



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

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# Design Advisory Group #8

## 13 April 2022

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Version 1.0

MHHS-DEL351

Document Classification: Public

# Agenda

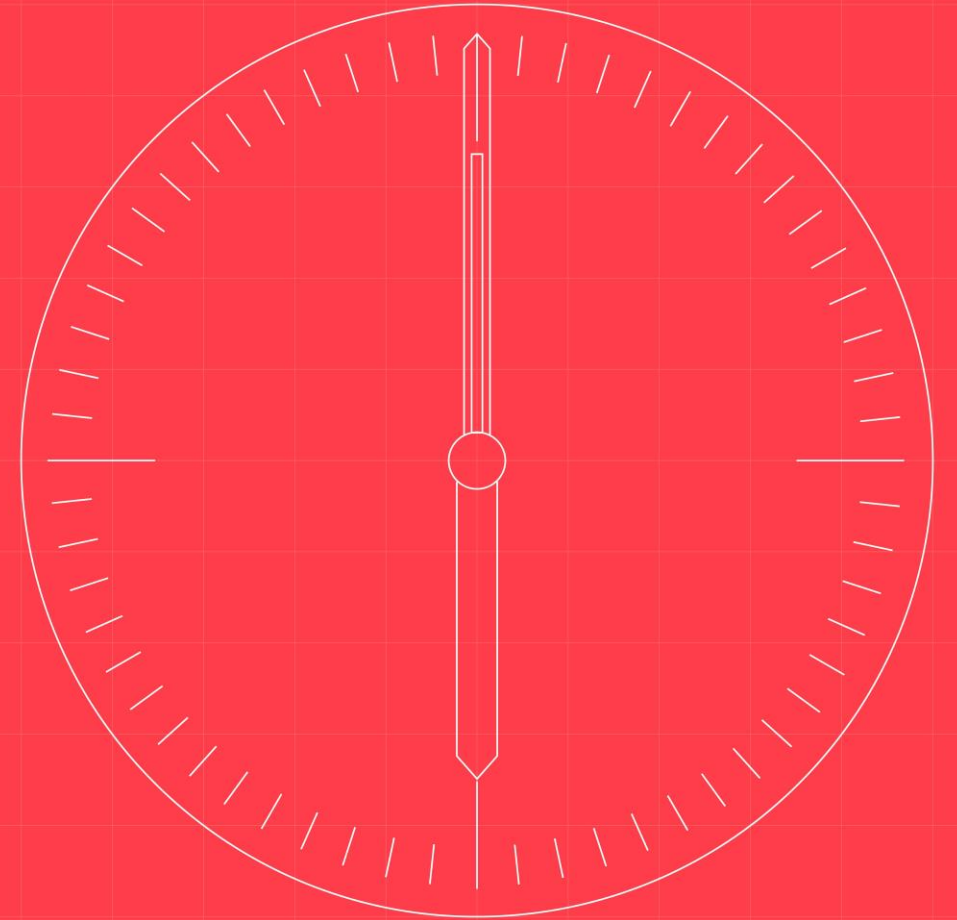
#	Item	Objective	Type	Lead	Time	Page
1	Welcome			Chair	10:00-10:05 5 mins	2
2	Minutes and Actions	Approval of minutes and review of outstanding actions.	Decision	Chair & Secretariat	10:05-10:15 10 mins	3-6
3	Governance Group Updates	Provide relevant updates from other MHHS Programme L2-3 governance groups.	Information	Programme (PMO)	10:15-10:25 10 mins	7-8
4	DAG Design Principles	Review draft customer design principle, and notice of other updates	Decision	Programme (Ian Smith)	10:25-10:35 10 mins	9-11
5	Level playing field design principle	Updates on actions related to SEC MP162.	Information	Chair	10:35-10:50 15 mins	12-13
6	Design Decisions	Discussion on ROM costs provided by DAG members and design team to inform decision on technical addressing options.	Decision	Programme (Ian Smith)	10:50-11:15 25 mins	14-16
7	MHHS Design Dashboard	Provide update on overall progress of design workstream.	Information	Programme (Ian Smith & Claire Silk)	11:15-11:25 10 mins	17-19
8	Level 4 Working Group Updates	Updates from design working groups. Update on design artefact review. Provide updates on review of the design artefact tracker, Tranche 1 and Tranche 2.	Information	Programme (Ian Smith & Claire Silk)	11:25-11:35 10 mins	20-25
9	Post Baseline Design Repository Tooling	Provide information on arrangements for enduring management of design artefacts following completion of design activities.	Information	Programme (Simon Harrison)	11:35-11:45 10 mins	26-30
10	Summary and next steps	Summarise actions and plan agenda for next meeting.	Information	Chair & Secretariat	11:45-11:55 10 mins	31-33
	<b>Appendices</b>					34-35
	Appendix 1 – DIP Procurement Pack Documents					

# Minutes and Actions

DECISION: Approval of minutes and review of actions

*Chair & Secretariat*

*10 mins*



## Minutes and Actions Review (1 of 3)

- Approval of Minutes from Extraordinary DAG006.1 held [17 March 2022](#)
- Approval of Minutes from DAG007 held [23 March 2022](#)
- Outstanding actions:

Ref	Date	Action	Owner	Due Date	Status
DES-03-05	12/01/2022	'Draft Design Principle' – PRI-20 – 'Retrospective Appointments' - IS, CH and SChA to discuss further for understanding and clarification of this principle.	Ian Smith	13/04/2022	ONGOING - Dates proposed, awaiting agreement and scheduling.
DAG04-02	09/02/2022	Follow up with Craig Handford on the Design Principles and clarity on the E2E Design	Ian Smith	13/04/2022	RECOMMEND CLOSED - Discussion held between IS and CH.
DAG04-03	09/02/2022	Look at when to stand up the Consequential Change Impact Assessment Group (CCIAG)	Programme	11/05/2022	ONGOING - Still under consideration, further discussion to held with parties.
DAG04-10	09/02/2022	Schedule DAG sub-groups for further discussion on the level playing field principle as required	PMO	09/03/2022	RECOMMEND CLOSED - Extraordinary DAG held 17 March 2022 with outcome that Smart Meter Segment Sub-Group (SDS) must consider TRT requirements to inform next steps. Programme will issue paper for review by SDS detailing matters for determination. Recurring discussion item to be added to Level Playing Field Principle standing agenda item to cover all discussions/updates relating to SEC MP162.
DAG06-01	09/03/2022	Review alignment between related MPAN modifications and design subgroup	Programme (Ian Smith)	27/04/2022	ONGOING - Programme (Design Workstream) have reviewed internally and discussion to be held with DAG Member (CH) upon return from leave.
DAG06-04	09/03/2022	Review SEC MP162 to ensure alignment with MHHS design	Programme (Ian Smith)	13/04/2022	RECOMMEND CLOSED - Review of alignment embedded in Design Workstream activities. Current review activities involve specific queries to DCC regarding Meter Data Retrieval. Recurring discussion item to be added to Level Playing Field Principle standing agenda item to cover all discussions/updates relating to SEC MP162.
DAG06-05	09/03/2022	Programme to consider whether attendance at SEC MP162 working group is required	Programme (Ian Smith)	13/04/2022	RECOMMEND CLOSED - Programme attendance at SEC MP162 working group confirmed. Updates will be provided via recurring discussion item under Level Playing Field Principle standing agenda item to cover all discussions/updates relating to SEC MP162.
DAG06-06	09/03/2022	Programme to check if response provided to second consultation on SEC MP162 and provide update to DAG	Programme (Ian Smith)	13/04/2022	RECOMMEND CLOSED - Programme confirm response not provided to second consultation as views/comments not materially different to response provided to first consultation.

## Minutes and Actions Review (2 of 3)

Ref	Date	Action	Owner	Due Date	Status
DAG06-07	09/03/2022	Circulate updated design principles and include updated level playing field	Programme (Ian Smith)	13/04/2022	RECOMMEND CLOSED - updated principles to be discussed under agenda item 4 (DAG Design Principles).
DAG06-08	09/03/2022	Draft customer principle and return to group with update	Craig Handford	13/04/2022	RECOMMEND CLOSED - Draft principle received and to be reviewed under agenda item 4 (DAG Design Principles).
DAG06-09	09/03/2022	Update Design Principle 8 to reference all relevant industry codes	Programme (Ian Smith)	13/04/2022	RECOMMEND CLOSED - update complete and to be discussed under agenda item 4 (DAG Design Principles).
DAG06-10	09/03/2022	Provide cost implications of Option 1 relating to primary and secondary requirements within the technical addressing options, to PMO@mhhsprogramme.co.uk	DAG members	13/04/2022	ONGOING - No information received. Updates from the Programme and DAG members to be discussed under agenda item 4 (DAG Design Principles).
DAG06-11	09/03/2022	Produce rough order of magnitude (ROM) comparison for Options 1, 2 and 3 of the primary and secondary requirements within the technical addressing options for consideration by DAG	Programme (Ian Smith)	13/04/2022	RECOMMEND CLOSED - ROM information provided by Programme for discussion under agenda item 4 (DAG Design Principles).
DAG06.1-01	17/03/2022	Consult the Smart Market Segment Sub-Group (SDS) user group on whether there is a requirement for Target Response Times (TRTs) of less than 24 hours for meter data retrieval related to MHHS, and associated scenarios, frequency of retrieval, and cost implications for suppliers	Programme (Design Team)	13/04/2022	RECOMMEND CLOSED - Programme will issue paper for review by SDS detailing matters for determination. Updates will be provided via recurring discussion item under Level Playing Field Principle standing agenda item to cover all discussions/updates relating to SEC MP162.
DAG06.1-02	17/03/2022	Consider whether closer working with SEC working groups is required and consider joint working group with SEC and MHHS parties regarding SEC MP162 and data retrieval from DCC systems	Programme (Design Team)	13/04/2022	RECOMMEND CLOSED - Programme representative will attend SEC MP162 working group. Updates will be provided via recurring discussion item under Level Playing Field Principle standing agenda item to cover all discussions/updates relating to SEC MP162.
DAG07-01	23/03/2022	Programme to ensure SDS group discuss SEC MP162 as soon as possible to inform SEC working group	Programme (Design Team)	13/04/2022	RECOMMEND CLOSED - Programme will issue paper for review by SDS detailing matters for determination. Updates will be provided via recurring discussion item under Level Playing Field Principle standing agenda item to cover all discussions/updates relating to SEC MP162.

