MHHS PROGRAMME
Industry-led, Elexon facilitated

Programme Initiation Document (Charter)

MHHS-DEL162

May 2022 v1.1

Contents

1. Scope & Objectives

2. Delivery Approach, Principles & Method

3. Deliverables, Outcomes, Capabilities & Benefits

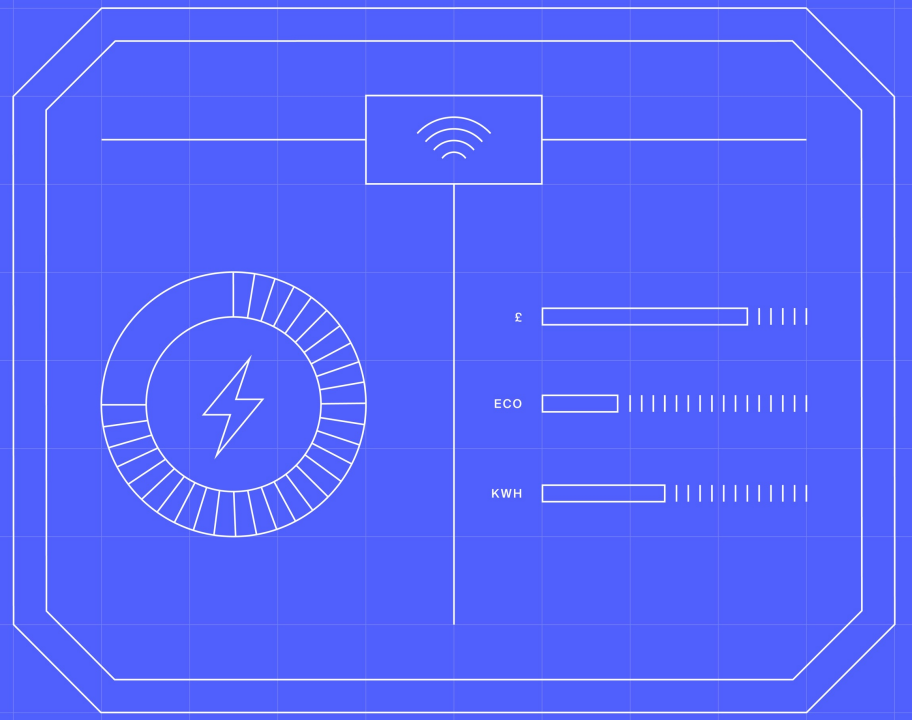
4. Organisation, Resources & Governance

5. Controls

6. Plans, Assumptions & Dependencies

7. Budget

Scope & Objectives



MHHS Programme Scope & Objectives

Key Objectives

1. To deliver the Design Working Group's Target Operating Model (TOM) covering the 'Meter to Bank' process for all Supplier Volume Allocation Settlement meters
2. To deliver services to support the revised Settlement Timetable in line with the Design Working Group's recommendation
3. To implement all related Code changes identified under Ofgem's Significant Code Review (SCR)
4. To implement MHHS in accordance with the MHHS Implementation Timetable
5. To deliver programme capabilities and outcomes to enable the realisation of benefits in compliance with Ofgem's Full Business Case
6. To prove and provide a model for future such industry-led change programmes

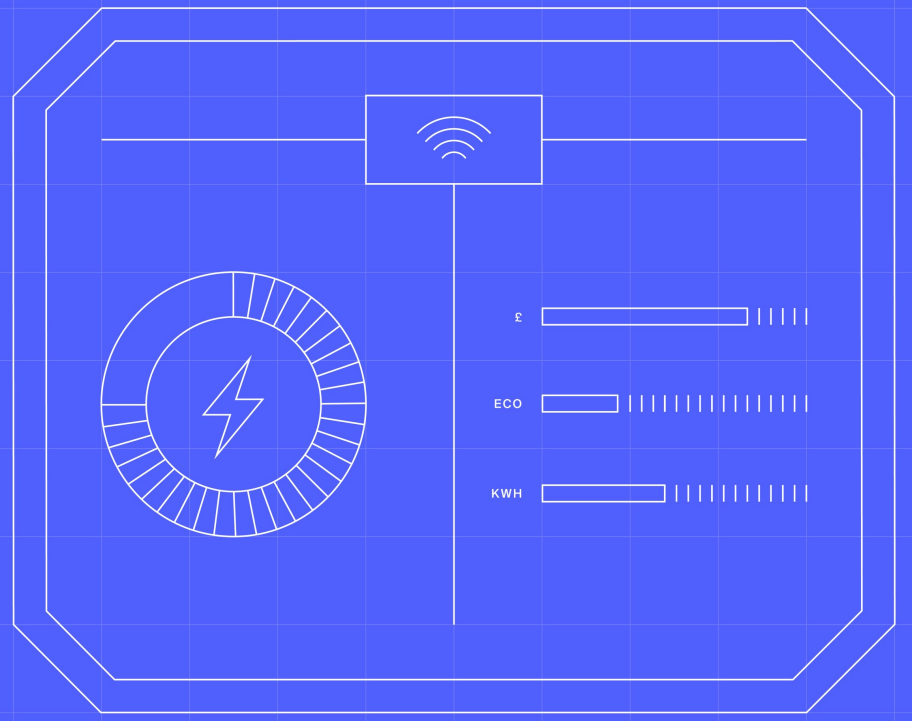
In Scope for Delivery

1. Delivery activities in scope for the programme are primarily:
   - Development of the MHHS solution design, its assurance and agreement to it, in MHHS programme governance – and resultant changes to the BSC and other industry Codes
   - Coordination, support and assurance of programme parties' own technical and operational solution development in line with the programme plan
   - Definition of programme test and data strategies, and related planning and coordination of all testing and data activities – plus the development of supporting emulators and simulators
   - Coordination of programme parties' qualification and business testing
   - Definition of migration strategy, related planning and coordination of migration activities and cut-over/Go-Live execution
   - Definition and implementation of hypercare and programme exit
   - Management of cross-Code dependencies and inter-dependencies with other industry change initiatives
   - All programme, change management (including party readiness assessments) and assurance, including the operation of suitable governance, to underpin effective delivery of the expected capabilities and outcomes
2. Parties and groups in delivery scope:
   - Ofgem
   - Central Parties (Platform and Network providers)
   - Large, Medium, Small, I&C Suppliers
   - Independent and Supplier Agents
   - DNOs, iDNOs
   - Code Bodies

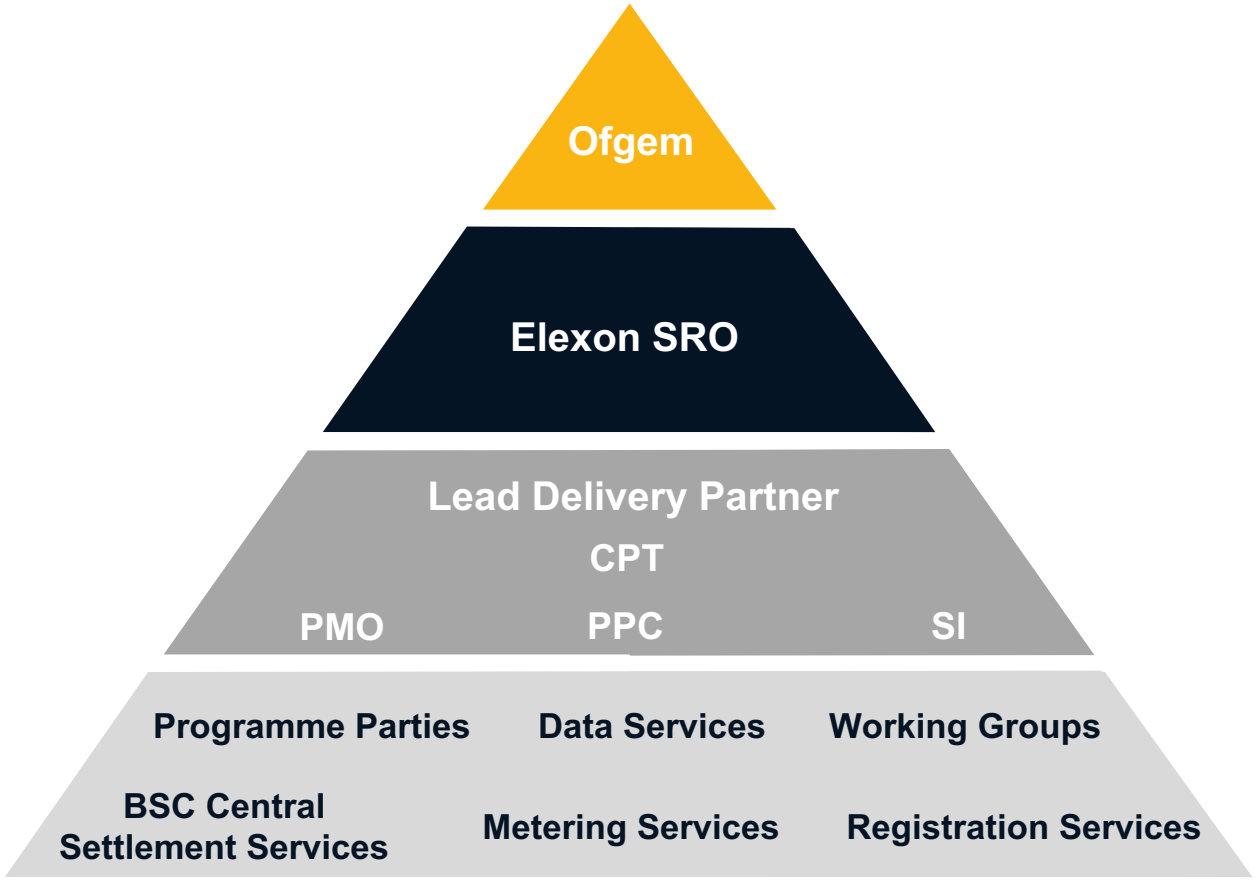
Out of Scope

- Realisation of benefits
- Programme Participants' changes to systems that do not directly interface with MHHS
- Management of the IPA

Delivery Approach, Principles & Methods



How the LDP will support the SRO Function, Ofgem and Programme Participants



1

Central Programme Team (CPT)

Manages day-to-day delivery of the MHHS Programme and provides Elexon with advice and support. Advises on issues and risks. Takes action to ensure the Programme can deliver effectively.

2

Programme Management Office (PMO)

Supports the efficient and effective delivery of the Programme. Provides framework for managing the day-to-day activities, ensuring programme standards, tools and templates are being adhered to. Coordinates Programme Assurance activities.

3

Programme Party Coordinator (PPC)

Ensures that Programme Parties are ready to proceed into each phase. Works with Programme Parties, challenges where appropriate, and escalate any party readiness concerns. Provide an industry coordination service.

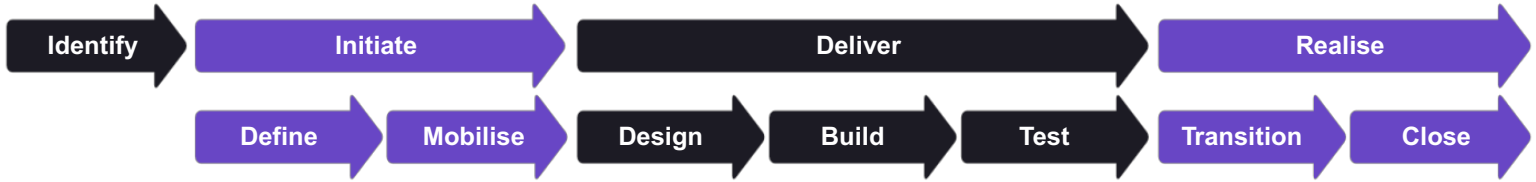
4

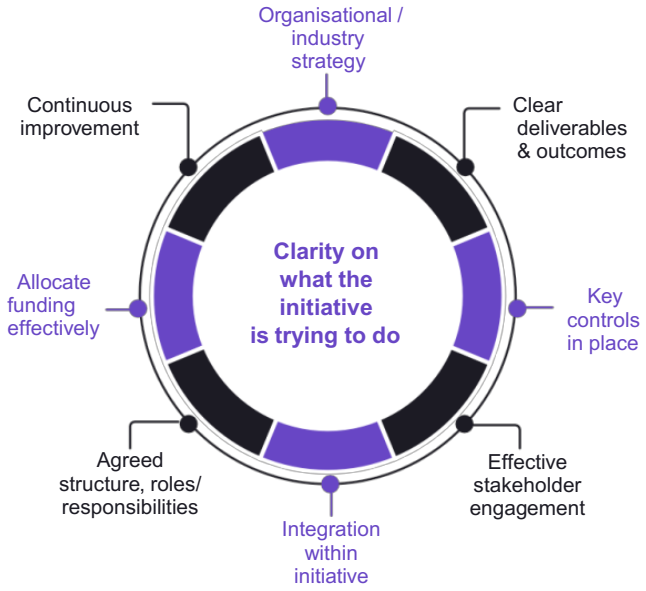
Systems Integration (SI)

Assures the Design, overall integration & test plans, manages & coordinates plans, resources to ensure testing and integration is successful. Works with PPC team and Programme Parties to ensure parties can meet Programme milestones.

