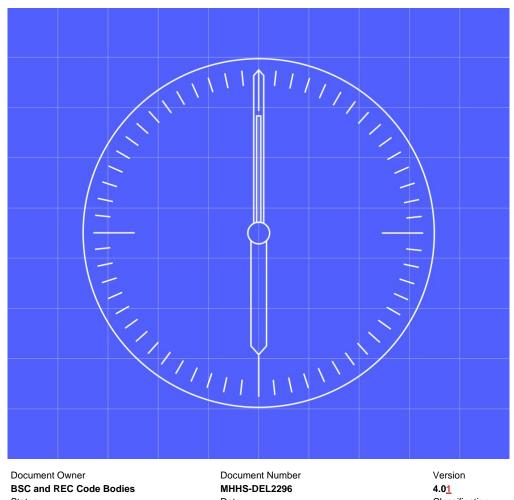
# **MHHS Qualification Assessment Document**



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# 2. House Keeping

### 2.1 Change Record

Date	Author	Version	Change Detail
16/02/2024	Elexon and REC Performance Assurance	0.1	Draft version for consultation, covering functional requirements only. This document has not been through the BSC and REC PAB governance process yet, and may require further updates to cover non-functional, migration, and operational requirements. The information provided may change, subject to review.
20/02/2024	Elexon and REC Performance Assurance	1.0	Final version, following updates from industry consultation, to present to BSC and REC PABs for approval.
07/05/2024	Elexon and REC Performance Assurance	1.1	Draft version for consultation, covering role specific guidance points.
02/07/2024	Elexon and REC Performance Assurance	1.2	Draft version for consultation, following updates from industry consultation as well as covering Non-Functional, Migration and Operational requirements and any updates relating to the Functional requirements.
06/08/2024	Elexon and REC Performance Assurance	2.0	Second draft of the second iteration – this document has been updated to reflect consultation comments for QWG review ahead of submission to QAG, BSC and REC PABs for approval.
13/08/2024	Elexon and REC Performance Assurance	3.0	Post QWG, this document has been updated to update DIP section ahead of submission to QAG, BSC and REC PABs for approval.
24/10/2024	Elexon and REC Performance Assurance	3.1	Updates made to make reflect changes in the BSC Assessment Criteria. This document has also had the DIP Section updated. It has also had housekeeping changes.
03/12/2024	Elexon and REC Performance Assurance	3.2	This document has been updated to reflect consultation comments for QWG review ahead of submission to QAG, BSC PAB
09/12/2024	Elexon and REC Performance Assurance	3.3	Updates made following QWG paper day, ahead of submission to QAG and BSC PAB for approval
17/12/2024	Elexon and REC Performance Assurance	3.4	Minor updates made removing some OPC and MHHS requirements for data service roles, ahead of publishing
12/02/2025	Elexon and REC Performance Assurance	4.01	Addition to Section 5.1.1 setting out additional criteria and expectations for participants that are seeking a SMS exemption.

### 2.2 Linked Documents

Name	Link
Qualification Approach and	https://www.mhhsprogramme.co.uk/testing/qualification/qualification-approach-and-
Plan	<u>plan</u>

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MHHS Qualification Glossary	MHHS Qualification Glossary	

#### 3. Document Instructions

The Qualification Assessment Document (QAD) is the mechanism through which all Programme Participants will provide the evidence required by Code Bodies for MHHS Qualification. Code Bodies expect Programme Participants to complete the QAD at an organisation level, covering all Market Roles they intend to operate within the new MHHS arrangements.

For further details on the Qualification process please refer to the Qualification Approach and Plan (QA&P) which sets out the purpose of MHHS Qualification during the MHHS Programme and the high-level plan and requirements for Programme Participants to undertake in relation to the Balancing and Settlement Code (BSC) and Retail Energy Code (REC).

To support the efficient review of evidence and to avoid unnecessary delay between the completion of Qualification Testing (QT) / MHHS Programme Systems Integration Testing (SIT) and MHHS Qualification being approved, evidence should be provided via an Initial QAD Submission and a Final QAD Submission.

A Programme Participant must provide the following in its Initial QAD Submission:

- Confirmation of Pre-Integration Testing (PIT) completion<sup>1</sup> (test completion report including defects that cannot be resolved through PIT with supporting work-off plans and agreement with Code Bodies where elements of PIT have been deferred for later completion), which is outlined in section 4.2.2,
- Confirmation that it has service designs/Local Work Instructions (LWIs) covering each relevant process, which
  is outlined in section 4.2.3.
- Details of operational readiness e.g. exception management etc, which is outlined in section 4.3, and
- · Other organisation specific information requested in the Initial QAD Submission (not reliant on testing).

Code Bodies will then review this information and work with the Programme Participant to clarify and assure that the information provided meets Code Body requirements for MHHS Qualification.

Once the Programme Participant has completed QT/SIT, it must provide its **Final QAD Submission** covering the following:

- Confirmation of QT/SIT completion (test completion report including defects that cannot be resolved through SIT/QT with supporting work-off plans that have been agreed by Code Bodies), which is outlined in section 4 2 4
- Confirmation that it has completed DIP User requirements e.g. information security responses reviewed and
  agreed by DIP Manager and any contractual agreements, required between the Programme Participant and
  the DIP Manager to become a DIP User, have been signed (this includes DIP Connection Providers operating
  on a Programme Participant's behalf), which is outlined in section 4.5.

All sections must be completed during the **Initial QAD Submission**, and verified for the **Final QAD Submission**, unless stated.

The relevant MHHS requirements are provided for reference only, and Participants are not expected to delineate their responses for each MHHS requirement. Participants should respond to the specific questions in the form, using the guidance provided.

<sup>&</sup>lt;sup>1</sup> For Non-SIT LDSOs, as Non-Functional PIT is not due to be completed until 30th September 2024 and their Initial QAD Submission is due by 10th October 2024, therefore Code Bodies acknowledge that whilst Non-SIT LDSOs should have their PIT TCR and submit it as part of their initial QAD submission however, the Non-SIT LDSO QT Team may not have completed assurance of PIT yet.

The **Final QAD Submission** must be signed by a Company Director (or delegate for roles governed only under REC) to confirm that the information and evidence provided is complete and accurate.

Acronyms and defined terms used across the MHHS Programme are hosted in a MHHS Programme artefact - MHHS Qualification Glossary, and further terms relating to qualification are defined in 'Appendix A – Glossary' of the Qualification Approach and Plan.

[Although Code Bodies have provided a Word version of the QAD for this consultation, the format of the QAD submission is likely to change to an electronic version which has been demonstrated as part of the QAD Portal Webinar. Please note that Code Bodies will provide further guidance on the evaluation criteria for each section as part of a QAD walkthrough webinar and within the electronic version.]

## 4. Organisation Section

### 4.1 Company Sign Off

To be completed in final submission of the QAD

Name	of Programme Participant Organisati	on:			
Except	for the matters detailed below (delete if	not applicable), having ma	nde appropriate enquiries of oth	ner directors and officials of the organisation, I confirm th	nat:
1)	The information and evidence provided or for any other reason.	d in this Qualification Asses	ssment Document is true and a	ccurate and not misleading because of any omission or	ambiguity
2)	•			ate reflection for our arrangements for MHHS live operat iled in 7.3.7 of the Qualification Approach and Plan.	ions, and I
3)	The arrangements as documented are about by Marketwide Half-Hourly Settle		to deliver and operate our in-se	cope service(s) in-line with the BSC and REC obligation	is brought
Please	detail any exception(s) here:				
Appro	ved by				
Print I	Name Si	gnature (Electronic)	Position	Date	_

Note: Signed by Authorising Director i.e. a registered Director of the company (verifiable with Companies House, or in the case of a non-UK company a person having an equivalent position)

### 4.2 Testing Declaration and Evidence Submission

Questions	Guidance Points	Participant Response
4.2.1. Please confirm if there have been any changes to the information provided in the Pre-Qualification Submission form, or Placing Reliance Proposal, if you submitted one.	[Yes/No/Not Applicable]  If yes, please provide an updated Pre-Qualification Submission or Placing Reliance form, highlighting the parts that have changed.  If you were not required to submit a pre-qualification	
4.2.2 Please confirm the system(s) you are using are as outlined in your Pre-Qualification Submission form, or Placing Reliance Proposal, if you submitted one.	submission, then please select N/A.  If there have been any changes, provide details and attach any updated documentation if available.	
4.2.3. Please confirm that for each MHHS requirement, you have successfully completed the relevant testing requirements in Pre-Integration Testing (PIT) to satisfy the BSC and/or REC Assessment Criteria, have provided PIT documentation including an approved MHHS-DEL1052 PIT Test Completion Report, and where applicable, agreed a work-off plan with the REC and BSC Code Managers for any outstanding defects.	[Yes/No]  If no, please detail which requirements you have not successfully completed testing for, and any mitigation or alternative evidence you have agreed with the relevant Code Bodies.  If you have agreed a work-off plan, please provide an update here of the latest status of agreed actions.  Your PIT Approach and Plan should have included your defect identification and resolution policy, release management policy, and regression testing policy; if it does not, please provide these separately.	
4.2.4. Please confirm that all relevant process documentation, including Local Work Instructions (LWIs) for operatives have been updated for all business processes required to meet the BSC and REC MHHS assessment criteria.	[Yes/No]  If you have made all the relevant changes to your LWI's, then yes is an acceptable response.  If no, please detail expected timeframes to complete these updates; these should be completed by the final submission of the QAD.	

	These updates should cover all of the 'Business Processes' relevant to your role(s) from Section 5 of the QAD.	
To be completed in final submission of the QAD	[Yes/No]	
4.2.5 . Please confirm that for each testable MHHS requirement, you (and/or your third-party software provider) have successfully completed the relevant testing requirements in SIT or QT, and where applicable, agreed a work-off plan with the REC and BSC Code Managers for any outstanding defects.	If you and/or your third-party software provider have successfully completed the relevant testing for each MHHS requirement, then yes is an acceptable response.  If no, please detail which requirements you have not successfully completed testing for, and any mitigation or alternative evidence you have agreed with the relevant Code Bodies.  If you have an agreed work-off plan, please provide an update here of the latest status of agreed actions.	

#### 4.3 Operational Readiness

Questions	Guidance Points	Participant Response
4.3.1 Please provide details on your user readiness plan to ensure that operatives will be able to perform the new and updated processes during live operations.	This should include plans for additional training, guidance documentation, user testing, dress rehearsals, and post go-live monitoring. For the initial submission of the QAD you should outline timeframes for planning, creating, and executing these activities, and in the final submission of the QAD you should outline the latest status of these activities. You may wish to provide a written summary of these planned activities, and/or upload relevant supporting documentation outlining this.	
4.3.2 What adjustments, if any, are required in your organisation's resource to meet the changes brought about by MHHS, and how does your organisation intend to fulfil these requirements?	This response should include a resourcing plan, specifically highlighting areas in which you would like to onboard expertise. Please reference changes	

	required for both the migration period and post-migration activities.	
	For the initial submission of the QAD you should outline the expected timeframes for planning, creating, and executing a resourcing plan, and in the final submission of the QAD you should provide an update on the specific resourcing plan.	
	You may wish to provide a written summary of these planned activities, and/or upload relevant support documentation outlining this.	
4.3.3. How will you ensure that the cutover to the new and updated processes does not cause disruption to prevent you from meeting your obligations as set out in the BSC and/or REC (as appropriate)?	If an issue does arise during the cutover when you begin migrating, how will you ensure that it does not produce a failure to meet the BSC and/or REC obligations?	
4.3.4. Please provide details on your systems and	Your response should include:	
processes to ensure the dual running of pre-MHHS and post-MHHS systems and processes?	To what extent you will be operating with similar or different systems for migrated and non-migrated meter points.	
	Where you will be operating with both migrated and non-migrated meter points, how you will ensure your systems capture whether a meter point is migrated, hence which business processes should be followed.	
	Any additional monitoring or early-life support activities you will complete to ensure that the correct business processes for migrated and non-migrated meter points are being followed.	
	New Entrants who are not Qualified in a legacy role should respond "N/A".	
4.3.5 What controls will you have in place to ensure you don't exceed migration thresholds?	You should provide details of steps you have taken/are taking to ensure you have made the	

(Applicable to Suppliers Only)	required changes to meet and support the MHHS Requirements.	
	You should list and explain your limitations to any migration thresholds, ensuring to advise what plans and processes you have in place to monitor them please also advise the level of resource that is required	
4.3.6 Please provide confirmation that you will adhere to volumes and timelines agreed in your migration plan. (Applicable to Suppliers Only)	Ensure your response includes a commitment to the specified volumes, meeting deadlines, monitoring progress, and communicating updates.	
4.3.7 What controls will you have in place to ensure you will adhere with the requirements as defined in the Migration Framework and the Migration Schedule agreed between your organisation and the Migration Control Centre?	A mechanism is required to select candidate MPANs for migration over time that adhere to the volumes agreed within the migration plan. Similarly, mechanisms and processes will be required to enable the consumption of capacity envelopes / guidelines and the subsequent production of migration plans that adhere to the Migration Framework.	

#### 4.4 Information Security and Data Protection

Questions	Guidance Points	Participants Response
4.4.1. How will you ensure that you have comprehensively identified and effectively assessed all information security and data protection risks associated with your in-scope services that were updated in line with the BSC and REC obligations brought about by MHHS?	Provide an impact assessment or risk register detailing security and data risk associated with the changes brought about by MHHS, including risk scoring, owners, applicable controls and mitigating actions.  Where applicable, provide risk treatment plans detailing the response to any risk associated with MHHS requirements and code obligations.	

#### 4.5 Data Integration Platform (DIP)

Prior to moving to the production environment, the DIP Manager will review the following section in adherence with DSD002 requirements.

It is accepted that Programme Participants can adopt a myriad of different system designs in meeting the MHHS requirements, however, it is recognised that the designs will generally fit into one of two patterns. The first pattern is where Participants have a single system responsible for running and orchestrating the business process as well as interfacing directly to the DIP - a single primary architecture. The second pattern is where participants will utilise the services of a DCP (DIP Connection Provider) to provide the interface to the DIP typically to their own back-end primary system - a hybrid architecture. The scope of Participant's QAD submissions must include the entire architecture; be it either a simple single primary architecture, or a more complex hybrid architecture. If a hybrid design is adopted, then the material must cover all components including DCP details as it is the complete system that defines the end-to-end system security, reliability and performance.

Participants also need to be aware that DCP systems do not qualify for MHHS access in their own right. Hence, individual participant submissions cannot reference other submissions or SIT evidence where their DCP may have been involved, i.e. each QAD submission must stand-alone solely on the evidence provided.