## Minutes and Actions Review (3 of 3)

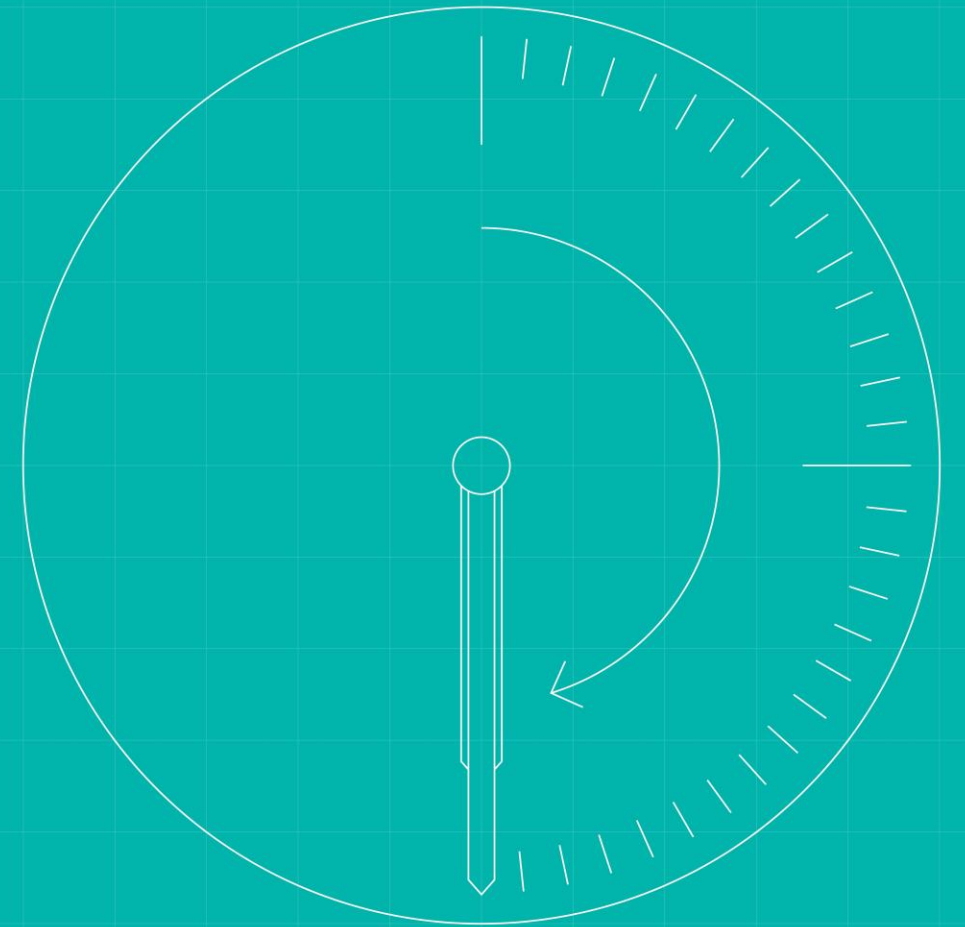
Ref	Date	Action	Owner	Due Date	Status
DAG07-02	23/03/2022	Chair to discuss with SECAS whether working group for SEC MP162 should be postponed to await the outcome of MHHS SDS discussion regarding MDR TRT requirements are included within SEC MP162	Programme (DAG Chair)	13/04/2022	RECOMMEND CLOSED - Chair discussed with SEC and agreed to hold weekly catch-up meetings. Current response from SEC regarding postponement is SEC MP162 meetings will not be delayed or postponed. Dialogue ongoing. Updates will be provided via recurring discussion item under Level Playing Field Principle standing agenda item to cover all discussions/updates relating to SEC MP162.
DAG07-03	23/03/2022	Programme to bring future versions of DIP Functional Specification and Non-Functional Requirements to DAG, once further updates incorporated	Programme (Design Team)	11/05/2022	ONGOING - Programme advise confirmation will be provided to DAG when timeframes known for next iterations of documents, which will not be before May 2022.
DAG07-04	23/03/2022	Programme (Charles Hyde) to notify Chair of documents in the DIP procurement pack and provide information on how they have been drafted and reviewed, to ensure good procurement practice has been followed and determine whether DAG approval is required	Programme (Charles Hyde)	28/03/2022	RECOMMEND CLOSED - List of documents provided and reviewed by DAG Chair. Majority of procurement pack documents will be presented to DAG for review. Review currently anticipated for May 2022.
DAG07-05	23/03/2022	Chair to update DAG on the outcome of ACTION DAG07-05 relating to documents within the DIP procurement pack	Programme (DAG Chair)	13/04/2022	RECOMMEND CLOSED - List of documents requiring review by DAG provided in Appendix 1 of meeting papers.
DAG07-07	23/03/2022	Programme to add documents relating to transition to the design artefact log	Programme (Claire Silk)	13/04/2022	RECOMMEND CLOSED - Updates completed as requested.

# Governance Group Updates

INFORMATION: Provide relevant updates from other MHHS Programme L2-3 governance groups

*Programme – PMO*

*10 mins*



## L2 and L3 Governance Group Updates

### Programme Steering Group (PSG)

#### Update from PSG 07 April 2022

- CR001 and CR002 Change Requests** – The Programme presented the outputs of the impact assessments from programme participants on CR001 and CR002. The IPA provided their view and recommendation. Each constituency representative provided their view on the Change Requests and voted for the Change Request they preferred. Based on the outputs of impact assessment and the views of constituency representatives, the SRO made the decision to recommend CR001 to Ofgem for a decision. Full detail and rationale will be provided in the [PSG Headline Report](#).
- Readiness Assessment** – An update was provided on Readiness Assessment 1. Feedback was given by PSG members to include in the final report.
- Data Integration Platform (DIP)** – The Programme provided an update on DIP.
- Further updates** – Several smaller updates were provided, such as on the status of other Change Requests (e.g. CR003-05), the MHHS Open Day, and Central Party finances.
- Programme Dashboards** – Questions were taken on Programme Dashboards. Some dashboards will be updated following feedback.

### Cross-Code Advisory Group (CCAG)

#### Update from CCAG 23 March 2022

- Smart Meter Act Powers (SMAP)** – An update was provided by Ofgem on the use of SMAP. The powers can be activated in c.40 working days and do not require parliamentary time, meaning they can be activated even when Parliament is in recess. The powers are active for five years following commencement and can be employed in directing multiple tranches of code change, if necessary.
- Change Request to delay M6 and M7** – CCAG members agreed to the raising of a Change Request to change the dates of the M6 and M7 programme milestones relating to the delivery of code drafting and activation of SMAP by Ofgem. This was presented to the Change Board on 24 March 2022 and will be submitted to impact assessment. Code Bodies are now working through the specific areas of code that are likely to require change and the required resource (e.g. registrations, load shaping service, etc.). The Change Request includes:
  - Move M6 to 9 months after M5
  - Re-define M6 to 'code changes baselined'
  - Move M7 to 10 months after M5

### Testing and Migration Advisory Group (TMAG)

#### Update from TMAG 16 March 2022

- Terms of Reference (ToR)** – The TAG approved the ToR of the Data Working Group, whose remit is to determine test data requirements. The TAG also approved changes to its own ToR, to include migration activities within the remit of the group, and accordingly becoming the Testing and Migration Advisory Group (TMAG). Updates to relevant documentation have been completed to now reflect TMAG, together with a Change Request that went to Change Board on 24 March to update the MHHS Governance Framework.
- E2E testing strategy** – The principles underpinning the end-to-end testing strategy were discussed in detail and agreed. The E2E Testing strategy will now be formally written up.
- Migration Working Group (MWG)** – The TAG agreed to mobilise the MWG, whose remit will be to provide expert input on migration activities to ensure the transition from old to new systems work effectively.

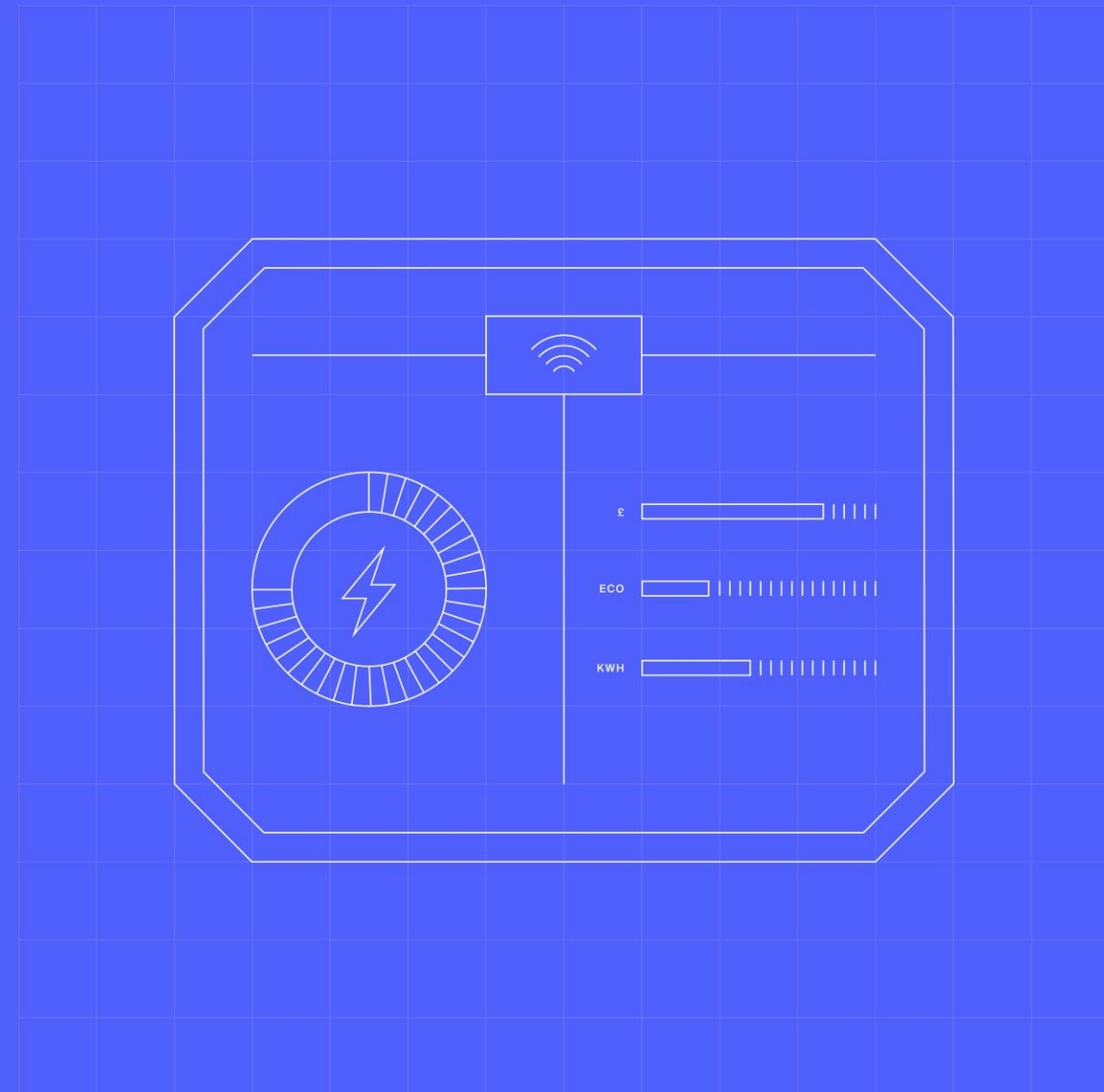


# DAG Design Principles

INFORMATION: Review draft customer design principle, and other updates

*Programme – Ian Smith*

*10 mins*



## High Level Design Principles (1 of 2)

The items listed below represent the current programme view of the high-level principles to be applied to the end-to-end design.

