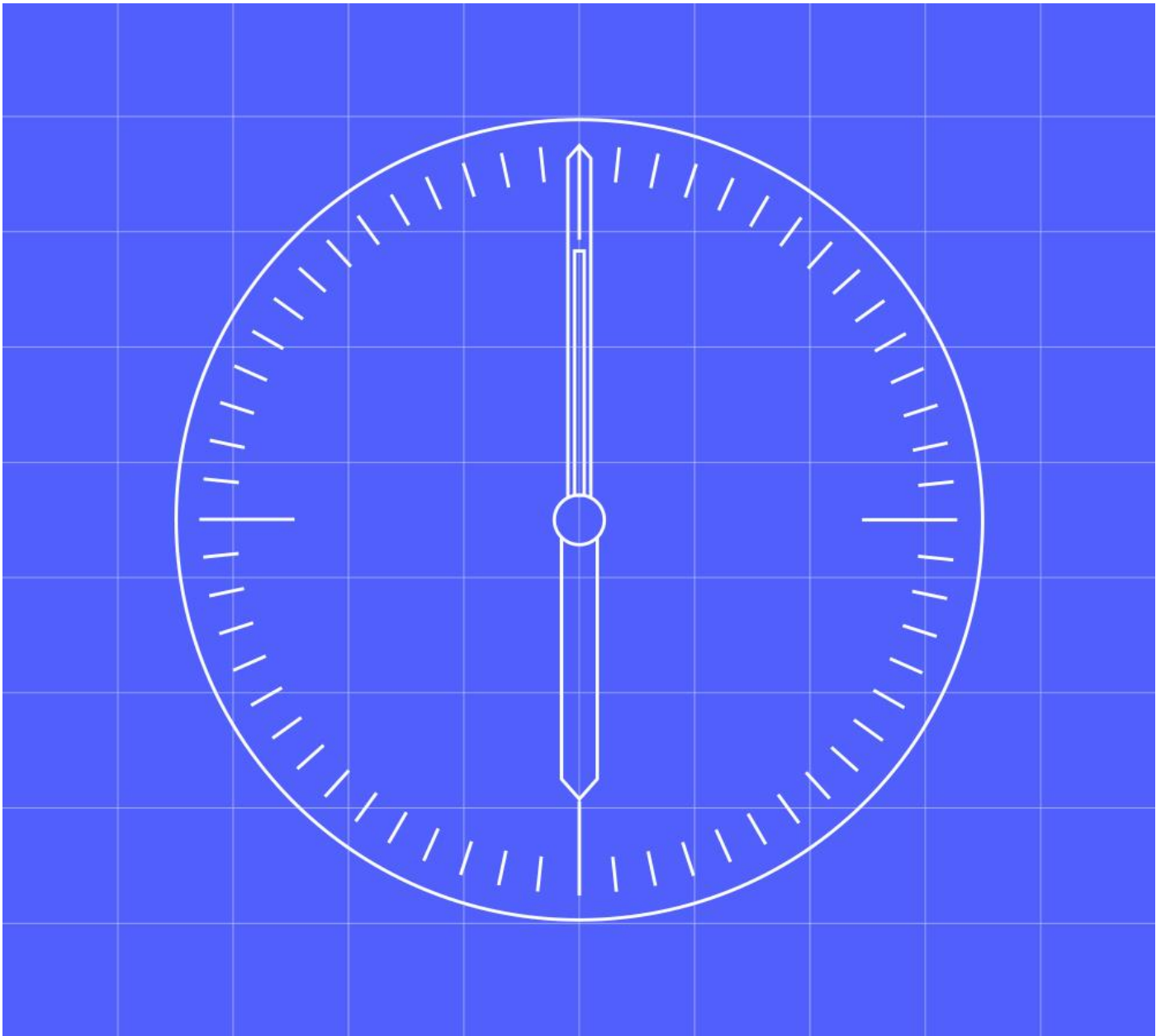


BSC Assessment Criteria for Qualification



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2. House Keeping

2.1 Change Record

Date	Author	Version	Change Detail
28 March 2024	BSCCo	1.0	First Version – Included Functional, Non-Functional and Migration Requirements.
03 July 2024	BSCCo	2.0	Second Version – Included Operational Requirements
20 August 2024	BSCCo	3.0	Finalised Version.

2.2 Linked Documents

Reference	Document Link	Version	Published Date	Additional Information
MHHS-P-BRS001	Data Service Requirements	5.5	19/01/2024	
MHHS-P-BRS002	Metering Service Requirements	5.6	19/01/2024	
MHHS-P-BRS003	Registration Service Requirements	5.7	04/06/2024	
MHHS-P-BRS004	Supplier Overview Requirements	5.5	04/06/2024	
MHHS-P-BRS005	LDSO Overview Requirements	5.3	04/06/2024	
MHHS-DEL2128	NFR Categorisation	2.0		
MHHS-DEL974	MHHS Migration Design Requirements	1.2	03/06/2024	
MHHS-DEL2417	SIT Operational Approach and Plan	1.0	15/05/2024	
MHHS-OPC001	Operational Choreography	5.4	21/09/2023	

3. Summary

3.1 High-Level Requirements

To complete MHHS Programme Qualification, a Programme Participant needs to complete the following:

- Pre-Integration Testing (PIT);
 - System Integration Testing (SIT) or Qualification Testing (QT); and
 - The Qualification Assessment Document (QAD).
-

3.2 Purpose of the Document

To develop the BSC Assessment Criteria, the BSC has reviewed the MHHS Business Requirements by role: LDSO, SMRAs, UMSO, Suppliers and Data Services published by MHHS Programme to identify areas relevant for BSC, assessed the associated Settlement Risks, and developed the assessment criteria by role as outlined in this document and approved by BSC PAB.

This document is based on the existing requirements within the current design baseline. The lower-level detail, including the approach to testing relevant non-functional requirements and new response timescales as defined in the Operational Choreography will be applied following agreement of the high-level approach. Some areas of design are still outstanding and if we need to update the document, this will be brought back to BSC PAB.

3.3 Assumptions

BSCCo has made the following assumptions when creating the BSC Assessment Criteria document, which can be revised as further information is provided:

- No QT will be required where existing functionality has not changed for a Qualified Person;
- The Data Integration Platform (DIP) Manager will provide connectivity proving;
- Qualification Test Scenarios will look to cover Market Role E2E coverage;
- PIT Evidence will look to cover a Participants internal interfaces and processes; and
- The QAD will provide details and evidence that their business solution meets their BSC obligations.

4. BSC Assessment Criteria for Qualification

The following assessment criteria has been developed by the Elexon MHHS Qualification Team and approved by the BSC PAB. This document may be updated as further information is published by the MHHS Programme.