Questions	Guidance Points	Participants Response
4.5.1. Provide evidence of compliance with ISO 27000 series (note: or equivalent provision in accordance with the DIP Rules) (Include DCP if applicable)	Most large organisations will have company specific documents that are required for ISO27000 compliance and hence providing evidence should not be an issue	
	Where companies are not ISO2700 compliant then submissions should contain company documents covering the following areas:  Penetration Testing & vulnerability management. Cyber incident response plan that would typically follow NCSC Guidance.	
4.5.2. Provide evidence of process for retaining all audit logs of basic user activities (e.g., logon, logoff, failed attempts) and security events for all	Your Response should evidence retaining all audit logs of basic user activities (e.g. logon, logoff, failed attempts); and	

information systems and services that interact with the DIP (Include DCP if applicable)	Security events for all information systems and services that interact with the DIP Provide an overview of your process in place to retain any security events for all information systems that interact with the DIP	
4.5.3. Provide an overview of your process in place to retain any security events for all information systems that interact with the DIP. (Include DCP if applicable)	Devide Decomposition of decimal	
4.5.4. Provide evidence of logical network schematic of the information systems and services in scope that interact with the DIP, and include:  a. services and functionality; b. gateway/boundaries functionality (Include DCP if applicable)	Provide Documentation of design – e.g. logical design, physical design specifications, System Schematics – diagrams Including:  Security- firewalls, networks, etc Connectivity to DCP Instance separation - prod vs non-prod, DCP to MP back-end system Resilience – e.g. failover Backup Audit Service Availability - 98%, outside planned outage (unless otherwise defined)  Service Recovery In the event of an unplanned outage, each service shall be able to resume operation within 1 hour. Zero data loss - How RPO of 0 is achieved	

4.5.5. Provide evidence that DIP Users		
systems are backed-up in accordance		
with best practice – demonstrable by		
adherence to ISO 27000 series		
processes and production of written		
process to back up systems, to include		
logical process diagrams;		
(Include DCP if applicable)		
4.5.6. Provide an overview of your	Your response should include	
process in place for DIP specific Key	documentation on how keys are stored	
Management.	and managed.	
(If applicable this will include how keys	As well as Assignment of Certificate	
are transferred for DCPs)	admins and renewing and ensuring	
	integrity of certificate admin role.	
	Any interaction with DCP and division of	
	responsibility in managing certificate	
	should also be evidenced.	
	Should also be evidenced.	
4.5.7. Provide an overview of	The submissions will need to include	
processes, protocols, and liabilities	DCP details (DCPs are not qualified)	

between the DIP User and DCP where applicable.	Processes, protocols and liabilities between the DIP User and their DCP, demonstrable by production of written documents (within limits of confidentiality); If the applicant is not willing to share the contract, then it may be evidenced by summary document of salient points. Ensure the DCP is ISO 27001 compliant.	
4.5.8. Provide evidence that your systems have the ability to store data received via the DIP for at least two years?		
4.5.9. Provide details of the following documents and processes that you have in place to ensure your compliance with data protection legislation:  a. Relevant data protection policies, b. Relevant data protection processes, and c. Where applicable, data protection impact assessments.	Follow NCSC Guidance – incident management & response Written processes as applicable	
4.5.10. Provide documentation to show an overview of your contingency plan in place for;  a. Data breaches, b. Security events, and c. Other emergencies in relation to DIP data.	Response should also cover Security events for all information systems and services that interact with the DIP	
4.5.11. Provide evidence that you are aware of your responsibilities as a Data Controller and/or Processor in		

accordance with relevant Data Protection Legislation.		
4.5.12. Provide logical architectural schematics and/or descriptions (or equivalent documentation) evidence that in the event of a single component failing there will be no data loss. (Include DCP if applicable)	Your response should show both Participant and DCP systems (included with 4.5.4 above)	
4.5.13. Please self-declare whether you have updated your systems and business processes to ensure that you will  - ensure services that interface with the DIP have an availability of 98% outside planned outage periods  - Ensure you do not plan outages within the Secured Active processing window  If you cannot self-declare you will meet these requirements, please confirm by when you expect to be able to make this self-declaration.	As 4.5.4 above	
4.5.14. Have you signed the Access Agreement with the DIP Manager if you are not a BSC Party?	Please ensure you sign the access Agreement if you need too. This must be completed prior to your final QAD submission	
If not - this must be completed prior to your final QAD submission (see DSD002 Annex Four)		

### 4.6 Interface Management

Data Management	Questions	Guidance Points	MHHS requirements	Participant Responses
Area				
4.6.1 <b>Data</b>	What controls and procedures	Your response should capture the	MHHS-BR-SU-121	
Integration Platform	do you have in place around	controls you have in-place, with	MHHS-BR-SU-122	
(DIP)	Market Message	regards to the DIP Interface, to	MHHS-BR-SU-123.1	
	management to ensure they	ensure that you will continue to meet your wider BSC and REC	MHHS-BR-SU-123.2	
	are robust and appropriate to	requirements.	MHHS-BR-SU-124	
	meet the BSC and REC	requirements.	MHHS-BR-SU-126	
	obligations brought about by MHHS that are relevant to	For example, this may include the	MHHS-BR-SU-127	
	your role(s)?	monitoring controls and escalation	MHHS-BR-SU-128	
	your role(s)?	process you have in place for	MHHS-BR-SU-129	
		missing or erroneous DIP	MHHS-BR-SU-140	
		interfaces.	MHHS-BR-LD-058	
			MHHS-BR-LD-059.1	
		You should also reference how you	MHHS-BR-LD-059.2	
		have implemented processes around recovery processes and	MHHS-BR-LD-062	
		data backups to ensure that in the	MHHS-BR-LD-063	
		case of any interruption to your	MHHS-BR-LD-064	
		access to the DIP, you will be able	MHHS-BR-MS-070	
		resume your key business	MHHS-BR-MS-071.2	
		processes when the interface is	MHHS-BR-MS-072	
		restored.	MHHS-BR-MS-073	
			MHHS-BR-MS-073.1	
		Your response may include controls in systems directly to the DIP, or	MHHS-BR-MS-074	
		middleware such as the DIP	MHHS-BR-MS-075	
		adapter.	MHHS-BR-MS-083	
			MHHS-BR-MS-091	
		Additionally, you may wish to	MHHS-BR-DS-138	
		provide a written summary of these	MHHS-BR-DS-139.1	
		processes and controls, and/or	MHHS-BR-DS-139.2	
		upload relevant support	MHHS-BR-DS-143.1	
		documentation outlining these.	MHHS-BR-DS-144	
			MHHS-BR-DS-157	
			MHHS-BR-RS-135	

		NB: This question is not intended to capture the DIP Non-Functional Requirements, which are covered in Section 4.5 Data Integration Platform.		
4.6.2 Data Transfer Network (DTN)	a) How is your connection to the DTN maintained to send and receive flows?	For Question 4.6.2 A - Your response should include the following:  - How you interface with the DTN i.e. what systems do you use to send and receive DTN flows.	MHHS-BR-SU-137 MHHS-BR-SU-138 MHHS-BR-RS-143 MHHS-BR-MS-081 MHHS-BR-MS-083 MHHS-BR-DS-149 MHHS-BR-DS-157	
		NB: The purpose of this and the next question is to provide further context for the rest of the DTN questions and role-specific questions; it may be easier to answer these questions together.		
	b) What systems do you use to send DTN flows and what automation steps do you have in place?	For Question 4.6.2 B - Your response should include the following:  - Which systems are used to route and process inbound and outbound DTN flows  - To what extent the routing and processing of DTN flows is automated, or manual  - For elements of this process which are manual:  O What training and documentation will be provided to operatives to ensure they understand how		

	to operate these processes?  Will they be managed onshore or off-shore?  What monitoring controls will you have in place to identify where manual intervention is needed	
c) What are your validation steps for DTN flows received via the DTN?	For Question 4.6.2 C - Your response should include the following:  - Validation mechanisms in place to verify that the information received is correctly formatted and that you will be able to process it  - Additional business process controls in place to identify where there are discrepancies between the data received and what you expected, then how the required next steps are identified e.g. updating internal records, or requesting clarification from the sending party	
d) How are details updated and maintained onto your system?	For Question 4.6.2 D - Your response should include the following:	

		<ul> <li>Monitoring controls you have in place to ensure that where required, DTN updates have been reflected throughout your systems in a complete and accurate manner?</li> <li>Where you identify that DTN updates have not been captured and</li> </ul>	
e)	, ,	reflected throughout your systems, how will you ensure your systems and records are then appropriately updated?  For Question 4.6.2 E - Your response should include the	
	your systems and processes regarding DTN flows to reflect the new MOA and Data Services Market Roles?	response should include the following:  - For DTN flows both in the scope of MHHS Testing and not in the scope of MHHS Testing, there have been new scenario variants added to reflect the new MOA and Data Services roles. How have you ensured that you have updated your systems and processes to capture these new roles and variants.	
f)	How have you tested the DTN flows and to what extent?	For Question 4.6.2 F - Your response should include the following:  - For DTN flows not in the scope of MHHS Testing, there have been new scenario variants added. Additionally, the changes	

		you have made for MHHS may have had further consequential impacts on how data from, and for, other DTN flows is captured, processed, and stored. Have you performed any testing over these other DTN flows, else how will you ensure they will continue to function as expected.		
4.6.3 Industry Standing Data (ISD)	What controls do you have in-place to ensure that ISD updates are captured within all relevant systems to support wider business processes?	What monitoring controls do you have in place to ensure that ISD updates have been reflected throughout your systems in a complete and accurate manner?  Where you identify that ISD updates have not been automatically captured, how will you ensure your systems and records are then appropriately updated?	MHHS-BR-SU-123 MHHS-BR-LD-059 MHHS-BR-MS-071 MHHS-BR-MS-071.1 MHHS-BR-DS-069 MHHS-BR-DS-139	
4.6.4 Electricity Enquiry Service (EES)	Will you require access to the Electricity Enquiry Service to receive up-to-date Electricity Market information, and if so, do you have the required access you need via the GUI and/or API? Else, will you make an application for the access you need?	Electricity Market Participants can access EES via a variety of methods, including a GUI, API, and via Bespoke Reports.  The changes to your systems and processes may require you to receive information from EES differently from how you currently receive it. Therefore, please confirm whether you already have the access that you will need to	MHHS-BR-SU-139 MHHS-BR-DS-156 MHHS-BR-MS-090	

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EES, else outline when you will apply for updated access.
Additionally, if you have access to the EES API please confirm that you will update your interface inline with the new technical specification e.g. will be able to process queries that return additional data items compared to currently.

## 5. Role-Specific Sections

Please ensure you directly answer each question, including the specific areas noted in the guidance points.

### 5.1 Supplier

#### 5.1.1 Business Processes

Process Area	Questions	Guidance Points	MHHS requirements	Participant Responses
5.1.1.1 Initial Registrations, including New Connections In line with MHHSP- BP001, MHHSP- BP002, MHHSP- BP003	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	For Question 5.1.1.1 A - Your response should include the following:  • A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT. This could be because, for example, you have made changes to upstream, downstream, and/or interfacing systems which have not been captured within the scope of the functional test scenarios and scripts but will form part of the wider business process requirements as defined in the BSC and REC Codes. Additionally, this may be because you are placing reliance on testing completed by	MHHS-BR-SU-001 MHHS-BR-SU-004 MHHS-BR-SU-019 MHHS-BR-SU-048 MHHS-BR-SU-048.1 MHHS-BR-SU-049	

b) Excluding the functional elements tested in PIT/SIT what further changes have made to your E2E busines process? (e.g. to inputs,	How you will obtain registration	
workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made,	Any controls in place to monitor and resolve missing/erroneous DIP	

other MHHS Participants for

	c)	E2E business process (e.g. E2E process changes tested in own UIT environment)  What controls do you have in place to monitor for missing or erroneous DIP interfaces, particularly regarding the IF001 and IF002 that should coincide with the CSS2370.	IF002 and any other flows you deem relevant in your response.  For Question 5.1.1.1 C - Your response should include the following point;  • Method(s) to request MPAN creation from the DNO when a new connection is required, and how you will ensure you include the following information in your request: Connection Type, Energy Direction, Metered/Unmetered Indicator, Market Segment		
	d)	How will you ensure that you capture all of the information required in the Secure Data Exchange Portal (SDEP) message requesting the DNO to establish a new metering point?			
5.1.1.2 Appointment with Change of Supplier  In line with MHHSP-BP002, MHHSP-BP003	a)	Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.1.1.2 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> </ul>	MHHS-BR-SU-002 MHHS-BR-SU-005 MHHS-BR-SU-006 MHHS-BR-SU-007 MHHS-BR-SU-008 MHHS-BR-SU-010 MHHS-BR-SU-011 MHHS-BR-SU-011 MHHS-BR-SU-012 MHHS-BR-SU-013 MHHS-BR-SU-014 MHHS-BR-SU-015 MHHS-BR-SU-016 MHHS-BR-SU-017	

	<ul> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-SU-019 MHHS-BR-SU-059 MHHS-BR-SU-106 MHHS-BR-SU-107 MHHS-BR-SU-135 MHHS-BR-SU-136 MHHS-BR-SU-158 MHHS-BR-SU-159 MHHS-BR-SU-160	
b) What controls do you have in place to verify that a Qualified Data Service and/or Metering Service is appointed for the relevant Market Segment from the Registration Effective From Date (EFD)?	For Question 5.1.1.2 B - Your response should include the following:  Method(s) to identify and appoint a Qualified Data Service and/or Metering Service to the relevant Market Segment, and ongoing monitoring controls to ensure the correct appointment is in place.		
c) What controls will you put in place to manage Supplier Agent activities to ensure the end-to-end process is carried out within MHHS defined timescales. This includes:  a. Data Services activities e.g. sending Consumption data b. MOA activities e.g. sending MTDs	For Question 5.1.1.2 C - Your response should include the following:  • Controls to ensure Supplier Agent Activities are carried out in line with MHHS defined timescales and messages are processed within 60 minutes of receipt, outlined in the operational choreography. Controls may include ongoing monitoring processes and follow-up communication where activities are delayed. Please refer to both:  • Data Service activities • MOA activities		

	d)	How will you identify when you need to raise a dispute to switch meter reads given the amendments to the triggers for raising a dispute, the extension of the application to cover half hourly metering point?	For Question 5.1.1.2 D - Your response should include the following:  • Methods to identify raising a dispute to switch meter reads.		
	e)	How will you identify when you need to raise a dispute to switch meter reads given the amendments to the triggers for raising a dispute, the extension of the application to cover half hourly metering point?	For Question 5.1.1.2 E - Your response should include the following:  • Controls to ensure a dispute is identified, raised and resolved as early as possible.		
	f)	What controls do you have in place to ensure the end-to-end process is carried out within MHHS defined timescales as outlined in the Operational Choreography and baselined in the relevant codes?	For Question 5.1.1.2 F - Your response should include the following:  • Processes to identify any discrepancies between metering details received from the SMRS, and information from the Metering Service, and how these discrepancies will be flagged to the appropriate agent in a timely manner		
	g)	How will you identify discrepancies between metering details received from SMRS with information from the Metering Service?			
5.1.1.3 Appointment without Change of Supplier	a)	Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs,	For Question 5.1.1.3 A - Your response should include the following:  • A disclosure of changes to systems and processes which have not	See Q2	