**It should be noted that these principles should be adhered to wherever possible, this does not rule out instances where DAG may deviate from these where sufficient justification exists to deliver the core elements of the solution.**

Ref	Principle	Scope	Sub-Principle	References
"0"	<b>The solution will be designed to support timely and accurate settlement.</b>	System Wide		
1	The solution will implement the TOM at a service level with prescribed interfaces between TOM services. The design will be agnostic as to the physical resolution that parties choose in the build of the services, it will only proscribe requirements and such physical characteristics as to enable interface build.	System Wide		PRI017
2	Energy Suppliers can choose how they deliver their TOM Data Services (direct or procured). <b>Suppliers may perform any aspect of any service subject to qualification.</b>	System Wide		PRI016
3	The DIP solution will remain stateless and will not execute Business Processing rules. <b>For the purposes of this principle address derivation and routing are not considered business rules.</b>	DIP	Sending parties are responsible for any follow up for business processes requiring completion (PRI026)	PRI024.PRI025
4	No new DTC flows will be created to resolve interface requirements for MHHS. Nor will there be facsimiles of existing DTC flows created on the DIP.	System Wide		
5	Where optionality exists with regard to resolving an interface to either the DIP or remaining on the DTN the solution will <b>consider the full set of interfaces related to a process or service.</b> i.e. if the majority of flows within a process use the DIP it would not be desirable for outliers to remain on the DTN.	System Wide		
6	Solution assumes that the data held/mastered by the owner/manager is correct. Services will undertake processing in good faith based on the data provided to them. This does not preclude the potential requirements for exception reporting and reconciliation requirements to rectify data quality issues.	System Wide	Will not duplicate items held in other systems(PRI004/005) Will only hold what is required to route messages Will not validate customer opt out (PRI008)	PRI003. PRI001. PRI010. PRI011. PRI019

## High Level Design Principles (2 of 2)

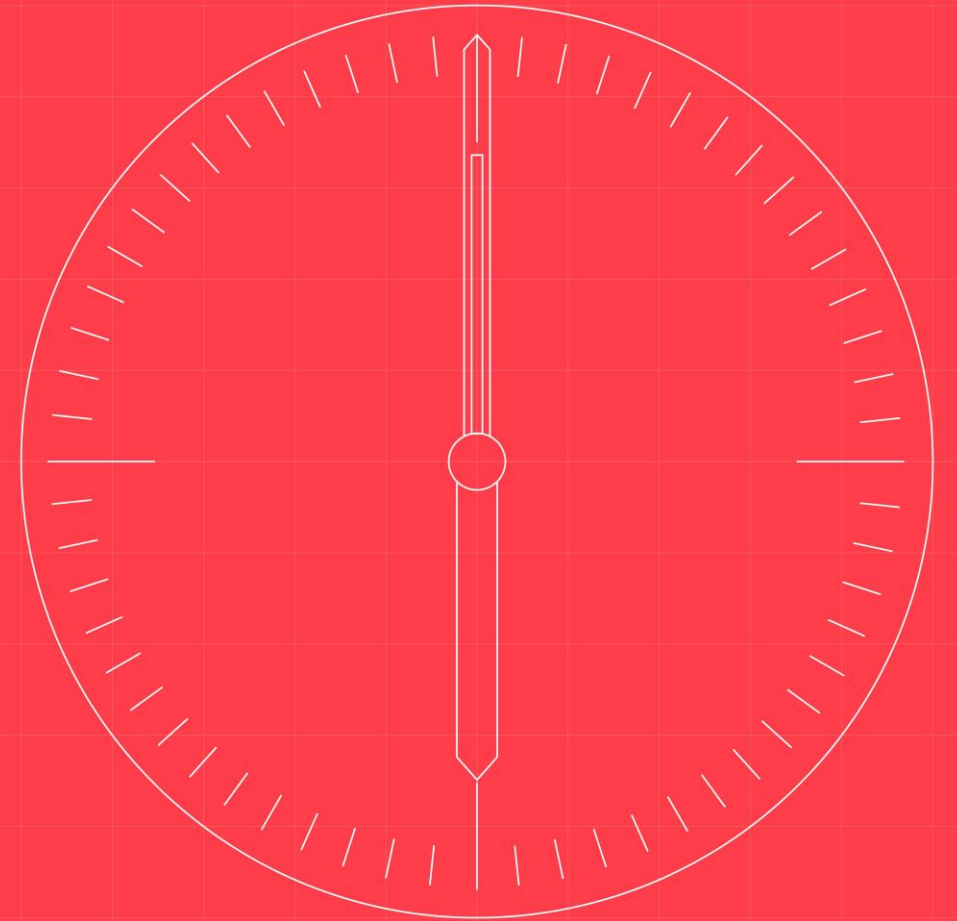
Ref	Principle	Scope	Sub-Principle	References
7	<b>TOM Service Operators</b> will be responsible for reporting data accuracy issues to the data owner/manager	System Wide		PRI003
8	Data will be processed by all parties promptly and in accordance with <b>BSC Procedures applicable industry codes</b>	System Wide	[Data services should process data in accordance with the settlement timetable]	PRI010
9	The solution will seek to minimise total cost to industry in the delivery of the OFGEM approved TOM services and Integration platform	System Wide		PRI027
10	The solution will be secure, scalable for volume, latency, interfaces and other key technical dimensions.	DiP		PRI015.PRI028
11	Interfaces will only pass those elements of data required in direct support of their governing business process and requirements. Where a changed value falls within a logical group of data e.g. House number in an address the logical group will be sent.	System Wide		
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.	System Wide		
13	Any technology selection will be mindful of future use cases	DiP		
14	<b>The solution will seek to maximise the benefits for consumers receiving MHHS services via current and future use cases. This includes benefits from smart metering and other areas captured in the business case.</b>	System Wide		
15	<b>All market participants, operating under MHHS Target Operating Model, will be afforded the ability to deliver the same level of service for the same MHHS service</b>	System Wide		

# Level playing field design principle

INFORMATION: Updates on actions related to SEC MP162

*Chair*

*15 mins*



## Level playing field and SECMP162

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Level play design principle added see previous slides

DAG actions:

Reviewing alignment of design and MP162. Part of Design workstream and elements taken to SDS sub group

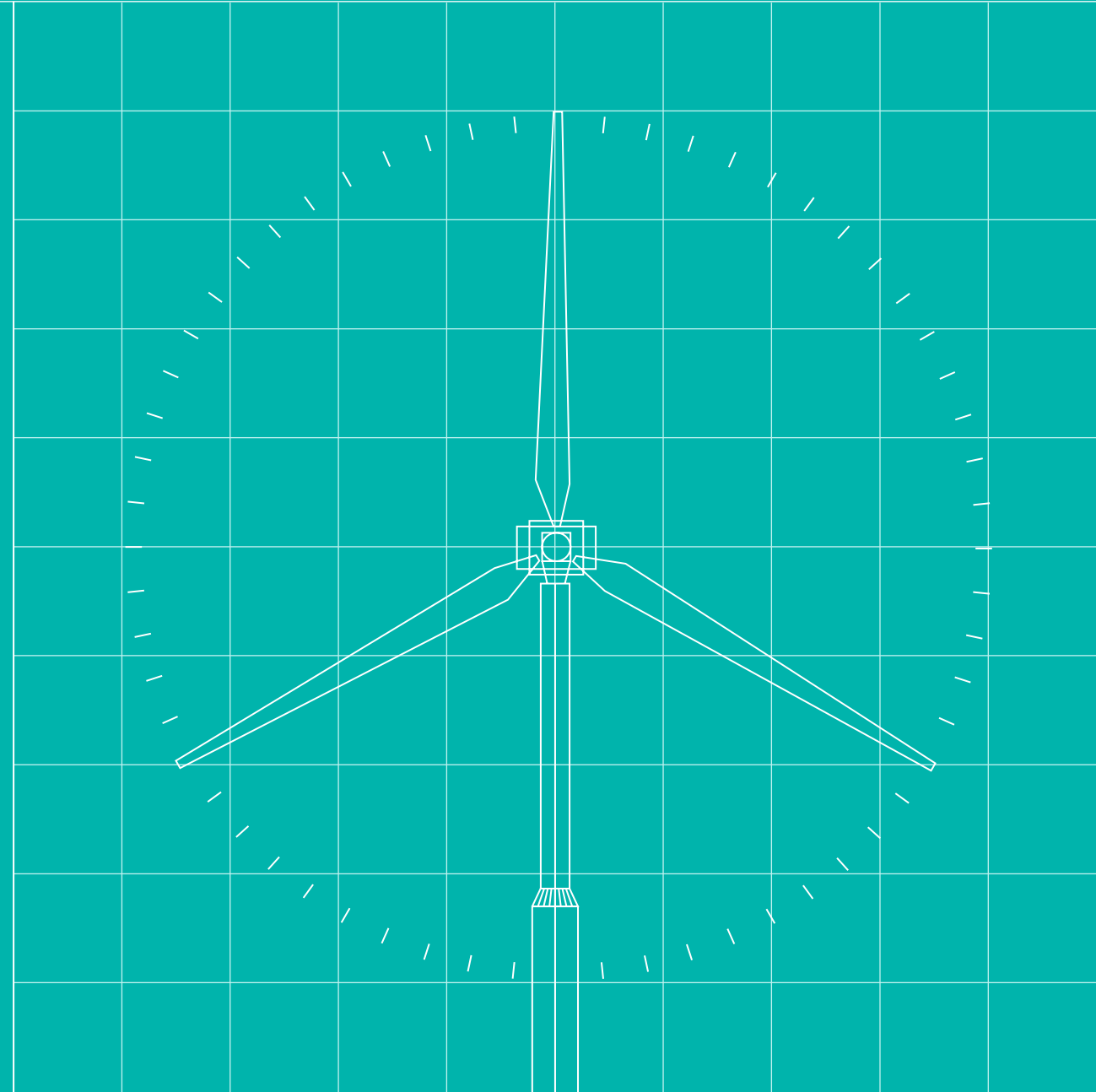
- Design paper to SDS re <24hr TRTs use cases, frequency and materiality
- Design Team attend SEC MP162 WG. Kevin Spencer
- MHHS Programme response to MP162 consultation: replied to 1st, but not 2nd as no material change in programme comments between 1st and 2nd
- consideration of joint WG with SEC; depends on outcome of SDS discussions on <24 TRT requirements
- postponement of MP162 Work group: SECAS keen to maintain current timeline due to implementation date and have weekly catch ups

# Design Decisions

**DECISION:** Discussion on ROM costs provided by DAG members and design team to inform decision on technical addressing options

*Programme – Ian Smith*

*25 mins*



## Design Decisions – Addressing ROM - Summary

Analysis has been performed on the addressing options considered previously by DAG from a cost/effort perspective.