4.1 Functional Requirements

The following assessment criteria to cover MHHS Business Requirements (Functional). This is based on:

- MHHSP-BRS001 Data Service Requirements v5.5
- MHHSP-BRS002 Metering Service Requirements v5.6
- MHHSP-BRS003 Registration Service Requirements v5.7
- MHHSP-BRS004 Supplier Overview Requirements v5.5
- MHHSP-BRS005 LDSO Overview Requirements v5.3

4.1.1 Advanced Data Service Functional Requirements

Market Role	Area	MHHS Requirements		Settlement Risk	Risk Rating	Proposed Qualification Approach		
						QAD Question	PIT	Qualification Test Scenario
ADS/SDS	Change of Metering Service	MHHS-BR-DS-003	ADS/SDS must obtain Registration Service Notification of Service Appointment & Supporting Info updates, confirming a Metering Service appointment and providing MPAN/ Meter Technical details, via the appropriate interface on the Data Integration Platform and maintain records accordingly for all meter types	RE003	M	Y	Y	Y
ADS		MHHS-BR-DS-005	ADS must receive Meter Technical Detail via the appropriate interface (D0268 on DTN), maintain records accordingly and investigate any discrepancies with data received from the Registration Service (PUB-036 via the Data Integration Platform). These details could be received from a prospective incoming Metering Service that does not turn out to be the Metering Service appointed when the Data Service appointment commences. Therefore ADS may wish to consider how to process these MTDs ie they will provide early view of MTDs at site, however further MTDs (which may be revised) could be received from a second subsequent Metering Service.	ME002	H	Y	Y	Y
ADS/SDS		MHHS-BR-DS-006.1	ADS/SDS must investigate with the Metering Service where Meter Technical Details are not received for Advanced/ Traditional meters in expected timescales, as outlined in the Operational Choreography, or where they appear to be incorrect	DS008	M/H	Y	Y	Y
Data Service	Change of Data Service	MHHS-BR-DS-007	Data Service must obtain Registration Service Request for Service Appointments, with Data Service proposed appointment requests, via the appropriate interface on the Data Integration Platform	RE001	VH		Y	Y
Data Service		MHHS-BR-DS-008	Data Service must confirm that they are certified to service the connection type and able to contractually deliver the Data Service based on the information contained in the proposed appointment request and publish a response (acceptance or rejection) on the Data Integration Platform via the appropriate interface. Where the Data Service rejects an appointment request, a rejection reason should be provided in the response. Data Service should be aware that following the initial acceptance the appointment remains "prospective"	RE001	VH		Y	Y

		and there is a possibility that it may need to be lapsed.						
ADS/SDS	MHHS-BR-DS-008.1	ADS/SDS must, for any proposed appointments it rejects, delete any metering details received, as soon as operationally practicable following the rejection.	DS001	VH	Y	Y	Y	
Data Service	MHHS-BR-DS-009	Data Service must, where required, make their own arrangements for notifying any third party service providers (eg Meter Reading Service, Meter Data Retrieval Service) via a mechanism agreed bilaterally	ME003	M	Y			
Data Service	MHHS-BR-DS-011	Data Service must be able to process requests to vary the conditions of an existing appointment received via the appropriate interface. For example change of contract code or change of MDR (SDS only). These should be validated and an outcome returned using the appropriate interface. In the case of rejection, a rejection reason should be provided in the response and the existing appointment will continue unamended.	DS001	VH		Y	Y	
Data Service	MHHS-BR-DS-012.1	Data Service must obtain Registration Service Appointment Status Notification updates, acknowledging the Prospective Data Service accepted/rejected appointments, via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE001	H		Y	Y	
Data Service	MHHS-BR-DS-012	Data Service must obtain Registration Service Appointment Status Notifications, with Data Service lapsed appointments, via the appropriate interface on the Data Integration Platform and update records accordingly so as to ensure that the appointment does not become effective. ADS/SDS must delete meter technical details received for all lapsed appointments as soon as operationally practicable following receipt of the lapsed notification.	RE003	M		Y	Y	
Data Service	MHHS-BR-DS-013	Data Service must obtain Registration Service Notification of Service Appointment & Supporting Info updates, confirming a Data Service appointment, via the appropriate interface on the Data Integration Platform and update records with MPAN and Meter Technical Details (ADS/SDS only). For the avoidance of doubt this is the message that indicates that an appointment will/has taken effect.	RE001	VH		Y	Y	
ADS	MHHS-BR-DS-015	ADS must receive Meter Technical Detail via the appropriate interface (D0268 on DTN), maintain records accordingly and investigate any discrepancies with data received from the Registration Service (PUB-036 via the Data Integration Platform). These details could be received from a prospective incoming Metering Service that does not turn out to be the Metering Service appointed when the Data Service appointment commences. Therefore ADS may wish to consider how to process these MTDs ie they will provide early view of MTDs at site, however further MTDs (which may be revised) could be received from a second subsequent Metering Service.	ME002	H		Y	Y	
Data Service	MHHS-BR-DS-018	Data Service must obtain Registration Service Notification of Service De-Appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE001	VH		Y	Y	
Data Service	MHHS-BR-DS-019	Data Service must, where required, make their own arrangements for terminating any third party service providers (eg Meter Reading Service, Meter Data Retrieval Service) via a mechanism agreed bilaterally	RE003	M	Y			
ADS/SDS	MHHS-BR-DS-022	ADS/SDS must, on de-appointment, make all reasonable attempts to obtain actual consumption history up to the point of de-appointment, for Advanced and Smart meters, for submission to settlements	DS006	H	Y	Y	Y	
ADS/UMSDS	MHHS-BR-DS-029	ADS/UMSDS must obtain Export MPAN appointments via the appropriate interface on the Data Integration Platform and update records with registration and metering details. ADS should note this message will be automatically triggered when a change of Data Service has successfully completed for the linked import MPAN (ie acceptance of the Export MPAN was implicit in the accepting the appointment to the Import MPAN)	RE003	M		Y	Y	
ADS/SDS	MHHS-BR-DS-029.1	ADS/SDS must obtain Related MPAN appointments via the appropriate interface on the Data Integration Platform and update records with registration and metering details. ADS/SDS should note this message will be automatically triggered when a change of Data Service has successfully completed for the Primary Related MPAN.	DS006	H		Y	Y	

