were ready, meaning many Artefacts were available for 10 weeks for review.

** The updates to 5 Artefacts (Interface Catalogue, Operational Choreography and Technical and Security Artefacts) were delayed due to the volume of comments received against the Artefacts. These Artefacts were only afforded a one week assurance period.

3. Have the Programme Participants been offered guidance and support to review the Design?

It was anticipated that many participants who had not engaged in Working Group meetings would engage for the first time when the complete suite of Design Artefacts were issued for industry review in tranche 4.

o Design guidance material and signposting

To support these participants, and participants who had already engaged, the MHHS Design team developed various documents to help participants understand the Design and help focus their resources on relevant Artefacts for their constituency.

o Playback sessions

Working with the LDP Programme Party Coordinator (PPC) and SI teams, the MHHS Design team ran a series of webinars covering Design Overview, End-to-End Walk-throughs, Design Surgeries and Deep Dive sessions. 14 webinars were hosted in total and were attended by over 1,600 attendees.

Criteria 8:

Participant contributions have been used or participants have received reasonable justification as to why not

Key considerations:

1. How were participant contributions managed?

Participants had the opportunity to review the Design Artefacts in every tranche and submit comments to the MHHS Design team. The Participant comments were consolidated into a single Comment Log. The MHHS Design team reviewed the comments and entered a formal response and explanation to the comment - indicating if the comment had been accepted and had resulted in a change to an Artefact, or the comment had been rejected, or was a clarification question, or required further work (i.e. Design issue or work-off plan).

2. Was there transparency and traceability of comments and responses?

The consolidated comment logs for all the tranches are available to all participants and permits participants to view the responses to their own comments as well as view comments and responses for all participants. These logs are detailed in Section 8 – Key evidence.

3. Have participants contributed to the review of the MHHS Design Artefacts?

A total of 5,147 comments were received for tranches 1-4 from 28 participant organisations.

Tranche 1-3 received 1,965 comments and the summary of the MHHS Design team response is:

Comment resulted in an update to an Artefact	56%
Comment to be resolved in subsequent tranches	17% (subsequently addressed as per criteria 4)
Comment was rejected	15%
Comment was a clarification question	12%

Tranche 4 received 3,182 comments and the summary of the MHHS Design team response is:

Comment resulted in an update to an Artefact	57%
Comment was a clarification question	34%
Comment was rejected	8%
Comment moved to work-off list	1%
Comment related to Transition design	0%
Comment discussed in Dissensus forum	0%

For a breakdown of comments by constituency, organisation and response, please see Tables 1-6.

4. How was non-consensus managed?

In tranches 1-3 participants had the opportunity to disagree with MHHS Design team comment responses by raising issues in the Assurance meetings. If these matters could not be agreed, then the issue would either become a design issue for the Design team to resolve in subsequent tranches or would be resolved using the Dissensus process.

In tranche 4 participants had the opportunity to disagree by raising an objection before the MHHS Design team made changes to the Artefacts. If these matters could not be agreed, the issue would either be discussed at the Assurance meeting or be resolved using the Dissensus process.

The objection logs and dissensus logs are available for all MHHS participants to review and can be viewed in Section 8 – Key evidence.

Criteria 9:

Participants know what to expect post M5

Presuming DAG approve the MHHS Design baseline on 31 October 2022, the communications plan in Appendix 3 will be executed. The communications plan includes:

- Sharing the DAG baseline decision and 'next steps' with participants
- Updating the Collaboration Base and Website Content with the Baselined Artefacts
- Sharing the Post-M5 Operating Processes with DAG and participants
- Sharing the Post-M5 Design Participant Support Process with participants
- Introducing the SI Team

Criteria 10:

Participants, as experienced industry technical persons, believe the Design Artefacts can be used to commence their detailed design activities and any associated sourcing of software and services

Key considerations:

1. Who are the audience for the Design Artefacts?

The working assumption when developing the MHHS Design Artefacts, and when engaging with industry SMEs in the Working Groups, was that the Design Artefacts can be consumed 'as is' by experienced industry technical personnel.

2. Are the Artefacts fit-for-purpose?

There has not been a trend in MHHS participant comments indicating that the Artefacts do not provide sufficient detail to commence design and build activities, or that the Design Artefacts are not fit-for-purpose.

Criteria 11:

CCAG was kept updated of Design progress to enable the code resource plan to be developed

A level 3 code drafting plan was agreed with CCAG and is reflected in the latest version of the Programme replan. Code Bodies have confirmed they are resourced to deliver the code drafting plan.