Programme Delivery Framework

Combining industry best practice with real-life experience of what works (and what doesn't) in this industry





Delivering the capabilities

Integrating the programme

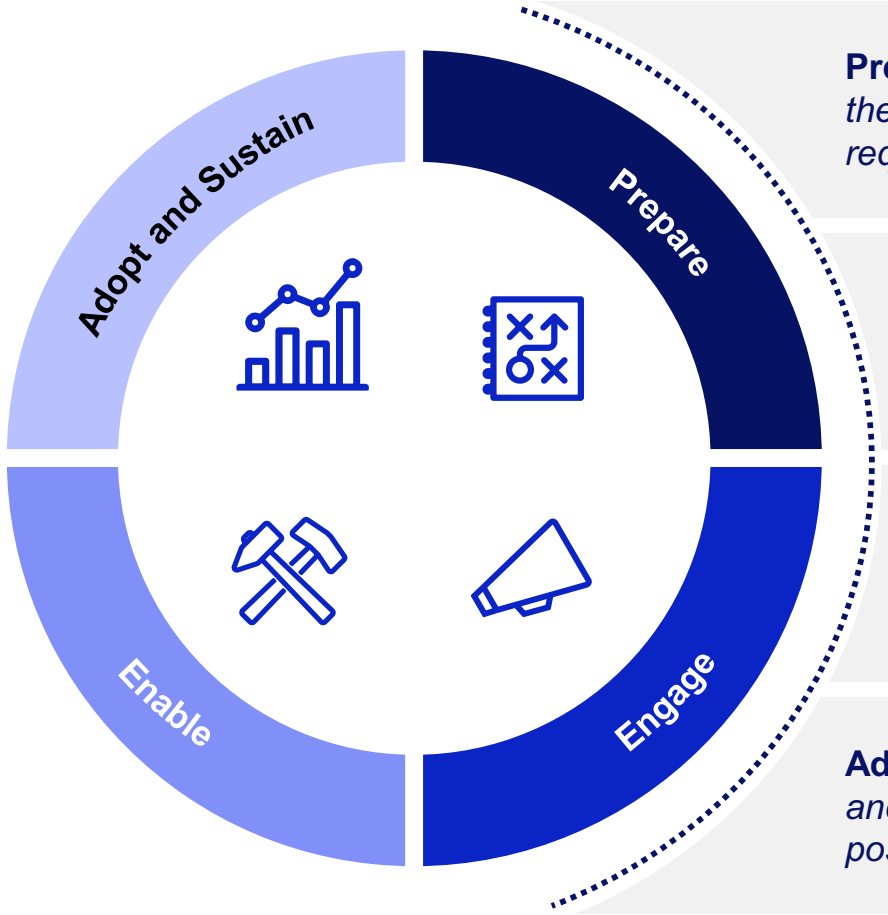
Ensuring adoption of the change

Programme Approach, Principles & Methods

Programme Approach	Programme Principles	Methods to drive Programme Delivery
Delivery-focused	• Focus on delivery, founded on best practice • Design-led, not Code-led • Active participation of all Programme Parties	• Decisions made through industry governance groups • Deliver by continuous collaboration with Programme Participants and their SMEs • Set the path from design, through build, test and migration – supported by enabling Code changes
Data-driven	• Guide through analytics and insight • Focus on root causes, themes, patterns, trends – addressing underlying challenges not just visible symptoms • Ensure 'one version of truth' for all data and artefacts	• Better decisions informed by relevant and timely MI
Technology-enabled	• Use digital tools via Programme Portal • Rely on Portal to ease access and dialogue	• Create Portal as 'window into the programme' for equitable access for all participants
Relentlessly proactive	• Lead by example, set the tone and pace • Deal with complexities early • Provide consistent line of sight	• Engagement at all levels & with industry to flush out RAID • Resourced with the right expertise to resolve complexity
LEAN and agile	• Efficient use of resources by elimination of wasteful activities • Effective and responsive delivery	• 'Waterfall' programme delivery to milestones with agile philosophy on a continuous basis • Self-organised Level 4 governance
Quality-driven	• Quality in decision-making via transparency and information-based insight • Evidence-based	• Dedicated Quality Manager • Robust and agreed Quality Management Framework • 'Open book' to IPA

Change Management Strategy

The MHHS Programme has adopted a 4-pronged approach, that will guide the design and execution of change activity to ensure Programme Participants receive end-to-end support. Different parts of the approach (prepare, engage, enable, adopt and sustain) will run in tandem where most effective.



Prepare: *be clear on the vision and rationale for the MHHS Programme, the impact of the programme on Programme Participants, and define the strategies and tools required to help them succeed*

Engage: *raise awareness and understanding of the MHHS Programme, including what it means for each Constituency, the timelines, obligations, and the benefits*

Enable: *continually assess impacts and readiness, using the findings to inform how best to support and equip Programme Participants with the skills and knowledge required to successfully meet their obligations*

Adopt and Sustain: *ensure the change sticks by helping Programme Participants and Elexon to take ownership of the change and manage ongoing transformation post - hypercare*

Key outcomes we are aiming to achieve through effective change management

Desired outcomes have been identified to inform the planning of change, communications, engagement and readiness activities

Prepare

Outcomes of this stage:

- ✓ Vision and case for change defined
- ✓ Stakeholders assessed
- ✓ Impact of programme on Constituency groups understood
- ✓ Change, communications and engagement, and readiness approach developed

Engage

Outcomes of this stage:

- ✓ All Programme Participants engaged on a regular basis, through a mix of channels
- ✓ Understanding of programme's requirements built amongst all Programme Participants
- ✓ Rapport built and two-way dialogue in place
- ✓ Champion network equipped to advocate MHHS

Enable

Outcomes of this stage:

- ✓ Change impacts assessed and understood
- ✓ Readiness for key milestones / control points assessed and monitored
- ✓ Feedback loops established and approach / support tailored accordingly
- ✓ Change support tailored to ensure success across all Programme Participants, reflecting assessment findings and feedback

Adopt and Sustain

Outcomes of this stage:

- ✓ Readiness confirmed for go-live
- ✓ Hypercare support provided
- ✓ Change tools, assets and knowledge handed over
- ✓ Success stories and lessons learned captured and shared

Ways of Working - Programme Principles for Party Collaboration

Delivery Focus

- Be delivery-focused in all activities
- Act to deliver MHHS objectives collaboratively and not take action that would cause detriment to the programme as a whole
- Be open and proactive in sharing all relevant information to the delivery of the MHHS Programme, including MHHS Programme decision-making
- Follow industry good practice
- Take reasonable steps to collaborate to resolve issues, mitigate risks and assess change

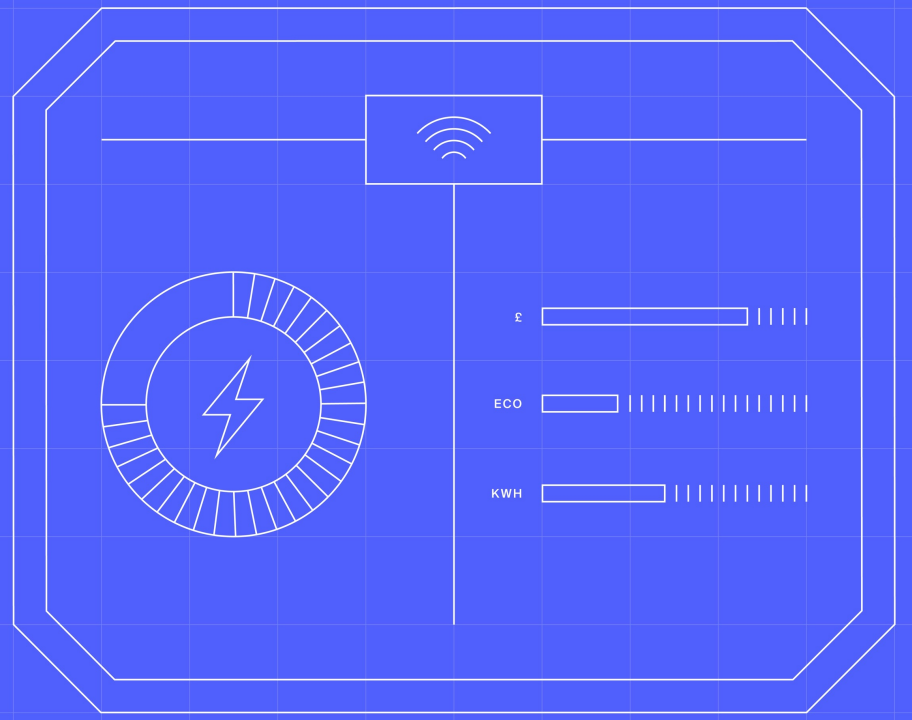
Relationship & Trust

- Respond promptly to reasonable requests for information from each other
- Share information and be transparent unless there are incontrovertible reasons not to do so
- Respect confidentiality and commercial sensitivity of information and introduce no Conflicts of Interest (e.g., DIP procurement)
- Be clear what each party wants from the other(s) – and why
- Promote predictability and trust – parties shall enable the building of mutual trust by consistently meeting obligations and expectations and acting reasonably

Participation & Proactivity

- Be proportionate – collaborative working should not be overly burdensome and should be proportionate
- Proactively provide early warning of material risks and issues and any dependencies
- Ensure appropriately skilled people are attending the appropriate meetings
- Encourage informal feedback, participate in any more formal survey or feedback loop

Deliverables, Outcomes, Capabilities & Benefits



- The MHHS Programme has developed a Benefits Realisation Plan, consulted on with the IPA and Ofgem and approved by PSG, which defines:
  - The Key Programme Outcomes and measures (KPIs) to deliver the outputs, capabilities and outcomes that enable industry benefits to be realised
  - How the LDP will monitor and report on the delivery of those Key Programme Outcomes
- This has resulted in enhancements to the Programme Success Measures and Criteria, which are highlighted below
- This Benefits Realisation Plan will evolve as the Programme progresses and will be subject to iterative development, as set out in the Next Steps below
- The Benefits Realisation Plan can be found at *this link*

Deliverables, Outcomes, Capabilities & Benefits – Benefits that drive achievement of the vision

MHHS Vision

To develop and implement an enduring process for MHHS that delivers benefits for consumers by maximising the opportunities provided by smart metering in enabling an intelligent, flexible energy system by October 2025.