ADS/UMSDS		MHHS-BR-DS-030	ADS/UMSDS must obtain Export MPAN de-appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly. ADS/UMSDS should note this message will be automatically triggered when a change of Data Service has successfully completed for the linked import MPAN.	UN002	M		Y	Y
ADS/SDS		MHHS-BR-DS-030.1	ADS/SDS must obtain Related MPAN de-appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly. ADS/SDS should note that this message will be automatically triggered when a change of Data Service has successfully completed for the Primary Related MPAN.	RE003	M		Y	Y
ADS	Transfers of Reads	MHHS-BR-DS-026.1	Incoming ADS must publish a consumption history replay request to the Data Integration Platform via the appropriate interface.	DS007	M/H		Y	Y
		MHHS-BR-DS-026.2	Incoming ADS must obtain a replay of consumption history via the appropriate interface on the Data Integration Platform and maintain records of the latest UTC period data available, utilising the provided Sender timestamps as required.	DS008	M/H		Y	Y
		MHHS-BR-DS-026.3	ADS must, following successful appointment, attempt to collect opening UTC period level data remotely from an Advanced meter.	DS009	H	Y	Y	Y
		MHHS-BR-DS-026.4	ADS must, where remote access is not possible, arrange for an on-site download of the opening UTC period level data from an Advanced meter.	DS009	H	Y		
		MHHS-BR-DS-026.6	ADS must, following de-appointment, attempt to collect closing UTC period level data remotely from an Advanced meter and use for final data processing.	DS001	VH	Y	Y	Y
		MHHS-BR-DS-026.7	ADS must, where remote or local access is not possible, estimate closing UTC period level data for an Advanced meter in line with the Advanced Method Statement.	DS001	VH	Y	Y	Y
Data Service	Customer Direct	MHHS-BR-DS-031	Data Service must publish a Customer Direct Contract Advisory on the Data Integration Platform via the appropriate interface for each MPAN that forms part of the contract, this will also include the contract end date. This can be done only where a contract has been formally agreed with the customer.	RE001	VH	Y	Y	Y
Data Service		MHHS-BR-DS-032	Data Service must obtain Registration Service Customer Direct Contract Advisory Responses via the appropriate interface on the Data Integration Platform	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-033	Data Service must, for accepted responses, maintain records to show which MPANs have been flagged as a customer direct contract	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-034	Data Service must continue to manually coordinate the appointment of MPANs within the contract with other industry participants.	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-035	Data Service must have the ability to cancel or change the end date of a customer direct contract using the appropriate interface on the Data Integration platform	RE003	M	Y		
Data Service		MHHS-BR-DS-036	Data Service must investigate any rejections of customer direct contracts and re-submit as appropriate	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-037	Data Service must, in the case of rejection for an existing contract, liaise with their customer and other participants to determine why it appears overlapping contracts might exist	RE001	VH	Y	Y	Y
ADS		Data Collection	MHHS-BR-DS-038	ADS must collect settlement period data from an Advanced meter, in line with the notified Consent Granularity, either remotely or on site for all appointed MPANs (It is possible that consumption data is recorded either against local or UTC time. This should be taken into account when preparing data for submission to Central Settlements, in case any time adjustment is required)	DS001	VH		Y

ADS		MHHS-BR-DS-039	ADS must, where available, capture and store active and reactive power data for Register readings, Period Level Consumption Data and Cumulative data, alongside any other measurements, flags or alerts from the meter, and utilise for data processing as required	DS001	VH		Y	Y
Data Service		MHHS-BR-DS-040	Data Service must process and publish all data in line with timescales set out in the Operational Choreography document	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-045	ADS/SDS must have the capability to schedule and manage site visits to Smart/ AMR sites where agreed with the Supplier in order to obtain an on-site read	ME002	H	Y	Y	Y
ADS/SDS		MHHS-BR-DS-049	ADS/SDS must be able to receive and process Supplier provided register read(s) for Traditional and Advanced meters (where appropriate), however sourced, via the appropriate interface.	DS001	VH	Y	Y	Y
ADS/SDS		MHHS-BR-DS-050	ADS/SDS must be able to receive and process a Supplier provided cumulative read (Smart and Advanced only), actual/customer however sourced, via the appropriate interface on the Data Integration Platform	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-051	ADS/SDS must provide a notification to the Supplier of a failure to obtain a meter reading arising from a site visit via the appropriate interface	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-057	ADS/SDS must obtain Supplier to DS notification via the appropriate interface on the Data Integration Platform	DS006	H		Y	Y
ADS/SDS		MHHS-BR-DS-058	ADS/SDS must update their systems with any details from the Supplier notification of vacant sites, no communications, remote disconnection and remote reconnection	DS009	H		Y	Y
ADS/SDS		MHHS-BR-DS-060	ADS/SDS should expire a notification (and the effect of that notification) in line with the data contained within the original notification or any revised expiry date received following the original message via the appropriate interface	DS008	M/H		Y	
ADS	Data Processing	MHHS-BR-DS-072	ADS must prepare MPAN level UTC Period Level Consumption Data in line with the Advanced Validation & Estimation Method statement	DS001	VH	Y	Y	Y
ADS		MHHS-BR-DS-074	ADS must store and use historic data to enable validation of period reads in line with the Advanced Validation & Estimation Method statement	DS009	H	Y	Y	Y
ADS		MHHS-BR-DS-076	ADS must obtain Load Shape Data and utilise data as described in the Advanced Validation & Estimation Method Statement. Load shaping data will be available via the appropriate interfaces on the Data Integration Platform or as static data published to a publicly accessible URI.	DS009	H	Y	Y	Y
ADS		MHHS-BR-DS-079	ADS must in exceptional circumstances when a new load shape is made available, reprocess previously submitted data following the Advanced Validation & Estimation Method Statement	ME002	H	Y	Y	Y
Data Service		MHHS-BR-DS-082	Data Service must, where required for estimating, identify (based on MPAN Registration data) the load shapes associated with each MPAN from the Load Shape Category table in Industry Standing Data. Data Service should maintain a record of any load shapes used.	RE001	VH	Y	Y	Y
ADS		MHHS-BR-DS-083	ADS must estimate consumption for any missing/ invalid periods using the Advanced Validation & Estimation Method Statement	DS009	H	Y	Y	Y
ADS		MHHS-BR-DS-086	ADS must validate UTC Period Level Consumption Data in line with Advanced Validation & Estimation Method statement	ME004	M/H	Y	Y	Y
ADS		MHHS-BR-DS-088	ADS must re-estimate consumption for any estimated UTC periods using the Advanced Validation & Estimation Method Statement where further data becomes available to support a more accurate estimate being submitted, in line with the Operational Choreography	DS007	M/H	Y	Y	Y