In the absence of the ability to complete detailed impact assessments the high-level areas of impact have been identified and cost estimates provided where it is reasonable to do so. Estimates provided are high level ROM assessments and for certainty would require full impact analysis.

### Option 1 – Participant management of secondary addressing

The change drivers are the requirements for multiple parties to maintain a view of potential secondary parties, this would need to be facilitated by consuming additional registration flows and maintaining a view of appointed parties. Furthermore, if additional requirements were identified for secondary parties to receive information, this would require changes across multiple parties.

### Option 2 - Secondary addressing orchestrated via DiP

Attracts cost in the changes required to capture appointed party information from the registration flows that are processed by the DiP and the maintenance of a data structure and associated cache for interrogation by the required routing service. Changes to support this whilst more material than those required for an individual party to implement Option 1 are only required to be made in the DiP.

### Option 3 - Secondary routing information derived from an external system

The areas impacted in this instance would be the external system provisioning the secondary addressing system and the DiP itself. Any existing system would be required to deal with an additional enquiry load of tens of millions of transactions per day. This would certainly require a significant infrastructure uplift in terms of compute and network capacity and potentially may require development activity to service the additional high volume of information flows. In terms of the DiP as a delta from the core functionality the DiP would also require a similar infrastructure uplift to deal with the volume of traffic. Given the high number of charging models for this activity in the market it is difficult to arrive at specific costs for this particular element.

Also the provisioning system would be required to align to DiP Non-functional requirements in terms of RTO and Availability which could potentially attract significant cost if they are significantly different.

# Design Decisions – Addressing ROM – Impact Comparison

	Option 1	Option 2	Option 3
<b>Participant Development</b>	<ul style="list-style-type: none"> <li>Maintenance of view of linked secondary parties using views of registrations flows</li> <li>Awaiting Feedback from parties however would expect circa 20 Days Design, Build and Development</li> <li>Therefore assuming this impacts 15 parties total effort would be in the order of 1k days effort.</li> <li><b>Assuming a day rate of £500 this would be a total development ROM cost of £150k</b></li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>Third Party Registration Service(s)</li> <li>Potential significant increases to network and compute costs to process additional 30 million API calls per day</li> </ul>
<b>DIP Development</b>	N/A - No Delta	<ul style="list-style-type: none"> <li>Development of Processes to capture and update Agent Appointment data from registration flows - circa 20 interfaces</li> <li>Development of Physical Data Structure and Cache for Appointment Reference Table(s) - Data modelling build and test</li> <li>Development of Secondary Party Derivation Process as part of</li> <li>Event Publishing Routines - Separate service to be developed to facilitate lookup from routing data store</li> <li>ROM Estimate - 100 Days Design and Build with 60 Days System Testing</li> <li><b>Assuming a day rate of £500 this would be a total ROM cost of £80k</b></li> </ul>	<ul style="list-style-type: none"> <li>Development of API call to interrogate external system</li> <li>Development of Secondary Party Derivation Process as part of Event Publishing Routines</li> <li>Rom Estimate of 50 days DBT</li> <li><b>Assuming a day rate of £500 this would be a total ROM cost of £25k</b></li> </ul>
<b>Infrastructure Costs Considerations</b>	<ul style="list-style-type: none"> <li>Believe at the individual party level there would be no material increase in infrastructure costs</li> </ul>	<ul style="list-style-type: none"> <li>Additional storage to deal with physical storage for routing view and hosting of secondary routing service. Would not expect these infrastructure costs to be significant when set against the overall DiP Infrastructure</li> <li>Potential RDBMS deployment with associated license costs</li> </ul>	<ul style="list-style-type: none"> <li>Significant additional run costs for external API traffic</li> <li>Significant additional run costs for network/bandwidth infrastructure</li> <li>Potential for significant costs if the provisioning system is required to uplift non-functional requirements to align to the DiP</li> </ul>

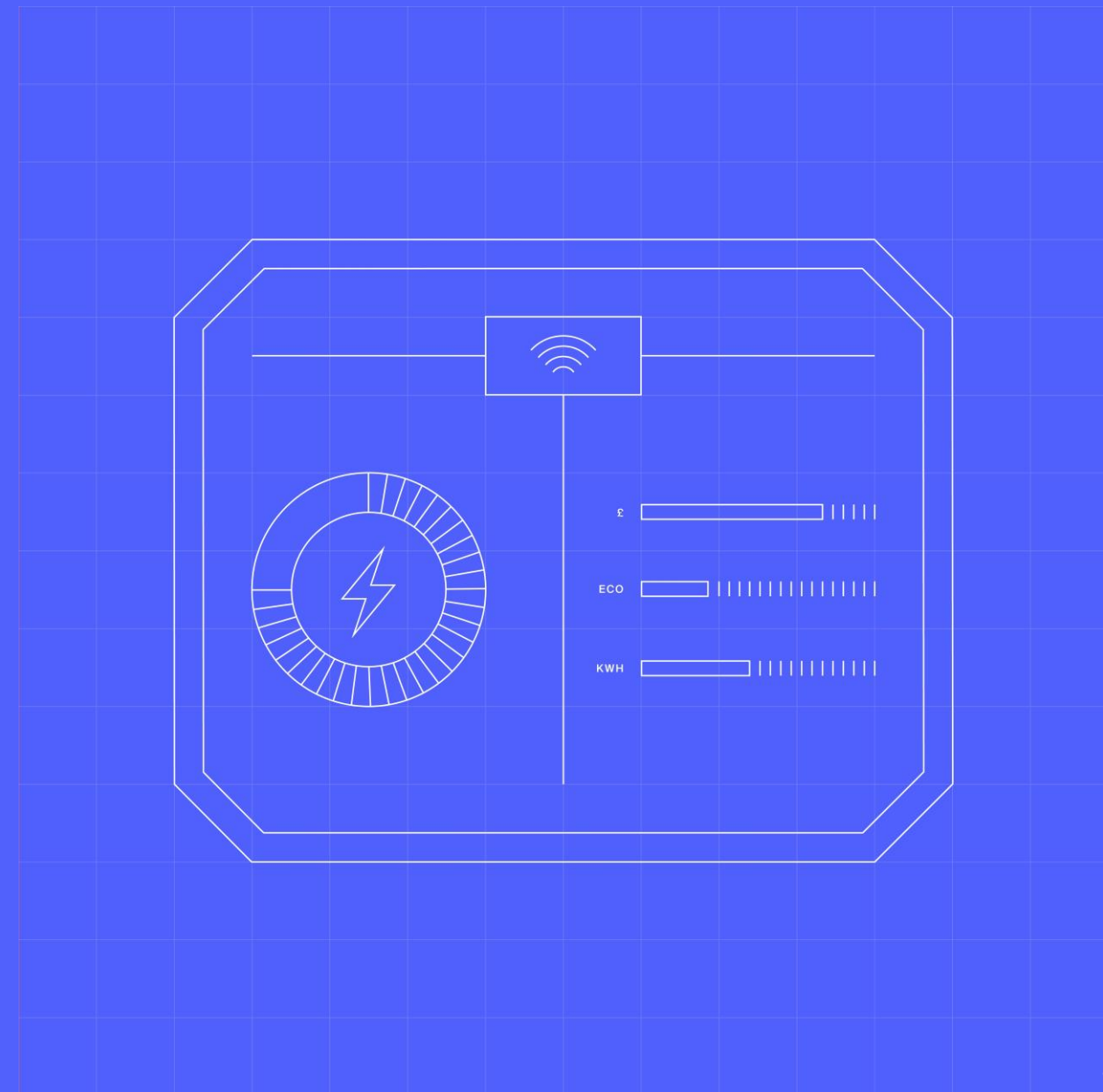


# MHHS Design Dashboard

INFORMATION: Updates from DAG Working Groups

*Programme – Ian Smith & Claire Silk*

*10 mins*



**Design Workstream Overview**

- RAG status is Green for the majority of Design Artefacts as they are on target for the Tranche release dates
- The re-issue of Tranche 1 artefacts was delayed by 1 week due to the volume of comments received. Documents were published on 28<sup>th</sup> March for a further 2 week review period. The Design team are reviewing activity and capacity around resolution of comments to ensure processes are robust
- There is a risk around the level of engagement and quoracy within the sub-working group activity which may result in a high volume of comments in subsequent tranche reviews as participants who have not actively engaged in the sub-working groups engage in the process.
- DIP Functional Specification and Non Functional Requirements have been reviewed by TDWG and DAG have agreed this can form the technical basis of the documentation within the RFP

Tranche	MHHS Service	Artefacts	RAG		Planned DAG Month	Expected DAG Month	Current status and issues	Actions to resolve
			Last month	This month				
1	Load Shaping Service	5	<span style="color: green;">●</span>	<span style="color: orange;">●</span>	Apr	Apr	• High levels of comments in first review. Initial updates made, republished for review	• Resolution of outstanding comments
	Registration Service	16	<span style="color: green;">●</span>	<span style="color: orange;">●</span>	Apr	Apr	• High levels of comments in first review. Initial updates made, republished for review	• Resolution of outstanding comments
	Metering and Data Services	6	<span style="color: green;">●</span>	<span style="color: orange;">●</span>	Apr	Apr	• High levels of comments in first review. Initial updates made, republished for review	• Resolution of outstanding comments
	DIP Technical Documents	3	<span style="color: green;">●</span>	<span style="color: green;">●</span>	Mar	Mar	• Approved for issue within DIP RFP, accepted that further iteration is expected	
2	Registration Service	15	<span style="color: green;">●</span>	<span style="color: orange;">●</span>	May	May	• Lack of supplier input into Change of Service work-groups	• Explore options to specifically seek supplier feedback in initial Tranche 2 review
	Advanced Data Service	2	<span style="color: green;">●</span>	<span style="color: green;">●</span>	May	May	• Design activity ongoing with Advanced Sub-working Group, on schedule for Tranche 2 release	
	Unmetered Data Service	1	<span style="color: green;">●</span>	<span style="color: green;">●</span>	May	May	• Design activity ongoing with Unmetered Sub-working Group, on schedule for Tranche 2 release	
	Smart Data Service	2	<span style="color: green;">●</span>	<span style="color: green;">●</span>	May	May	• Design activity ongoing with Smart Sub-working Group, on schedule for Tranche 2 release	
	Demand Disconnection Event	4	<span style="color: green;">●</span>	<span style="color: green;">●</span>	May	May	• Design activity ongoing with ECS Sub-working Group, on schedule for Tranche 2 release	
	Marketwide Data Service	4	<span style="color: green;">●</span>	<span style="color: green;">●</span>	May	May	• Design activity ongoing with ECS Sub-working Group, on schedule for Tranche 2 release	
	Volume Allocation Service	4	<span style="color: green;">●</span>	<span style="color: green;">●</span>	May	May	• Design activity ongoing with ECS Sub-working Group, on schedule for Tranche 2 release	