In line with MHHSP-BP002, MHHSP-BP003	workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	been tested as part of PIT/SIT/QT, as above.  • Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.  • How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.  • If there are no relevant additional changes to disclose for this business process, please write "N/A".		
	b) Please note where controls are different to those in Q5.1.1.2.	For Question 5.1.1.3 B - Your response should include any additional controls you have in place to manage appointments that were not outlined in Q5.1.1.2.		
5.1.1.4 Change of Market Segment In line with MHHSP- BP011	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to the E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how	For Question 5.1.1.4 A - Your response should include the following:     A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.      Any instances where you have opted out of receiving DIP	MHHS-BR-SU-021.1 MHHS-BR-SU-022 MHHS-BR-SU-097 MHHS-BR-SU-098 MHHS-BR-SU-099 MHHS-BR-SU-100 MHHS-BR-SU-101 MHHS-BR-SU-102 MHHS-BR-SU-103	

have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	Publications, and how you will ensure you will receive this information.  How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.  If there are no relevant additional changes to disclose for this business process, please write "N/A".	MHHS-BR-SU-104 MHHS-BR-SU-105 MHHS-BR-SU-108 MHHS-BR-SU-109 MHHS-BR-SU-019	
b) How will you liaise with the customer, LDSO and Metering Service as appropriate to coordinate the change and agree a target work date?	<ul> <li>For Question 5.1.1.4 B - Your response should include the following:</li> <li>Process in place to coordinate and conduct a change of Market Segment with the appropriate parties.</li> <li>How you will communicate between the customer, LDSO and metering service to arrange a date for completion of work. Please also include details of how you will ensure the target date is met, and if there is any delay, how you will liaise with the Metering Service/LDSO to provide a prompt update.</li> </ul>		
c) What controls do you have in place to ensure that you identify	For Question 5.1.1.4 C - Your response should include the following:		

	when new service providers are required?	Any controls in place to identify when a new service provider is required following a change of Market Segment		
5.1.1.5 Identifying Faults	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.1.1.5 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-SU-132 MHHS-BR-SU-133 MHHS-BR-SU-134	
	b) How are you notified of any faults?	For Question 5.1.1.5 B - Your response should include the following:		
		Your chosen method(s) to be notified of any faults to metering equipment. This may be via the		

	c) Where applicable how do you notify the UMSDS of any faults?	D0001 flow, or any other bilaterally agreed method.  For Question 5.1.1.5 C - Your response should include the following:  • Your chosen method(s) to notify the UMSDS of any faults.		
5.1.1.6  Disconnections  In line with MHHSP-BP007	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.1.1.6 A - Your response should include the following:         <ul> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> </ul> </li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-SU-051 MHHS-BR-SU-055 MHHS-BR-SU-056	
	b) What systems and processes do you have in place to ensure	For Question 5.1.1.6 B - Your response should include the following:		

	c)	that when confirmation of disconnection of a Meter Point Administration Number (MPAN) is received that records are maintained accordingly?  What controls do you have in place to ensure the disconnection is correct before continuing?	Processes in place to receive notifications of disconnected MPANs and how records of disconnections will be stored and maintained.  For Question 5.1.1.6 C - Your response should include the following:  Validation controls to ensure the details around a disconnection request is correct before continuing with completion of work, including receipt from a correct party, reason for disconnection and any other relevant information.		
	d)	How will you raise any issues if you do carry out the disconnection erroneously?	For Question 5.1.1.6 D - Your response should include the following:  The chosen method(s) to raise any issues identified following completion of an erroneous disconnection to amend or reverse the disconnection.		
5.1.1.7 Change of Energisation Status	a)	Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g.	<ul> <li>For Question 5.1.1.7 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> </ul>	MHHS-BR-SU-053 MHHS-BR-SU-060 MHHS-BR-SU-061 MHHS-BR-SU-062 MHHS-BR-SU-063 MHHS-BR-SU-064 MHHS-BR-SU-065	

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	E2E process changes tested in own UIT environment)	How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.  If there are no relevant additional changes to disclose for this business process, please write "N/A".	
	b) What systems and processes do you have in place to ensure that Change of Energisation status notifications are received via different interfaces depending on segment, and that records updated accordingly?	For Question 5.1.1.7 B - Your response should include the following:  Processes in place to receive notifications of Change of Energisation notifications via IF flows or other mechanisms and how records of energisation status change will be stored and maintained.	
5.1.1.8 Unmetered Supply (UMS) Exemption (If applicable)	If you wish to apply for the exemptions for UMS please fill in the below and provide evidence on how your controls work in practice:  a) What controls do you have in place to ensure you will not register any UMS sites?	For Question 5.1.1.8 A - Your response should include the following:  • When appointing sites, any controls in place to ensure you are Qualified to be appointed.	
	b) What controls do you have in place to ensure you do not migrate a UMS site into MHHS if it is an existing registration?	For Question 5.1.1.8 B - Your response should include the following:  Controls to ensure UMS sites are only migrated into MHHS if the site is not an existing registration.	

	c)	What controls do you have in place to identify where you have appointed a UMS site and how you will de-appoint this site?	For Question 5.1.1.8 C - Your response should include the following:  Processes to identify where UMS sites have been appointed and what is your process to de-appoint these.		
	d)	If you are currently a Supplier that has UMS Sites, please provide your clear and detailed plan on how you intend to deregister these sites and to provide evidence of it?	For Question 5.1.1.8 D - Your response should include:  The plan should be clear and detailed explaining how you intend to de-register the sites that you are currently appointed to.  Failure to provide this will impact your exemption.		
	e)	Please also confirm that you understand that appointing UMS sites without being qualified could potentially result in re-qualification.	For Question 5.1.1.8 E - Your response should include the following:  • A statement of confirmation of the understanding that appointing UMS sites without the appropriate qualification could potentially result in a re-Qualification.		
5.1.1.9 Migration Requirements	a)	What controls do you have in- place to ensure you meet the specific registration and appointment requirements during a migration?	For Question 5.1.1.9 A - Your response should include the following:  a) What controls will you have in place when you are the incoming Supplier to differentiate whether an MPAN is legacy, and if so how will you decide whether to migrate the MPAN as part of the Change of Supplier or Change of Agent process	MHHS-Migration-CoS- SUP-001 MHHS-Migration-CoS- SUP-002 MHHS-Migration-CoS- SUP-003 MHHS-Migration- CoA(MS)-SUP-004 MHHS-Migration- CoA(MS)-SUP-005	

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			Additionally, how will you ensure the	MHHS-RMigration- CoS-SUP-001	
			effective from date for CoA		
			appointments is at least 5 working days	MHHS-RMigration- CoS-SUP-002	
			the first are from the transmission date of		
			the future from the transmission date of the IF-031.	MHHS-RMigration-	
			the ir-031.	CoA(MS)-SUP-003	
				MHHS-RMigration-	
			Furthermore, how will you ensure you	CoA(MS)-SUP-004	
			do not have open IF-031's which are	MHHS-Migration-Can- SUP-002	
			left unresponded to by Agents beyond appointment effective		
			from dates.	MHHS-Migration-Mis- SUP-001	
			nom dates.		
				MHHS-Migration-Mis-	
			Finally, what controls do you have in	SUP-002	
			place to ensure you will not attempt to	MHHS-Migration-Mis- SUP-003	
			change the Market Segment of an MPAN as part of the Migration.	30F-003	
F 1 1 10 Operational	->	What controls do you have in	For Question 5.1.1.10 A - Your	ODC 420	
5.1.1.10 Operational Requirements	a)	What controls do you have in place to ensure that you meet	response should include the following:	OPC_120 OPC 140	
Requirements		all of your requirements as	response should include the following.	_	
		outlined in the Operational	Both preventative controls and	OPC_190	
		Choreography Version 5.5?	Both preventative controls and detective controls, which could	OPC_200	
		eneroughaph, volumeno.	include your monitoring activities	OPC_210	
			and processes for manual	OPC_220	
			intervention.	OPC_280	
			intervention.	OPC_300	
			How you will ensure you meet	OPC_320A	
			specific processing and response	OPC_320B	
			SLAs (these may be referenced in	OPC_340	
			your answers above)	OPC_390B	
			,	OPC_400	
			How you will ensure you meet your	OPC_420	
			operational requirements which	OPC_440	
			may not have been tested during	OPC_490	
			functional testing, such as	OPC_510	
			OPC_320A to make data available	OPC_530	
			to other parties (as applicable) by		
			06:00hrs the next Working Day		

		after receiving a notification of disconnection.		
5.1.1.11 Additional BMU Mapping	a) When processing a new or changed ABMU, how do you identify whether the relevant MPANs are Settling as MHHS migrated MPANs and where they are identified as such how do you ensure MDS is notified?	For Question 5.1.1.11 - Your response should include the following:  • Both processes and controls to identify where a new or changed MPAN_ABMU mapping and identify whether the MPAN(s) is/are on Half Hourly or Legacy Settlement. • Processes to notify BSC Central Systems of this change, together with the Effective From Settlement Date, via the D0297 where the Metering System is Registered in the MHHS Arrangements.	MHHS-BR-SU-166 MHHS-BR-SU-168	
5.1.1.12 Smart Market Segment Exemption  (If applicable)	If you wish to apply for the exemptions for Smart Market Segment Exemption, please fill in the below and provide evidence on how your controls work in practice:  - a. What controls do you have in place to ensure you will not take on any Smart Market Segment Meter Points?  - b. What controls do you have in place to ensure you will not take on any Smart Market Segment Meter Points?	For Question 5.1.1.X A - Your response should include the following:  -	_	_
	you have in place to ensure you do not migrate a Smart Market Segment Meter Point into MHHS if it is	response should include the following:  Controls to ensure Advanced, or where		

an existing registration?	appropriate, UMS sites are only migrated into MHHS if the site is not an		
c. What controls wil	existing registration.  For Question 5.1.1.X C - Your	_	_
you have in place to identify Meter Points within your portfolio o			
future acquisitions, that have SMETs or Traditional Meter typ and how you will take			
remedial action?	current portfolio  Ongoing detective controls to identify where		
	you have erroneously registered a Smart or Traditional meter point		
	after the exemption has been applied  Where you identify		
	that you have an existing or erroneous Smart or Traditional meter in your		
	Portfolio, how will you determine the appropriate action(s) to take (such as work with the customer to		
	perform a meter exchange, inform the customer they need to		
	register with a different Supplier, inform Code Bodies of the breach of		
	conditions etc.)  How will you ensure that your operatives will		
	be able to perform these actions in a complete and		

	timely manner (e.g. will		
	you create Local Work		
	Instructions and provide		
	<u>training)</u>		
d. If you are currently	For Question 5.1.1.X D - Your	_	_
a Supplier that has	response should include:	_	_
Smart Market			
Segment Meter Points,	The plan should be		
please provide your	clear and detailed		
clear and detailed plan			
on how you intend to	to de-register these		
de-register these.	appointments, including		
_	expected timeframes, and		
_	how progress will be		
	reported to the Code		
	Bodies.		
	-		
e. Please also	For Question 5.1.1.X E - Your		
		_	_
confirm that you	response should include the		
understand that	following:		
registering Smart	_		
Market Segment Meter			
Points without being	confirmation of the		
qualified will be	understanding that:		
deemed as a breach	o Registering		
of your Qualification	Smart Market		
conditions by the Code			
Bodies and will be	the appropriate		
escalated accordingly	qualification will		
by the Code Bodies.	be deemed as a		
_	breach of your		
	<u>Qualification</u>		
	conditions by the		
	Code Bodies and		
	will be escalated		
	accordingly by the		
	Code Bodies*.		
	Code Bodies .	ĺ	1

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	<u>○ If you wish to</u>
	operate in the
	Smart Meter
	Segment in the
	future, you will
	notify both the
	BSC and REC
	Code Bodies so
	they can confirm
	the relevant
	process you will
	need to follow.
	*This escalation may include (but is
	not limited to) informing the BSC and
	REC PABs, issuing Performance
	Assurance Techniques, a
	requirement to complete re-
	Qualification.
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## 5.1.2 Data Management

Data Management	Questions	Guidance Points	MHHS requirements	Participant Responses
Area 5.1.2.1 Amendment of Existing Appointment Conditions	a) What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	For Question 5.1.2.1 A - Your response should include the following:  • Where there has been an amendment to any existing appointments, any controls in place to ensure all updates are identified and maintained accurately within relevant systems.	MHHS-BR-SU-031 MHHS-BR-SU-032 MHHS-BR-SU-033 MHHS-BR-SU-034 MHHS-BR-SU-035 MHHS-BR-SU-036	
	b) How will you identify when an appointment amendment is required?	For Question 5.1.2.1 B - Your response should include the following:  • Processes to determine when an existing Service Provider appointment requires an amendment.		
	c) What controls do you have in place to monitor and review rejected appointment amendments, and where appropriate to resubmit with the required information?	For Question 5.1.2.1 C - Your response should include the following:  • Processes to publish a Supplier Service Appointment Request for a proposed Service Provider amendment via the DIP.  • Processes to receive, monitor and review rejected appointment amendment requests, and where required,		

		how you will re-issue the request.		
5.1.2.2 Consumption Amendment	a) What controls do you have inplace to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	For Question 5.1.2.2 A - Your response should include the following:  • Where there has been an amendment to consumption, any controls in place to ensure all updates are identified and maintained accurately within relevant systems.	MHHS-BR-SU-111 MHHS-BR-SU-112 MHHS-BR-SU-116 MHHS-BR-SU-117	
	b) How do you identify when an override read is required and that consumption issued to Settlement is incorrect? Please note the consumption should be amended pre-RF.	For Question 5.1.2.2 B - Your response should include the following:  • Processes to determine when an override read is required. Please refer to how you will ensure consumption is only amended pre-RF.		
	c) How do you identify when you need to raise a dispute where a consumption amendment is required post-RF? Please note your response should include the checks in place for the materiality criteria of the consumption amendment.	For Question 5.1.2.2 C - Your response should include the following:  • Processes to determine where a dispute needs to be raised if a consumption amendment is required post-RF. Your response should include how you will check that the Consumption Amendment is over the minimum materiality criteria for any pre-RF amendments.		

5.1.2.3 Customer Direct Contracts	a)	What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	For Question 5.1.2.3 A - Your response should include the following:  Where there has been a character to Customer Direct Contracter any controls in place to ensurall updates are identified any maintained accurately within relevant systems.  Processes to obtain Custom Direct Contract response and maintain records accordingly Your response should also include how you will utilise to information in future request for Data Service appointment for the notified MPANs.	ure d d der d d v .
5.1.2.4 Registration Data	a)	What controls do you have inplace to ensure that updates are captured within all relevant systems to support wider business processes? (this is relevant to:  • Supplier-owned registration data such as IHD, SMSO, and Profile Class/SSC  • Non-supplier owned registration data such as Meter Point Location (MPL) address, GSP Group ID, Energy Direction, Metered Status, DUoS Tariff ID)	For Question 5.1.2.4 A - Your response should include the following:  • Where there have been upd to registration data, any con in place to ensure all change are captured and maintained accurately within relevant systems. Please refer to bot a. Supplier-owned registration data, and b. Non Supplier-owned registration data in yesponse.	trols MHHS-BR-SU-079  SS MHHS-BR-SU-080  MHHS-BR-SU-084  h: MHHS-BR-SU-086  d MHHS-BR-SU-087  MHHS-BR-SU-088

			MHHS-BR-SU-096.2 MHHS-BR-SU-096.3	
5.1.2.5 Related Meter Point Data	a) What controls do you have inplace to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	For Question 5.1.2.5 A - Your response should include the following:  • Where you have obtained updates to Related Meter Point Data, any controls in place to ensure all records are maintained completely and accurately in relevant systems.	MHHS-BR-SU-081 MHHS-BR-SU-083 MHHS-BR-SU-131	
	b) How will you identify related MPANs, as well as identify any changes required to the Metering Point Relationships in the Registration Services?	For Question 5.1.2.5 B - Your response should include the following:  • Processes to identify related MPANs, including processes to determine where changes are required to the Metering Point Relationships in the Registration Services.		
	c) What controls do you have in place to ensure that the appointment requests are only initiated by the Primary Metering Points but to ensure any data relating to the Secondary Metering Points is updated accordingly?	For Question 5.1.2.5 C - Your response should include the following:  Controls to ensure that any appointment requests are only received from Primary Metering Points. Your response should also include how you will ensure any changes to data relating to Secondary Metering Points is updated accurately and maintained within all relevant systems.		