ADS	MHHS-BR-DS-091	ADS must validate the full set of UTC Period Level Consumption Data for a given submission, including any estimates, in line with Advanced Validation & Estimation Method Statement	DS007	M/H	Y	Y	Y
Data Service	MHHS-BR-DS-093	Data Service must publish/republish validated UTC Period Level Consumption Data (kWh to 3 decimal places) on the Data Integration Platform using the appropriate interface for all appointed MPAN's in line with the Operational Choreography document for each day of their appointment	DS001	VH		Y	Y
ADS	MHHS-BR-DS-093.1	ADS must publish/republish validated UTC Period Level Reactive Data (kVARh to 3 decimal places) on the Data Integration Platform using the appropriate interface, alongside UTC Period Level Consumption Data, for all appointed MPAN's in line with the Operational Choreography document	DS001	VH		Y	Y
Data Service	MHHS-BR-DS-094	Data Service must republish updated validated UTC Period Level Consumption Data (kWh to 3 decimal places) as actual data, improved estimates or revised input data become available. ADS/SDS must re-estimate if new consumption data, meter reads or Meter Technical Details are received. UMSDS must reprocess data on receipt of updated Inventory Data, PECU Array Data or CMS Data, or where there is a change to ISD.	DS001	VH		Y	Y
Data Service	MHHS-BR-DS-094.1	Data Service must obtain UTC Settlement Period Consumption Data Rejections, sent by Central Settlements on the Data Integration Platform, via the appropriate interface, investigate the validation failures and resubmit as appropriate	DS001	VH		Y	Y
Data Service	MHHS-BR-DS-094.2	Data Service must obtain Notification of Defaulted UTC Settlement Period Consumption Data provided by Central Settlements via the appropriate interface on the Data Integration Platform and maintain records accordingly. Data Service could choose to use the characteristics data to derive and validate the load shape used for the default consumption values. In the case of ADS/UMSDS it should be noted that the GSP Group ID will not be required to determine the load shape.	DS001	VH		Y	Y
Data Service	MHHS-BR-DS-094.3	Data Service must, as a result of a Change of Supplier de-appointment, split Consumption Data on the day of their de-appointment during British Summer Time into two separate IF-021 messages. The Consumption Data for the settlement periods prior to the Deappointment date/time should be shared with the Outgoing Supplier. Consumption Data between the de-appointment date/time and the end of the UTC Settlement day should be shared with the Incoming Supplier as notified within the IF-037 de-appointment message.	DS001	VH		Y	
ADS	MHHS-BR-DS-094.4	ADS must, as a result of a Change of Supplier de-appointment, split Reactive Data on the Day of their de-appointment during British Summer Time into two separate IF-021 messages. The Reactive Data for the settlement periods prior to the de-appointment date/time should be shared with the Outgoing Supplier. Reactive Data between the de-appointment date/time and the end of the UTC Settlement day should be shared with the Incoming Supplier as notified within the IF-037 de-appointment message.	DS001	VH		Y	
Data Service	MHHS-BR-DS-095	Data Service must keep a record of data submitted for audit purposes, as outlined in the Non Functional requirements.	DS001	VH		Y	Y
Data Service	MHHS-BR-DS-097	Data Service must support investigations and resolution of issues highlighted by Central Settlements reporting and feedback from other participants	CS002	H		Y	
ADS/SDS	MHHS-BR-DS-098	ADS/SDS must send register meter readings to the Supplier and LDSO via the appropriate interface. Where the readings, pass validation and are used by the Data Service they should have the Meter Reading Status (J0047) set to 'T' or where they fail validation set to 'F' in the D0010 flow.	DS009	H	Y	Y	Y
ADS/SDS	MHHS-BR-DS-098.1	ADS/SDS must validate meter readings received from site visits or Customer Own Reads provided by the Supplier in line with the relevant Method Statement.	DS004	M	Y	Y	Y
ADS/SDS	MHHS-BR-DS-098.2	ADS/SDS must, where available for Smart and Advanced meters, publish cumulative meter reads to the Supplier and LDSO via the appropriate interface.	DS009	H		Y	Y

ADS/SDS	Annual Consumption	MHHS-BR-AC-004	ADS/SDS must obtain the Annual Consumption, Annual Consumption Quality and Annual Consumption Effective From Date, sent by MDS on the Data Integration Platform, via the appropriate interface, maintain records accordingly and use in line with the estimation processes and guidance within the relevant Method Statement.	DS002	M/H	Y		
Data Service		MHHS-BR-AC-014	Data Service must obtain the Supplier Nominated Annual Consumption from the Data Integration Platform via the appropriate interface, maintain records accordingly and use in line with the estimation processes and guidance within the relevant Method Statement.	DS002	M/H	Y		
Data Service	Disconnection	MHHS-BR-DS-104	Data Service must obtain Registration Service Notification of Service De-Appointments, with a de-appointment reason of dereg, via the appropriate interface on the Data Integration Platform and maintain records accordingly.	CS002	H	Y	Y	Y
Data Service		MHHS-BR-DS-105	Data Service must cease submission to settlement for any settlement dates after the effective date of it's de-appointment. For clarity, the Data Service retains responsibility for submitting data for the dates that they were appointed for, even after they have been de-appointed.	CS002	H		Y	Y
Data Service	Change of energisation	MHHS-BR-DS-106	Data Service must obtain Registration Service Notification of Change of Energisation Status updates via the appropriate interface on the Data Integration Platform and maintain records accordingly.	RE003	M	Y	Y	Y
Data service		MHHS-BR-DS-107	Data Service must escalate to the Supplier or UMSO (UMSDS only) where it is identified that consumption is occurring on a MPAN that is de-energised. However, this should not prevent it's submission into settlements.	RE003	M		Y	
ADS		MHHS-BR-DS-108	ADS must, where valid register reads are received from the Metering Service via the appropriate interface, store the reads for use in the estimation process where no better data is available. Where no reading(s) are provided alongside the change in Energisation Status, the Data Service should, after 5 working days, generate an estimated reading(s) for the Date of the Change of Energisation Status (reflecting the nature of the Energisation Change) using the most appropriate method from the ADS Method Statement.	DS001	VH	Y	Y	Y
ADS/SDS		MHHS-BR-DS-111	ADS/SDS must, where provided by the Metering Service, obtain Advanced and Smart cumulative reads via the appropriate interface on the Data Integration Platform and store for use in the estimation process where no better data is available	DS007	M/H	Y	Y	Y
ADS		MHHS-BR-DS-112	ADS must send change of energisation register meter readings to the Supplier and LDSO, via the appropriate interface	DS001	VH		Y	Y
ADS/SDS		MHHS-BR-DS-115	ADS/SDS must utilise change of energisation read(s) data for settlement, only where a complete set of validated data is not available from the meter	DS009	H		Y	Y
Data Service		MHHS-BR-DS-116	Data Service must re-process any UTC Period Level Consumption Data previously submitted to settlements, where advised of an energisation status change and no actual consumption has been recorded, particularly where this is back-dated	RE003	M	Y	Y	
ADS/SDS	Change of Metering (Covering Meter exchange, install and removal)	MHHS-BR-DS-117	ADS/SDS must obtain and process updates to meters and meter technical details via the appropriate interface on the Data Integration Platform	RE003	M	Y	Y	Y
ADS/SDS		MHHS-BR-DS-118	ADS/SDS must obtain and process cumulative meter reads (Smart and Advanced only) received via the appropriate interface on the Data Integration Platform and store for use in estimation processes where no better data is available	DS008	M/H		Y	Y
ADS		MHHS-BR-DS-119	ADS must, where Meter Technical Details are received from the Advanced Metering Service via the appropriate interface, maintain records accordingly and investigate any discrepancies with data received from the Registration Service. In the case where Related MPANs or Import/Export linked meters exist, ADS should expect to receive Meter Technical Details for all the MPANs in the Related MPAN or Import/Export group.	DS001	VH	Y	Y	Y
ADS		MHHS-BR-DS-120	ADS must, where register reads are received via the appropriate interface, store the reads for use in the estimation processes where no better data is available. Where no reading(s) are provided alongside the change in metering, the Data Service should, after 5 working days, generate an estimated reading(s) for the Date of the Removal of the previous	DS001	VH		Y	Y