- Improve accuracy and frequency of cost information for suppliers
- Ensure future energy system is affordable for consumers
- Encourage more flexible use of energy
- Create powerful incentives for suppliers to offer new tariffs and products
- Support transition to net zero

Strategic Objectives

Source: Ofgem Outline Business Case - Market-wide Half Hourly Settlement

Benefits

Source: Ofgem Final Impact Assessment – Market-wide Half Hourly Settlement

Cost Saving Monetised Benefit | Non-Monetised Benefit

To promote an electricity system that delivers the Government's and Ofgem's objectives in a cost-effective manner, minimising the overall cost to current and future consumers of moving to a net zero carbon electricity system

- **System-wide welfare benefits from load shifting** — *£1,200m estimated cumulative direct benefits for low load shifting scenario and £3,550m for high load shifting scenario (2026-2045)*
- **Better matching of supply and demand reduces the cost of managing imbalance positions** — *£49m estimated cumulative cost saving (2026-2045)*
- **Incentivising innovation** — *Incentivise suppliers to manage the actual costs of providing energy to their customers more efficiently*
- **Increased competition** — *Exposing suppliers to the true cost of supply of their customers incentivises them to encourage load shifting, allowing for cost savings and a competitive advantage by offering new and innovative tariffs*
- **Benefits from including export-related MPANs** — *Mostly qualitative description*
- **Reduction in cost of managing imbalance positions due to improved matching of supply and demand** — *Several suppliers reported related cost savings amounting to £4.5m per year*
- **Increased competition** — *Remove barriers to entry for new market players by reducing the overall costs of the settlement process*
- **Increased competition** — *Enable new technologies and business models that capitalise on new market incentives, facilitating and incentivising load shifting and thus cost reduction*
- **More efficient qualification process for new entrants**
- **Fewer settlement errors and lower collateral requirements** — *Promote a more accurate settlement process, with better quality data and fewer settlement errors*
- **Fewer settlement errors and lower collateral requirements** — *Reduction in supplier exposure and settlement collateral requirements, reducing market entry barriers*

To develop settlement arrangements that incentivise all retailers and suppliers (current and future) to encourage customer behaviour that contributes to a more cost-effective electricity system

- **Consumer benefits (consumer surplus) from load shifting** — *£2,100m estimated cumulative direct benefits for low load shifting scenario and £5,050m for high load shifting scenario (2026-2045)*
- **Incentivising innovation** — *Incentivise consumers to find and switch to the right offering for them through digitalisation*
- **Incentivising innovation** — *Incentivise retailers to offer new energy tariff-only propositions, new third-party managed energy services, new bundled 'asset and tariff' offerings and more niche offerings that could be targeted at local communities*
- **Incentivising innovation** — *Incentivise third parties offering price comparison tools to provide a more comprehensive service, considering the electrical appliances and other assets a consumer owns and tailoring the service to the consumer's requirements*

To support Ofgem's aim to enable a future retail market that can deliver the technological and behavioural changes needed to support decarbonisation at lowest cost, while ensuring that the interests of consumers remain protected

- **Reduced carbon costs driven by a reduction in carbon emissions due to higher proportion of renewables in generation mix** — *£100m estimated cumulative carbon cost savings for low load shifting scenario and £1,250 for high load shifting scenario (2025-2045)*

Benefits enabled by the MHHS programme are generally expected to be realised by industry

The MHHS programme must deliver capabilities and outcomes that make those benefits possible

PID Deliverables, Outcomes, Capabilities & Benefits – How the programme enables benefits and measures programme success

Benefits

Success Measures (to be further quantified)

1. Delivered within programme budget
2. Ofgem escalations, and material IPA and Elexon SRO raised items resolved
3. Level 1 milestones met
4. No major Hypercare issues without agreed work-off plans
5. Programme outcomes met with low variance in costs or timing
6. MPANs moved, disincentives & contingencies in place for non-moved MPANs
7. Settlement figures reconcile
8. No adverse impact on Industry Codes
9. Legacy systems decommissioned
10. Reduced no. of settlement runs
11. Reduced industry costs
12. Increased financial certainty for parties
13. Earlier financial certainty and reduced settlement risk from earlier final reconciliation at 4 months rather than 14 months
14. Clear and efficient qualification process
15. New market services, new tariff offerings, new entrant agents
16. Elexon PAB approve use of new settlement timetable and settlement run-off plan
17. Positive periodic surveys and results of bilateral meetings, including Citizens Advice
18. Design captured coherently and accurately in accordance with the TOM and tested

Success Criteria

- Business case met
- Schedule met
- Design requirements appropriate / met
- Design proven to central parties and a critical number of industry parties
- No business disruption
- All parties have adopted cutover
- Reduced costs of systems' future changes
- Modifications to the Balancing and Settlement Code implemented
- Generators & Suppliers able to resolve financial uncertainty quicker
- All market participants confident to operate within new model, supported by the Kinnect platform
- New market model in place
- Platform to enable innovation in energy service and business models
- Reduced cost to serve
- Parties feel represented & included
- Citizens Advice successfully engaged to provide input to represent consumers
- Industry-led delivery model proven to be better

Key Programme Outcomes

- Delivered to time, cost, quality
- Migrated to MHHS by Oct 2025
- Reduced cost / improved accuracy of settlement delivery
- Improved experience for BSC parties
- More cost effective & efficient service
- Stakeholders engaged & satisfied

Key Programme Outputs (Deliverables) & Capabilities

- Physical Design
- Code Changes
- Data Integration Platform
- Event-driven architecture
- Tested changes to Central Party Systems
- Tested changes to the DTN
- Tested TOM Data & Metering Services
- All MPANs migrated
- Services to support new Settlement Timetable
- Decommissioned legacy capabilities

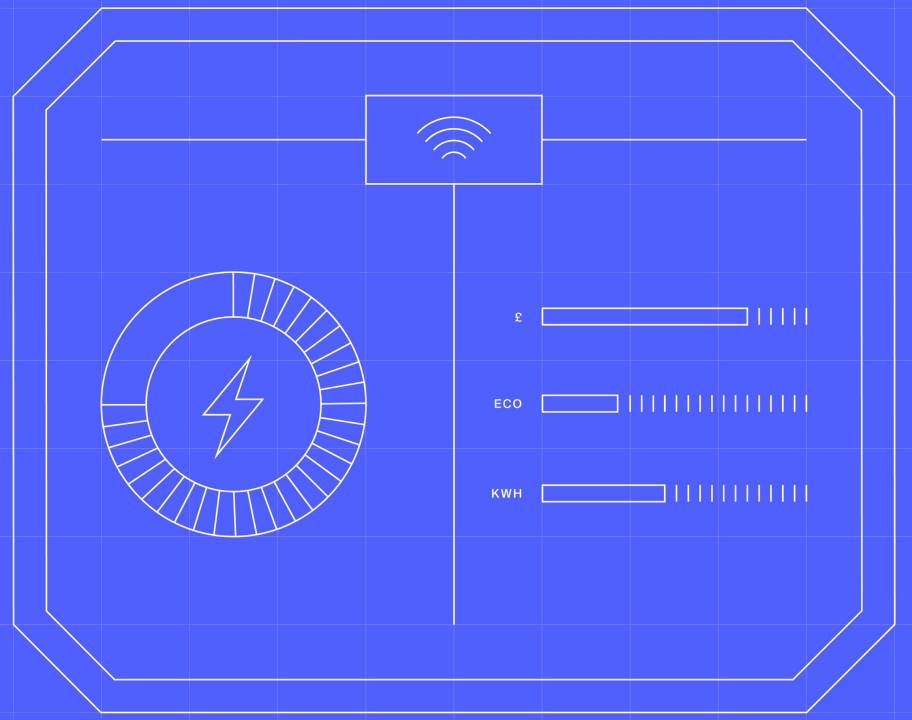
Highlighted text shows where the original PID measures and criteria have been enhanced through work on Programme Outcomes & KPIs, as approved at PSG

- A periodic Programme Strategy Review will be conducted:
  - To happen at each identified Control Point (as a minimum)
  - Will be chaired by MHHS SRO function (Programme Director)
  - To include the IPA and the results of the review will be reported to Ofgem and the PSG
  - Will include a full review of this Programme Initiation Document and the associated strategies
- Specific focus must be on:
  - Programme outcomes
  - Outcome measures
  - Roadmap for achieving programme outcomes – identifying when each outcome will be achieved
  - Current status of progress towards outcomes being achieved
- Reporting on the plan for (and progress towards) achievement of programme outcomes will be provided to the Elexon Board, Ofgem and the PSG

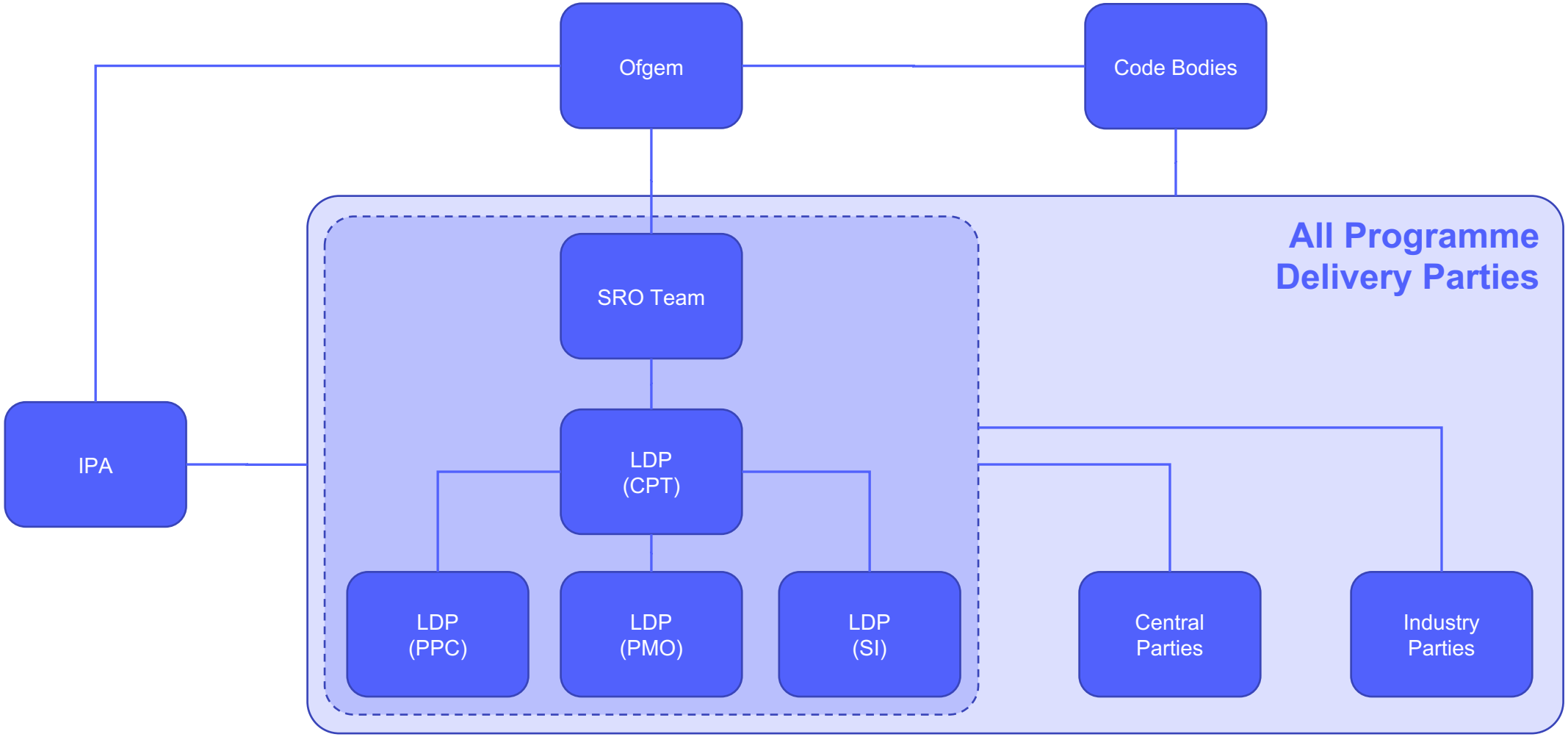
In addition, as part of the iterative development of the Benefits Realisation Plan, the MHHS Programme will:

- update the programme PMO tools and processes, e.g., RAID items, change control form updates to explicitly reference impact on Programme Outcomes, etc. to reflect the Key Programme Outcomes and associated Success Measures
- Include a full review of the milestone acceptance criteria in the Programme Strategy Review
- Ensure measure of Citizens Advice input included in monitoring (not just attendance at meetings)
- Consider how adaptability might be reflected in future programme outcome development as per the success criterion on enabling innovation
- Consider how to reflect consequential impacts/dis-benefits and providing a more quantifiable measure under the MPAN success criteria
- Consider how to track change over the lifetime of the programme and how this might impact programme outcomes
- Consider what interim monitoring might be able to be put in place towards post-go live benefits realisation in Control Points