5.1.2.6 Import/Export MPANs	a)	What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	For Question 5.1.2.6 A - Your response should include the following:  How you will obtain Import/Export linkage updates and maintain records accordingly in all relevant systems.	MHHS-BR-SU-094 MHHS-BR-SU-096
	b)	How will you identify where changes are needed to Import/Export associations?	For Question 5.1.2.6 B - Your response should include the following:  • Processes to identify where changes to Import/Export linkages are required, and following this, how you will publish an Import/Export linkage update to the Registration Service via a bilaterally agreed method.	
5.1.2.7 Meter Technical Details (MTDs)	a)	What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	For Question 5.1.2.7 A - Your response should include the following:  • Where there have been updates to Meter Technical Details, any controls in place to ensure all records are maintained completely and accurately in relevant systems.	MHHS-BR-SU-050 MHHS-BR-SU-052 MHHS-BR-SU-066 MHHS-BR-SU-067 MHHS-BR-SU-068 MHHS-BR-SU-069 MHHS-BR-SU-070 MHHS-BR-SU-071 MHHS-BR-SU-072 MHHS-BR-SU-073 MHHS-BR-SU-132 MHHS-BR-SU-133

flagged to the appropriate agent in a timely manner.  MITIGEN 30-073 MHHS-BR-SU-132 MHHS-BR-SU-133
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# 5.2 Licensed Distribution System Operator (LDSO)<sup>2</sup>

## 5.2.1 Business Processes

Business Process	Questions	Guidance Points	MHHS requirements	Participant Responses
Area				
5.2.1.1 MOA and/or Data Services Appointments. In line with MHHSP-BP002, MHHSP-BP003	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.2.1.1 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT. This could be because, for example, you have made changes to upstream, downstream, and/or interfacing systems which have not been captured within the scope of the functional test scenarios and scripts but will form part of the wider business process requirements as defined in the BSC and REC Codes. Additionally, this may be because you are placing reliance on testing completed by other MHHS Participants for common systems, but the integration with your own end-to-end solution has not yet been tested.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> </ul>	MHHS-BR-LD-002 MHHS-BR-LD-003	
		How you will gain assurance that even with these additional changes, your wider end- to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements. For		

<sup>&</sup>lt;sup>2</sup> Known under the REC as a Distribution Network Operator (DNO)

		example, will you perform further testing in your own UIT environment, and if so, what will be the scope of this testing and who will be involved.  If there are no relevant additional changes to disclose for this business process, please write "N/A".	
5.2.1.1 MOA and/or Data Services Appointments. In line with MHHSP- BP002, MHHSP- BP003	b) How will you identify and investigate any discrepancies between notification appointments via the DIP and data received from the Metering Service via the DTN?	For Question 5.2.1.1 B - Your response should include the following:  Methods (manual or automated) to identify any discrepancies between appointments notified by the DIP and data received from the Metering Service via the DTN  How discrepancies will be investigated, flagged to the appropriate parties, and the process taken to subsequently resolve	MHHS-BR-LD-002 MHHS-BR-LD-003
5.2.1.2 Change of Connection Type In line with MHHSP- BP011B	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.2.1.2 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider endto-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> </ul>	MHHS-BR-LD-047 MHHS-BR-LD-048 MHHS-BR-LD-049 MHHS-BR-LD-050 MHHS-BR-LD-051

	b) What processes and controls do you have in place to ensure you meet the updated requirements for the change of connection type, i.e. registration services updated within 2 working days after completion of the work, and that this process is coordinated with the Supplier?  c) How will you agree a target date with the Supplier and ensure you complete the work on the agreed target date?	If there are no relevant additional changes to disclose for this business process, please write "N/A".  For Question 5.2.1.2 B - Your response should include the following:  Agreed method(s) of coordinating the target work date with the Supplier and your operatives  Agreed method(s) of notifying the Registration Service within the required timescales.  For Question 5.2.1.2 C - Your response should include the following:  Following a request to change the Connection Type, how you will agree a date with the Supplier for completion of work.  Processes to action the change of Connection Type, including scheduling works with your operatives and ensuring the works have been completed as and when expected.	
5.2.1.2 Change of Connection Type In line with MHHSP- BP011B	d) What controls do you have in place to identify when an existing connection type is inaccurate and ensure any queries are resolved?	<ul> <li>For Question 5.2.1.2 D - Your response should include the following:</li> <li>Controls to ensure the Registration Service is updated of the Change to Connection Type within 2WDs. Please refer to the IF-043 flow in your response</li> <li>Controls in place to identify any inaccuracies in existing connection types, ensuring relevant parties are informed of</li> </ul>	MHHS-BR-LD-047 MHHS-BR-LD-048 MHHS-BR-LD-049 MHHS-BR-LD-050 MHHS-BR-LD-051

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			the discrepancy and resolving the issue in a timely manner	
5.2.1.3  Disconnections  In line with MHHSP-BP007	a)	Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.2.1.3 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider endto-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-LD-013 MHHS-BR-LD-015 MHHS-BR-LD-016 MHHS-BR-LD-017 MHHS-BR-LD-018 MHHS-BR-LD-019 MHHS-BR-LD-020 MHHS-BR-LD-020.1
5.2.1.3  Disconnections  In line with MHHSP-BP007	b)	What controls do you have in place to ensure the disconnection is correct before continuing, and to raise any issues if it is carried out erroneously.	For Question 5.2.1.3 B - Your response should include the following:  Controls in place to validate a disconnection request from the Supplier, Customer, Registration Service or UMSO and ensure that a disconnection is only carried out where required.  Process in place to raise an issue with the relevant agent if a disconnection is incorrectly carried out.	MHHS-BR-LD-013 MHHS-BR-LD-015 MHHS-BR-LD-016 MHHS-BR-LD-017 MHHS-BR-LD-018 MHHS-BR-LD-019 MHHS-BR-LD-020 MHHS-BR-LD-020.1

5.2.1.4 Change of Energisation Status In line with MHHSP- BP008	a)	Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.  Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.  How you will gain assurance that even with these additional changes, your wider endto-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.  If there are no relevant additional changes to disclose for this business process,
	b)	Once a change of energisation request has been processed, what controls do you have in place to ensure that accurate meter reads are received from the Metering or Data Service, where appropriate?	please write "N/A".  For Question 5.2.1.4 B - Your response should include the following:  • Method(s) (automated or manual) to process a change of energisation request. Your response should include processing the IF-008 within 60 minutes.  • Controls in place to ensure complete and accurate meter readings are received from the Metering or Data Service and processed in a timely manner

5.2.1.5 New Connections In line with MHHSP- BP001	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.2.1.5 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-LD-010 MHHS-BR-LD-010.1 MHHS-BR-LD-011 MHHS-BR-LD-012
5.2.1.6 Operational Requirements	What controls do you have in place to ensure that you meet all of your requirements as outlined in the Operational Choreography Version 5.5.	<ul> <li>For Question 5.2.1.6 A - Your response should include the following:</li> <li>Both preventative controls and detective controls, which could include your monitoring activities and processes for manual intervention.</li> <li>How you will ensure you meet specific processing and response SLAs (these may be referenced in your answers above)</li> <li>How you will ensure you meet your operational requirements which may not have been tested during functional testing, such as OPC_320A to make data available to other parties (as applicable) by 06:00hrs the next Working Day after receiving a notification of disconnection.</li> </ul>	OPC_061 OPC_200 OPC_210 OPC_250 OPC_280 OPC_300  OPC_320A OPC_320B OPC_320B OPC_370 OPC_420

	OPC_490	
	OPC_510	
	OPC_550	

## 5.2.2 Data Management

Data Management Area	Questions	Guidance Points	MHHS requirements	Participant Responses
5.2.2.1 Meter Technical Details (MTDs)	a) What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	<ul> <li>For Question 5.2.2.1 A - Your response should include the following:</li> <li>The chosen method(s) (automated or manual) to receive MTDs from the Metering Service</li> <li>How records of MTDs will be held within your system.</li> <li>Controls in place to ensure updates to MTDs are actioned appropriately and updated in your system in a timely manner</li> </ul>	MHHS-BR-LD-012.1 MHHS-BR-LD-027 MHHS-BR-LD-028 MHHS-BR-LD-030 MHHS-BR-LD-031 MHHS-BR-LD-054	
5.2.2.2 Registration Data	a) What controls do you have inplace to ensure that updates are captured within all relevant systems to support wider business processes? (this is relevant to:  - MPL Address, GSP Group ID, Metered Status, Domestic Premises Indicator, Energy Direction, Related MPAN, Import/Export Link)	<ul> <li>For Question 5.2.2.2 A - Your response should include the following:</li> <li>The chosen method(s) (automated or manual) to receive Registration Data from the Registration Service</li> <li>How records of Registration Data will be held within your system</li> <li>Controls in place to ensure updates to Registration Data are actioned appropriately and updated in your system in a timely manner.</li> </ul>	MHHS-BR-LD-033 MHHS-BR-LD-034 MHHS-BR-LD-035 MHHS-BR-LD-036 MHHS-BR-LD-037 MHHS-BR-LD-04.1 MHHS-BR-LD-04.2 MHHS-BR-LD-043	
	b) What controls do you have in place to maintain Distribution Use of System (DUoS) Tariff IDs in line	For Question 5.2.2.2 B - Your response should include the following:		

	with their Charging Method Statement	Controls in place to maintain DUoS Tariff IDs in line with their Charging Method Statement e.g., ongoing monitoring. You should also include your processes for flagging and resolving any discrepancies between DUoS Tariff IDs and their corresponding Charging Method Statements.		
	c) How will you manage and process requests to update the Metered Indicator and ensure records are updated accordingly?	For Question 5.2.2.2 C- Your response should include the following;  • Whether the applicant processes a change of metered indicator in compliance with the relevant requirements or whether they use a workaround. If the latter, the applicant should detail that workaround and how it is compliant to the BSC		
5.2.2.3 Consumption Data	a) What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	For Question 5.2.2.3 A Your response should include the following:  Process(es) (automated or manual) to obtain and process validated UTC Period Level Consumption Data from the Data Service via the DIP  Controls to ensure all updates to Consumption Data are updated completely and accurately within your system.	MHHS-BR-LD-007 MHHS-BR-LD-008 MHHS-BR-LD-009.1 MHHS-BR-LD-029	

# 5.3 Supplier Meter Registration Service<sup>3</sup>

#### 5.3.1 Business Processes

Process Area	Questions	Guidance Points	MHHS Requirement	Participants Response
5.3.1.1 Change of Supplier In line with MHHSP-BP001	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.3.1.1 A - Your response should include the following:         <ul> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT. This could be because, for example, you have made changes to upstream, downstream, and/or interfacing systems which have not been captured within the scope of the functional test scenarios and scripts but will form part of the wider business process requirements as defined in the BSC and REC Codes. Additionally, this may be because you are placing reliance on testing completed by other MHHS Participants for common systems, but the integration with your own end-to-end solution has not yet been tested.</li> </ul> </li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements. For example, will you perform further testing in</li> </ul>	MHHS-BR-RS-005 MHHS-BR-RS-006 MHHS-BR-RS-007 MHHS-BR-RS-008	

<sup>&</sup>lt;sup>3</sup> Equivalent role under the REC is the Electricity Retail Data Service (ERDS)

		your own UIT environment, and if so, what will be the scope of this testing and who will be involved.  • If there are no relevant additional changes to disclose for this business process, please write "N/A".	
	b) What controls do you have in place to ensure the end-to-end process is carried out within MHHS defined timescales as outlined in the Operational Choreography and baselined in the relevant codes?	<ul> <li>For Question 5.3.1.1 B - Your response should include the following:</li> <li>How is your system configured to receive and process the change of supply pending notification?</li> <li>Once a COS pending notification has been received, how do you ensure that you publish the initial registration details for the MPAN to the Supplier?</li> <li>What is your process to receive and process the COS secured notification from the CSS?</li> <li>Once a COS secured notification has been received, how do you ensure that the Change of Supplier event is pushed to the Supplier and LDSO providing the new Supplier and registration details?</li> </ul>	
5.3.1.2 Appointments In line with MHHSP-BP002	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised;	<ul> <li>For Question 5.3.1.2 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> </ul>	MHHS-BR-RS-009 MHHS-BR-RS-010 MHHS-BR-RS-020 MHHS-BR-RS-024.1 MHHS-BR-RS-033.1 MHHS-BR-RS-048.1 MHHS-BR-RS-052 MHHS-BR-RS-071

this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.  How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.  If there are no relevant additional changes to disclose for this business process, please write "N/A".	
b) What controls do you have in place to validate appointment requests for a proposed Metering Service and Data Service? (please note if this varies for on the day, retro or prospective appointments, as well as for related MPANs and import/export links)	<ul> <li>For Question 5.3.1.2 B - Your response should include the following:</li> <li>Please outline the approach for obtaining and validating Supplier service appointment requests for a proposed metering service. This should include use of the validation rules set out in (MHHS-IF-031).</li> <li>How do you determine which path the proposed metering service will be processed on once accepted? Explain any how you determine each of the below processes to work.</li> <li>"On the day" (Service Appointment start date = processing date AND existing supplier = requesting supplier)</li> <li>"Retro" (Service Appointment start date = Previous Service Appointment End Date +1 AND Service Appointment start date</li> </ul>	

		date AND Existing Supplier = Requesting Supplier  3. "Prospective" (All other appointments)  • How do you ensure that upon a retrospective change of Metering Service appointment you re-publish a Registration service notification of De-appointment on the DIP?		
	c) What controls do you have in place to ensure Appointment updates are sent to CSS in the correct order when multiple agents are being appointed at the same time?	For Question 5.3.1.2 C - Your response should include the following:  How will you ensure that when agents for multiple roles are being updated at the same time (e.g. Data Services and MOA), hence require separate messages from the Registration Services to CSS, that these messages are sent to CSS in the correct order?		
5.3.1.3 New Connections In line with MHHSP- BP001	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to the E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.3.1.3 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> </ul>	MHHS-BR-RS-089 MHHS-BR-RS-091	