			meter(s) using the most appropriate method from the Method Statement. Any newly installed meter should be assumed to have been installed with an index position of Zero.					
ADS/SDS		MHHS-BR-DS-123	ADS/SDS must utilise change of metering read(s) data for settlement, only where a complete set of validated data is not available from the meter	DS004	M	Y	Y	
ADS/SDS		MHHS-BR-DS-124	ADS/SDS must re-process any UTC Period Level Consumption Data previously submitted to settlements, where advised of any change of metering and no actual consumption has been recorded, particularly where this is back-dated	DS004	M		Y	
Data Service	Change of registration data	MHHS-BR-DS-125	Data Service must obtain MPL address/ GSP Group ID updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-126	ADS/SDS must obtain domestic premise indicator updates via the appropriate interface on the Data Integration Platform, maintain records accordingly and consider impacts to service delivery as required	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-127	ADS/SDS must obtain Consent Granularity Indicator updates via the appropriate interface on the Data Integration Platform, maintain records accordingly and assess if a change in recovery pattern is required	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-128	ADS/SDS must commence collection of settlement period consumption data (active import) in line with the updated customer consent, from the date that the Consent Granularity Indicator update notification is received, even if the date the change in consent was captured is in the past. There is no requirement to alter data that has been previously captured using the previously consented recovery pattern.	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-130.1	ADS/SDS must be able to obtain Related MPAN updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	DS004	M		Y	Y
Data Service		MHHS-BR-DS-130.2	Data Service must be able to obtain Energy Direction updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
Data Service		MHHS-BR-DS-130.3	Data Service must be able to obtain Metered Status updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
Data Service		MHHS-BR-DS-130.5	Data Service must be able to obtain Import/Export linkage updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
Data Service		MHHS-BR-DS-130.6	Data Service must obtain legacy data item (Profile Class/SSC) updates from Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	DS001	VH		Y	Y
ADS		Overall ADS Requirements	MHHS-BR-DS-131	The ADS must be qualified to operate as a Data Service in line with the Qualification Process and the Advanced Data Service BSCPs	CS002	H		
ADS	MHHS-BR-DS-134		ADS must, where providing a shared metering scheme service, perform the Advanced Data Service role as outlined in [BSCP 550] for allocating the proportion of active energy for a shared metering scheme	CS002	H	Y		
All Services	MHHS-BR-DS-137		All services should, where possible, build in the ability to configure the settlement period duration during their solution design, in order to support any future move to a different settlement period duration	CS002	H			
All Services	MHHS-BR-DS-138		All services must publish data following ISO8601 format - YYYY-MM-DDTHH:MM:SS±TZH:TZM.	CS002	H	Y	Y	Y
All Services	MHHS-BR-DS-139		All services must obtain Industry Standing Data (ISD) update notifications via the appropriate interface, and if required take necessary steps to obtain refreshed ISD data, maintain their records accordingly and reference/ utilise ISD as appropriate as part of the service delivery.	CS002	H	Y	Y	Y

All Services	MHHS-BR-DS-139.1	All services must utilise Industry Standing Data to identify the relevant DIP ID/Role or DTN Market Participant ID/Role, as appropriate, to be used when communicating over the DIP/DTN.	CS002	H	Y	Y	Y
All Services	MHHS-BR-DS-139.2	All services must derive and populate the DIP addressing (primary recipients) for all outbound interfaces in line with the rules described in the interface specification	CS002	H	Y	Y	Y
Data Service	MHHS-BR-DS-141	Data services must retain data in line with the Non Functional requirements	CS002	H	Y		
All Services	MHHS-BR-DS-142	All services must process data and share outputs with other parties in line with timescales set out in the Operational Choreography document	CS003	M	Y	Y	
All Services	MHHS-BR-DS-143	All Services must obtain Data Integration Platform error messages in line with the End to End Solution Architecture, review the impacted data and re-issue corrected messages/transactions as required	CS003	M	Y	Y	
All Services	MHHS-BR-DS-143.1	All services must return Data Integration Platform error messages in line with the End to End Solution Architecture. Unexpected and/or un-processable messages should be returned to the DIP/ originating party	CS002	H	Y	Y	
All Services	MHHS-BR-DS-143.2	All services must undergo qualification in order to realise operational access to the DIP	CS002	H			
All Services	MHHS-BR-DS-144	All services, when transacting via the DIP, must ensure that they implement monitoring so as to identify where expected responses are not received within standard DIP SLA's, as outlined in the Operational Choreography, so that the appropriate investigative/ resolution activity can be undertaken.	CS002	H	Y		
All Services	MHHS-BR-DS-144.1	All services must have familiarity with and actively monitor any Data Integration Platform tools for tracking messages, as outlined in the End to End Solution Architecture, so that the necessary investigative action can be taken when required.	CS002	H		Y	
All Services	MHHS-BR-DS-145	All services must provide and receive reports in line with agreed reporting requirements and delivery method as outlined in MHHSP-ERI011B ECS reports and interfaces	CS002	H		Y	
ADS/SDS	MHHS-BR-DS-146	ADS/SDS, where required, must be able to identify (using the appropriate interface) and appropriately manage related MPANs as described in the relevant BSCP	DS004	M	Y	Y	
ADS	MHHS-BR-DS-147	ADS must investigate and provide feedback on any faulty equipment identified, or notified by the Supplier, via the appropriate interfaces as outlined in the relevant BSCP.	ME001	M/H	Y	Y	
ADS	MHHS-BR-DS-148	ADS must manage proving test processes in line with the existing Half Hourly Data Collection processes as outlined in BSCP-502 section 3.5	ME001	M/H	Y	Y	
ADS	MHHS-BR-DS-148.1	ADS must comply with protocol approval as outlined in BSCP601	DS009	H	Y		
All Services	MHHS-BR-DS-149	Some MHHS processes require the continued use of DTC flows, Services should ensure that if they plan to service customer types that utilise these processes then a mechanism will be required for transmitting/receiving DTC flows.	CS002	H	Y	Y	Y
Data Service	MHHS-BR-DS-150	Data Service must ensure that its systems and processes operate in such a way as to support the most up to date and accurate data being available to settlements in advance of the cut off for each formal settlement run as outlined in the Operational Choreography.	DS001	VH	Y		
All Services	MHHS-BR-DS-152	All Services should implement data validation steps and techniques that they feel are appropriate to ensure the most accurate and efficient delivery of the service	DS001	VH		Y	Y