Organisation & Governance

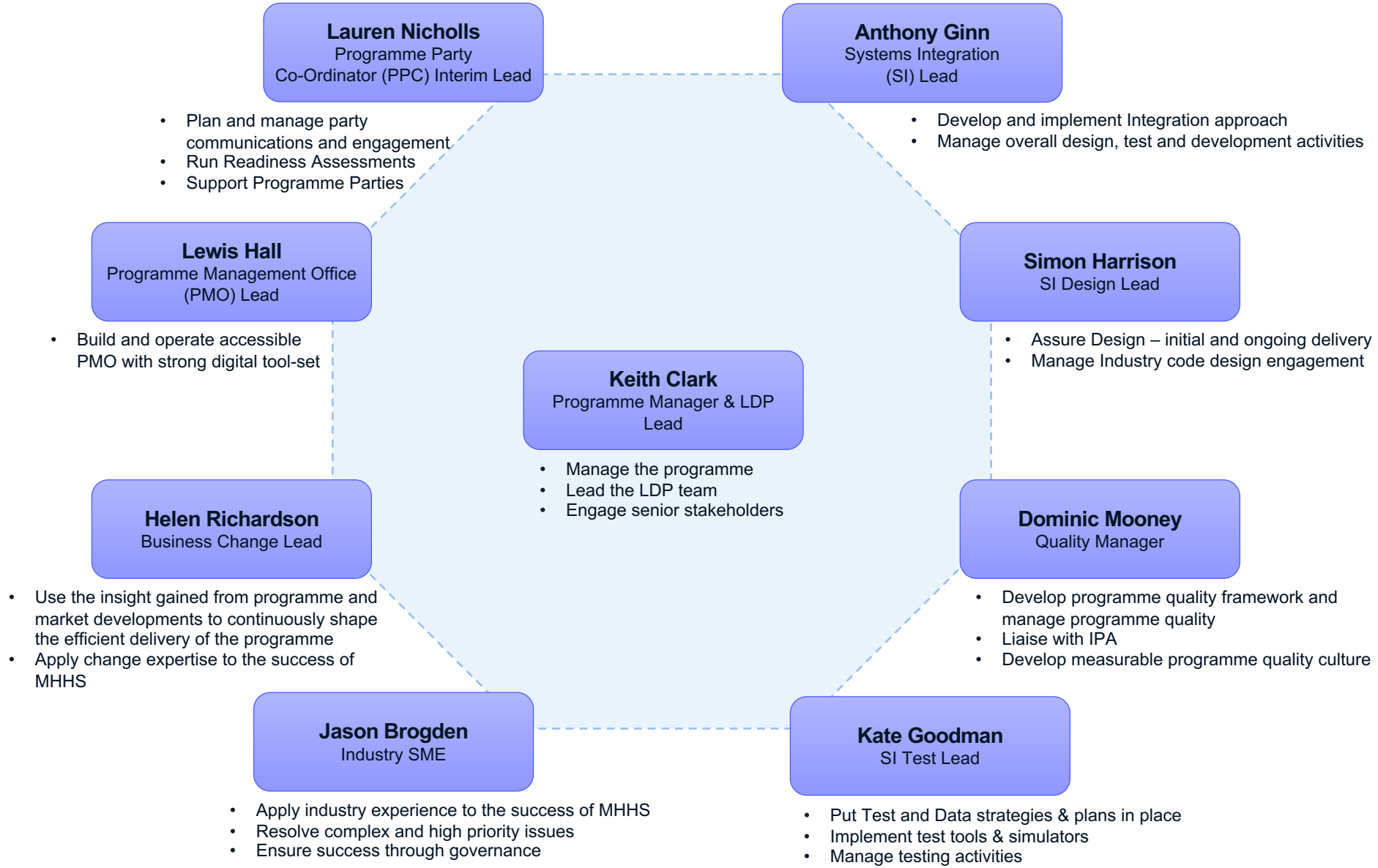


Programme Organisation



Lead Delivery Partner:

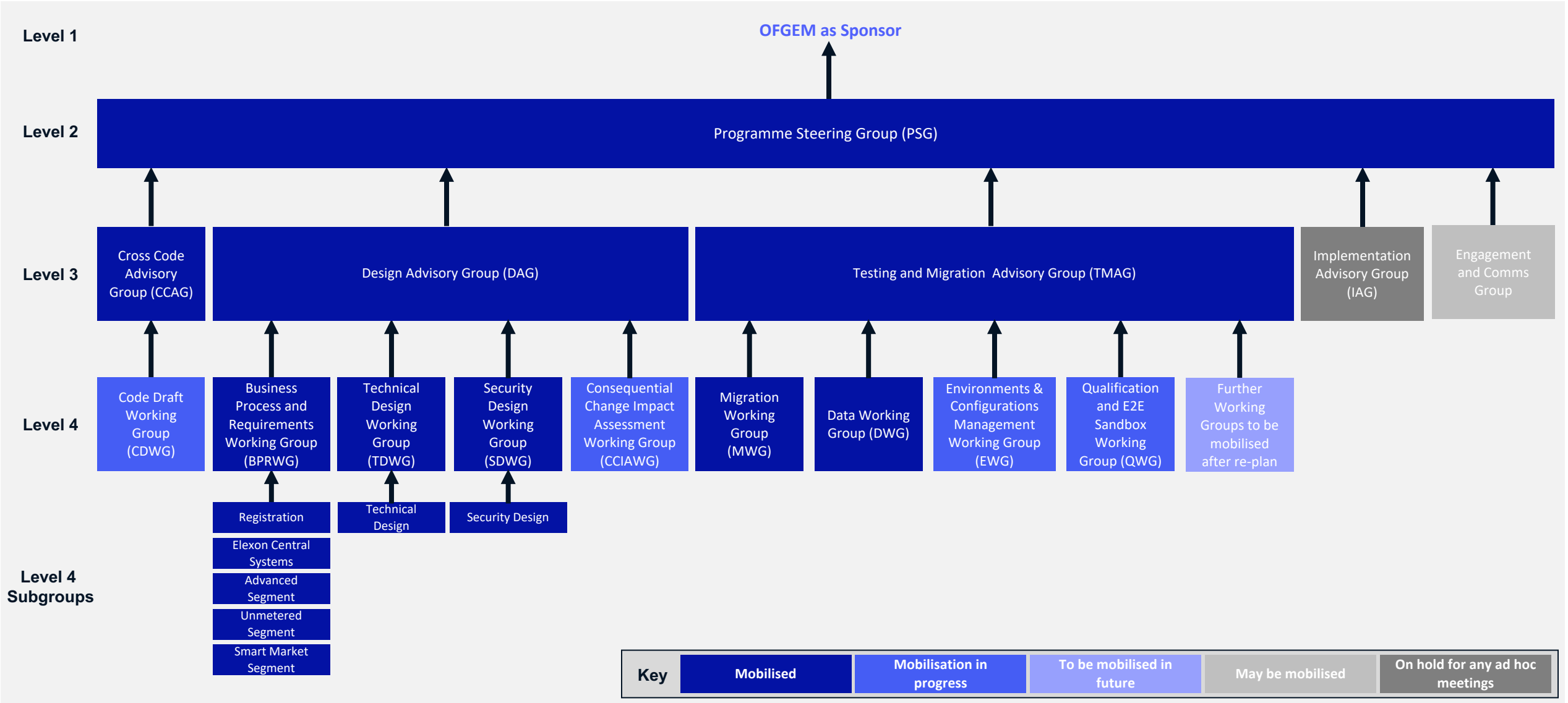
Core Programme Team



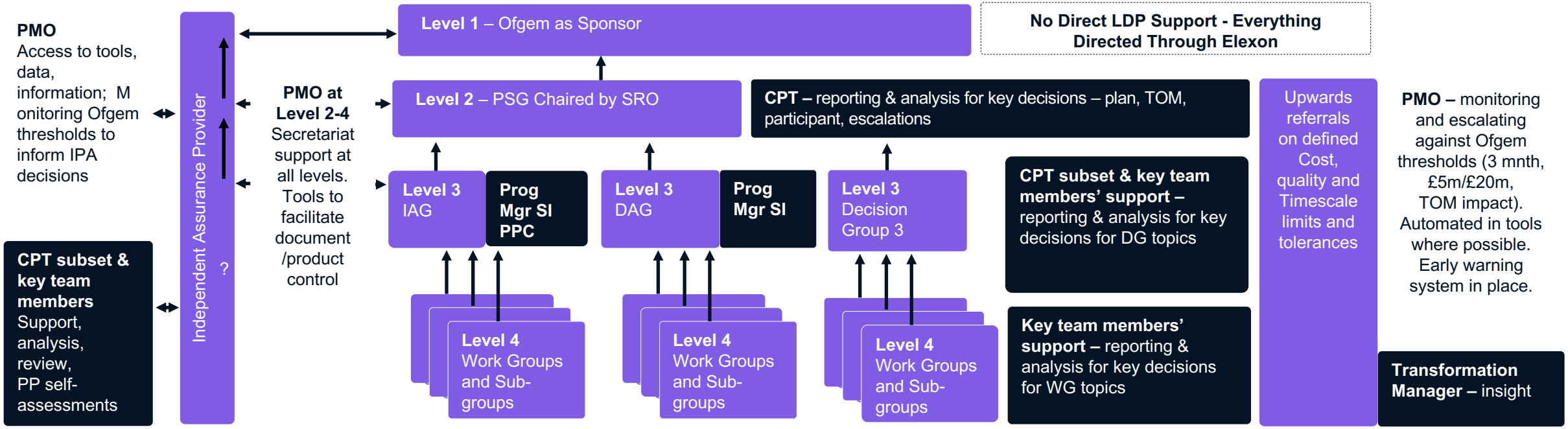
High-Level Roles & Responsibilities

	SRO Function	LDP				Central Parties	Industry Parties	PSG or delegated to other Governance Body	Code Bodies	IPA	Sponsor (Ofgem)	Elexon Board
		CPT	PMO	PPC	SI							
Programme definition, programme strategies definition and baseline	A, R	R	C	C	C	I	I	C	I	C		
Programme strategies' review and update	A, R	R	C	C	C	I	I	C		C		
Programme outcome KPIs and achievement	A	R	C	C	C	I	I	I		C	I	I
Programme escalations (to Ofgem)	R	R	C	C	C	C	C	C	C	C	A	I
Assurance of management & conduct of the programme (IPA)	C	C	C	C	C	C	C	I		R	A	I
Programme engagement with Programme Participants	A	R	R	R	R	R	R	C	C	R		
Management of cross-Code dependencies and inter-dependencies with other industry change initiatives	A, R	R	C	C	C	C	C	C	R	C	C	
Development of the MHHS solution design	A, R	I	I	C	C	C	C	C	C	C		
Assurance of the MHHS solution design	C	A	I	I	R	C	C	C	I	C		
Development and implementation of changes to the BSC and other industry Codes	A	C	I	C	I	C	C	C	R	C	R	
Coordination, support and assurance of programme parties' own technical and operational solution development	A	R	I	R	R	R	R	C	I	C		
Definition of programme test and data strategies	A	R	I	C	R	C	C	C		C		
Planning and coordination of all testing and data activities	A	R	I	C	R	C	C	C		C		
Development of supporting emulators and simulators	C	A	I	I	R	I	I	I		I		
Pre-Integration Testing (PIT)	C	C	I	C	C	A, R	A, R	I		I		
Systems Integration Testing (SIT)	A	R	I	C	R	R	R	C		C	I	
Coordination of programme parties' qualification and business testing	A, R	R	I	C	R	C	C	I	C	C		
Party qualification and business testing	C	C	I	C	C	A, R	A, R	I	R	C		
Programme Party consequential changes (to systems not directly linked to MHHS)	I	I	I	C	C	A, R	A, R	I	I	C		
Definition of migration strategy, related planning and coordination of migration activities	A	R	I	C	R	C	C	C	I	C	I	
Definition and planning of cut-over/Go-Live execution	A	R	I	C	R	C	C	C	I	C	I	
Execution of cut-over/Go-Live	A	R	I	C	R	R	R	C	I	C	I	
Definition and implementation of hypercare and programme exit	A	R	I	C	R	C	C	C	I	C	C	I