5.3.1.4  Disconnections  In line with MHHSP-BP007	a)	Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the	If there are no relevant additional changes to disclose for this business process, please write "N/A".  For Question 5.3.1.4 A - Your response should include the following:  A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.  Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.	MHHS-BR-RS-097 MHHS-BR-RS-102 MHHS-BR-RS-102.1	
		case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>		
	b)	What controls do you have in place to ensure the status is set to de-energised and you send a de-energised notification for any MPANs where the energisation status is currently energised within a timely manner?	For Question 5.3.1.4 B - Your response should include the following:  How do you receive notification of disconnection from the LDSO? (please outline systems and communication methods)		
	c)	How do you ensure the reason for disconnection as noted in	For Question 5.3.1.4 C - Your response should include the following:		

	the de-appointment notifications is accurate?	Upon receipt of a registration de-activation from CSS you must send the deappointment notification with a reason of disconnection for any active servers. How do you ensure that you validate the notification and then undertake this request? (please include any automation or any manual intervention required)		
		Once part b has been completed you must update the status to de-energised and send a de-energised notification for any MPANs where the energisation status is currently energised. How do you ensure this happens? (please include any automation or any manual intervention required). This is in line with the timescales within MHHSP IF-008 and data should made available to other parties by 06:00 the next day (if received prior to 23:00) and by the second working day (if received after 23:00).		
5.3.1.5 Change of Energisation Status	<ul> <li>a) Excluding the functional elements tested in PIT/SIT/QT,</li> </ul>	For Question 5.3.1.5 A - Your response should include the following:	MHHS-BR-RS-105 MHHS-BR-RS-106	
In line with MHHSP-BP008	what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process	A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.  Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.  How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your		

	changes tested in own UIT environment)  b) What controls do you have in place to validate the change of energisation status notifications, and take appropriate action should validation fail?	BSC and REC Code Requirements, as above.  If there are no relevant additional changes to disclose for this business process, please write "N/A".  For Question 5.3.1.5 B - Your response should include the following:  How do you ensure that validation of change of energisation status requests are undertaken and processed in 60 minutes as per the timescales in MHHS-IF-007?  For any validation failures how do you ensure that you reject the energisation		
		status change request, with the failure reason to the Metering Service?  • For any valid requests how do you ensure that you update the Registration Service system and publish acceptance of the update on the DIP?		
5.3.1.6 Change of Connection Type/Market	Excluding the functional elements tested in PIT/SIT/QT, what further changes have	For Question 5.3.1.6 A - Your response should include the following:	MHHS-BR-RS-123.1 MHHS-BR-RS-124 MHHS-BR-RS-124.1	
Segment In line with MHHSP-BP011B	been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and	A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.	MHHS-BR-RS-124.2 MHHS-BR-RS-127	
	processes, even where DIP optionality has been exercised; this may be nothing). In the	Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.		
	case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process	How you will gain assurance that even with these additional changes, your wider end- to-end systems and processes will still enable you to operate in line with your		

		changes tested in own UIT environment)	BSC and REC Code Requirements, as above.  If there are no relevant additional changes to disclose for this business process, please write "N/A".		
	b)	What controls do you have in place to identify sites which are unmetered, and sites where there is no metering installed, to derive and update a segment type?	For Question 5.3.1.6 B - Your response should include the following:  What controls will you have in place to ensure your systems and/or processes will be able to identify unmetered sites?  If your systems and/or processes identify an incorrect market segment, how will you update this?	MHHS-BR-RS-123.1 MHHS-BR-RS-124 MHHS-BR-RS-124.1 MHHS-BR-RS-124.2 MHHS-BR-RS-127	
5.3.1.7 Meter Data Retriever (MDR) Appointment In line with MHHSP- BP003B	a)	Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes, even where DIP optionality has been exercised; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.3.1.7 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider endto-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-RS-078 MHHS-BR-RS-078.1 MHHS-BR-RS-078.2 MHHS-BR-RS-079 MHHS-BR-RS-080	

5.3.1.8 Migration Requirements	a) What controls do you have inplace to ensure you meet the specific registration requirements during a migration?	<ul> <li>For Question 5.3.1.8 A - Your response should include the following:</li> <li>What controls will you have in place to ensure once a Forward Migration is initiated (indicated through the send of an IF-031) or if a MPAN is MHHS, the Registration Service will not accept Legacy D flows for a given MPAN.</li> <li>Moreover, what controls will you have in place to ensure that you will remove MPANs from inclusion in the Legacy EES Extract upon successful completion of Forward Migration, indicated through the send of an IF-036.</li> <li>Additionally, as soon as an IF-003 is sent marking the completion of a Reverse Migration, what controls will you have in place to ensure you add those MPANs back into the Legacy EES Extract.</li> <li>Finally, what controls will you have In place to identify for incomplete Migrations and issue an IF-045 where a Supplier has only migrated either the MS or DS.</li> </ul>	MHHS-Migration-CoS-RS-002 MHHS-Migration-CoS-RS-003 MHHS-Migration-CoA(MS)-RS-001 MHHS-Migration-CoA(MS)-RS-002 MHHS-Migration-CoA(MS)-RS-008 MHHS-Migration-CoA(MS)-RS-016 MHHS-Migration-CoA(MS)-RS-019 MHHS-RMigration-CoS-RS-003 MHHS-RMigration-CoS-RS-004 MHHS-RMigration-CoS-RS-005 MHHS-RMigration-CoS-RS-008 MHHS-RMigration-CoS-RS-008 MHHS-RMigration-CoA(MS)-RS-001 MHHS-RMigration-CoA(MS)-RS-003 MHHS-RMigration-CoA(MS)-RS-003 MHHS-RMigration-CoA(MS)-RS-003 MHHS-RMigration-CoA(MS)-RS-004

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#### 5.3.2 Data Management

Data Management	Questions	Guidance Points	MHHS requirements	Participant Responses
Area				

5.3.2.1 Registration Data	a) What controls do you have inplace to ensure that updates are captured within all relevant systems and aligned with the LDSO to support wider business processes? (this is relevant to: MPL Address, GSP Group ID, Metered Status, Domestic Premises Indicator, Energy Direction, Related MPAN, Import/Export links, DUoS Tariffs)	<ul> <li>For Question 5.3.2.1 A - Your response should include the following:</li> <li>The chosen method(s) (automated or manual) to receive Registration Data from the Registration Service</li> <li>How records of Registration Data will be held within your system</li> <li>Controls in place to ensure updates to Registration Data are actioned appropriately and updated in your system in a timely manner.</li> <li>What methods do you use to ensure that all information is aligned with the LDSO?</li> <li>How do you investigate any discrepancies between data held by the Registration Service and the LDSO?</li> </ul>	MHHS-BR-RS-034 MHHS-BR-RS-040 MHHS-BR-RS-043 MHHS-BR-RS-081 MHHS-BR-RS-082 MHHS-BR-RS-083 MHHS-BR-RS-084 MHHS-BR-RS-085 MHHS-BR-RS-086 MHHS-BR-RS-086 MHHS-BR-RS-087 MHHS-BR-RS-088 MHHS-BR-RS-088.1 MHHS-BR-RS-088.2 MHHS-BR-RS-088.3 MHHS-BR-RS-088.5
5.3.2.2 CSS and DCC Updates	a) What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	<ul> <li>For Question 5.3.2.2 A - Your response should include the following:</li> <li>The chosen method(s) (automated or manual) to receive MDR updates from the Central Switching Service</li> <li>How records of MDR appointments will be held within your systems</li> <li>Controls in place to ensure updates to MDR Appointments are updated in your systems in a timely manner</li> <li>What methods do you use to ensure that all information is aligned with the LDSO? How do you investigate any</li> </ul>	MHHS-BR-RS-078.1 MHHS-BR-RS-078.2 MHHS-BR-RS-079

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	discrepancies between data held by the Registration Service and the LDSO?	
b) What controls do you have in place to identify when an update needs to be sent to CSS/DCC and obtain accurate information to populate the ERDS interface, and maintain a flag against the appointment records with the most recent CSS update outcome?	For Question 5.3.2.2 B - Your response should include the following:  Controls in place to verify whether MDR appointment records in CSS are up to date, or whether an update needs to be sent.  What notifications do you receive to identify a CSS update and how is the ERDS interface updated?	

# 5.4 Unmetered Supplies Operator

#### 5.4.1 Business Processes

Business Process Area	Questions	Guidance Points	MHHS requirements	Participant Responses
5.4.1.1 Appointment and/or De-appointments In line with MHHSP-BP003	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.4.1.1 A - Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT. This could be because, for example, you have made changes to upstream, downstream, and/or interfacing systems which have not been captured within the scope of the functional test scenarios and scripts but will form part of the wider business process requirements as defined in the BSC and REC Codes. Additionally, this may be because you are placing reliance on testing completed by other MHHS Participants for common systems, but the integration with your own end-to-end solution has not yet been tested.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.         How you will gain assurance that even with these additional changes, your wider end-to-end systems and     </li> </ul>	MHHS-BR-MS-001 MHHS-BR-MS-002 MHHS-BR-MS-003 MHHS-BR-MS-004 MHHS-BR-MS-005 MHHS-BR-MS-006.1 MHHS-BR-MS-006 MHHS-BR-MS-025 MHHS-BR-MS-025 MHHS-BR-MS-029 MHHS-BR-MS-030 MHHS-BR-MS-030.1	

notification from the Registration Service and any supporting information confirming the UMSO appointment or de- appointment?  The process and/or systems used to receive a new UMSO appointment and MPAN details from the Registration Service, and how these records are maintained within your system.  If there are any changes between your appointment and de- appointment, please detail where this is differs.	b) How will you send the Submeter ID, Locations, Latitude/longitude information and PECU Arrays locations?  c) How do you receive the	testing in your own UIT environment, and if so, what will be the scope of this testing and who will be involved.  If there are no relevant additional changes to disclose for this business process, please write "N/A".  For Question 5.4.1.1 B – The response should address the following areas:  An outline of how your system is configured to send MPAN related details (Submeter ID, Locations, Latitude/longitude information and PECU Arrays locations) to the UMSDS.	
	Registration Service and any supporting information confirming the UMSO appointment or de-	<ul> <li>The process and/or systems used to receive a new UMSO appointment and MPAN details from the Registration Service, and how these records are maintained within your system.</li> <li>If there are any changes between your appointment and deappointment, please detail where</li> </ul>	

5.4.1.2	PIT/SIT/QT, what further		MHHS-BR-MS-040
5.4.1.2  Disconnections  In line with MHHSP-BP007	PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business	<ul> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this</li> </ul>	MHHS-BR-MS-040
	process (e.g. E2E process changes tested in own UIT environment)	How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.	
		If there are no relevant additional changes to disclose for this business process, please write "N/A".	
	b) How do you receive notification of a disconnection request and what automated or manual interactions are required to process the notification?	For Question 5.4.1.2 B – The response should address the following areas:     An outline of how your system is configured to receive and process disconnection requests from the Supplier, LDSO or customers, including if this process differs from different requestors.	
		Upon receipt of the disconnection request, any user/manual interactions required to trigger a request to the LDSO to carry out disconnection	

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	LI di S ei	low do you request the DSO to carry out the isconnection once the supply Point has been denergised and the inventory pdated?	<ul> <li>For Question 5.4.1.2 C – The response should address the following areas:</li> <li>Processes/system controls in place to ensure disconnection requests are only sent to the LDSO following de-energisation of the Supply point and updates to inventory.</li> </ul>		
5.4.1.3 Change of Energisation Status In line with MHHSP-BP008	ell P ch	excluding the functional lements tested in IT/SIT/QT, what further hanges have been made to the E2E business process? E.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business rocess (e.g. E2E process thanges tested in own UIT invironment)	<ul> <li>For Question 5.4.1.3 A – Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-MS-036 MHHS-BR-MS-037 MHHS-BR-MS-041 MHHS-BR-MS-042 MHHS-BR-MS-042.1 MHHS-BR-MS-047 MHHS-BR-MS-048 MHHS-BR-MS-049 MHHS-BR-MS-050	
	fo st th	low do you receive a request or a change of energisation tatus from a customer (or via nis Supplier) and how do you alidate it is correct?	For Question 5.4.1.3 B – The response should address the following areas:  • An outline of how your system/processes are configured to		

		receive and process requests for a change of energisation status from the Supplier, LDSO or customers, including if this process differs from different requestors. Please refer receipt of the IF-007 and triggering the IF-008 flow in your response.		
	c) What actions are taken up receipt of a request to the change of energisation status?	<ul> <li>For Question 5.4.1.3 C – The response should address the following areas:</li> <li>Upon receipt of a request to change energisation status any user/manual interactions required to complete the change.</li> <li>The process in place to update the Unmetered Supplies Inventory in line with the energisation change, as set out in the UMSO Method Statement.</li> <li>Once the change has been actioned, any process in place to finalise and confirm the change is complete to the requestor with the correct effective from date.</li> </ul>		
5.4.1.4 New Connections In line with MHHSP- BP001	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made your E2E business proces (e.g. to inputs, workflows, integrations, and downstre systems and processes; to may be nothing). In the cathat changes have been made, how have you tested these updated E2E busine process (e.g. E2E process).	and processes which have not been tested as part of PIT/SIT/QT, as above.  Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this	MHHS-BR-MS-033	

	changes tested in own UIT environment)	<ul> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>		
	b) How do you request the LDSO to set up an MPAN in Central Switching Service (CSS) for a new connection?	<ul> <li>For Question 5.4.1.4 B – The response should address the following areas:</li> <li>An outline of how requests to the LDSO to set up an MPAN in CSS for a New Connection are sent.</li> <li>Validation checks in place to ensure any information sent to the LDSO regarding the new MPAN is complete and accurate.</li> </ul>		
	c) How do you verify that an unmetered supply new connection request is appropriate?	<ul> <li>For Question 5.4.1.4 C – The response should address the following areas:</li> <li>Validation checks in place to ensure any information relating to a New Connection for an unmetered supply is valid and complete.</li> </ul>		
5.4.1.5 Fault Resolution	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this	<ul> <li>For Question 5.4.1.5 A – Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> </ul>	MHHS-BR-MS-080	

	may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	
b)	How do you receive fault notifications from the Unmetered Supplies Data Service (UMSDS)?	For Question 5.4.1.5 B – The response should address the following areas:  How your system is configured to receive fault notifications from the UMSDS. Please include any automation or manual interaction.	
c)	What actions are taken when fault notifications are received?	For Question 5.4.1.5 C – The response should address the following areas:  The process to ensure faults are rectified in a timely manner.	
d)	How are faults monitored and tracked?	For Question 5.4.1.5 D – The response should address the following areas:  Processes in place to track faults through to resolution, including processes to inform the UMSDS when resolution may be delayed.	

5.4.1.6 Migration Requirements	a)	How will you coordinate with the Supplier during the migration of an Unmetered site, ensuring seamless communication outside of any messages or interfaces?	For Question 5.4.1.6 A – Your response should include the following:  Supplier should communicate directly with both the new and outgoing Agents to plan the MPAN transfer. This coordination should happen independently of market messaging or interfaces to ensure a smooth transition and alignment of responsibilities for meter migration.	MHHS-Migration- UNM-MS-001
5.4.1.7 Operational Requirements	a)	What controls do you have in place to ensure that you meet all of your requirements as outlined in the Operational Choreography?	For Question 5.4.1.7 A – Your response should include the following:      Both preventative controls and detective controls, which could include your monitoring activities and processes for manual intervention. How you will ensure you meet specific processing and response SLAs (these may be referenced in your answers above)      How you will ensure you meet your operational requirements which may not have been tested during functional testing?	OPC_175 OPC_550

### 5.4.2 Data Management

Data Management Area	Questions	Guidance Points	MHHS requirements	Participant Responses
5.4.2.1 Unmetered Supplies Inventory In line with MHHSP-BP004	<ul> <li>a) What controls do you have inplace to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?</li> <li>b) How do you receive, validate and store new inventory information?</li> <li>c) How will you investigate any rejections?</li> <li>d) How do you receive and maintain valid Charge Codes, Switch Regimes and combinations thereof?</li> </ul>	For Question 5.4.2.1 A – The response should address the following areas:  Processes and/or systems used to receive and maintain records of customer inventories.  For Question 5.4.2.1 B – The response should address the following areas:  The method of providing the customer UMS inventories to the UMSDS, in line with the UMSO Method statement  For Question 5.4.2.1 C – The response should address the following areas:  The process for investigating any discrepancies and/or rejections in consultation with the customer as required  For Question 5.4.2.1 D – The response should address the following areas:  The processes for receiving and maintaining valid Charge	MHHS-BR-MS-031 MHHS-BR-MS-032	

5.4.2.2 Registration	a) What controls do you have in-	Codes, Switch Regimes and Combination.  Processes to ensure the combinations are valid.  For Question 5.4.2.2 A - Your	MHHS-BR-MS-064
Data	place to ensure that updates are captured within all relevant systems to support wider business processes?	response should include the following:  The chosen method(s) (automated or manual) to receive Registration Data  How records of Registration Data will be held within your system?  Controls in place to ensure updates to Registration Data are actioned appropriately and updated in your system in a timely manner.  What methods do you use to ensure that all information is aligned?  How do you investigate any discrepancies between data held?	MHHS-BR-MS-066.2 MHHS-BR-MS-066.3 MHHS-BR-MS-066.5 MHHS-BR-MS-066.6

#### 5.5 Advanced Data Services

#### 5.5.1 Business Processes

Advanced Data Services must be Qualified as a Data Service in line with the Qualification Process and associated BSCPs.