ADS/SDS		MHHS-BR-DS-154.1	ADS/SDS must receive Notification of Customer Details from the Supplier via the appropriate interface and maintain records accordingly	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-154.2	ADS/SDS must, on receipt of updated customer details, delete or obfuscate the previously held customer details	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-154.3	ADS/SDS must receive Priority Service Details from the Supplier via the appropriate interface and maintain records accordingly	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-154.4	ADS/SDS must, on receipt of updated PSR details, delete or obfuscate the previously held PSR details	DS006			Y	Y
ADS/SDS		MHHS-BR-DS-154.5	ADS/SDS must, on receipt of a de-appointment notification becoming effective, delete or obfuscate the previously held PSR and customer details	DS006	H		Y	
All Services		MHHS-BR-DS-156	All services could choose to take advantage of the Electricity Enquiry Service (EES previously known as ECOES) in order to obtain the current data associated with an MPAN in cases where a query arises around the accuracy of data held.	RE003	M	Y		
All Services		MHHS-BR-DS-157	All Services must maintain and update their records with any data received on interfaces to ensure the most accurate and efficient delivery of the service.	RE003	M	Y	Y	
ADS/SDS	Change of Connection Type/ Change of Segment	MHHS-BR-DS-158	ADS/SDS must be able to obtain a Registration Service Change of Segment Meter Exchange confirmation with MTDs and readings via the appropriate interface on the Data Integration Platform, even when it is from a 3rd party Metering Service (ie not the currently appointed Metering Service).	DS006	H		Y	Y
ADS/SDS		MHHS-BR-DS-159	ADS/SDS must be able to obtain Registration Service Change of Connection Type notifications via the appropriate interface on the Data Integration Platform and maintain records accordingly.	DS006	H		Y	Y
ADS/SDS		MHHS-BR-DS-159.1	ADS/SDS must obtain Invalid Market Segment Advisory notifications, sent from the Registration Service on the Data Integration Platform, via the appropriate interface.	DS006	H		Y	Y
ADS/SDS	Consumption Amendment	MHHS-BR-DS-160	ADS/SDS must obtain Override Reads, sent by the Supplier on the Data Integration Platform, via the appropriate interface and maintain records accordingly.	DS006	H	Y	Y	Y
ADS/SDS		MHHS-BR-DS-161	ADS/SDS must, following consultation with the Supplier if required, use the override read to recalculate any pre-RF consumption and re-issue the consumption data as required. ADS/SDS should bilaterally agree a process for highlighting and resolving any disagreement in the usage of either Agreed or Override Readings as part of their contractual agreements with the Supplier.	DS006	H		Y	Y
ADS/SDS		MHHS-BR-DS-162	ADS/SDS must obtain Consumption Amendment Requests, sent by the Supplier on the Data Integration Platform, via the appropriate interface and maintain records accordingly	DS001	VH		Y	Y
ADS/SDS		MHHS-BR-DS-163	ADS/SDS must validate that they were responsible for the MPAN for the Consumption Amendment Period requested	DS007	M/H		Y	Y
ADS/SDS		MHHS-BR-DS-164	ADS/SDS must calculate the consumption and reactive data, where required, for each UTC period impacted by the Consumption Amendment Request using the relevant Method Statement.	CS002	H		Y	Y
ADS/SDS		MHHS-BR-DS-165	ADS/SDS must validate the UTC period Consumption Amendment data in line with the relevant Method Statement	DS004	M		Y	Y
ADS/SDS		MHHS-BR-DS-	ADS/SDS must publish a Consumption Amendment rejection on the Data Integration Platform via the appropriate interface, where any validation is failed, with the appropriate	DS004	M	Y	Y	Y

		166	rejection reason.					
ADS/SDS		MHHS-BR-DS-167	ADS/SDS must publish validated UTC Period Level Consumption and Reactive Data (where required) for the Consumption Amendment on the Data Integration Platform using the appropriate interface	DS004	M		Y	Y

4.1.2 Smart Data Services Functional Requirements

Market Role	Area	MHHS Requirements		Settlement Risk	Risk Rating	Proposed Qualification Approach		
						QAD Question	PIT	Qualification Test Scenario
ADS/SDS	Change of Metering Service	MHHS-BR-DS-003	ADS/SDS must obtain Registration Service Notification of Service Appointment & Supporting Info updates, confirming a Metering Service appointment and providing MPAN/ Meter Technical details, via the appropriate interface on the Data Integration Platform and maintain records accordingly for all meter types	RE003	M	Y	Y	Y
ADS		MHHS-BR-DS-006	SDS must receive Meter Technical Details for Traditional meters via the appropriate interfaces (D0149 and D0150 on DTN), maintain records accordingly and investigate any discrepancies against data received from the Registration Service (PUB-036 via the Data Integration Platform). These details could be received from a prospective incoming Metering Service that does not turn out to be the Metering Service appointed when the Data Service appointment commences. Therefore ADS may wish to consider how to process these MTDs ie they will provide early view of MTDs at site, however further MTDs (which may be revised) could be received from a second subsequent Metering Service.	RE001	VH	Y	Y	Y
ADS/SDS		MHHS-BR-DS-006.1	ADS/SDS must investigate with the Metering Service where Meter Technical Details are not received for Advanced/ Traditional meters in expected timescales, as outlined in the Operational Choreography, or where they appear to be incorrect	DS008	M/H	Y	Y	Y
Data Service	Change of Data Service	MHHS-BR-DS-007	Data Service must obtain Registration Service Request for Service Appointments, with Data Service proposed appointment requests, via the appropriate interface on the Data Integration Platform	RE001	VH		Y	Y
Data Service		MHHS-BR-DS-008	Data Service must confirm that they are certified to service the connection type and able to contractually deliver the Data Service based on the information contained in the proposed appointment request and publish a response (acceptance or rejection) on the Data Integration Platform via the appropriate interface. Where the Data Service rejects an appointment request, a rejection reason should be provided in the response. Data Service should be aware that following the initial acceptance the appointment remains "prospective" and there is a possibility that it may need to be lapsed.	RE001	VH		Y	Y
ADS/SDS		MHHS-BR-DS-008.1	ADS/SDS must, for any proposed appointments it rejects, delete any metering details received, as soon as operationally practicable following the rejection.	DS001	VH	Y	Y	Y
Data Service		MHHS-BR-DS-009	Data Service must, where required, make their own arrangements for notifying any third party service providers (eg Meter Reading Service, Meter Data Retrieval Service) via a mechanism agreed bilaterally	ME003	M	Y		
SDS		MHHS-BR-DS-010	SDS must notify the MDR nominated by the Supplier, advised in the appointment service request. In cases where no MDR is nominated the SDS should notify the MDR based on whatever rules have been agreed with the Supplier. The SDS must ensure that all DCC enrolled meters always have an MDR notified for each day that the SDS is responsible for the site.	RE003	M	Y	Y	
Data Service		MHHS-BR-DS-	Data Service must be able to process requests to vary the conditions of an existing appointment received via the appropriate interface. For example change of contract code or	DS001	VH		Y	Y