Organisation & Governance – Current Governance Framework Diagram

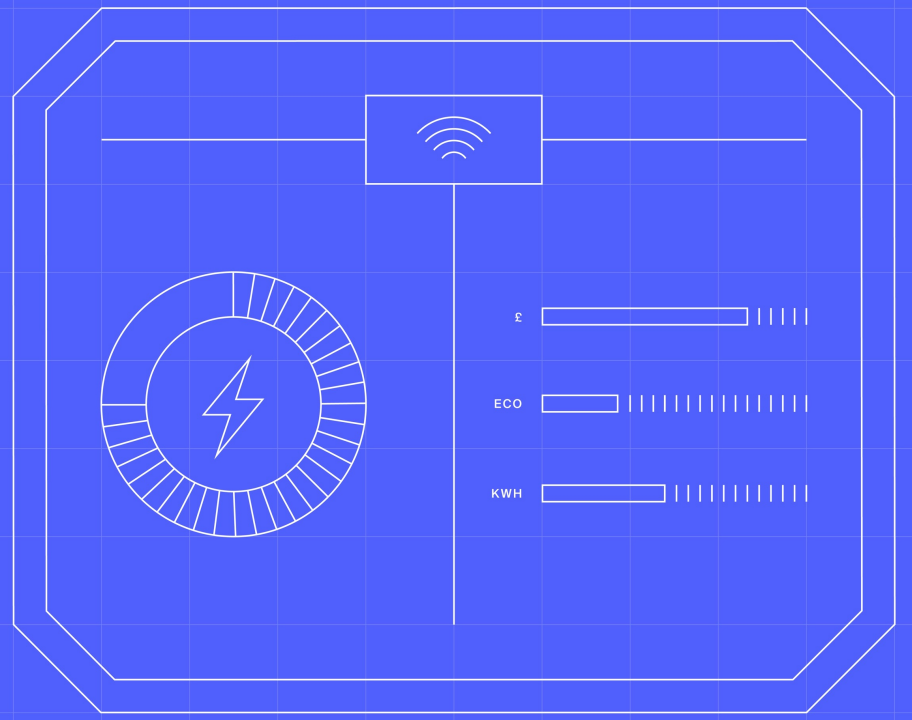


How the LDP Supports the Governance Structure



PMO at Level 4
Likely more coordination required as all programme parties invited.
Appropriate controls in place for Security WG (like SEC SSC)

Key Controls



Quality Approach

Quality Objectives

1. Establish a coherent thread of quality throughout the programme
2. Validate requirements are met
3. Embed measurable success criteria
4. De-risk Delivery
5. Create traceability for Assurance
6. Provide a single source of the truth on Quality
7. Inform Risk & Issue Management
8. Decision making based on facts and insight

Quality Outcomes

- Confident Stakeholder Decisions
- Programme Delivery Credibility
- Benefits Enablement
- Industry & Consumer Satisfaction

Governance Framework Alignment

A hierarchy of quality validation checks will be implemented throughout the delivery process, that align to the programme governance framework and feed into formal decision points (i.e., milestone approval, controls points or sub-stage entry or exit gates).

Underpinning Quality Principles

- Clear definition of quality requirements for all programme delivery outputs (i.e., formal documentation deliverables, artefacts, or design, build and test phase objectives and outcomes)
- Unambiguous evidence standards and embedding traceability to enable validation of outputs / outcomes
- Continuous monitoring, tracking and reporting of Quality status
- Implemented corrective actions / plans when outcomes have deviated from required quality.

Quality Approaches

Quality Enablement

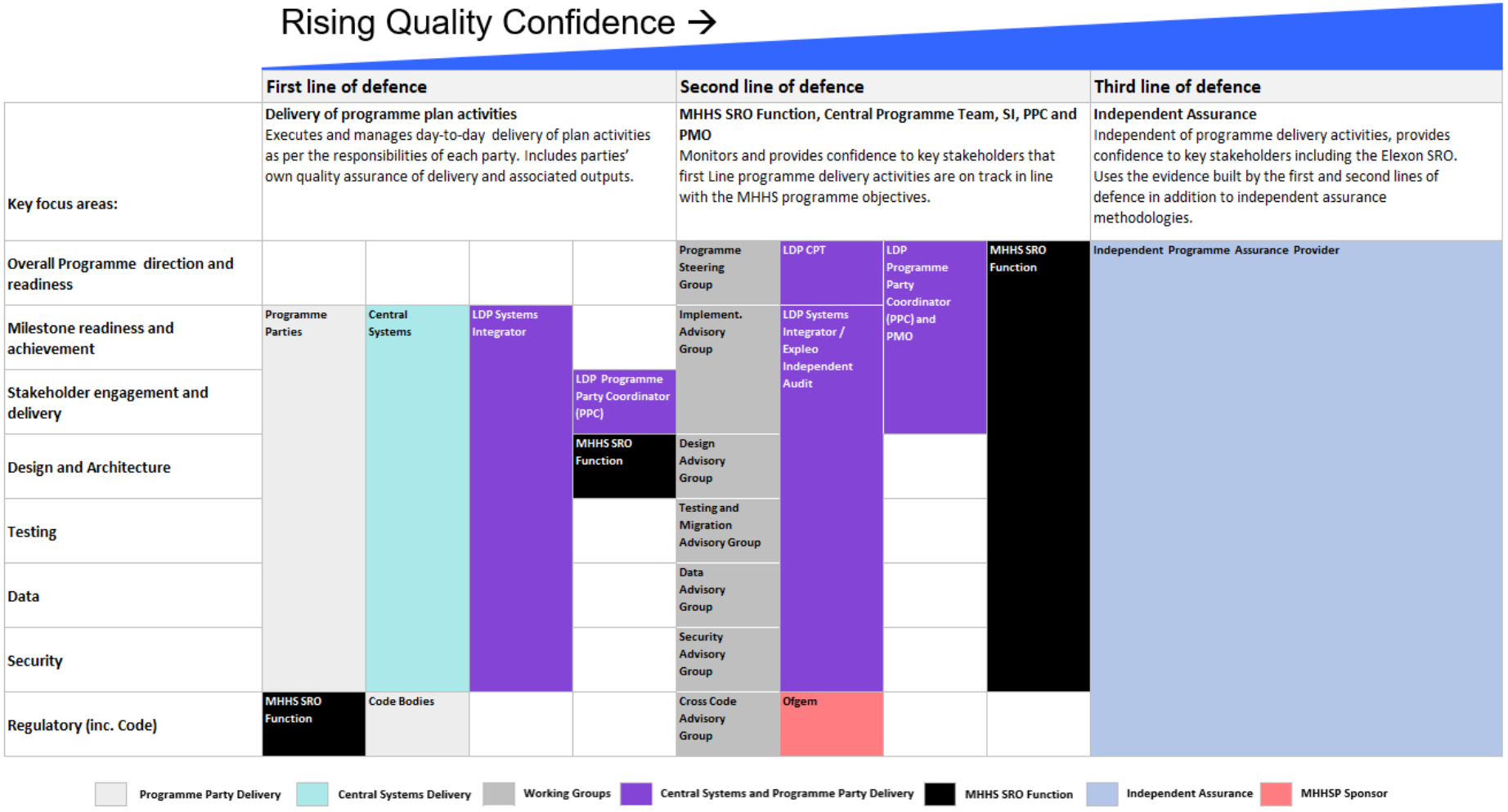
- Peer and Formal Reviews
- Working Groups
- Consultation
- Tooling (DevOps, dPMO & Programme Portal)

Quality Assurance

- Tracking and Reporting
- Readiness Assessments
- Gates, Reviews and Audits
- Risk Assessments

Quality Improvement

- Predictive Analysis
- Surveys
- Lessons Learned
- Continuous Improvement



Quality Assurance

- Quality Management will set the standards and acceptance criteria of all deliverables and outputs.
- Programme Parties will be responsible for providing evidence of self assurance (backed by PPC engagement and interviews) in line with the acceptance criteria.
- Quality management will track, review and evaluate that evidence does indeed meet the defined Quality criteria and reports to the programme on the status.
- Quality status tracking and evidence traceability will be appropriately transparent to all parties and the Independent Programme Assurance provider.
- The Quality Manager will collaborate with and assist the IPA with their reporting to Ofgem.

Readiness assessments will be essential to keeping the programme on-track

Readiness assessments will be an essential tool in ensuring all Parties are meeting their obligations to allow the programme to deliver on time, and identifying risks and issues where readiness has not been met. Readiness assessments form part of the the data-driven approach to targeting PPC support where it is most needed.

Objectives

- Understand readiness of Programme Parties to pass through a milestone gate
- Identify Parties' risks and issues in meeting the programme's obligations as early as possible, to maximise time to mitigate
- Allow for targeted support to any Programme Party with difficulties achieving the milestone, rather than lowering the bar
- Capture feedback from Parties' – both specific to the milestone, but also broader programme-feedback to inform future activity
- Act as another test of level of MHHS engagement and understanding amongst Parties
- Form part of the '3 line of defence' quality management model as a key tool to assessing whether Parties are meeting the acceptance criteria for deliverables outputs.

Proposed phasing

Readiness Assessments have been designed using the principles that a Readiness Assessment a) precedes each Control Point; and b) is necessary as a checkpoint during periods where there is a long gap between Control Points.

Proposed phasing is as follows:

- RA1 – Initial PP Risk Assessment – 'mobilisation survey'
- RA2 – Completion of Mobilisation & E2E Design, Readiness for System Design and Build
- RA3 – System Design & Build Checkpoint 1
- RA4 – System Design & Build Checkpoint 2
- RA5 – Completion of System Design & Build, Readiness for Integration Testing
- RA6 – Completion of Connectivity & Basic Message Exchange Testing, Readiness for E2ET
- RA7 – Completion of Integration Testing, Readiness for Go-Live
- RA8 – Readiness to Start Accepting All MPANs under New TOM
- RA9 – Parallel Run Checkpoint
- RA10 – Completion of Parallel Run, Readiness to Cut Over to New Settlement Timetable

Proposed review cycle

Self-assessments released to Parties via Portal for completion – CR's / PPC to provide support

PPC to complete desktop review and data analysis of self-assessment and supporting documentation

Deep dives on specific, selected parties based on risk levels and ensuring representation of a cross-section of Parties

Reviews and report will be shared with Ofgem, Elexon and the IPA, and action planning taken to mitigate risks and address lack of readiness.

Change Control Approach and Process

Scope of Change Control Process

- There are two major sources of change in the MHHS Programme that could require the need for a formal Change Request to be raised:
  - A change to a programme success factor (outcome, time, cost, quality, scope)
  - A change to a baselined programme artefact
- Changes will typically manifest from several different places across the programme. These could be driven by external industry factors, through the Sponsor (Ofgem), the SRO function, IPA or via Programme Participants
- The change process can be initiated by any party on the MHHS Programme and will require an individual owner to work with the MHHS PMO in raising the Change Request
- The scope of the Change Control process covers from when a change is identified, through to when a change has been rejected or implemented (including any commercial arrangements and plans to implement being agreed).

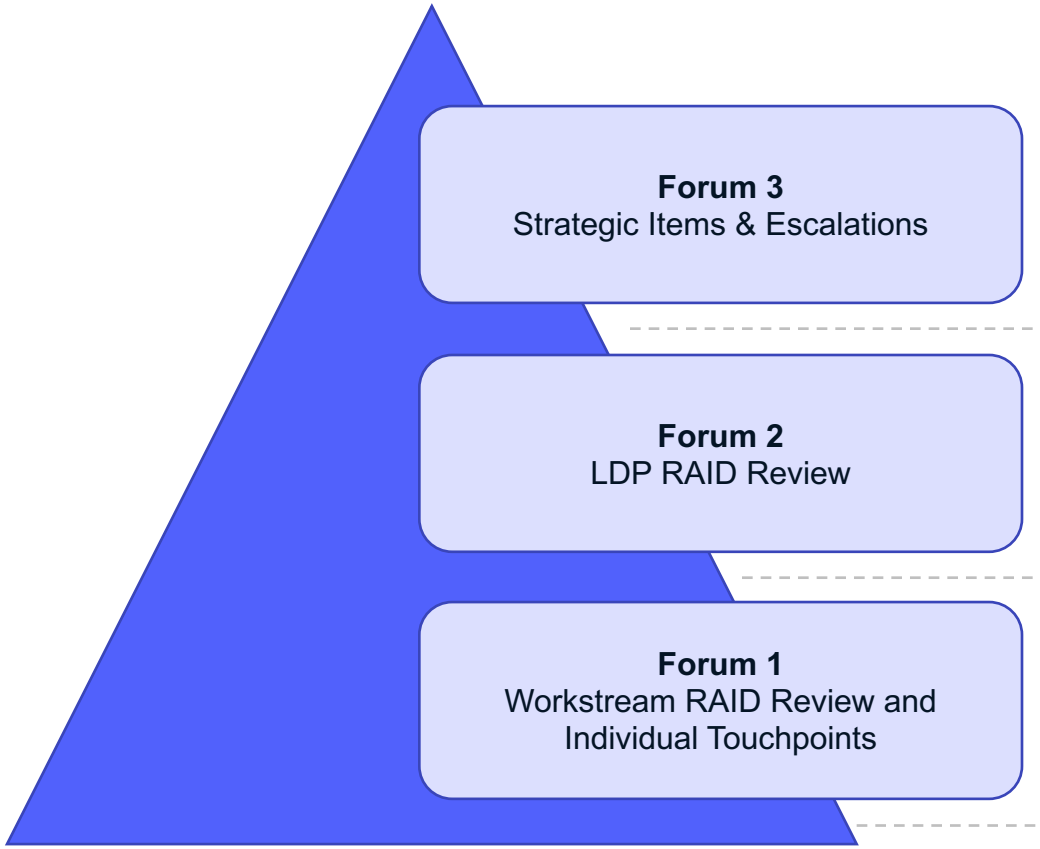
Guiding Principles for Change Control

- Clear, simple to understand and followed by all Programme Participants
- Identified, reviewed and authorised quickly and efficiently and outcomes effectively communicated across the programme
- Appropriate control applied to each stage of the Change Control process to allow informed decisions to be made on time and without delay
- Able to capture the cumulative cost of change for the MHHS Programme and wider industry
- Able to articulate impact of each change request on the programme's outcomes
- Able to justify priority for each change request, including the risk to the programme if the change request is rejected, or approved and implemented
- Communicates clear and defined line of accountability and responsibility for approving change
- Explains how approved changes will be incorporated into programme scope and implemented as part of the MHHS Programme.