Business Process	Questions	Guidance Points	MHHS requirements	Participant Responses
5.5.1.1 Appointments/De-Appointments In line with MHHSP-BP002 & MHHSP-BP003	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	For Question 5.5.1.1 A – Your response should include the following:  • A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT. This could be because, for example, you have made changes to upstream, downstream, and/or interfacing systems which have not been captured within the scope of the functional test scenarios and scripts but will form part of the wider business process requirements as defined in the BSC Codes. Additionally, this may be becaus e you are placing reliance on testing completed by other MHHS Participants for common systems, but the integration with your own end-to-end solution has not yet been tested.  • Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.	MHHS-BR-DS-003 MHHS-BR-DS-005 MHHS-BR-DS-009 MHHS-BR-DS-022 MHHS-BR-DS-026.3 MHHS-BR-DS-026.4 MHHS-BR-DS-026.6 MHHS-BR-DS-026.7 MHHS-BR-DS-104 MHHS-BR-DS-108	

	How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSCCode Requirements. For example, will you perform further testing in your own UIT environment, and if so, what will be the scope of this testing and who will be involved.  If there are no relevant additional changes to disclose for this business process, please write "N/A".	
b) For advanced meters how you collect the opening UTO period level data?	1 01 Quodion 0.0.1.1 B 1 001	
c) Once de-appointed how will collect the closing UTC per level data?		

	d) How do you receive the notification from the Registration Service and any supporting information confirming the ADS appointment?	Once de-appointed, how you will collect the closing UTC period level data to use for final data processing. Including where remote or local access has not been possible.      The process for storing valid register reads for use in the estimation process where no better data is available.  For Question 5.5.1.1 D - Your response should address the following:      The process and/or systems used to receive a new ADS appointment and MPAN details from the Registration Service, and how the processing uses for final periods are processed are applied to the periods of the		
5.5.1.2 Identifying Faults	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	and how these records are maintained within your system.  For Question 5.5.1.2 A – Your response should address the following:  A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.  Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.	MHHS-BR-DS-147	

	changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC Code Requirements, as above.  If there are no relevant additional changes to disclose for this business process, please write "N/A".	
b) The Advanced Data Service (ADS) needs to identify any faulty metering equipment and notify the Advanced Metering Service and the Supplier. What is your process for this?	For Question 5.5.1.2 B – Your response should address the following:  • How you will send the notification (either in a system/portal or otherwise e.g. email) to the Supplier and Advanced Metering Service when there is a fault with the metering equipment  • The process for investigating faults in a timely manner once notification has been received  • How feedback of faults, (including progress of resolution and any delays encountered) will be provided to the Supplier upon investigation  • How faults will be tracked and monitored internally. This may	

5.5.1.3 Metering	a)	How do you identify related MPANs or Import/Export linked meters?	For Question 5.5.1.3 A – Your response should include the following:  • The process for identifying:  • Related MPANs  • Import/Export linked meters	MHHS-BR-DS-045 MHHS-BR-DS-117 MHHS-BR-DS-119 MHHS-BR-DS-123 MHHS-BR-DS-134 MHHS-BR-DS-146 MHHS-BR-DS-148 MHHS-BR-DS-148.1	
	b)	How do you receive/maintain all relevant Meter Technical Details?	For Question 5.5.1.3 B – Your response should include the following:  How you ensure all MTDs have been received for both Related or Import/Export group MPANs  The process for maintaining records of all MTDs, and where required, investigating any discrepancies with data received from the Registration Service  How you have ensured you have up to date metering details (MTDs), including how you will maintain records of MTDs and investigate any discrepancies that may exist where required		
	c)	For Metering Systems where you retrieve data from the Metering System, how have you demonstrated that your data retrieval systems (including Hand Held Units and any third party systems) are appropriate	For Question 5.5.1.3 C – In your response:  • Please confirm that Protocol Approval for a Meter or Asset Meter Types has been achieved or where not, that the Elexon		

	to communicate with Metering Equipment in accordance with BSCP601?	Metering Team have been contacted to apply for Protocol Approval.	
d)	For Metering Systems that require proving tests what controls do you have in place to ensure that proving tests are performed in all the circumstances and timescales?	For Question 5.5.1.3 D – In your response:  • The ADS agent is required to perform Proving Tests at the request of the SVA Meter Operator Agent. BSCP702 3.5 specifies the procedures to be used for different proving methods. BSCP702 Appendix 4.6 for SVA Metering Systems sets out, the circumstances in which a proving test will be required.	
e)	How are the controls and processes implemented to ensure the aspects of Shared SVA Meter Arrangements?	For Question 5.5.1.3 E – In your response:  Ensure accurate notification and recording of Primary and Secondary Supplier details along with their associated MSIDs. Confirm consistent SMRA registration details for each Shared SVA Meter arrangement, appointing only one MOA and one Data Service.  Maintain timely and accurate transfer of split Meter data allocations between each MSID to the appropriate LDSOs.	

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5.5.1.4 Operational	۵١	What controls do you have in	For Ougation F. F. 4. 4. A. Varia	ODC 064
Requirements	a)	place to ensure that you meet	For Question 5.5.1.4 A - Your	OPC_061
Requirements		all of your requirements as	response should include the	OPC_150
		outlined in the Operational	following:	OPC_170A
		Choreography Version 5.5		OPC_170B
		Choreography version 5.5	Both preventative controls and	OPC_190
			detective controls, which could	OPC_200
			include your monitoring activities and processes for	OPC_210
			manual intervention. How you	
			will ensure you meet specific	OPC 280
			processing and response SLAs	OPC_300
			(these may be referenced in	OPC_340
			your answers above)	OPC_360
				_
			How you will ensure you meet	OPC_370
			your operational requirements	OPC_390
			which may not have been	OPC_420
			tested during functional testing?	
				OPC_440
				OPC_470
				OPC_490
				OPC_550
				OPC 570
				OPC_580
5.5.1.5 Change of	a)	Excluding the functional	For Question 5.5.1.5 A – Your	MHHS-BR-DS-106
Energisation	a)	elements tested in PIT/SIT/QT,		
Lifergisation		what further changes have been	response should address the	MHHS-BR-DS-108
		made to your E2E business	following:	MHHS-BR-DS-116
		process? (e.g. to inputs,	A disclosure of changes to	
		workflows, integrations, and	systems and processes which	
		downstream systems and	have not been tested as part of	
		processes; this may be	PIT/SIT/QT, as above.	
		nothing). In the case that	,	
		changes have been made, how	Any instances where you have	
		have you tested these updated	opted out of receiving DIP	
		E2E business process (e.g.	Publications, and how you will	

E2E process changes tested in own UIT environment)	ensure you will receive this information.  How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC Code Requirements, as above.  If there are no relevant	
b) What steps do you follow to obtain and maintain records of Registration Service Notification of Change of Energisation Status updates via the DIP?	additional changes to disclose for this business process, please write "N/A".  For Question 5.5.1.5 B – In your response:  • When receiving the Registration Service Notification of Change of Energisation, what controls do you have in place to ensure that you keep and maintain a record of these notifications?	
c) How do you ensure you have accurately estimated meter readings when no valid readings are received from the Metering Service within 5 working days of a change in Energisation Status?	For Question 5.5.1.5 C – In your response:  • How will you generate an estimated reading where no reads are provided alongside a change in Energisation Status, and how you will ensure this is completed within the 5 working day SLA?	
d) How do you handle previously submitted UTC Period Level	For Question 5.5.1.5 D – In your response:	

	Consumption Data in settlements, upon notification of an energisation status change with no recorded consumption, especially when this change is retrospective?	Processes for when a Change of Energisation notification has been received for a backdated date when there has been no recorded consumption.	
5.5.1.6 Migration Requirements	a) What controls are in place to ensure the appointment process is followed for Migration?	For Question 5.5.1.6 A – Your response should include the following:  What controls are in place to ensure the D0036 containing 3 months of history can be received and processed?  What controls are in place to manage De-appointments following a Registration cancellation, For example, during a reverse migration how will you ensure that you continue to monitor and meet your SLAs?	MHHS-Migration- CoA(DS)-DS-002 MHHS-Migration-Mis- DS-001 MHHS-Migration-Mis- DS-002 MHHS-Migration-Mis- DS-003 MHHS-Migration-Mis- DS-004 MHHS-Migration-Mis- DS-005 MHHS-Migration-Mis- DS-006

## 5.5.2 Data Management

Data Management	Questions	Guidance Points	MHHS requirements	Participant Responses
5.5.2.1 Consumption Data	a) What controls do you have inplace to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC obligations brought about by MHHS?  b) How have you integrated the Advanced Validation & Estimation Method statement into your estimation procedures?	For Question 5.5.2.1 A – Your response should address the following:  • When updates are received what automated and manual processes are in place to update the system in line with business processes.  For Question 5.5.2.1 B – Your response should address the following activities, which should be completed in line with the Advanced Validation and Estimation Method statement:  • There are several steps required in the Advance Validation & Estimation Method statement. How have these been incorporated into normal business processes?	MHHS-BR-DS-072 MHHS-BR-DS-074 MHHS-BR-DS-076 MHHS-BR-DS-082 MHHS-BR-DS-083 MHHS-BR-DS-086 MHHS-BR-DS-088 MHHS-BR-DS-091 MHHS-BR-DS-160 MHHS-BR-DS-166	
	c) When a new load shape is available how will you reprocess the previously submitted data?	For Question 5.5.2.1 C –Your response should address the following:  • As outlined in the Advanced Validation & Estimation Method, please describe your process for handling Load Shape Data, including how you receive this information and the procedures		

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	d)	How do you ensure you accurately obtain and maintain records of Override Reads sent by the Supplier via the DIP?	you follow to reprocess previously submitted data in exceptional circumstances.  For Question 5.5.2.1 D –Your response should address the following:  Process to include obtaining overriding reads and maintaining overriding reads which has been sent by the Supplier.		
	e)	What are the necessary steps for you to publish a Consumption Amendment rejection on the Data Integration Platform when validation fails?	For Question 5.5.2.1 E –Your response should address the following:  Processes to including details of the appropriate interfaces and specifying the types of rejection reasons that should be communicated		
5.5.2.2 Meter Technical Details (MTDs)  Please note it is not required as part of your response to outline minor changes in the use of	a)	What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC obligations brought about by MHHS?	For Question 5.5.2.2 A – Your response should address the following:  • When updates are received what automated and manual processes are in place to update the system in line with business processes.	MHHS-BR-DS-005 MHHS-BR-DS-006.1	
the DTN e.g. to update the new role codes.	b)	How do you receive MTDs through different sources e.g. DTN and DIP?	For Question 5.5.2.2 B – Your response should address the following:		

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	c) How do you investigate discrepancies when MTDs are received from the DIP?  d) How will you process MTDs received from a metering service which does not turn out to be the metering service appointed?	Aside from the DIP and DTN do you have arrangements with Metering Services to receive MTDs in a different way?  For Question 5.5.2.2 C – Your response should address the following:      The process for investigating any discrepancies against data received DIP, who is contacted, how are they contacted and what automated and manual steps are involved?  For Question 5.5.2.2 D - Your response should address the following:      Where details are received from a prospective incoming Metering Service that is not appointed when the Data Service appointment commences, the process for ensuring these details are correct, or that further, revised MTDs have been received from the correct Metering Service appointed		
5.5.2.3 Meter Readings	a) How will you validate any meter readings received?	For Question 5.5.2.3 A – Your response should address the following:  When meter readings are received from site visits or customer-provided readings, how are they validated? Please outline	MHHS-BR-DS-049 MHHS-BR-DS-098 MHHS-BR-DS-098.1 MHHS-BR-DS-111	

	b) How do you ensure that your obtained cumulative reads via the DIP are stored and used in the estimation process?	if there are any differences between the two methods.  For Question 5.5.2.3 B – Your response should address the following:  • Processes and/or controls of previously obtained actual readings used to estimate reads		
	c) When the meter is unable to be read what process and follow up action do you take?	For Question 5.5.2.3 C – Your response should address the following:  Processes to investigate where meter reads cannot be obtained.		
5.5.2.4 Customer Direct Contract	a) What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC obligations brought about by MHHS?	For Question 5.5.2.4 A – Your response should include the following:  Controls in place to ensure that any appointments and updates to Customer Direct Contracts are reflected in the Registration Services.  Controls in place to identify when Customer Direct Contracts need to be removed, and how you will ensure these are published in a timely manner.	MHHS-BR-DS-031 MHHS-BR-DS-032 MHHS-BR-DS-033 MHHS-BR-DS-034 MHHS-BR-DS-035 MHHS-BR-DS-036 MHHS-BR-DS-037	

## 5.6 Smart Data Services (SDS)

### 5.6.1 Business Processes

Business Process Area	Questions	Guidance Points	MHHS requirements	Participant Responses
5.6.1.1 Meter Data Retriever (MDR)	a) Are you intending on undertaking User Entry Process (UEP) for MDR as defined in Section H1 of the Smart Energy Code (SEC)?  If not, what controls have you got in place to ensure you have a Qualified MDR for all Data Communications Company (DCC) enrolled meters as defined in SEC?	If you intend to qualify as an MDR, please state this and include details if you will operate solely as an internal MDR, or if you will provide these services externally.	MHHS-BR-DS-010 MHHS-BR-DS-011.1 MHHS-BR-DS-009 MHHS-BR-DS-019 MHHS-BR-DS-041 MHHS-BR-DS-043 MHHS-BR-DS-130 MHHS-BR-DS-132 MHHS-BR-DS-136	
	b) What controls have you got in place to ensure that you are able to communicate with an MDR (which could be the Supplier)?	If you do not plan to qualify as an MDR, please include:  The process for ensuring there is a qualified MDR (which could be the Supplier) in place for all DCC enrolled meters  The chosen communication methods between the SDS and an MDR (which could be be the Supplier).		
	c) What processes do you have in place to ensure that you can carry out, when required, a change of MDR?	For Question 5.6.1.1 C – Your response should include the following:  • Where a Change of MDR is needed, what are your processes and controls to ensure that this is carried out correctly.		