		011	change of MDR (SDS only). These should be validated and an outcome returned using the appropriate interface. In the case of rejection, a rejection reason should be provided in the response and the existing appointment will continue unamended.					
SDS		MHHS-BR-DS-011.1	SDS must be able to , if required, initiate a change of MDR. This would be achieved by the SDS issuing the relevant interface/ event code via the Data Integration Platform to the Registration Service. The Registration Service will respond to these requests using the relevant interface.	DS008	M/H	Y	Y	Y
Data Service		MHHS-BR-DS-012.1	Data Service must obtain Registration Service Appointment Status Notification updates, acknowledging the Prospective Data Service accepted/rejected appointments, via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
Data Service		MHHS-BR-DS-012	Data Service must obtain Registration Service Appointment Status Notifications, with Data Service lapsed appointments, via the appropriate interface on the Data Integration Platform and update records accordingly so as to ensure that the appointment does not become effective. ADS/SDS must delete meter technical details received for all lapsed appointments as soon as operationally practicable following receipt of the lapsed notification.	RE001			Y	Y
Data Service		MHHS-BR-DS-013	Data Service must obtain Registration Service Notification of Service Appointment & Supporting Info updates, confirming a Data Service appointment, via the appropriate interface on the Data Integration Platform and update records with MPAN and Meter Technical Details (ADS/SDS only). For the avoidance of doubt this is the message that indicates that an appointment will/has taken effect.	RE001	VH		Y	Y
SDS		MHHS-BR-DS-016	SDS must receive Meter Technical Details for Traditional meters via the appropriate interfaces (D0149 and D0150 on DTN), maintain records accordingly and investigate any discrepancies against data received from the Registration Service (PUB-036 via the Data Integration Platform). These details could be received from a prospective incoming Metering Service that does not turn out to be the Metering Service appointed when the Data Service appointment commences. Therefore ADS may wish to consider how to process these MTDs ie they will provide early view of MTDs at site, however further MTDs (which may be revised) could be received from a second subsequent Metering Service.	VH	Y	Y	Y	
Data Service		MHHS-BR-DS-018	Data Service must obtain Registration Service Notification of Service De-Appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE001	VH		Y	Y
Data Service		MHHS-BR-DS-019	Data Service must, where required, make their own arrangements for terminating any third party service providers (eg Meter Reading Service, Meter Data Retrieval Service) via a mechanism agreed bilaterally	RE003	M	Y		
ADS/SDS		MHHS-BR-DS-022	ADS/SDS must, on de-appointment, make all reasonable attempts to obtain actual consumption history up to the point of de-appointment, for Advanced and Smart meters, for submission to settlements	DS006	H	Y	Y	Y
ADS/SDS		MHHS-BR-DS-029.1	ADS/SDS must obtain Related MPAN appointments via the appropriate interface on the Data Integration Platform and update records with registration and metering details. ADS/SDS should note this message will be automatically triggered when a change of Data Service has successfully completed for the Primary Related MPAN.	DS006	H		Y	Y
ADS/SDS		MHHS-BR-DS-030.1	ADS/SDS must obtain Related MPAN de-appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly. ADS/SDS should note that this message will be automatically triggered when a change of Data Service has successfully completed for the Primary Related MPAN.	RE003	M		Y	Y
SDS	Transfer of Reads	MHHS-BR-DS-023.1	Data Service must, for Smart meters and following a successful Change of Supplier or Change of Data Service, attempt to download the cumulative and register reads from the Smart meter and maintain records accordingly.	DS009	H	Y	Y	Y
		MHHS-BR-DS-024	Outgoing SDS must, on de-appointment, in the absence of an actual valid read for a Traditional meter, send an estimated read for midnight on the day following the de-appointment (ie if effective de-appointment is 23:59:59 on 1st Jan then read point should be 00:00:00 on 2nd Jan) to the new SDS, LDSO and old Supplier via the appropriate interface. Estimates will be required for each settlement register and should be determined	DS009	H	Y	Y	Y

			using the Smart Validation & Estimation Method statement					
		MHHS-BR-DS-024.0	Data Service must be able to receive a Customer Own Transfer Read sent by their partner Supplier and use for estimation as required in line with the Smart Validation & Estimation Method statement	DS009	H		Y	Y
		MHHS-BR-DS-024.1	Outgoing SDS must, after 5 working days following de-appointment, in the absence of an actual valid read for a Smart meter, send an estimated cumulative read for midnight on the day following the de-appointment (ie if effective de-appointment is 23:59:59 on 1st Jan then read point should be 00:00:00 on 2nd Jan) to the new SDS and new/old Supplier via the appropriate interface. Estimates should be determined using the Smart Validation & Estimation Method statement	DS008	M/H		Y	Y
		MHHS-BR-DS-024.2	Outgoing SDS must, within 5 working days following de-appointment, on retrieving an actual valid read for a Smart meter, send the actual cumulative read and register reads for midnight on the day following the de-appointment to the new SDS and new/old Supplier via the appropriate interface.	DS008	M/H		Y	Y
		MHHS-BR-DS-025	SDS must be able to receive and process estimated register reads sent by the previous SDS via the appropriate interface and forward the estimated register reads to the incoming Supplier.	DS001	VH		Y	Y
		MHHS-BR-DS-025.1	SDS must be able to receive and process estimated cumulative closing reads sent by the previous SDS via the appropriate interface. Where SDS has retrieved it's own data, SDS could compare data received from the old Data Service to ensure no significant discrepancies. SDS should use the best data available for it's starting position.	DS001	VH		Y	Y
		MHHS-BR-DS-025.2	Incoming SDS must, for smart meters, send the opening cumulative read and, where available register reads, for midnight on the day of appointment of the new SDS to the new Supplier via the appropriate interface.	CS003	M		Y	Y
		MHHS-BR-DS-028.1	SDS must be able to receive and process agreed register reads sent by the Incoming Supplier for a traditional meter via the appropriate interface and must use these as the opening register reads for that period of Supply.	DS001	VH		Y	Y
		MHHS-BR-DS-028.2	SDS must obtain and process agreed reads, sent on the Data Integration Platform by the Incoming Supplier for a Smart meter, via the appropriate interface and must use these as the opening reads for that period of Supply.	DS001	VH		Y	Y
		MHHS-BR-DS-028.3	SDS must be able to receive and process agreed register reads sent by the Outgoing Supplier via the appropriate interface and must use these as the closing register reads for that period of Supply.	DS001	VH		Y	Y
		MHHS-BR-DS-028.4	SDS must obtain and process agreed reads, sent on the Data Integration Platform by the Outgoing Supplier for a Smart meter, via the appropriate interface and must use these as the closing reads for that period of Supply.	ME002	H		Y	Y
Data Service	Customer Direct	MHHS-BR-DS-031	Data Service must publish a Customer Direct Contract Advisory on the Data Integration Platform via the appropriate interface for each MPAN that forms part of the contract, this will also include the contract end date. This can be done only where a contract has been formally agreed with the customer.	RE001	VH	Y	Y	Y
Data Service		MHHS-BR-DS-032	Data Service must obtain Registration Service Customer Direct Contract Advisory Responses via the appropriate interface on the Data Integration Platform	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-033	Data Service must, for accepted responses, maintain records to show which MPANs have been flagged as a customer direct contract	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-034	Data Service must continue to manually coordinate the appointment of MPANs within the contract with other industry participants.	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-035	Data Service must have the ability to cancel or change the end date of a customer direct contract using the appropriate interface on the Data Integration platform	RE003	M	Y		
Data		MHHS-	Data Service must investigate any rejections of customer direct contracts and re-submit as	RE003	M	Y	Y	Y