Implementation of Change Control

- Single Change Control process for the MHHS Programme. Clear decision points have been inserted into the process that may allow a change to either be expedited, escalated or passed through as a "housekeeping" change:
- A decision to escalate or expedite a change will be taken by the SRO at the recommendation of the Change Board.
  - An **expedited change** can be enacted when a CR is raised but requires swifter action that the pre-defined SLAs require
  - An **escalated change** may be required if it appears that a CR may exceed the thresholds defined in the MHHS Governance Framework
  - A **"Housekeeping" change** covers administrative changes that have no impact on the programme, such as minor updates to baselined artefacts.
- In the case of a expedition or escalation, an ad hoc Change Board, Advisory Group and/or Working Group may need to be convened to review the CR and provide a recommendation to ensure there is no delay to timelines.

RAID Management Approach



Monthly	Involves SRO & LDP leadership, SRO & LDP PMO and Workstream leads (as required). To review the items which have been marked as ‘strategic’ along with any items which may have been escalated through Forums 1 and 2, agree actions to mitigate or unblock and possible escalations to Programme Steering Group or Ofgem.
Fortnightly	Involves LDP leadership, PMO and Workstream leads to review top priority programme risks and issues, agree on actions and possible escalations (to Forum 3).
Weekly	Weekly review sessions for each individual workstream. This is an opportunity for the workstream teams to maintain, update and/or add any items to the issue register.

Major Risk Themes – Overview

#	Theme	Description	Mitigation Approach	No.of Items	RAG Status
1	**Supplier engagement and mobilisation**	Suppliers may not be mobilised early enough to support the forward delivery approach	• CR001 has been approved; IPA recommendation is that all remaining un-mobilised suppliers are fully mobilised (for DBT) by or before 30-Sep-22 • If mobilisation is delayed, re-baselining of the plan (and subsequent major milestones) are likely to be delayed • Progress on mobilisation will be verified via CR007 impact assessment; PPC activities (including Readiness Assessment 2) are planned to verify status at M3.	15 Risks 2 Issues	**Red**
2	**Ability to meet the M5 timetable as planned**	The amount of work – due to design complexity and / or ability to continue to attract adequate participant engagement – may cause difficulty in reaching an agreement on the design by end of July-22	• Encourage adequate engagement from all Participants – via the provision (during working groups) of a clear timetable for all artefact pathways to ultimate DAG approvals • Communicate the plan to resolve open design issues and report on the status, whilst also utilising the design change and design issue processes to treat 'issues' arising as new items to manage against the established design scope • Confirm alignment of the Cross-Code Advisory Group (CCAG) / DAG code drafting expectations • Ensure that the design assurance activities and findings capture evidence on how the design delivers the TOM • In line with IPA recommendations: reconfirmation of the design delivery plan; continual monitoring and identification of areas of risk in the design that require further validation by Programme Participants; tracking of progress against the Tranches to DAG and monthly checkpoints reported to PSG between now and M5 to review progress of design activity against plan and confidence indicators/acceptance criteria.	11 Risks 2 Issues	**Amber**
3	**Completion and outputs of the Programme Re-plan activity**	There are risks to the completion of the re-plan as expected, and of the timescales (in the re-plan) being longer than the original timetable	• Engage industry volunteer parties to develop a ‘strawman’ plan in advance of M5 • Issue the ‘strawman’ plan at the earliest opportunity – at M5 – for formal consultation, to provide the most time for Programme Parties to review plan timelines in line developing with their technology strategies and impact assessments • Undergo 2 rounds of industry consultation to capture all industry feedback possible before approval through PSG (and Ofgem).	7 Risks	**Amber**

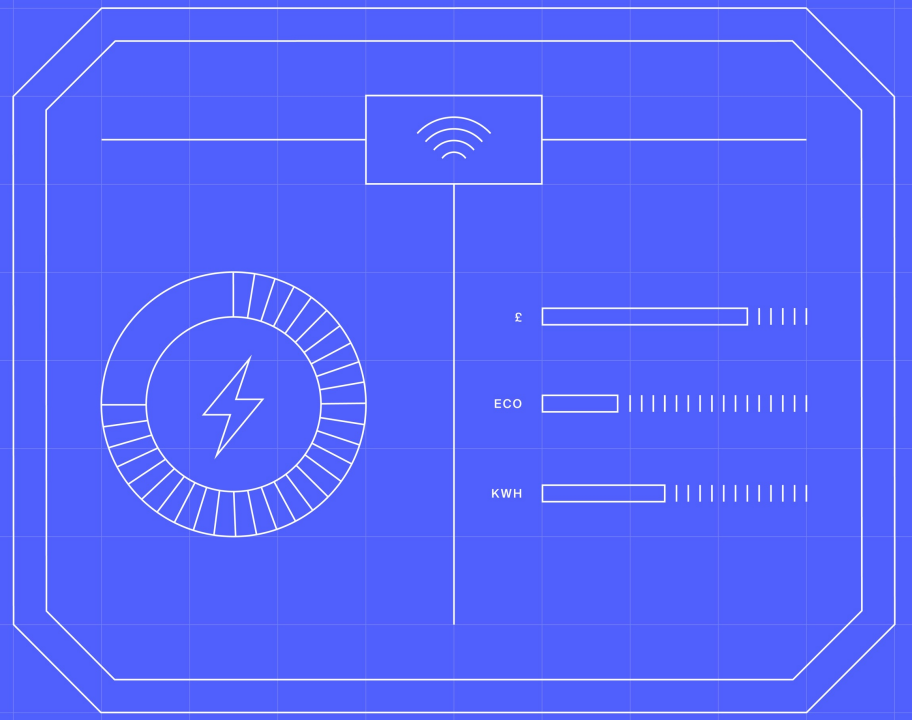
Risk Themes – Key Risks and risk management progress

Key	
I	Initial Score
C	Current Score
T	Target Score

For each theme, the top risks have been outlined along with a view of the movement towards the targeted closure score

Risk ID	Risk Description	Movement Since Last Period	No. Days to Closure	Risk Score Assessment	Date Raised	Target Resolution Date	Comments
				Critical: 30 29 28 27 26 25 / High: 24 23 22 21 20 19 18 17 / Medium: 16 15 14 13 12 11 10 9 / Low: 8 7 6 5 4 3 2 1			
Theme 1: Supplier Engagement and Mobilisation							
R018	There is a risk that the overlap between the Faster Switching programme and MHHS programme could impact programme parties' ability to deliver against their MHHS requirements.	Reduced	126	I: 30 / C: 21 / T: 1	08/10/2021	30/09/2022	• Faster Switching will reach go-live soon • CR001 was approved • There have been some improvements in engagement • Ofgem have continued to press for priority on MHHS
R022	There is a risk that that the disruption within the energy retail market will create operational challenges for Supplier organisations over the next 3-6 months which could impact activities on the MHHS programme.	Reduced	218	I: 30 / C: 25 / T: 14	29/09/2021	31/12/2022	
R029	There is a risk that programme participants (industry) may not progress in line with the key milestones in the plan	Reduced	157	I: 30 / C: 25 / T: 14	23/06/2021	31/10/2022	
R005	There is a risk that parties do not engage in MHHS due to being focused on their 'business as usual' activities and other industry change programmes.	Reduced	188	I: 30 / C: 25 / T: 14	08/10/2021	01/12/2022	
R020	There is a risk that the scope of MHHS is not understood by programme participants who are solely considering the settlement-related changes.	No Change	188	I: 24 / C: 19 / T: 3	10/10/2021	01/12/2022	• Governance bodies are gaining traction and momentum
Theme 2: Ability to Meet the M5 Timetable as Planned							
R133	There is a risk that Design activities may not be complete by the end of July as planned due to the significant number of comments received, the time constraint of providing participants 4 weeks to review Artefacts across 4 tranches, and review cycles not being permitted to run concurrently.	Increased	63	I: 23 / C: 23 / T: 19	14/04/2022	29/07/2022	• Currently tranches 2 and 4 being reported Amber
R027	There is a risk that the in-flight design activity may uncover unpredicted issues.	No Change	63	I: 17 / C: 16 / T: 3	05/10/2021	29/07/2022	
R076	There is a risk that the design-led approach does not get board-level attention to mobilise programme participants until the regulations are laid (M8 rather than M5).	No Change	126	I: 18 / C: 11 / T: 5	05/01/2022	30/09/2022	
R108	There is a risk that the design artefacts do not document sufficient information to provide unambiguous technical detail for all elements.	Reduced	63	I: 16 / C: 15 / T: 6	17/03/2022	29/07/2022	• SI design assurance continuing
R004	There is a risk that the programme will be delivering a complex technical solution design, which depends on and impacts multiple parties.	No Change	63	I: 18 / C: 14 / T: 5	08/10/2021	29/07/2022	
Theme 3: Completion and outputs of the Programme Re-plan activity							
R073	There is a risk that the current 15 month period M5-M9 is not long enough for programme parties.	No Change	Ongoing	I: 29 / C: 29 / T: 7	05/01/2022	01/11/2022	• Will be addressed via the re-planning activity: volunteers now engaged
R025	There is a risk that the 2022 re-baseline extends the timescales significantly.	No Change	158	I: 26 / C: 21 / T: 7	23/06/2021	01/11/2022	
R069	There is a risk that there may be additional cost implications for Programme Parties due to programme re-plan / delays or change in direction	No Change	158	I: 26 / C: 23 / T: 4	02/12/2021	01/11/2022	
R080	There is a risk of delay to re-baselining the programme plan as expected if the industry consultation window has to be extended due to the concurrent Faster Switching programme Go-Live.	No Change	63	I: 24 / C: 11 / T: 6	21/01/2022	29/07/2022	• Faster Switching not now expected to significantly impact the re-baselining activity, based on intended approach
R128	There is a risk that participants do not understand the re-plan activities that are being undertaken by the Programme as some Change Requests have been raised to move individual milestones	No Change	63	I: 15 / C: 8 / T: 2	13/04/2022	29/07/2022	
R024	There is a risk that the proposed Data Integration Platform (DIP) may not be ready in time for Industry testing resulting in a programme delay	No Change	97	I: 20 / C: 16 / T: 9	17/05/2021	01/09/2022	• DIP delivery plan will become available as provider is contracted

Plans, Assumptions & Dependencies



Programme Plan, Assumptions & Dependencies – Major Milestones (Ofgem timetable) and Proposed Control Points (subject to Re-Plan)