	e)	If applicable, how will you notify/terminate third party service providers, such as the Meter Reading Service and Meter Data Retrieval Service, according to the agreed bilateral mechanism?  Can you explain how you, your MDR or supplier collecting data for you will manage smart meter data request rejections via the DCC?	For Question 5.6.1.1 D – Your response should include the following:  This could include methods like email, API calls, or secure FTP. The notification should contain relevant data (e.g., meter readings) in the agreed format.  For Question 5.6.1.1 E – Your response should include the following:  Processes on how you will manage rejections including rejection reasons, initial responses, any diagnostic procedures, rectifying any issues, escalation processes and reporting and any preventive measures.		
5.6.1.2 Appointment and/or De-Appointment	a)	Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.6.1.2 A – Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT. This could be because, for example, you have made changes to upstream, downstream, and/or interfacing systems which have not been captured within the scope of the functional test scenarios and scripts but will form part of the wider business process requirements as defined in the BSC. Additionally, this may be because you are placing reliance on testing completed by other MHHS Participants for common systems, but the integration with your own end-to-end solution has not yet been tested.</li> </ul>	MHHS-BR-DS-008.1 MHHS-BR-DS-023.1 MHHS-BR-DS-022 MHHS-BR-DS-024 MHHS-BR-DS-104	

		<ul> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSCCode Requirements. For example, will you perform further testing in your own UIT environment, and if so, what will be the scope of this testing and who will be involved.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>
b)	On de-appointment and in absence of an actual read for a traditional meter, how do you ensure you send an estimated read in line with the requirement?	For Question 5.6.1.2 B – Your response should include the following:  • Where you have rejected a proposed appointment, the process for deleting any metering details that may have been received as soon as is as practical  • Once de-appointed and in the absence of an actual valid read, the process to send an estimated read to the new SDS, LDSO and old Supplier for midnight on the day following deappointment
c)	For smart meters how do you ensure you send the opening cumulative reading and, where available, the register reads?	For Question 5.6.1.2 C – Your response should include the following:

		For Advanced and Smart meters, the process of obtaining actual consumption history up to the point of de-appointment for submission to settlements     The process for downloading, maintaining, and sending cumulative and register reads for Smart meters		
5.6.1.3 Meter Readings	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.6.1.3 A – Your response should address the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-DS-046 MHHS-BR-DS-047 MHHS-BR-DS-048 MHHS-BR-DS-053 MHHS-BR-DS-098 MHHS-BR-DS-098.1 MHHS-BR-DS-111 MHHS-BR-DS-160	
	b) What third party involvement (if any) is involved in the collection process?	For Question 5.6.1.3 B – Your response should include the following:  • If you plan to utilise third parties for		
		collecting meter reads, how will		

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	c) When the meter is unable to be read what process and follow up action do you take?	responsibilities be split between the SDS and third party.  • How you will manage, schedule, and arrange site visits for Traditional Meters to enable submission of consumption data for settlement.  For Question 5.6.1.3 C – Your response should include the following:  • Processes to investigate where meter reads cannot be obtained, and where this process differs with Smart meters (if any).		
	d) How does this process vary dependant on when the meter type is Smart, and it has been agreed with the Supplier to obtain an on-site read?	For Question 5.6.1.3 D – Your response should include the following:  • If data cannot be obtained, the process to create and publish best estimates as defined by the appropriate Method Statement within the 6 working day timeframe.		
	e) How do you ensure they accurately obtain and maintain records of Override Reads sent by the Supplier via the DIP?	For Question 5.6.1.3 E – Your response should include the following  • Processes to include obtaining overriding reads and maintaining overriding reads which has been sent by the Supplier.		
5.6.1.4 Meter Technical Details (MTDs)  Please note it is not required as part of your response to outline minor	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that	For Question 5.6.1.4 A - Your response should include the following:  • A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.	MHHS-BR-DS-003 MHHS-BR-DS-006 MHHS-BR-DS-006.1 MHHS-BR-DS-016 MHHS-BR-DS-023.1 MHHS-BR-DS-121	

changes in the use of the DTN e.g. to update the new role codes.	changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.  How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC Code Requirements, as above.  If there are no relevant additional changes to disclose for this business process, please write "N/A".	
	b) How do you receive MTDs through different sources e.g. DTN and MDR/DIP?	For Question 5.6.1.4 B - Your response should include the following:  The method(s) used to receive and maintain records of MTDs for Traditional Meters	
	c) How do you investigate discrepancies when MTDs are received from the DIP?	For Question 5.6.1.4 C - Your response should include the following:  • Where Related MPANs or Import/Export linked meters exist, the process to ensure MTDs are received for all MPANs in the Related MPAN or Import/Export group	
	d) How will you process MTDs received from a metering service which does not turn out to be the metering service appointed?	For Question 5.6.1.4 D – Your response should include the following:  • The process for investigating any discrepancies against data received from the Registration Services	

	e)	How do you maintain your metering recording accurately?	For Question 5.6.1.4 E - Your response should include the following:  • Where details are received from a prospective incoming Metering Service that is not appointed when the Data Service appointment commences, the process for ensuring these details are correct, or that further, revised MTDs have been received from the correct Metering Service appointed.		
5.6.1.5 Identify Faults	a)	Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.6.1.5 A - Your response should include the following:         <ul> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> </ul> </li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A"</li> </ul>	MHHS-BR-DS-147 MHHS-BR-DS-147.1	
	b)	The SDS needs to identify any faulty metering equipment and	For Question 5.6.1.5 B – Your response should include the following:		

	notify the Smart Metering Service and the Supplier. What is your process for this?	Please describe your prescribed method as agreed with the Supplier to notify them of any faults, including how you will monitor faults and follow up with the Supplier if required.		
5.6.1.6 Change of Metering	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.6.1.6 A – Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-DS-146 MHHS-BR-DS-121 MHHS-BR-DS-117 MHHS-BR-DS-123	
	b) How do you identify related MPANs or Import/Export linked meters?	For Question 5.6.1.6 B – Your response should include the following:  The process for identifying: Related MPANs Import/Export linked meters		

5.6.1.7 Operational Requirements	a) What controls do you have in place to ensure that you meet all of your requirements as outlined in the Operational Choreography Version 5.5?	For Question 5.6 .1.7 A - Your response should include the following:  Both preventative controls and detective controls, which could include your monitoring activities and processes for manual intervention. How you will ensure you meet specific processing and response SLAs (these may be referenced in your answers above)  How you will ensure you meet your operational requirements which may not have been tested during functional testing?	OPC_061 OPC_150 OPC_170A OPC_170B OPC_190 OPC_200 OPC_210  OPC_210  OPC_300 OPC_320 OPC_340 OPC_360 OPC_370 OPC_390 (relates to IF-024) OPC_420 OPC_440 OPC_440 OPC_440 OPC_470 OPC_490 OPC_550 OPC_570 OPC_580
5.6.1.8 Change of Energisation	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated	For Question 5.6.1.8 A – Your response should include the following:  A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.  Any instances where you have opted out of receiving DIP Publications, and	MHHS-BR-DS-106

	E2E business process (e.g. E2E process changes tested in own UIT environment)	how you will ensure you will receive this information.  How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC Code Requirements, as above.  If there are no relevant additional changes to disclose for this business process, please write "N/A".		
	b) What steps do you follow to obtain and maintain records of Registration Service Notification of Change of Energisation Status updates via the DIP?	For Question 5.6.1.8 B – Your response should include the following:  When receiving the Registration Service Notification of Change of Energisation, what controls do you have in place to ensure that you keep and maintain a record of these notifications?		
	c) How do you ensure you have accurately estimated meter readings when no valid readings are received from the Metering Service within 5 working days of a change in Energisation Status?	<ul> <li>For Question 5.6.1.8 C – Your response should include the following:</li> <li>How you will generate an estimated reading where no reads are provided alongside a change in Energisation Status, and how you will ensure this is completed within the 5 working day SLA.</li> </ul>		
5.6.1.9 Migration Requirements	a) What controls do you have in- place to ensure the appointment process is followed for Migration?	For Question 5.6.1.9 A – Your response should include the following:	MHHS-Migration- CoA (DS)-DS-001 MHHS-Migration- CoA (DS)-DS-003	

	What controls are in place to ensure a read is retrieved at midnight and sent via IF-041 to the DIP?  What controls are in place to manage De-appointments following a Registration cancellation, For example, during a reverse migration how will you ensure that you continue to monitor and meet your SLAs?	MHHS-Migration- Mis-DS-001 MHHS-Migration- Mis-DS-002 MHHS-Migration- Mis-DS-003 MHHS-Migration- Mis-DS-004 MHHS-Migration- Mis-DS-005 MHHS-Migration- Mis-DS-006
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## 5.6.2 Data Management

Data Management	Questions	Guidance Points	MHHS requirements	Participant Responses
Area				
5.6.2.1 Estimation Values  Please note this question is not asking for an explanation as to how connection to the DIP is made	a) What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC obligations brought about by MHHS?	For Question 5.6.2.1 A – Your response should include the following:     Processes for validating UTC Period Level Consumption Data for a given submission, as well as any estimates.	MHHS-BR-DS-073 MHHS-BR-DS-082 MHHS-BR-DS-084 MHHS-BR-DS-087 MHHS-BR-DS-089 MHHS-BR-DS-109	082 084 087 089 092
and maintained.	b) Please outline how you have integrated the Smart Validation & Estimation Method Statement into your local working procedures. This should look to cover estimation for missing and/or	For Question 5.6.2.1B&C – Your response should include the following:     Processes for estimating consumption for any missing/invalid periods, as well		

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c)	invalid periods or re-estimating consumption.  Please outline how the most appropriate method is selected from the SDS method statement.	processes to re-estimate consumption for any estimated UTC periods where further data becomes available to support a more accurate estimate to be submitted  The process for storing valid register reads for use in the estimation process where no better data is available.	
d)	When a new load shape is available how will you reprocess the previously submitted data?	For Question 5.6.2.1 D – Your response should include the following:  • As outlined in the Smart V&E method statement & Estimation Method, please describe your process for handling Load Shape Data, including how you receive this information and the procedures you follow to reprocess previously submitted data	
e)	How do you ensure that your obtained cumulative reads via the DIP are stored and used in the estimation process?	For Question 5.6.2.1 E – Your response should include the following:  Processes and/or controls of previously obtained actual readings used to estimate reads	

5.6.2.2 Customer Direct Contract	What controls do you have in- place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS?	<ul> <li>For Question 5.6.1.10. A – Your response should include the following:         <ul> <li>Controls in place to ensure that any appointments and updates to Customer Direct Contracts are reflected in the Registration Services.</li> </ul> </li> <li>Controls in place to identify when Customer Direct Contracts need to be removed, and how you will ensure these are published in a timely manner.</li> </ul>	MHHS-BR-DS-031 MHHS-BR-DS-032 MHHS-BR-DS-033 MHHS-BR-DS-034 MHHS-BR-DS-035 MHHS-BR-DS-036 MHHS-BR-DS-037	
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### 5.7 Unmetered Supplies Data Service (UMSDS)

Note: Prior to seeking Qualification as a UMSDS your Equivalent Meter needs to be approved via various committees, as outlined in BSCP700.

The UMSDS must be Qualified to operate as a Data Service in line with the BSC Qualification Process.

### 5.7.1 Business Processes

<b>Business Process</b>	Questions	Guidance Points	MHHS	Participant Responses
Area			requirements	
5.7.1.1 Appointments and/or De- Appointments In line with MHHSP- BP002	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.7.1.1 A – Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT. This could be because, for example, you have made changes to upstream, downstream, and/or interfacing systems which have not been captured within the scope of the functional test scenarios and scripts but will form part of the wider business process requirements as defined in the BSC Codes. Additionally, this may be because you are placing reliance on testing completed by other MHHS Participants for common systems, but the integration with your own end-toend solution has not yet been tested.</li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC Code Requirements. For example, will you perform further testing in your own UIT</li> </ul>	MHHS-BR-DS-002 MHHS-BR-DS-017	

	b) How do you receive the notification from the Registration Service and any supporting information confirming the UMSO appointment?	environment, and if so, what will be the scope of this testing and who will be involved.  If there are no relevant additional changes to disclose for this business process, please write "N/A".  For Question 5.7.1.1 B – Your response should address the following:  The process and/or systems used to receive a new UMSO appointment and MPAN details from the Registration Service, and how these records are maintained within your system		
	c) How do you obtain the information on submeters, location, latitude/longitude and Photoelectric Control Unit (PECU) Array details?	For Question 5.7.1.1 C – Your response should address the following:  The agreed delivery method of MPAN details from the UMSO		
5.7.1.2 Data Collection	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.7.1.2 A – Your response should include the following:         <ul> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> </ul> </li> <li>Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still</li> </ul>	MHHS-BR-DS-061 MHHS-BR-DS-062 MHHS-BR-DS-063 MHHS-BR-DS-064 MHHS-BR-DS-065 MHHS-BR-DS-066 MHHS-BR-DS-067 MHHS-BR-DS-068 MHHS-BR-DS-069 MHHS-BR-DS-071	

	enable you to operate in line with your BSC Code Requirements, as above.  • If there are no relevant additional changes to disclose for this business process, please write "N/A".	
b) How do you receive and validate D0388 unmetered supplies inventory from the UMSO?	For Question 5.7.1.2 B – Your response should address the following:  The agreed method for receiving and validating D0388 flows from the UMSO	
c) How do you send the D0389 UMS response following validation?	The sending of the D0389 response flow following rejection, outlining whether each MPAN is accepted or rejected, and where rejected, the reason for rejection	
d) Upon being appointed how do you obtain and manage the provision of the PECU Arrays data and support delivery of consumption data?	For Question 5.7.1.2 D – Your response should address the following:  The method for receiving and maintaining the provision of PECU arrays in line with the UMSDS Method Statement	
e) Upon being appointed how do you obtain details of the Central Management System (CMS) from the customer, UMSO or CMS provider?	For Question 5.7.1.2 E – Your response should address the following:  How you will retrieve details of the Central Management System from the customer, UMSO and/or CMS provider (including whether this process differs between providers) and schedule contact to support delivery of UTC Period Level Consumption Data	

	f) How do you obtain the switching times and load information from the CMS?	For Question 5.7.1.2 F – Your response should address the following:  • Your chosen method for obtaining and		
5.7.1.3 Identifying Faults	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	validating switching times and load information from CMS  For Question 5.7.1.3 A – Your response should include the following:  • A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.  • Any instances where you have opted out of receiving DIP Publications, and how you will ensure you will receive this information.  • How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC Code Requirements, as above.	MHHS-BR-DS- 147.2	
	b) What is the process to receive fault notifications?	to disclose for this business process, please write "N/A".  For Question 5.7.1.3 B – Your response should address the following:  How you will receive notification (either in a system/portal or otherwise e.g. email) when there is a fault with the metering equipment		

		The UMSDS needs to investigate any faulty metering equipment, identified, or notified to them.	
	c) What actions do you take to investigate faulty equipment?	For Question 5.7.1.3 C – Your response should address the following:	
		The process for investigating faults in a timely manner once notification has been received.	
		How feedback of faults, (including progress of resolution and any delays encountered) will be provided upon investigation.	
		How faults will be tracked and monitored internally. This may include a fault log or fault report that contains details of any past and present faults.	
5.7.1.4 Operational Requirements	What controls do you have in place to ensure that you meet all of your requirements as outlined in the Operational Choreography?	For Question 5.7.1.4 A - Your response should include the following:  Both preventative controls and detective controls, which could include your monitoring activities and processes for manual intervention. How you will ensure you meet specific processing and response SLAs (these may be referenced in your answers above)  How you will ensure you meet your operational requirements which may not have been tested during functional testing.?	OPC_150 OPC_170A OPC_170B OPC_190 OPC_200 OPC_210 OPC_300 OPC_340 OPC_420 OPC_420 OPC_430A OPC_440 OPC_490 MHHS-BR-DS-040
5.7.1.5 Migration Requirements	a) What controls do you have in- place to ensure that the appointment process is followed for Migration? ?	For Question 5.7.1.5 A – Your response should include the following:	MHHS-Migration- UNM-DS-001