Criteria 12:

CCAG believe the Design is defined appropriately to allow Code drafting to reflect the design without further design debate or further clarifications

As part of the MHHS Programme, RECCo and BSC (MHHS Programme Design) collectively delivered a prototyping activity with the primary objective to demonstrate that the MHHS Design Artefacts are suitable for code drafting.

Both the Programme and RECCo took a similar approach to prototyping using Meter Services (REC) and Smart Data Services (BSC), as follows:

- 1) Extract end-to-end process steps from the Business Processes (BPs) and Business Process Descriptions (BPDs) and insert into the interface tables
- 2) Identify any requirements that are not an articulation of a process step and add these as generic
- 3) Transpose the relevant Method Statement into an Appendix titled 'Validation and Estimation'

- 4) Locate the Operational Choreography Service Level Agreement (SLA) relevant to each step and add to the 'When' column

Once the prototyping activity was complete, the Programme and RECCo confirmed that the prototyping demonstrated that the Design Artefacts are appropriately defined to allow code drafting to reflect the Design without further Design debate or further clarifications*.

This paper will be presented to the October CCAG and subsequently DAG for M5 approval.

**Prototyping covered around 10% of Design Artefacts, and two topic areas. Prototyping tested the principle of code drafting from the high-level obligations to the detailed process maps. This provided a narrow, but good depth of coverage. Some clarifications were highlighted, and it is unreasonable not to expect some clarifications from the code drafting process as not all topic areas were covered, but this is foreseen to be manageable. Design issues identified by Code Bodies have been raised through the design issues process and the Design Artefacts are fundamentally sound and appropriate for code drafting.*

8 Key evidence

ID	Document name	Description	Link
1	Artefact tracker	Contains: <ol style="list-style-type: none"> List of Artefacts, current version number and link to document T1-3 Conditions and status thereof (issues and dependencies) Dissensus register Design risk log Design principles 	Link
2	Tranche 1,2,3 - Consolidated comments log	A spreadsheet containing all comments received from participants for Tranches 1-3 with the associated MHHS Design team response	Link
3	Tranche 4 - Consolidated comments log	A spreadsheet containing all comments received from participants in Tranche 4 with the associated MHHS Design team response	Link
4	Tranche 4 - Objections log	A spreadsheet containing all objections and comment queries received from participants in Tranche 4 with the associated MHHS Design team response	Link
5	Tranche 4 - Change control log	A spreadsheet containing all non-cosmetic changes to Artefacts following the Tranche 4 design review	Link
6	Tranche 4 - Clarification question log	A spreadsheet containing all clarification questions received from participants in Tranche 4 with the associated MHHS Design team response	Link
7	Tranche 4 - Design Baseline work - off plan	A spreadsheet containing the work-off items proposed to be undertaken post MHHS Design Baseline	Link
8	Code Drafting prototyping report	A report submitted to CCAG recommending that CCAG acknowledge that the code drafting prototype exercise achieved M5 Acceptance Criteria 12	Link
9	LDP SI Design Assurance report	A report by the LDP SI on the key assurance findings	Link

9 Supporting data

Constituency	# of comments	%
Central Party	395	20%
DNO	72	4%
I&C Supplier	23	1%
iDNO	28	1%
Independent Supplier Agent	124	6%
Large Supplier	146	7%
Other MHHS participant	10	1%
Software Provider	524	27%
Supplier Agent	643	33%
	1965	

Table 1 – Breakdown of comments received during tranches 1-3 by constituency

Organisation	# of comments	%
BUUK Infrastructure	24	1%
Callisto	336	17%
Centrica	40	2%
CGI	357	18%
DCC	2	0%
E.on nBS	10	1%
Electralink (DCUSA)	1	0%
Elexon	393	20%
Gorilla	54	3%
IMServ	124	6%
Northern Power Grid	6	0%
Npower Business Solutions (NBS) (E.ON)	23	1%
Ovo Energy	96	5%
Power Data Associates	223	11%
RECCo	10	1%
Salient Systems	58	3%
ScottishPower Energy Retail	50	3%
Siemens	68	3%
SMS	2	0%
St Clements	54	3%
Stark Software International	8	0%
TMA Data Management	6	0%
UK Power Distribution	4	0%
UK Power Networks	16	1%
	1965	