● On track      ● Complete  
● At Risk      ● To be determined  
● Not on track, at high risk

Tranche	MHHS Service	Artefacts	RAG		Planned DAG Month	Expected DAG Month	Current status and issues	Actions to resolve
			Last month	This month				
3	Registration Service	3	<span style="color: green;">●</span>	<span style="color: green;">●</span>	June	June	• Drafting on schedule	
	Unmetered Data Service	2	<span style="color: green;">●</span>	<span style="color: green;">●</span>	June	June	• Drafting on schedule	
	Metering Services	2	<span style="color: green;">●</span>	<span style="color: green;">●</span>	June	June	• Drafting on schedule	
	Industry Standing Data Service	3	<span style="color: green;">●</span>	<span style="color: green;">●</span>	June	June	• Drafting on schedule	
	Settlement	2	<span style="color: green;">●</span>	<span style="color: orange;">●</span>	June	June	• Reporting requirements are currently under review to determine size of activity	• Confirm whether the design artefacts will be split into two with some elements delivered in Tranche 4
	Global	2	<span style="color: orange;">●</span>	<span style="color: orange;">●</span>	June	June	• Drafting of the Operational Choreography document is behind schedule due to capacity issues	• Options under consideration to resolve capacity issues
	Technical Architecture	1	<span style="color: orange;">●</span>	<span style="color: orange;">●</span>	June	June	• Drafting behind schedule due to additional capacity required to support RFP	• Options under consideration to resolve capacity issues
4	Registration Service	7	<span style="color: green;">●</span>	<span style="color: green;">●</span>	July	July	• Drafting on schedule	
	Networks	1	<span style="color: orange;">●</span>	<span style="color: orange;">●</span>	July	July	• Size of activity still to be determined pending finalisation of ongoing activity to determine data requirements	• Ongoing engagement with DNO/IDNO participants to confirm requirements
	Metering Services	1	<span style="color: green;">●</span>	<span style="color: green;">●</span>	July	July	• Drafting on schedule	
	Technical Architecture	2	<span style="color: green;">●</span>	<span style="color: green;">●</span>	July	July	• Drafting on schedule	
TBC	Security Artefacts	4	<span style="color: green;">●</span>	<span style="color: green;">●</span>	July	July	• Drafting on schedule	
	Meter Faults and Settlement Queries	2	<span style="color: orange;">●</span>	<span style="color: orange;">●</span>	TBC	TBC	• Scope of activity is not fully understood	• Scope to be defined

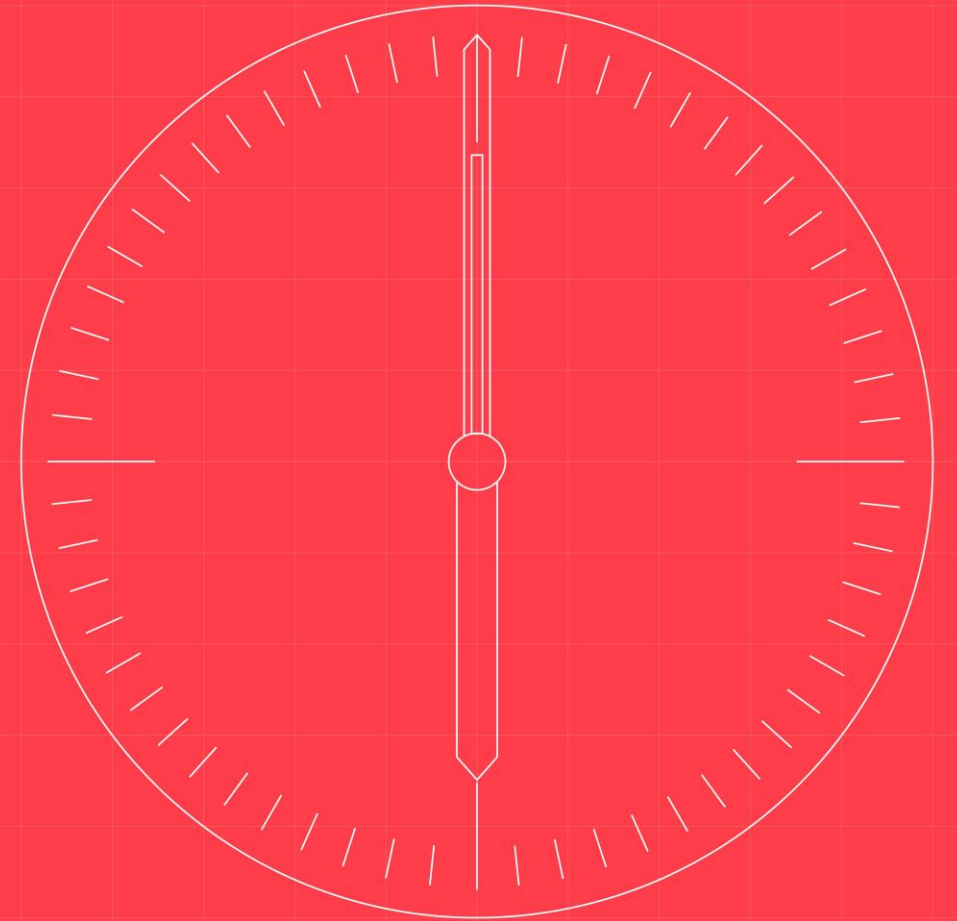
● On track      ● Complete  
● At Risk      ● To be determined  
● Not on track, at high risk

# Level 4 Working Group Updates

INFORMATION: Updates from design working groups

*Programme – Claire Silk*

*10 mins*



## MHHS Design- Level 4 Working Group Updates

- The [Design Artefact Tracker](#) is now available in the Design Document Library- this is a live document which will be maintained going forward to reflect the current status of all design artefacts.
- Work is ongoing to provide additional detail within the tracker including:
  - The number of comments received for each artefact and status of comments
  - Any outstanding design issues associated with each artefact
  - Expected DAG approval submission dates for each artefact
  - Technical and Security design artefacts to be added
- A forward view of the [Design Working Group Schedule](#) is also available in the document library- the schedule currently includes activity through to June and will be maintained to provide visibility of the following:
  - L3/L4 Design Governance meetings
  - BPRWG Review tranche release dates
  - Sub-Working Group paper dates and meetings

## BPRWG- Design Artefact Review

### Update on the Design Artefact Review by the Business Process & Requirements Working Group for March 2022

- **Tranche 1-** 707 comments received in 1<sup>st</sup> review period, of which 446 have been accepted, 44 rejected and the remaining 217 require further work to resolve. Updated design artefacts re-issued for 2<sup>nd</sup> review on 28<sup>th</sup> March.
- **Tranche 2-** Design artefacts comprising Service Appointments, MDS and VAS issued for 1<sup>st</sup> review on 4<sup>th</sup> April.
- Focus for April:
  - Addressing comments from Tranche 1
  - Sub-Group review of Tranche 3 design artefacts

## Technical Design Working Group

### Update on Technical Design Working Group activity for March 2022

- Initial DIP Functional Specification, Non-Functional Requirements issued as part of RFP.
- Work ongoing to draft the E2E Technical Architecture
- Focus for April:
  - Review End to End Architecture with TDWG
  - Support RFP Process

## Security Design Working Group

### Update on Security Design Working Group activity for March 2022

- Initial Security Requirements issued as part of RFP.
- Work ongoing to draft Security Artefacts
- Focus for April:
  - Review Security Artefacts with SDWG
  - Support RFP process

## Registration

### Update on Registration Sub-Group activity for March 2022

- Design activity progressed based upon the options agreed by DAG with regard to Service Appointments
- The following Business Process Diagrams and related interface specifications are due for release in Tranche 2:
  - Change of Supplier
  - Change of Agent- Metering Service
  - Change of Agent- Data Service
- Focus for April:
  - Addressing comments from Tranche 1
  - Change of Segment

## Elexon Central Systems (ECS)

### Update on Elexon Central Systems (ECS) Sub-Group activity for March 2022

- Working on all the ECS services focusing on MDS, VAS, DDE, ISD and ECS reporting
- Addressing all the Tranche 1 comments on LSS
- Focus on the production review of Process Diagrams/descriptions, requirements and method statements due for release in Tranche 2 in April:
  - Market-wide Data Service (MDS)
  - Volume Allocation Service (VAS)
  - Demand Disconnection Events (DDE)
- Focus for April:
  - Addressing comments on Tranche 1 and Tranche 2
  - Developing ISD and ECS reporting requirements for Tranche 3

## Cross Sub-Group Meetings

### Update on the Cross Sub-Group activity for March 2022

- Related MPAN's & Load Managed areas-meeting held on 3<sup>rd</sup> March
- Metering Service session held on 31<sup>st</sup> March
- Focus for April:
  - Data Service Requirements
  - Metering Service Requirements

## MHHS Design- Design Artefact Status Update- Tranche 1

Design Artefacts	Comment Status				
	Accepted	Action	Rejected	Requires Further Clarification	Total
BP004- Data Collection	36	13	4	1	54
BP005- Data Processing	25	16	4		45
BP006- New Connection	16	16	2	2	36
BP007- Disconnection	17	7	1	5	30
BP008- Change of Energisation Status	30	7	7	2	46
BP009- Change of Meter	26	10	5	4	45
BP010- Change of Registration Data	13	11	3	3	30
BP018- Load Shaping Service	16	6	3		25
BRS007- Load Shaping Service	22	9	2	1	34
METH005- LSS Process	43	11	2	8	64
IF005- Metering Service MTD Updates to Registration	31	18	4	2	55
IF006- Registration Service Notification of MTD Updates	21	12	1		34
IF007- Change of Energisation Status Outcome	13	1	3	1	18
IF008- Registration Service Notification of Change of Energisation Status	11	1			12
IF009- Registration Service Notification of Disconnection	6	1			7
IF018- Notification of Registration Data Item Changes	16	6		1	23
IF021- UTC Settlement Period Consumption Data	20	2	1		23
IF022- LSS Period Data	15	5			20
IF023- LSS Totals Data	20	9	2		31
IF026- Registration Service Notification of Supplier Data Chg	10	6			16
IF024- Supplier Advisory Notifications	8	9			17
IF025- Supplier Updates to Registration	22	7			29
IF041- Cumulative Meter Reading	9	4			13
<b>Grand Total</b>	<b>446</b>	<b>187</b>	<b>44</b>	<b>30</b>	<b>707</b>

Constituency	No. Organisations	Total Comments
Other- IT Service Provider	3	310
Supplier Agent- Independent	6	229
Central Systems Provider- Elexon	1	114
Supplier- Large	2	28
Distributor- IDNO	1	13
Distributor- DNO	1	7
Other- Code Body	1	6
Central Systems Provider- Smart DCC	0	0
National Grid ESO	0	0
Supplier Agent	0	0
Supplier- Small	0	0
Supplier- Medium	0	0
Supplier- I&C	0	0
<b>Total</b>	<b>15</b>	<b>707</b>

### Comments Status:

**Accepted** – comments are agreed and documents have been updated to reflect the changes  
**Rejected** - comments have been reviewed and considered and the MHHS programme team have confirmed that changes will not be incorporated into the design.