Milestone	Milestone type	Milestone	Baseline Date	Forecast Date	Description
M1	Level 1	FBC Decision	Apr-21	Apr-21	Publication of the Full Business Case, which includes the transition plan and decision on the TOM.
M2		Architecture Working Group (AWG) Recommendation delivered	Jun-21	Jun-21	The AWG will deliver recommendations providing guidance for the solution architecture required to enable the DWG's TOM which will set the framework for subsequent IT system design.
M3		DB Start	Aug-21	Aug-21	The DB (Design and Build) phase will commence in August 2021 with Elexon's Central System, followed by DCC in Feb 2022 and other parties in May 2022.
M4		PMO/PPC/SI/IPA fully functioning	Oct-21	Apr-22	PMO/SI/PPC/IPA have stood up their team and are fully operational with all programme management processes and governance forums established.
M5	Level 1	Physical baseline delivered	Apr-22	Apr-22	In order for the other parties to commence the DBT phase a complete Physical Baseline, aligning both technical and regulatory designs, will be delivered.
		Control Point 1	**May-22**	**Sep-22**	**Start System Design & Build**
		Control Point 2	**Jul-23**	**Jul-23**	**Start Cross-Industry Integration Testing**
M9	Level 1	Cross-Industry Integration Testing Start	Aug-23	TBD	Cross-Industry Integration Testing will commence in August 2023. This test phase involves the central parties (Elexon, DCC, comms network providers and the registration system providers) along with a small number of agents and suppliers.
		Control Point 3	**Mar-24**	**Mar-24**	**Start Qualification**
		Control Point 4	**Sep-24**	**Sep-24**	**Start Migration**
M10		Central systems ready for migrating MPANs	Sep-24	Sep-24	Following completion of the testing phase (excluding TE18 Security Testing), the Central Systems (BSC central systems, registration, DCC and communication systems) will be ready to initiate migration of Meter Point Administration Numbers (MPANs) from the current market roles into the new market roles.
M11	Level 1	Start of 1 year migration for UMS/Advanced	Oct-24	Oct-24	Start of migration window for suppliers to move all UMS and advanced meter points to be settled in the new arrangements.
M12		Start of 1 year migration for Smart/Non-smart	Nov-24	Nov-24	Start of migration window for suppliers to move all smart and non-smart meter points to be settled in the new arrangements.
M13		Load Shaping Service switched on	Nov-24	Nov-24	The LSS will be switched on after a period used to gather and validate settlement period level data from the smart meter data service.
		Control Point 5	**Jan-25**	**Jan-25**	**Start Accepting all MPANs Under New TOM**
M14	Level 1	All suppliers must be able to accept MPANs under the new TOM (one way gate)	Feb-25	Feb-25	Deadline by which all suppliers must have the systems and services in place to accept MPANs under the new TOM. From this point MPANs cannot be moved back into NHH regime on change of supplier.
M15	Level 1	Full transition complete	Oct-25	Oct-25	Completion of implementation activities including 1 year migration.
		Control Point 6	**Oct-25**	**Oct-25**	**Cut Over to New Settlement Timetable**
M16	Level 1	Cut over to new settlement timetable	Nov-25	Nov-25	The date of the cut over to the new settlement timetable will occur after the end of migration. The decision on when the settlement timetable should be reduced should be taken nearer the time, and on market monitoring against trigger points. We think that industry should ensure that the new settlement timetable is introduced as soon as practical after the end of migration, but if this is longer than 4 months after the end of migration then this decision should be brought to Ofgem.

M6	Level 1	Code change and detailed design recommendations delivered	Apr-22	Apr-23	The CCAG will deliver the recommendations aimed at addressing any outstanding areas of the DWG's TOM design and will deliver the recommendations for the changes to the Industry Codes and subsidiary documents necessary to enable the TOM.
M7		Smart Meters Act powers enabled	May-22	May-23	Time limited (5 year) powers in Primary Legislation for Ofgem to make changes to Industry Codes for the purposes of MHHS are activated.
M8		Code changes delivered	Nov-22	TBD	All changes to regulation (licenses, industry codes (including BSC, SEC, REC, DCUSA) have been made setting out the regulatory baseline.

Interim plan (1 of 3)

POAP Page 1	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Milestones, Check Points & Readiness Assessments	M3 – All remaining PPs mobilised		M5 – Design Complete; Subject to CR007 decision		M3 – All remaining PPs mobilised; Readiness Assessment 2	CP1 – Start Design & Build	M5+ – Re-plan published with CR	
Programme Governance			Extraordinary PSG for M5 approval		Extraordinary PSG for M3 approval		Extraordinary PSG for M5+ approval	
E2E Design Delivery	Tranche 1; Tranche 2; Tranche 3; Tranche 4	CCIAG mobilised		Physical design baselined; Programme Participants digest design baseline; Manage & deliver Design Baseline Work-Off Plan / assurance of Work-Off Plan item completion				
SI Design Assurance / Management (SI acquires ownership of Design at M5)	Main iServer rollout to All Users; iServer User Rollout, Artefact Assurance & Requirements Management; iServer Pilot phase	Virtual iServer rollout guidance sessions	Prepare content & schedule design playbacks; Draft Design Review & Assurance Report; Finalise Review / Report	Enduring SI Design activity: Design Support, DIP Procurement Support, Migration Support, Continued maintenance of Design Artefacts in response to CRs				
Re-plan development and baselining	Planning Show & Tells; Planning Working Groups		Prepare content & schedule re-plan walkthroughs	Publish draft re-plan for industry consultation; Planning Working Groups to continue at reduced cadence post-M5; Industry Consultation Round 1	Industry Consultation Round 2; Re-plan drafting to reflect consultation comments	Re-plan drafting to reflect consultation comments	Re-plan published with CR; Escalated change control process; Prepare content & schedule re-plan playbacks	Ofgem decision / Plan re-baselined
Baselining MHHS Code Changes	CDWG mobilised; Pre-M5 Preparation & Planning (including development of approach)			Post-M5 Preparation & Planning (including agreement of approach)		Code drafting by topic area; Review cycles (including internal review, CDWG review and external review via mini-consultation)		
DIP Procurement & Delivery	Deadline for RFP proposals; Bid Submissions Period	BAFO invites issued; Bid reviews and evaluations	BAFO submissions deadline; Dialogue workshops	BAFO reviews & evaluations	Contract award recommendation report; Execute MSA contract; MSA Legals & onboarding	Contract Day 1; DIP contract management; DIP build & delivery		

Interim plan (2 of 3)

POAP Page 2	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Milestones, Check Points & Readiness Assessments		M3 – All remaining PPs mobilised	M5 – Design Complete; Subject to CR007 decision		M3 – All remaining PPs mobilised; Readiness Assessment 2	CP1 – Start Design & Build	M5+ – Re-plan published with CR	
Programme Governance			Extraordinary PSG for M5 approval		Extraordinary PSG for M3 approval		Extraordinary PSG for M5+ approval	
SI Testing & Data	Review & sign off Test Data Strategy; Draft & deliver Issue and Defect Management approach; Review & Sign-off; Draft & deliver Quality Assurance Plan	EWG mobilised; QWG mobilised; Draft & deliver Test Data Overarching Approach & Plan; Review & Sign-off; Draft & deliver Environment Approach & Plan; Review & Sign-off; Draft & deliver high-level Migration Approach; Agree respective Migration responsibilities with PAB; Define Security Management Arrangements	Draft & deliver Migration, Cutover & Data Strategy; Review & Sign-off; BSC PAB, SEC & REC liaison; Develop Pre-Qualification Guidance; Draft & deliver Qualification Testing (QT) Approach & Plan; Review & Sign-off; Draft & deliver Component Integration Testing Approach & Plan; Review & Sign-off; Draft & deliver SIT Functional Testing Approach & Plan; Identify potential volunteers for participation in SIT			Develop Migration Entry Criteria; Draft & deliver Release Management Approach & Plan; Develop other PIT guidance; Develop QT scenarios, data & environment requirements	
Portal Delivery & Support / Delivery of test stubs	Delivery of Portal sprint plan	Portal support and maintenance; Define requirements for test stubs; Develop and deliver test stubs required for PIT (LSS, MDS, ISDS Simulators and Consumption Data Generator)						
Enduring PMO / PPC Activity	Enduring PMO activity (e.g. sprint-based planning & execution, RAID management, governance secretariat, change management, financial forecasting); Enduring PPC activity (e.g. bilateral meetings, reporting, stakeholder mapping, comms and engagement with PPs)			PPC Readiness Assessment 2 preparation	Coordinate preparation of material for Control Point 1 decision; Launch survey / support PPs; Conduct assessment; M3 sub-assessment; Subject to CR007 decision	Produce & deliver Report	Lessons learned, define scope & objectives for next RA	

Interim plan (3 of 3)

POAP Page 3	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Milestones, Check Points & Readiness Assessments	M3 – All remaining PPs mobilised			M5 – Design Complete Subject to CR007 decision	M3 – All remaining PPs mobilised Readiness Assessment 2	CP1 – Start Design & Build	M5+ – Re-plan published with CR	
Programme Governance			Extraordinary PSG for M5 approval		Extraordinary PSG for M3 approval		Extraordinary PSG for M5+ approval	
Programme Participant Engagement	Webinar E2E Design Delivery Tranche 1 Tranche 2 Tranche 3 Tranche 4 Main iServer rollout to All Users Review & Sign off Test Data Strategy	Engage DAG, re-plan pre-consultation volunteers and IPA in validating post-M5 engagement Webinar Virtual iServer rollout guidance sessions Review & Sign-off Issue & Def Management approach	Webinar Physical design baselined	Design & Re-Plan Open Day #1 Design / re-plan focused webinars Webinar Programme Participants digest design baseline Constituency-based design playbacks Re-plan development and re-baselining Publish draft re-plan for industry consultation Industry Consultation Round 1 Constituency walkthroughs of plan	Design & Re-Plan Open Day #2 Webinar Industry Consultation Round 2 Constituency walkthroughs of plan Review & Sign-off Test Data Overarching Approach & Plan Review & Sign-off Environment Approach & Plan Review & Sign-off Migration, Cutover & Data Strategy Readiness Assessment 2 Launch survey / support PPs Conduct assessment M3 sub-assessment Subject to CR007 decision	Webinar Re-plan published with CR Escalated change control process Review & Sign-off Qualification Testing Approach & Plan Identify potential volunteers for participation in SIT	Webinar Ofgem decision / Plan re-baselined Constituency-based re-baselined plan playbacks Review & Sign-off Component Integration Testing Approach & Plan

Enduring PPC activity (e.g. bilateral meetings, reporting, stakeholder mapping, comms and engagement with PPs)

Programme Control Points

Control Points are identified in the Programme Plan because:

- At points between each major programme delivery phase, there should be an explicit decision about whether to proceed (or not)
- This decision is based primarily on progress so far, the amount of existing uncertainty and the forward plan
- This is best programme management delivery practice

Control Point reviews are chaired by the Programme Director and should cover:

1. How well delivery milestones have been met, and whether there are any significant outstanding actions from previous milestone approvals
2. Predicted status of forward delivery – with focus on critical paths (threads) to future Control Points and milestones on those paths
3. Predicted progression towards expected achievement of programme outcomes
4. How many change requests (CRs) are open and what they tell us about the stability of the solution and the delivery plan
5. How much aggregate and cumulative risk the programme is running with, and whether it is acceptable and manageable
6. How ‘fit for purpose’ the forward delivery plan is, including an assessment of the level of built-in contingency
7. There should also be a review of the programme strategies to ensure they are still suitable (those articulated in the Programme Initiation Document)

Control Point reviews are not checkpoints; they are decision gates

- The review output should be a decision to continue with the programme, or to pause (or stop)
- Proceeding with the programme may well be a decision that comes with conditions (well-defined and articulated actions)

Programme Planning Principles

Transparent process

The planning approach and conventions will be clearly documented and made readily available and easy to understand for programme participants.

Logical approach

Each individual component of the plan will follow a well thought-out and easy-to-understand sequencing that leads to pre-defined results. A left-to-right, as well as right-to-left planning approach will be adopted to ensure consideration is given to what 'needs' to be done to meet the objectives of the programme, rather than what 'can' be done in the time available.

Control-point and milestone based

The plan will contain rigorous control-point gates to dictate a critical path, as well as a levelled-approach to milestones. Solid data submitted by programme parties will be used to assess their readiness to pass through a gate; targeted support will be provided to any programme party with difficulties achieving the milestone rather than lowering the bar of acceptance.

Outcome-driven

The plan will reflect a roadmap made up of a series of well-connected and purposeful deliverables with clear direction towards meeting the programme objectives.

Early definition of planning levels, governance routes and associated artefacts

Each workstream/initiative within the programme will have a clear list of outputs/deliverables, with milestone plans and dates for when elements are to be delivered. From the outset, planning levels will be clearly defined with a structure to show how different layers within the programme will interact and take ownership of milestones in accordance with these levels.

Realistic and achievable

To ensure programme participants are engaged with the programme plan and do not become despondent, the plan should be ambitious, but also attainable.