Table 2 – Breakdown of comments received during tranches 1-3 by organisation

Comment response	Tranche 1	Tranche 2	Tranche 3	% of grand total
Comment resulted in an update to an Artefact	413	342	340	56%
Comment to be resolved in subsequent tranches	89	159	94	17%
Comment was rejected	101	102	96	15%
Comment was a clarification question	210	19		12%
	813	622	530	

Table 3 – Breakdown of comment responses for tranches 1-3 by tranche (i.e., what was done with the comments)

Constituency	# of comments	%
Central Party	946	30%
DNO	149	5%
IDNO	35	1%
Independent Agent	103	3%
Large Supplier	606	19%
Small Supplier	1	0%
Software Provider	986	31%
Supplier Agent	356	11%
	3182	

Table 4 – Breakdown of comments received during tranche 4 by constituency

Organisation	# of comments	%
BUUK	31	1%
Callisto	76	2%
Centrica	445	14%
CGI	737	23%
EDF Energy	16	1%
EDW	48	2%
Elexon (Helix)	731	23%
ESG Global	87	3%
Good Energy	1	0%
IMServ	103	3%
Npower Business (E.ON)	32	1%
OVO Energy	113	4%
Power Data	161	5%
RECCo	215	7%
Siemens	92	3%
SMS	10	0%
St Clements	114	4%
TMA	17	1%
UKPD	4	0%
UKPN	149	5%
	3182	

Table 5 – Breakdown of comments received during tranche 4 by organisation

Comment response	# of comments	
Comment resulted in an update to an Artefact	1800	57%
Comment was a clarification question	1082	34%
Comment was rejected	245	8%
Comment moved to work-off list	39	1%
Comment related to Transition design	12	0%
Comment discussed in Dissensus forum	4	0%
	3182	

Table 6 – Breakdown of comment responses for tranche 4 (i.e., what was done with the comments)

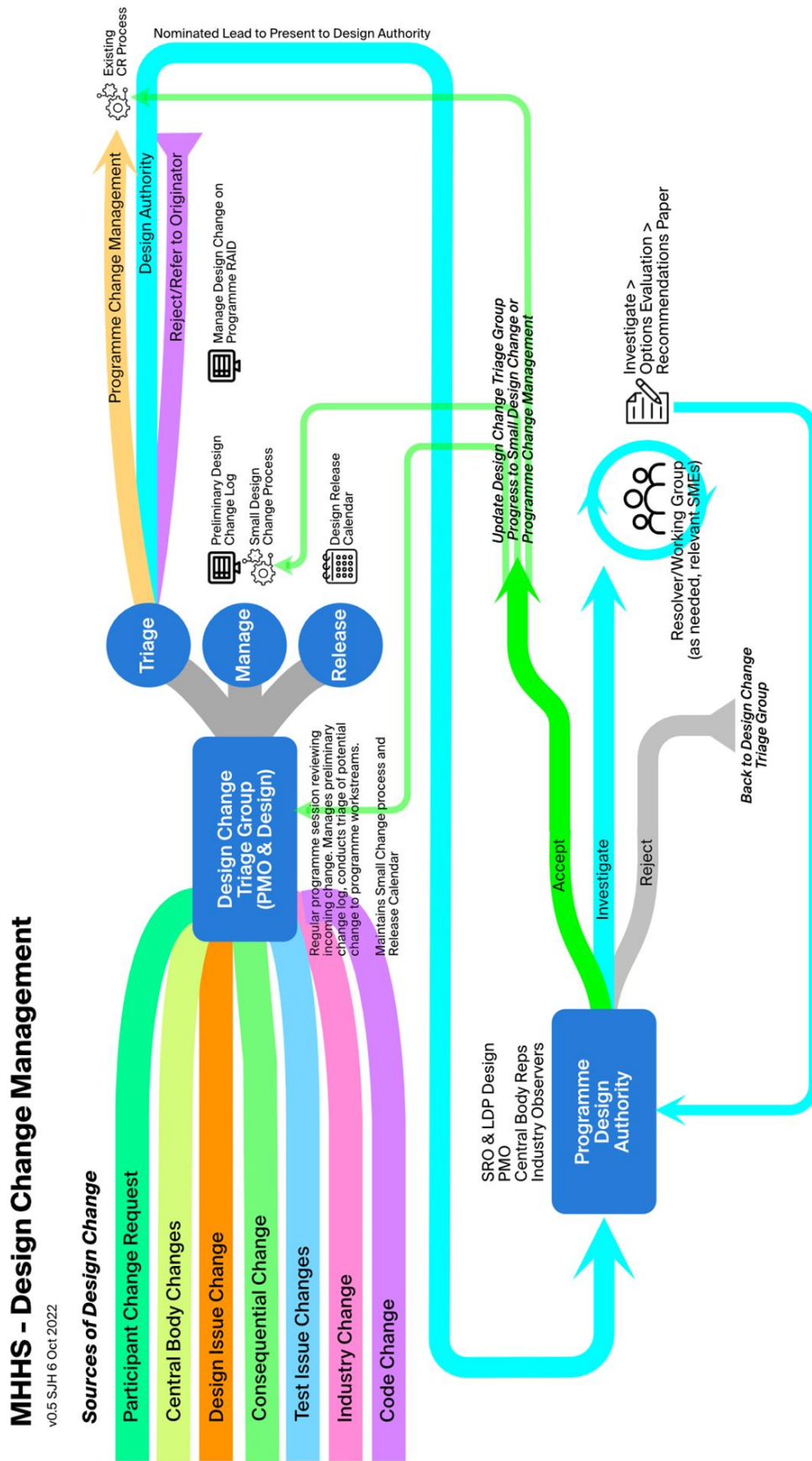
Artefact type	# of Artefacts
Business Process Description	19
Business Process Diagram	19
Business Requirements	13
Data Item Definitions	1
Entity Map	1
Interface Catalogue	1
Logical Data Model	1
Method Statement	9
Operational Choreography	1
Reporting Catalogue	2
Security Artefact	3
Technical Artefact	5
	75