**Action** - Further discussions at sub group level or future actions are required in order for the changes to be incorporated into the design.

**Requires further clarification**- Further information is required before a decision can be taken to accept the change into the design.

### Commentary:

- Tranche 1 documents issued for second review from Monday 28<sup>th</sup> March to Friday 8<sup>th</sup> April
- The logical interface specifications have been published as supporting information for the Business Process Diagrams. Further review comments are requested in relation to the data items only. The physical file specifications will be issued for review at a later stage.
- In addition to the LSS documentation the LSS Business Process Steps have also been published as part of the Tranche 2 review for completeness.
- IF024- Supplier Notifications has been removed from this tranche pending further work and will be re-issued at a later stage.
- Activity to resolve comments in 'Action' and 'Requires Further Clarification' status is underway.



## MHHS Design- Design Artefact Status Update- Tranche 2

Document Type	Reference	Name / Description
Business Process Diagram	MHHSP-BP001	Change of Supplier
	MHHSP-BP002	Change of Service - Metering Service
	MHHSP-BP003	Change of Service - Data Service
	MHHSP-BP003B	Change of Existing Service Appointment Details
	MHHSP-BP013	Demand Disconnection Events
	MHHSP-BP019	Market-wide Data Service (ECS)
	MHHSP-BP020	Volume Allocation Service (ECS)
Interface Specification	MHHSP-IF-001	Notification of Change of Supplier
	MHHSP-IF-002	Registration Update to Supplier (COS Gain)
	MHHSP-IF-31	Supplier Service Appointment Request
	MHHSP-IF-32	Registration Service Response to Supplier Service App Request
	MHHSP-IF-33	Registration Service Request for Service Appointment
	MHHSP-IF-34	Service Provider Response to Appointment Request
	MHHSP-IF-35	Registration Service Notification to Supplier of Service Appointment
	MHHSP-IF-36	Registration Service Notification of Service of Appointment & Supporting Info
	MHHSP-IF-37	Registration Service Notification of Service De-Appointment
	MHHSP-IF-38	Customer Direct Contract Advisory
MHHSP-IF-39	Customer Direct Contract Advisory Response	
Business Requirements	MHHSP-BRS008	Market-wide Data Service (ECS)
	MHHSP-BRS009	Volume Allocation Service (ECS)
	MHHSP-BRS013	Demand Disconnection Events
Business Process Description	MHHSP-BPD013	Demand Disconnection Events
	MHHSP-BPD019	Market-wide Data Service (ECS)
	MHHSP-BPD020	Volume Allocation Service (ECS)
Method Statement	MHHSP-METH001	SDS Validation & Estimation
	MHHSP-METH001	Volume Allocation Service (ECS)
	MHHSP-METH001	Market-wide Data Service (ECS)
	MHHSP-METH001	Demand Disconnection Events

### Commentary:

- Tranche 2 Design Artefacts are currently under review with the Sub-Working Groups and are on target to be issued to BPRWG for review on **Monday 4<sup>th</sup> April**.
- The first review cycle will be for 2 weeks with the closing date for comments on **Friday 15<sup>th</sup> April**
- Design Artefacts will be published on the MHHS Portal with a Status of 'Under Review' and Action With 'BPRWG' and also publically available on the MHHS Website
- Comments Logs for the design artefacts will be available on the Portal [here](#), alternatively a Comment Form is available on the MHHS website and can be emailed directly to [Design@mhhsprogramme.co.uk](mailto:Design@mhhsprogramme.co.uk)
- The full [Design Artefact Tracker](#) has now been published on the MHHS Portal. This is a live document which will be maintained to reflect the current status of all artefacts.

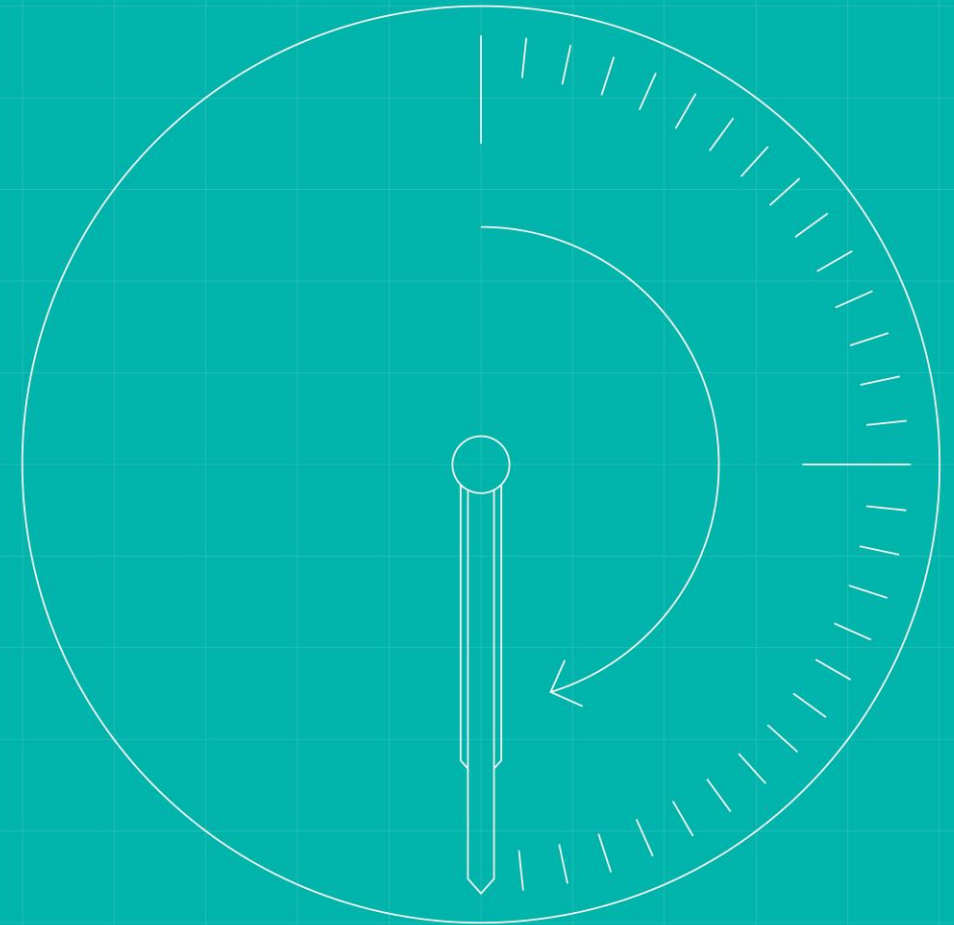
*NOTE: The above is a snapshot and is subject to change- please refer to the Design Artefact Tracker on the Portal for the live view of the artefacts assigned to each tranche.*

# Post Baseline Design Repository Tooling

**INFORMATION:** Provide information on arrangements for enduring management of design artefacts following completion of design activities

*Programme – Simon Harrison*

*10 mins*



Key to a design-led approach. Is intended to provide the industry and the programme with a common view of the design and to provide an enduring toolset to manage the services from baseline through to post-programme



### Model Driven Repository

- To capture all the design artefacts into one source of truth
- Model driven rather than document-based approach supporting a wide range of views for different users
- Supports model enrichment



### Quality

- Build a common language, and standard notation within a shared model
- Reduce repetition and different definitions as all models share the same objects and descriptions
- Provide traceability and links all models and artefacts to provide a robust design



### Collaboration

- Multiple users able to contribute
- Works without need for industry participants to have specialist tools, as it based on Microsoft365
- Integrate with programme management and team tools



### Change & Grow

- Manage change in one place and reflected across all models
- Design model will expand and develop being added to and more detail provided as the programme progresses
- Monitor progress and no of objects

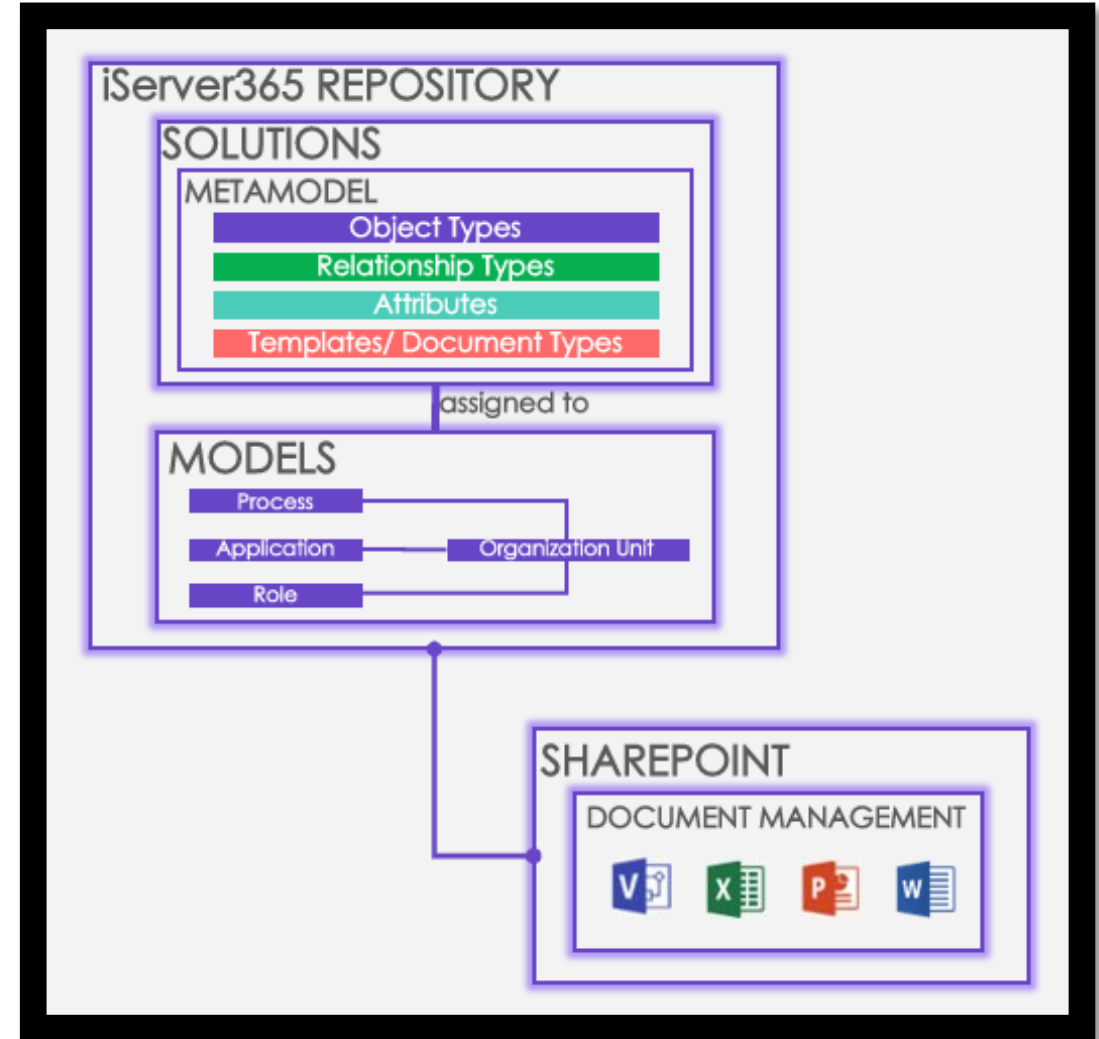
## Using iServer365 product from Orbus

- Built for Office 365, works directly with Visio, Excel, Word and SharePoint
- SaaS and browser based – no technical requirements for users (secured through SSO for MHHS Portal users), viewer licensing is inexpensive and scalable
- SharePoint approach allows for design content to be presented in relevant contexts with supporting materials and feedback workflows