	Do you have Bi-laterals in place to agree a process for migration outside of market messages		
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## 5.7.2 Data Management

Data Management	Questions	Guidance Points	MHHS Requirements	Participant Responses
5.7.2.1 Data Processing	a) What controls do you have in-place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC obligations brought about by MHHS?	For Question 5.7.2.1 A —Your response should address the following:  • When updates are received, what automated and manual processes are in place to update the system in line with business processes.	MHHS-BR-DS-078 MHHS-BR-DS-081 MHHS-BR-DS-085 MHHS-BR-DS-090	
	b) When a new load shape is available how will you reprocess the previously submitted data?	For Question 5.7.2.1 B –Your response should address the following:  • The process to reprocess previously submitted data following the UMSDS Method Statement when a new load shape is made available.		
	c) How do you calculate consumption for all UTC periods?	For Question 5.7.2.1 C – Your response should address the following:  • Processes and/or systems used to calculate consumption for all UTC periods, and methods used to check all calculations are complete and accurate		

	d) How do you re-calculate consumption when better data becomes available?	For Question 5.7.2.1 D – Your response should address the following:  Circumstances in which you may recalculate consumption data, and how this re-calculation is performed		
5.7.2.2 Customer Direct Contract	a) What controls do you have in-place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC obligations brought about by MHHS?	<ul> <li>For Question 5.7.2.2 A – Your response should include the following:</li> <li>Controls in place to ensure that any appointments and updates to Customer Direct Contracts are reflected in the Registration Services.</li> <li>Controls in place to identify when Customer Direct Contracts need to be removed, and how you will ensure these are published in a timely manner</li> </ul>	MHHS-BR-DS-031 MHHS-BR-DS-032 MHHS-BR-DS-033 MHHS-BR-DS-034 MHHS-BR-DS-035 MHHS-BR-DS-036 MHHS-BR-DS-037	

# 5.8 Meter Operator Agent (MOA)

#### 5.8.1 Business Process

Business Process	Questions	Guidance Points	MHHS requirements	Participant Responses
5.8.1.1 Metering Role	a) Please confirm for which of the following segments you intend to operate in:	For Question 5.8.1.1 A – Your response should include the following:  Which MOA segment(s) you are applying to Qualify in, hence complete your testing for.		
5.8.1.2 Appointments In line with MHHSP-BP002 and MHHSP-BP003	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	For Question 5.8.1.2 A – Your response should include the following:  • A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT. This could be because, for example, you have made changes to upstream, downstream, and/or interfacing systems which have not been captured within the scope of the functional test scenarios and scripts but will form part of the wider business process requirements as defined in the BSC and REC Codes. Additionally, this may be because you are placing reliance on testing completed by other MHHS Participants for common systems, but the integration with your own end-to-end solution has not yet been tested.	MHHS-BR-MS-001 MHHS-BR-MS-002 MHHS-BR-MS-003 MHHS-BR-MS-004 MHHS-BR-MS-005 MHHS-BR-MS-006 MHHS-BR-MS-006.1 MHHS-BR-MS-007 MHHS-BR-MS-008 MHHS-BR-MS-008 MHHS-BR-MS-009 MHHS-BR-MS-009 MHHS-BR-MS-009 MHHS-BR-MS-009.1 MHHS-BR-MS-040 MHHS-BR-MS-040 MHHS-BR-MS-086 MHHS-BR-MS-086 MHHS-BR-MS-088 MHHS-BR-MS-088	

		<ul> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your BSC and REC Code Requirements. For example, will you perform further testing in your own UIT environment, and if so, what will be the scope of this testing and who will be involved.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	
b)	What controls do you have in place to ensure the end-to-end process is carried out within MHHS defined timescales as outlined in the Operational Choreography and baselined in the relevant codes?	For Question 5.8.1.2 B – Your response should include the following:  Controls to ensure Appointment Activities are carried out in line with MHHS defined timescales and messages are processed within 60 minutes of receipt, outlined in the operational choreography. This may include detective controls such as ongoing monitoring.	
c)	What controls do you have in place to identify auto de- appointments by the Registration Services?	For Question 5.8.1.2 C – Your response should include the following:  Controls in place to identify where you have been automatically deappointed as the MOA, for example where the change of meter segment process was not aligned with the appointment process.  Controls to ensure that your own records are up-to-date to reflect	

		that you were automatically deappointed.  How you will work with the Supplier to resolve the issue.		
5.8.1.3 Change of Energisation Status In line with MHHSP-BP008	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.8.1.3 A – Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-MS-041 MHHS-BR-MS-042 MHHS-BR-MS-042.1 MHHS-BR-MS-043 MHHS-BR-MS-044 MHHS-BR-MS-045.1 MHHS-BR-MS-046 MHHS-BR-MS-046.1 MHHS-BR-MS-049 MHHS-BR-MS-050	
	b) What controls do you have in place to ensure that for all aspects of the change of energisation process, that communication of relevant information is sent within the timescales set out in the REC. (this response should include the following areas:  a. Change of energisation status response (smart, advanced, and traditional)	For Question 5.8.1.3 B – Your response should include the following:  Controls to ensure change of energisation status updates from the LDSO are processed within 3 working days.  Controls in place to ensure that you have captured the final Meter Register Readings and provided these to the Data Service before disposing of or re-using the meter.  In the case that the change of energisation cannot be actioned,		

	<ul> <li>b. Capture and publish cumulative read</li> <li>c. When change of energisation cannot be actioned</li> <li>d. Investigating and resubmitting rejections)</li> </ul>	how this will be captured in your internal records, communicated to the Supplier, and how you will determine the next steps to resolve the issue.		
5.8.1.4 Change of Market Segment In line with MHHSP-BP011	a) Excluding the functional elements tested in PIT/SIT/QT, what further changes have been made to your E2E business process? (e.g. to inputs, workflows, integrations, and downstream systems and processes; this may be nothing). In the case that changes have been made, how have you tested these updated E2E business process (e.g. E2E process changes tested in own UIT environment)	<ul> <li>For Question 5.8.1.4 A – Your response should include the following:</li> <li>A disclosure of changes to systems and processes which have not been tested as part of PIT/SIT/QT, as above.</li> <li>How you will gain assurance that even with these additional changes, your wider end-to-end systems and processes will still enable you to operate in line with your REC Code Requirements, as above.</li> <li>If there are no relevant additional changes to disclose for this business process, please write "N/A".</li> </ul>	MHHS-BR-MS-092 MHHS-BR-MS-093 MHHS-BR-MS-094 MHHS-BR-MS-095 MHHS-BR-MS-096 MHHS-BR-MS-097 MHHS-BR-MS-097.1	
	b) What controls do you have in place to ensure that you can carry out a change of segment meter exchange and publish details and reads where you are not formally appointed as the Metering Service but do have an accepted prospective appointment.	<ul> <li>For Question 5.8.1.4 B – Your response should include the following:</li> <li>Controls do you have in place to ensure you have identified meters which you are not appointed to, but have accepted a prospective appointment.</li> <li>How your systems will reflect this status and enable related</li> </ul>		

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		processes such as a change of segment meter exchange.	
5.8.1.5 Migration Requirements	a) What controls do you have inplace to ensure you meet the specific appointment and meter technical details requirements during a migration?  A provided the specific appointment and meter technical details requirements during a migration?	For Question 5.8.1.5 A – Your response should include the following:      What controls will you have in place to ensure MTD accuracy for migration. For example, during a reverse migration how will you ensure that you continue to monitor and meet your SLAs regarding sharing meter technical details.      Additionally, when you identify that meter technical details change after these have already been sent to the incoming meter service as part of a migration, how will you ensure you send the updated meter technical details.	MHHS-Migration- CoA(MS)-MOP-002 MHHS-Migration- CoA(MS)-MOP-004 MHHS-Migration- CoA(MS)-MOP-005 MHHS-Migration- CoA(MS)-MOP-006 MHHS-RMigration- CoA(MS)-MOP-001 MHHS-RMigration- CoA(MS)-MOP-002 MHHS-RMigration- CoA(MS)-MOP-003 MHHS-RMigration- Mis-MOP-001 MHHS-Migration- Mis-MOP-001 MHHS-Migration- Mis-MOP-002 MHHS-Migration- Mis-MOP-006 MHHS-Migration- Mis-MOP-006 MHHS-RMigration- CoA(MS)-MS-003 MHHS-Migration- Mis-MS-001 MHHS-Migration- Mis-MS-001 MHHS-Migration- Mis-MS-002 MHHS-Migration- Mis-MS-002 MHHS-Migration- Mis-MS-002 MHHS-Migration- Mis-MS-006

5.8.1.6	a)	What controls do you have in	Fo	r Question 5.8.1.6 A - Your	OPC_150	
Operational		place to ensure that you meet	res	ponse should include the following:	OPC_170A	
Requirements		all of your requirements as			OPC_170B	
		outlined in the Operational	•	Both preventative controls and	OPC_190	
		Choreography Version 5.5?		detective controls, which could	OPC_200	
				include your monitoring activities	OPC_210	
				and processes for manual	OPC_240	
				intervention.	OPC_260	
				11	OPC_280	
			•	How you will ensure you meet	OPC_300	
				specific processing and response SLAs (these may be referenced in	OPC_320A	
				your answers above)	OPC_320B	
				your anomore above,	OPC_340	
			•	How you will ensure you meet your	OPC_420	
				operational requirements which	OPC_430A	
				may not have been tested during	OPC_440	
				functional testing, such as	OPC_490	
				OPC_320A to make data available	OPC_510	
				to other parties (as applicable) by 06:00hrs the next Working Day		
				after receiving a notification of		
				disconnection.		

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## 5.8.2 Data Management

Data Management Area	Questions	Guidance Points	MHHS requirements	Participant Responses
5.8.2.1 Meter Technical Details (MTDs)	place to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the REC obligations brought about by MHHS?  Petails  response should include the following:  Where there have been updates to Meter Technical Details, any controls in place to ensure all records are maintained completely and accurately in relevant systems.  Where there have been updates to Meter Technical Details, any controls in place to ensure all records are maintained completely and accurately in relevant systems.	MHHS-BR-MS-017 MHHS-BR-MS-018 MHHS-BR-MS-019 MHHS-BR-MS-020 MHHS-BR-MS-021 MHHS-BR-MS-022 MHHS-BR-MS-023 MHHS-BR-MS-024 MHHS-BR-MS-026 MHHS-BR-MS-027		
	b) What controls do you have in place to identify when you need to send Meter Technical Details during a Change of Supplier and/or MOA Appointment.	For Question 5.8.2.1 B – Your response should include the following:  Controls you have in place to capture when MTDs need to be sent, and how you will monitor these are sent within the timeframes outlined in the REC.	MHHS-BR-MS-028 MHHS-BR-MS-030 MHHS-BR-MS-058 MHHS-BR-MS-062 MHHS-BR-MS-063 MHHS-BR-MS-098 MHHS-BR-MS-099	
	c) What controls do you have in- place to ensure you identify where you need to send Meter Technical Details to a prospective Advanced Data Service, and for Traditional Meters to a prospective Smart Data Service.	For Question 5.8.2.1 C – Your response should include the following:  Controls you have in place to capture when MTDs need to be sent, and how you will monitor these are sent within the timeframes outlined in the REC.		

	d)	How will you identify and investigate any discrepancies in Meter Technical Details received from the incumbent Metering Service and those received from the Registration Service?	For Question 5.8.2.1 D – Your response should include the following:  Proactive controls to identify any discrepancies between MTDs received from incumbent MOA and those received from the Registration Service.  Where discrepancies are identified, what business processes will you have in place to investigate and resolve the difference in a timely manner.		
	e)	What controls do you have in place to identify missing Meter Technical Details following a MOA appointment to ensure you request these Meter Technical Details from the losing MOA.	For Question 5.8.2.1 E – Your response should include the following:  • Controls to validate the Meter Technical Details received on appointment are complete, and in the case that they are not complete, how you will ensure you request these details from the losing MOA in a timely manner.		
5.8.2.2 Customer Direct Contracts	a)	What controls do you have in- place to ensure that the published Customer Direct Contract details are accurate and up to date.	For Question 5.8.2.2 A – Your response should include the following:  • Controls in place to ensure that you have in place to ensure that any appointments and updates to Customer Direct Contracts are reflected in the registration services.	MHHS-BR-MS-010 MHHS-BR-MS-011 MHHS-BR-MS-012 MHHS-BR-MS-013 MHHS-BR-MS-014 MHHS-BR-MS-015 MHHS-BR-MS-016	

		Controls in place to identify when Customer Direct Contracts need to be removed, and how you will ensure these are published in a timely manner.		
5.8.2.3 Registration Data	a) What controls do you have inplace to ensure that interface data updates are captured within the relevant systems to support wider business processes for in scope services in line with the BSC and REC obligations brought about by MHHS? (this is relevant to: MPL Address, Domestic Premises Indicator, Related MPAN, Energy Direction, Metered Status, SMSO details, Import/Export links, Profile Class / SSC details, Energisation Status, MAP)	For Question 5.8.2.3 A – Your response should include the following:  • Where there have been updates to registration data, any controls in place to ensure all changes are captured and maintained accurately within relevant systems.	MHHS-BR-MS-057 MHHS-BR-MS-058.2 MHHS-BR-MS-058.3 MHHS-BR-MS-065 MHHS-BR-MS-066.1 MHHS-BR-MS-066.2 MHHS-BR-MS-066.3 MHHS-BR-MS-066.4 MHHS-BR-MS-066.5 MHHS-BR-MS-066.6 MHHS-BR-MS-077	

5.8.2.4 Faults	a) What controls do you have inplace to ensure that faults are investigated and updates sent within the timescales set out in the REC?	For Question 5.8.2.4 A – Your response should include the following:  Controls in place to ensure you identify where you are required to investigate a fault, and that an appropriate work item is created.  How you will ensure that you send the required Market Messages depending on the timeline and status of the investigation as per REC Schedule 14.	MHHS-BR-MS-052 MHHS-BR-MS-078 MHHS-BR-MS-079	
5.8.2.5 Consumption Data and Cumulative Reads	a) What controls do you have inplace to ensure that you capture and send the latest     Consumption Data and     Cumulative Reads when needed	For Question 5.8.2.5 A – Your response should include the following:  Controls in place to ensure that you capture latest meter readings when on-site and that these maintained accordingly.  Controls in place to ensure that you capture and provide Advanced and Smart Consumption Data in line with your bilateral service agreements with Suppliers.	MHHS-BR-MS-054 MHHS-BR-MS-055 MHHS-BR-MS-061	

5.8.2.6 Meter Works	What controls do you have in- place to ensure that once meter work is completed that updates are sent within the timescales set out in the REC?	For Question 5.8.2.6 A – Your response should include the following:  • Controls in place to ensure that you send the required Market Messages within the timescales identified in REC Schedule 14, including in areas such as:  • Meter change acceptances and rejections • Completion of metering work (e.g. installation, removal, exchange) • Notification of failure to install or energise metering system • Proving tests	MHHS-BR-MS-037.1 MHHS-BR-MS-037.2 MHHS-BR-MS-051 MHHS-BR-MS-056 MHHS-BR-MS-058.1 MHHS-BR-MS-059 MHHS-BR-MS-060 MHHS-BR-MS-080.1	
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