Table 7 – Breakdown of Artefacts by Artefact type

Working Group type	Description
Working Group	Business Process and Requirements Working Group (BPRWG)
Working Group	Security Design Working Group (SDWG)
Working Group	Technical Design Working Group (TDWG)
Subgroup	Advanced
Subgroup	DWG
Subgroup	Metering Services
Subgroup	MWG
Subgroup	Operational Choreography
Subgroup	Registration
Subgroup	Related MPANS
Subgroup	Reporting / ECS
Subgroup	Settlement queries & disputes
Subgroup	Smart
Subgroup	Smart & Advanced
Subgroup	Supplier interactions
Subgroup	Unmetered

Table 8 – Working Group types

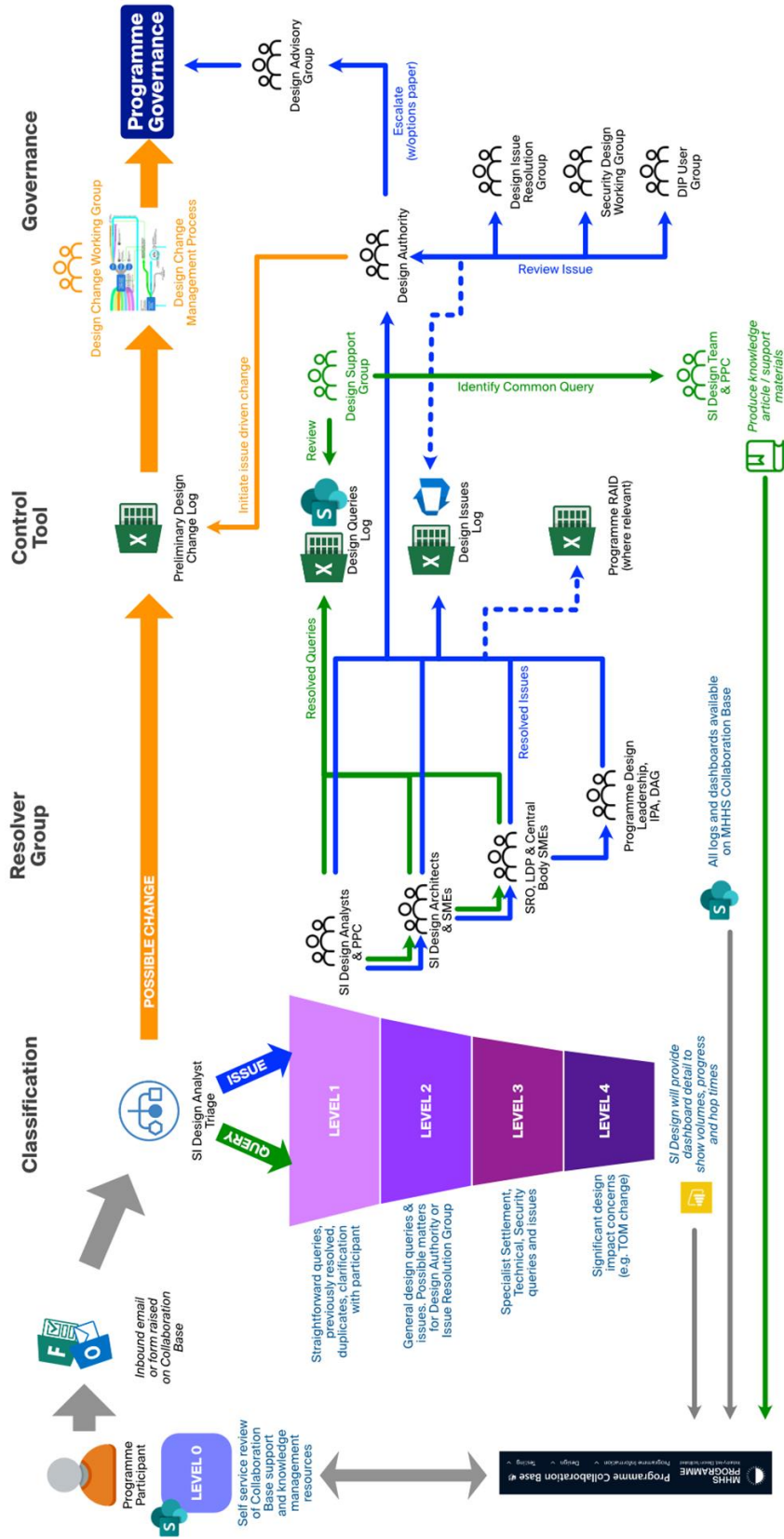
Appendix 1 – Post M5 - MHHS Design management approach