Supports integration with Azure DevOps, which will be used by the programme for requirements and test management

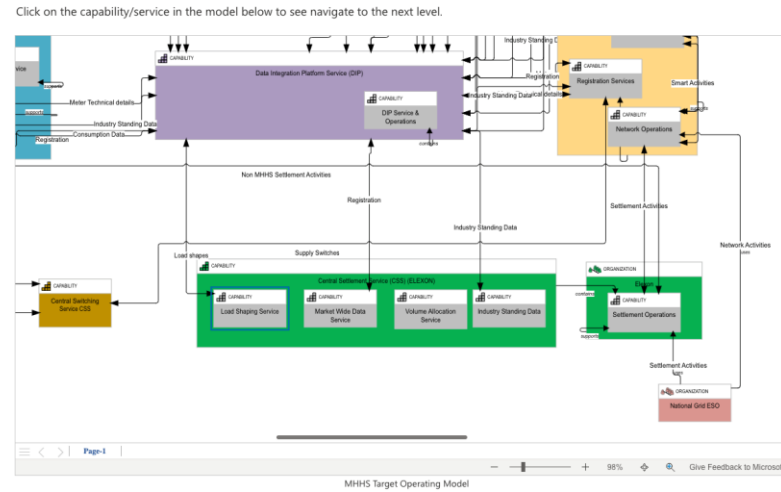
This will allow traceability through from models in the repository through to test results

It will also support post baseline change control to provide informed impact assessment and audit

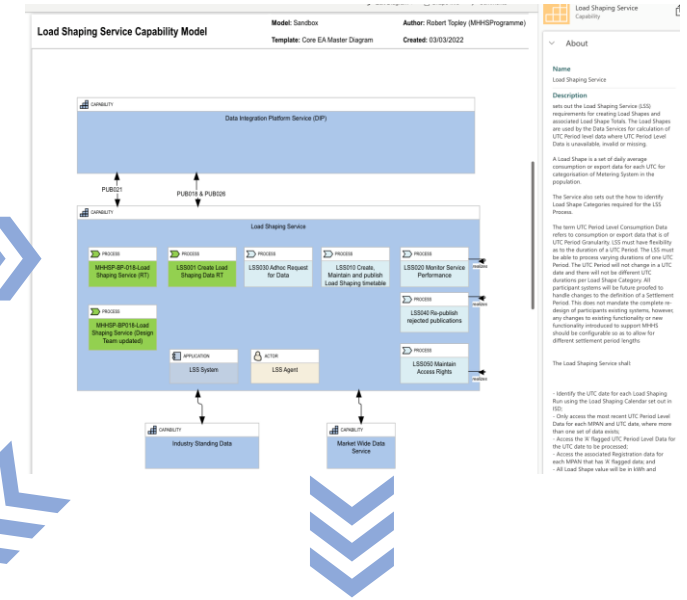


- We have a working model of the Load Shaping Service, Logical Interfaces, Data Model and the SharePoint front end for participants
- Modelling being done by the LDP Design Assurance team as part of our assurance activity – taking the documents from the working groups and creating models and requirements in Azure DevOps (and highlighting gaps or inconsistencies with notation or language conventions)
- Working in a pre-production model, will promote to fully change-controlled version at M5 design baseline
- Pulling together a user guide on how to navigate the content and provide feedback

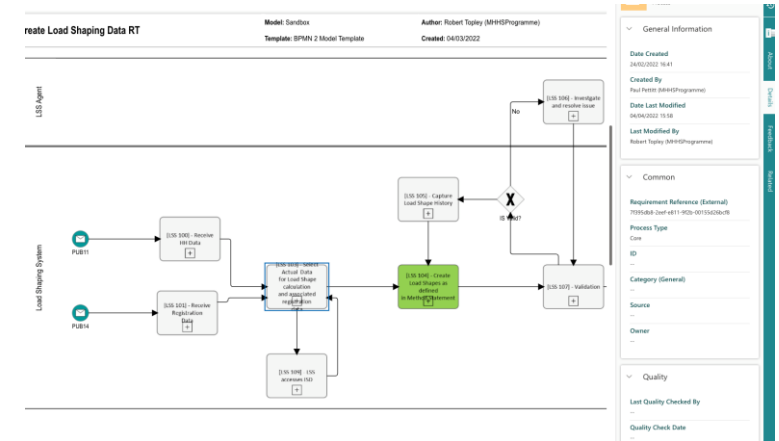
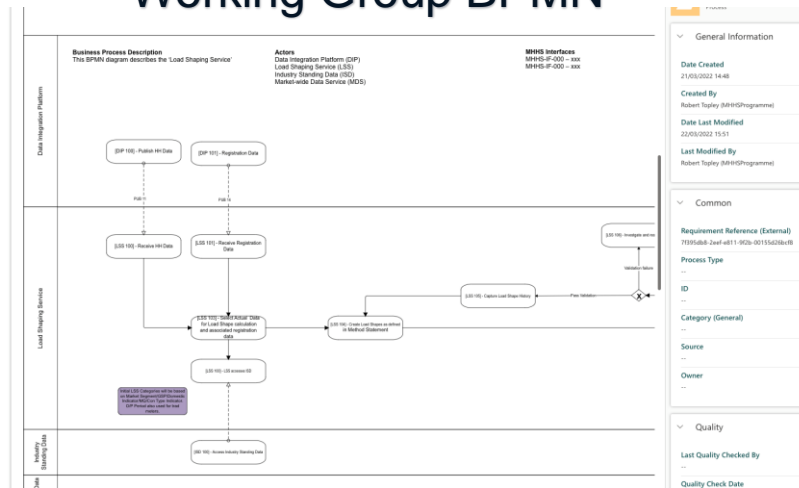
## TOM Model



## Service Model



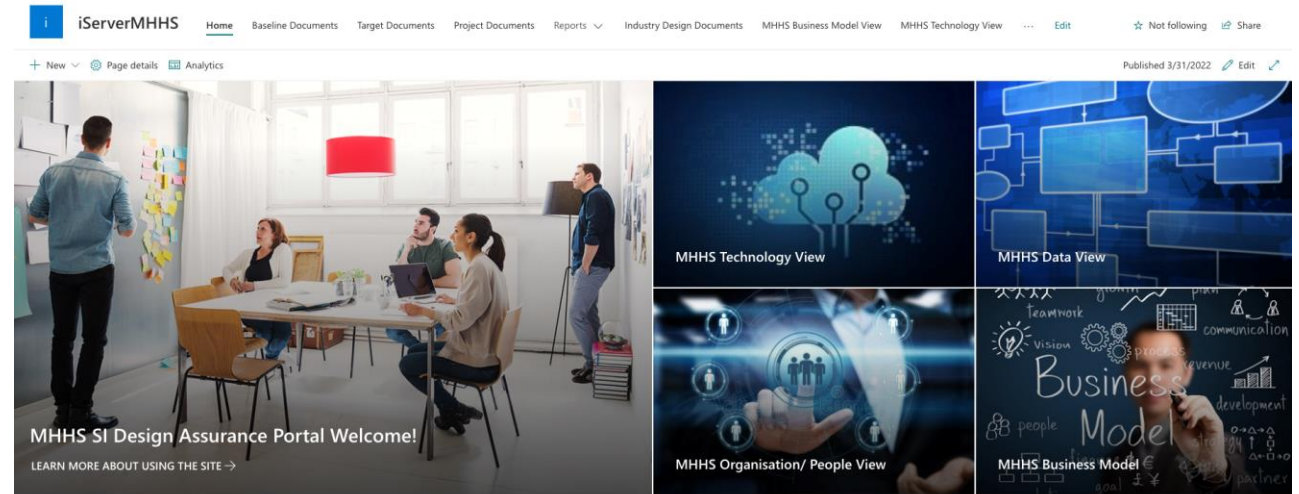
## Working Group BPMN



## iServer BPMN

## Roll Out

- Currently completing the first fit of the SharePoint front end, and loading the business process diagrams and interface content from tranche 1
- Sessions this week with SRO colleagues to bring them up to speed
- Seeking volunteers to be initial reviewers – looking for 5 to 10 participants to be the first members of our iServer user group to provide feedback on the tool and any additional requirements or challenges
  - Ideally a mix of technical and non-technical users from across constituencies
  - Join a monthly hour-long meeting
  - Specific to the tool, rather than the substance/content of the design itself
- Proposing roll out to all MHHS portal users by end of April
- Simon and Paul Pettitt will be present at the MHHS open day on 21 April to provide any interested participants with a hands-on show and tell



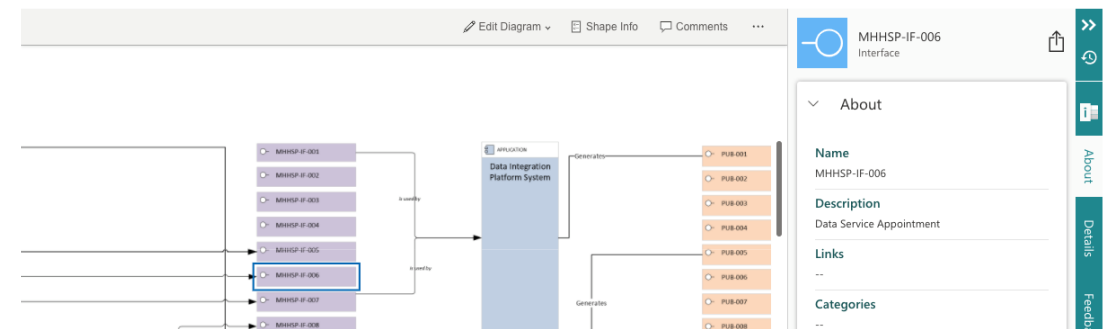
**Design Assurance Dashboard and Metrics**

PowerBI, performance and progress KPIs to be included here



Paul Pettitt (MHHSProgramme)

The Data view gives you a look at the overall data model, and information on the different data entities. You can drill down using this view to understand details and where data used/employed in applications, interfaces or services.