Programme Initial Assumptions & Dependencies

General delivery-related assumptions

- Right level of engagement for design activities to deliver a robust and comprehensive design at M5
- There will be no challenge to the procurement of the DIP
- 2 rounds of consultation on the industry re-plan will be sufficient to baseline the new version
- Sufficient number of suppliers ready to participate in the phases of testing and migration
- Design will not be changed by any changes to Code(s)
- Programme resources required in engaging with the IPA do not exceed plan
- Faster Switching activities will not affect the activities of MHHS programme

Specific design and technical assumptions

- Most users will have Microsoft Office applications installed via their own company licenses
- Programme Participants accessing the portal will provide secure devices to their staff managed using an application such as Microsoft InTune
- LSS, MDS, VAS, SDS, ARP and UMSDS will use the Core Platform for communications between themselves. Communications with the other systems will be by the existing methods – MPRS via D-flows, CSS via webhooks and DCC/DSP using DUIS commands over the DCC Gateway
- In Pre-Integration Testing, Suppliers and Supplier Agents will provide their own simulators to act as input from MSS, MSA, UMSO, MPRS and CSS
- In Infrastructure Testing, we will make use of the tool(s) provided by the Core Platform service provider
- The Core Platform provider will provide their own simulators for testing.

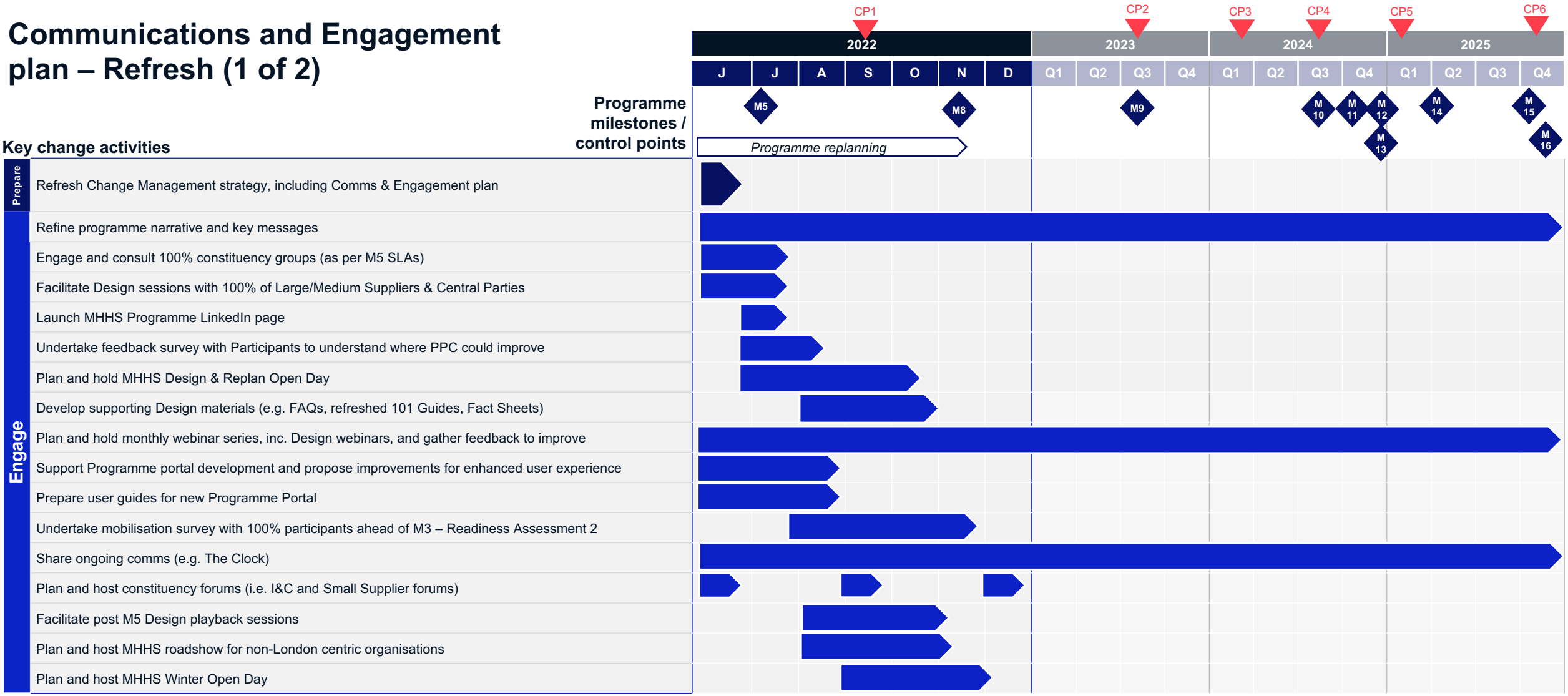
Dependencies or inter-dependencies between:

- BSC or related SEC/REC Changes/modifications, and MHHS
- Central Party systems readiness (Helix, DCC), and MHHS key milestones (M9, M10 etc.)
- Data integration platform procurement and development, and MHHS key milestones (M9, M10, etc.)
- Readiness of Programme Participants' systems, processes and interfaces, and commencement of related test and migration phases
- DCC infrastructure, and MHHS performance
- Ability of Elexon old / new systems to work together, and MHHS performance
- Programme Participants' data preparation, and MHHS readiness for migration
- Active participation of all Programme Participants, and completion of the MHHS Design and the programme plan re-baseline

Wider business-case or external dependencies:

- Smart metering roll out
- The Switching Programme
- Future retail regulation
- The Targeted Charging Review
- The Access and Forward-looking Charging project
- Smart Meters Act powers enabled
- Code Governance Review
- DCC License Review

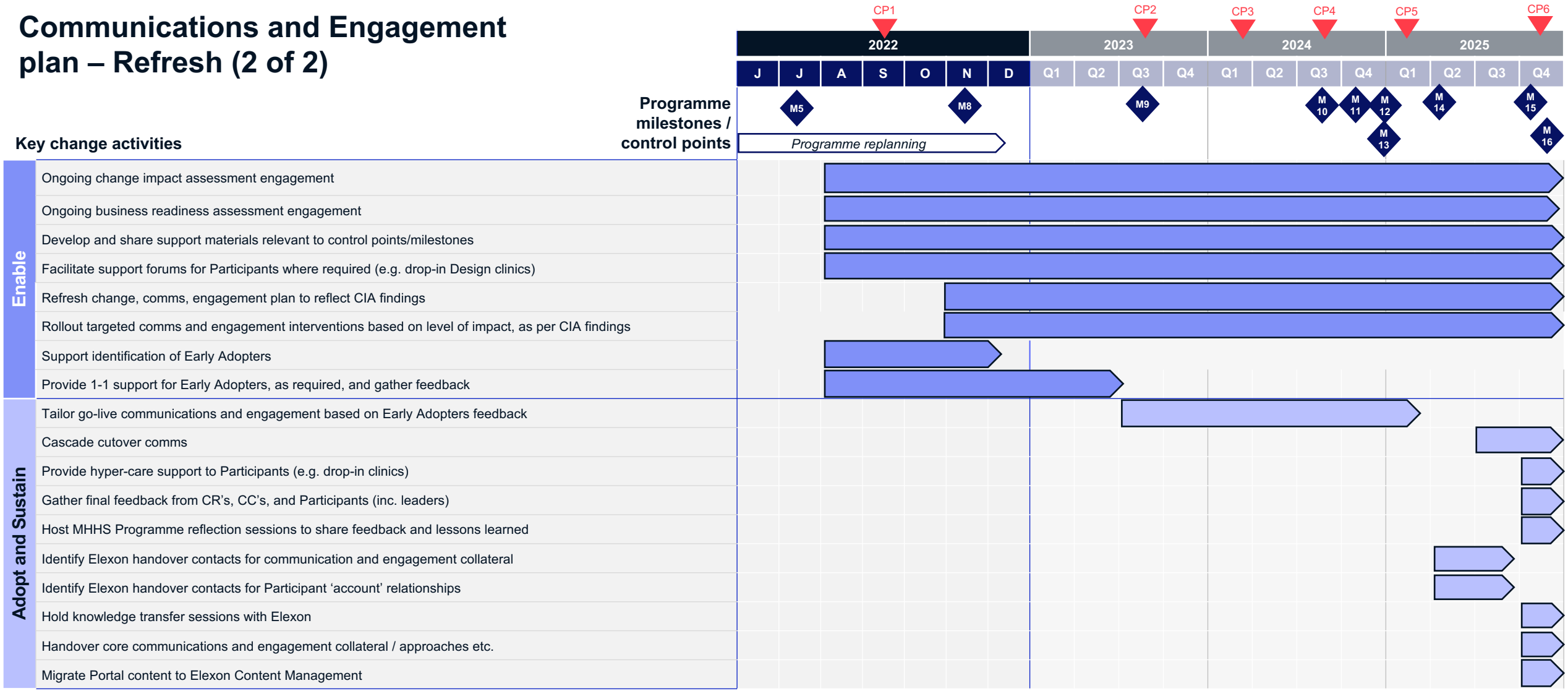
Communications and Engagement plan – Refresh (1 of 2)



MHHS PROGRAMME
Industry-led, Elexon facilitated

Please note: *further planning will take place in-line with programme re-planning, and will refresh with each control point.*

Communications and Engagement plan – Refresh (2 of 2)

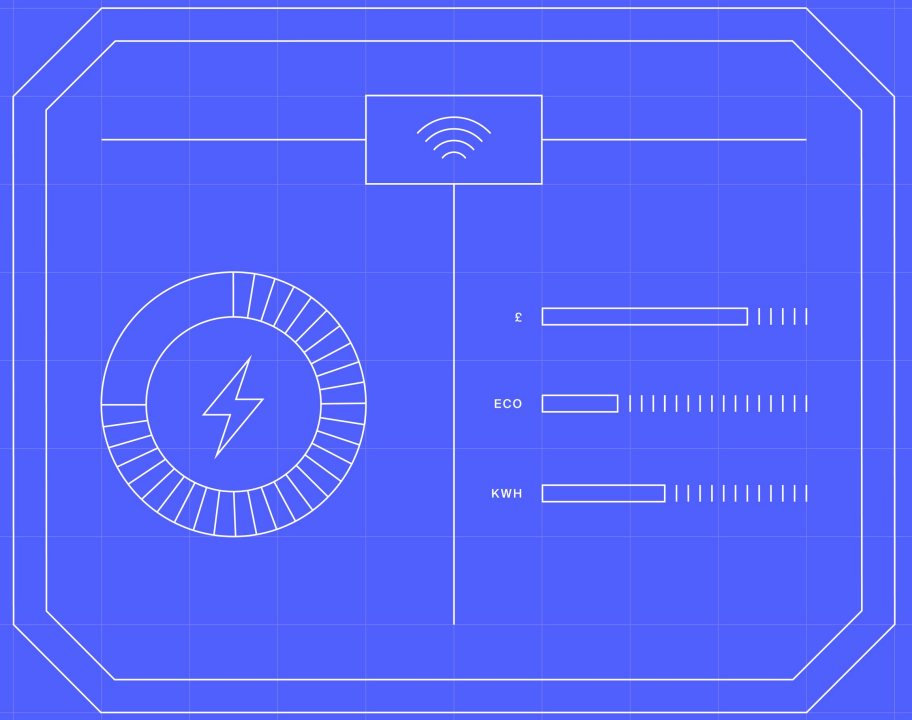


Support for late Programme Participants will continue into Jan / Feb 2026, as required

MHHS PROGRAMME
Industry-led, Elexon facilitated

***Please note:** further planning will take place in-line with programme replanning, and will refresh with each control point.*

Budget



The MHHS budget set for delivering the MHHS Implementation Manager role in 2022/23 is maintained at our published budget level for 2022/23 of £19.5m – as per 2021 MHHS Budget consultation.

There are uncertainties at this point due to ongoing procurement activities.

- The Forecast spend for 2021/22 is £8.5M with £4M over recovery returned to suppliers
- Budget for 2022/23 forecasted at £19.5M (same as original budget)
- Total Programme costs still on track for £90M including contingency
- Still a some degree of uncertainty around costs for IPA , EDA and outcome of the re-plan next year
- Programme average monthly run costs circa. £1.2M i.e. cost of delay per month.

CY forecast	Y1	Y2	Y3	Y4	
21-22	22-23	23-24	24-25	25-26	Total
8,451,931	19,471,486	22,712,303	21,132,543	18,231,737	90,000,000