Appendix 2 – Post M5 - MHHS Design Participant support process

MHHS Enduring Design Participant Support Processes

v01.SJH.19.10.22



Appendix 3 – Post M5 - Communications plan (draft)

		Oct					November					December					January					February				
W/C		24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27						
Newsletters & Collaboration Base	<p>★ 26th: Baseline update and engagement going forward</p> <p>★ 2nd DAG</p> <p>★ Recommendations, Changes to Governance and Next Steps</p> <p>Update of Collaboration Base and Website Content to reflect Baseline and post-M5 BAU</p>	Continued alignment with SI Design and Programme Comms on relevant comms content, including The Clock, Design Newsletter, and Collaboration Base Articles																								
	<p>★ Internal Programme Briefing Note</p> <p>★ 31st: SI address to Design Mailbox</p>	Weekly post-M5 Design Participant Experience Check-in																								
Internal	<p>★ Internal Programme Briefing Note</p> <p>★ Identify and baseline post-M5 Design engagement metrics</p> <p>★ Internal Programme Briefing Note</p> <p>★ Internal Programme Briefing Note</p> <p>★ Internal Programme Briefing Note</p>	<p>★ PPC triage frontline EDH queries</p> <p>★ PPC Upskill EDH</p>																								
Participants	<p>★ Post-M5 Operating Processes shared with DAG</p> <p>★ Share post-M5 Design Participant Support Process</p> <p>★ Post-M5 Operating Processes shared with DAG</p> <p>★ Introduction to the SI Team</p>	<p>★ EDH-focused Webinar</p>																								
Enduring Design Hub	<p>EDH Design Updates</p>	<p>EDH Alignment to Collaboration Base</p> <p>EDH Testing</p>																								
	<p>Engage participants on EDH and support adoption (TBC)</p>	<p>EDH Iteration and Continuous Improvement</p>																								

Appendix 4 – Post M5 - Cutover schedule from SRO to LDP SI (draft)

Activity Area	W/C 24 October							W/C 31 October							November	
	M	T	W	T	F	M	T	W	T	F	Ongoing					
Programme Governance				◆ BPRWG ◆ TDWG	◆ SDWG	◆ DAG					◆ DAG					
M5 Deliverables	◆ Design Dashboards (SRO approve)		◆ Assurance Review (SRO approve)			◆ M5 Acceptance (SRO approve)										
Participant Comms	◆ Post M5 Operating Processes shared with DAG Members		◆ Clock – how to engage with SI Design (Change, Issues, Queries)			◆ SI Added to Design Inbox					◆ Advise on Participant Assurance	◆ Launch EDH				
Design Admin												◆ Advise on Enduring Design Groups Calendar, ToR, Membership etc.				
Enduring Groups																

◆ Kick off DA
◆ Kick off Design Change WG
Remaining groups will start in Dec/Jan