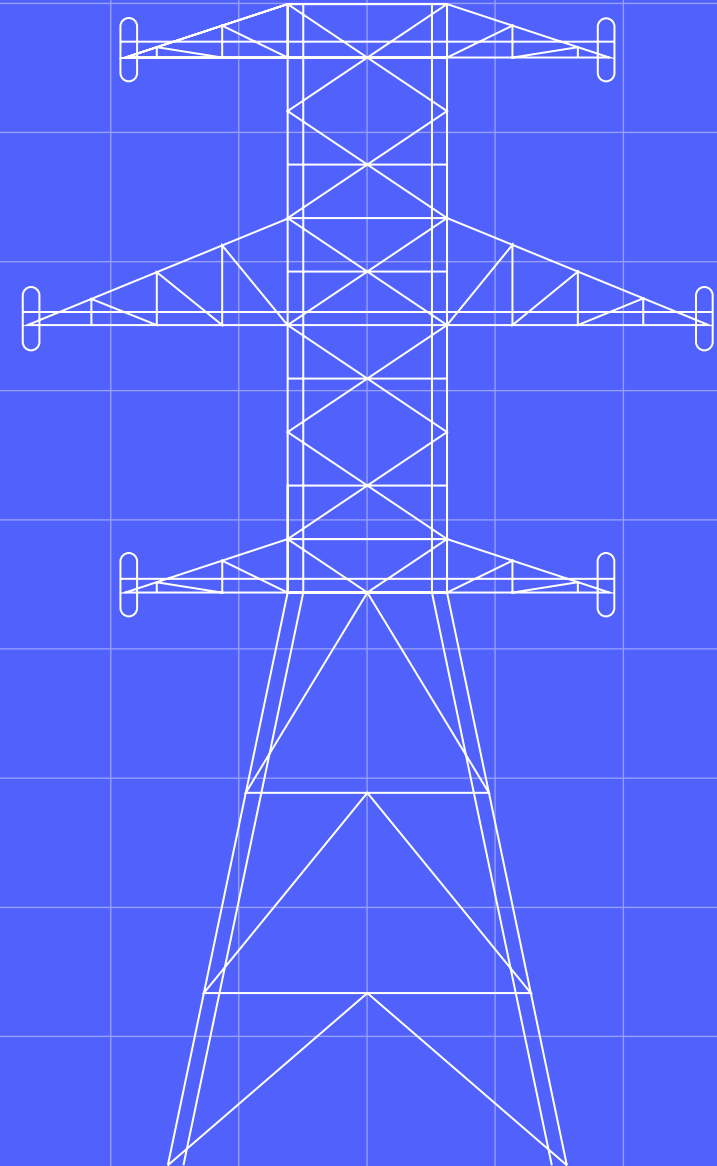


# Summary and Actions

**INFORMATION:** Summarise actions and plan agenda for next meeting

*Chair & Secretariat*

*10 mins*



# DAG Forward Look

## DAG Agenda Roadmap:

13-Apr	27-Apr	04-May**	11-May	25-May**	08-Jun**	22-Jun**	13-Jul**
	M5 (note CR001/002)				M5 (CR001)		
*Design Principles *Design Decisions *Level playing field principle updates (SECMP162) *Post baseline design repository tooling	*Design Principles *Design Decisions *Design artefact review (TBC) *Post baseline design repository tooling (TBC)	Tranche 1 approval (TBC)	*Design Principles *Design Decisions *Design artefact review (TBC) *Post baseline design repository tooling (TBC)	Tranche 2 approval (TBC) *Design Principles *Design Decisions *Post baseline design repository tooling (TBC)	*Design Principles *Design Decisions *Post baseline design repository tooling (TBC)	Tranche 3 approval (TBC) *Design Principles *Design Decisions *Post baseline design repository tooling (TBC)	Tranche 4 approval (TBC) *Advisory Group Report (TBC) *Residual Matters *Enduring Artefact Management *Provision for Re-Openers
*Minutes & actions *L2-3 governance group updates *L4 working group report	*Minutes & actions *L2-3 governance group updates *L4 working group report *Level Playing Field Principle	*Minutes & actions *L2-3 governance group updates *L4 working group report *Level Playing Field Principle	*Minutes & actions *L2-3 governance group updates *L4 working group report *Level Playing Field Principle	*Minutes & actions *L2-3 governance group updates *L4 working group report *Level Playing Field Principle	*Minutes & actions *L2-3 governance group updates *L4 working group report *Level Playing Field Principle	*Minutes & actions *L2-3 governance group updates *L4 working group report *Level Playing Field Principle	*Minutes & actions *L2-3 governance group updates *L4 working group report *Level Playing Field Principle

\*\*meeting dates to be confirmed

## Reminder: Working Group Schedule

### Level 4 Working Groups

Group	Frequency	Time	Duration
<b>BPRWG</b>	1st Wednesday of every month	1000-1200	Monthly
<b>SDWG*</b>	1st Wednesday of every month	1400-1530	Monthly
<b>TDWG*</b>	1st Thursday of every month	1400-16:00	Monthly

\*SDWG and TDWG form part of sub-groups on a monthly rotation

### Sub-working Groups

Group	Frequency	Time	Duration
<b>BPRWG Sub-groups</b>	Tuesday ( <i>Registration</i> )	1000-1300	Weekly
	Thursday ( <i>Smart or Advanced or Unmetered</i> )	1000-1300	Weekly
	Friday ( <i>Elexon Central Systems</i> )	1000-1300	Weekly
<b>TDWG Sub-Group</b>	Thursday	1400-1600	Weekly
<b>SDWG Sub-Group</b>	Wednesday	1400-1530	Fortnightly



## Next Steps

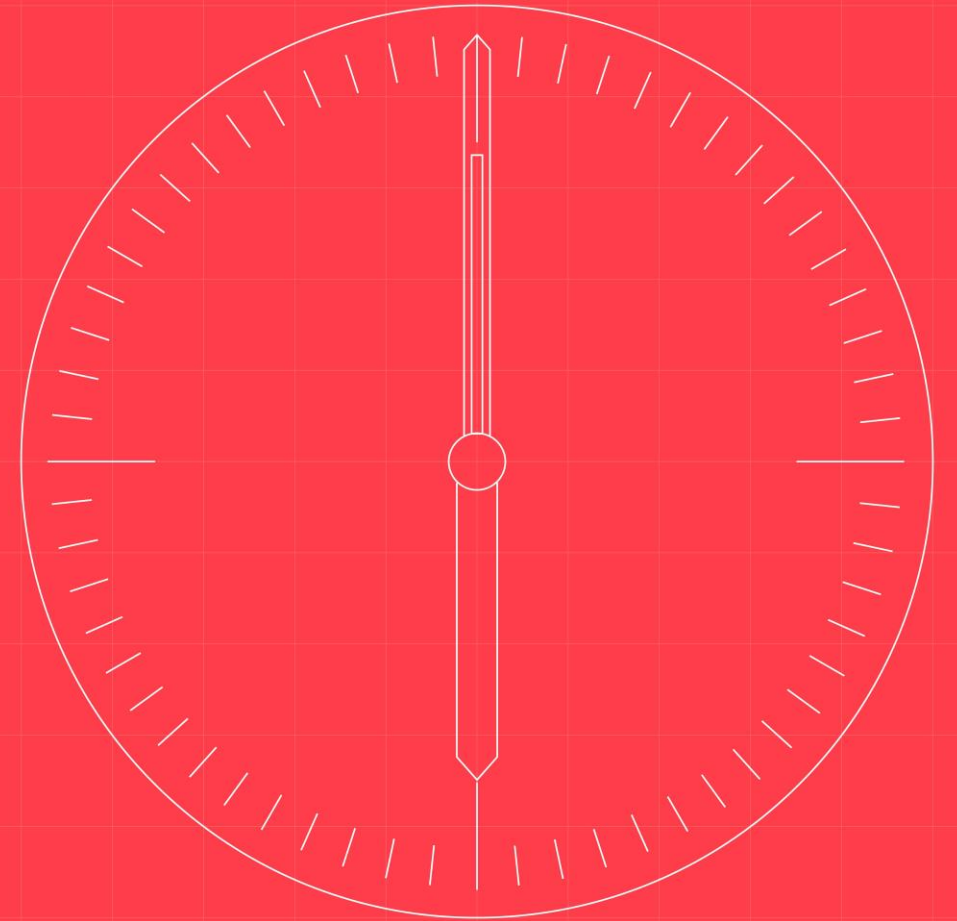
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- Confirm actions from meeting (Secretariat)
- Date of next DAG: 27 April 2022 13:00

If you would like to propose an agenda item for the DAG or would like any information about DAG working groups and subgroups, please contact the Programme PMO ([PMO@mhhsprogramme.co.uk](mailto:PMO@mhhsprogramme.co.uk))

# Appendices

## Appendix 1 - DIP Procurement Documents



## Appendix 1 – DIP Procurement Pack Documents

DAG07-05 23/03/2022 Chair to update DAG on the outcome of ACTION DAG07-05 relating to documents within the DIP procurement pack Programme (DAG Chair) 13/04/2022 RECOMMEND CLOSED - List of documents requiring review by DAG provided in Appendix 1 of meeting papers.

### Update:

- Table of procurement documents provided
- DAG will be asked to approve final versions of all technical documents (save MHHS Test Strategy)
- Estimated timeframe for submission to DAG is May
- Security Documents (information security, DPIA, quality management policies) to be issued later during procurement and DAG will be asked to approve final versions

Document	To be issued with RFP	Technical / RFP-specific
RFP Cover Sheet & Letter of Invitation	Yes	RFP
RFP Instructions to Bidders	Yes	RFP
RFP Specification	Yes	RFP
DIP Functional Specification	Yes	Technical
DIP Non-Functional Requirements	Yes	Technical
DIP E2E Security Requirements	Yes	Technical
RFP Selection Questionnaire	Yes	RFP
RFP Form of Technical Proposal (Response Format)	Yes	RFP
RFP Form of Case Study & Form of Key Personnel Bios Templates	Yes	RFP
RFP Form of Commercial Proposal (Pricing Format)	Yes	RFP
RFP Draft form of Contract	Yes	RFP
RFP Bidder Submission Checklist	Yes	RFP
RFP Bidders Clarification Log Template	Yes	RFP
Draft MHHS Test Strategy	Yes, for reference	Technical
Design Infosec Code of Connections Guidance	No, later	Technical
Design Data Privacy Impact Assessment	No, later	Technical
Design Service Management Policies (ISO 27001 etc)	No, later	Technical