Service		BR-DS-036	appropriate					
Data Service		MHHS-BR-DS-037	Data Service must, in the case of rejection for an existing contract, liaise with their customer and other participants to determine why it appears overlapping contracts might exist	RE001	VH	Y	Y	Y
Data Service	Data Collection	MHHS-BR-DS-040	Data Service must process and publish all data in line with timescales set out in the Operational Choreography document	RE003	M		Y	
SDS		MHHS-BR-DS-041	SDS must request meter data retrieval in line with the customers stated consent preference as provided by the Registration Service	DS001	VH	Y	Y	Y
SDS		MHHS-BR-DS-042	SDS must, via a Meter Data Retrieval Service (MDR), send the required Service Request(s), as defined in the Smart Energy Code, to the Data Communications Company (DCC) so as to obtain data in line with the customer consent (Service request(s) may need to cover recovery of period consumption and cumulative reading as per customer consent for both import and export)	RE001	VH		Y	Y
SDS		MHHS-BR-DS-042.1	SDS must obtain Registration Service Appointment Status Notifications, with confirmation that DCC has been updated with the new MDR details, via the appropriate interface on the Data Integration Platform, update records accordingly and inform MDR that they can start data collection from the effective start date.	ME002	H		Y	Y
SDS		MHHS-BR-DS-043	SDS must, via a MDR, manage meter data request rejections from DCC	DS008	M/H	Y	Y	Y
SDS		MHHS-BR-DS-044	SDS must, via a MDR, receive data recovered from the meter contained in the DCC Service Request response (Service Requests as outlined in the Smart Energy Code)	DS009	H		Y	Y
ADS/SDS		MHHS-BR-DS-045	ADS/SDS must have the capability to schedule and manage site visits to Smart/ AMR sites where agreed with the Supplier in order to obtain an on-site read	ME002	H	Y	Y	Y
SDS		MHHS-BR-DS-046	SDS must, via a third party where required, manage a schedule of site visits for Traditional meters and arrange site visits to enable submission of consumption data for settlements in line with timescales set out in the Operational Choreography document	DS009	H	Y		
SDS		MHHS-BR-DS-047	SDS must, via a third party where required, read the meter and maintain reading details accordingly	DS007	M/H	Y	Y	Y
SDS		MHHS-BR-DS-048	SDS must, via a third party where required, record the reason why a meter cannot be read and maintain records accordingly	DS007	M/H	Y		
ADS/SDS		MHHS-BR-DS-049	ADS/SDS must be able to receive and process Supplier provided register read(s) for Traditional and Advanced meters (where appropriate), however sourced, via the appropriate interface.	DS001	VH	Y	Y	Y
ADS/SDS		MHHS-BR-DS-050	ADS/SDS must be able to receive and process a Supplier provided cumulative read (Smart and Advanced only), actual/customer however sourced, via the appropriate interface on the Data Integration Platform	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-051	ADS/SDS must provide a notification to the Supplier of a failure to obtain a meter reading arising from a site visit via the appropriate interface	RE003	M		Y	Y
SDS		MHHS-BR-DS-052	SDS must record Coordinated Universal Time (UTC) period data consumption for a given MPAN, received from the DCC, on Smart Data Service systems	DS008	M/H		Y	Y
SDS		MHHS-BR-DS-053	SDS must consider how best to deal with a failure response for a given MPAN, received from DCC, on Smart Data Service systems in terms of re-attempting to obtain the data prior to resorting to estimation or escalating to the Supplier	DS008	M/H	Y		

ADS/SDS		MHHS-BR-DS-057	ADS/SDS must obtain Supplier to DS notification via the appropriate interface on the Data Integration Platform	DS006	H		Y	Y
ADS/SDS		MHHS-BR-DS-058	ADS/SDS must update their systems with any details from the Supplier notification of vacant sites, no communications, remote disconnection and remote reconnection	DS009	H		Y	Y
ADS/SDS		MHHS-BR-DS-060	ADS/SDS should expire a notification (and the effect of that notification) in line with the data contained within the original notification or any revised expiry date received following the original message via the appropriate interface	DS008	M/H		Y	
SDS	Data Processing - Data Service Requirements	MHHS-BR-DS-073	SDS must prepare MPAN level UTC Period Level Consumption Data in line with the Smart Validation & Estimation Method statement	DS009	H	Y	Y	Y
SDS		MHHS-BR-DS-075	SDS must store and use historic data to enable validation of period reads in line with the Smart Validation & Estimation Method Statement	DS008	M/H		Y	Y
SDS		MHHS-BR-DS-077	SDS must obtain Load Shape Data and utilise data as described in the Smart Validation & Estimation Method Statement. Load shaping data will be available via the appropriate interfaces on the Data Integration Platform or as static data published to a publically accessible URI.	DS009	H		Y	Y
SDS		MHHS-BR-DS-080	SDS must in exceptional circumstances when a new load shape is made available, reprocess previously submitted data following the Smart Validation & Estimation Method Statement	DS008	M/H		Y	Y
Data Service		MHHS-BR-DS-082	Data Service must, where required for estimating, identify (based on MPAN Registration data) the load shapes associated with each MPAN from the Load Shape Category table in Industry Standing Data. Data Service should maintain a record of any load shapes used.	RE001	VH	Y	Y	Y
SDS		MHHS-BR-DS-084	SDS must estimate consumption for any missing/ invalid periods using the Smart Validation & Estimation Method Statement	DS009	H	Y	Y	Y
SDS		MHHS-BR-DS-087	SDS must validate UTC Period Level Consumption Data in line with the Smart Validation & Estimation Method Statement	DS001	VH	Y	Y	Y
SDS	MHHS-BR-DS-089	SDS must re-estimate consumption for any estimated UTC periods using the Smart Validation & Estimation Method Statement where further data becomes available to support a more accurate estimate being submitted, in line with the Operational Choreography	RE003	M	Y	Y	Y	
SDS	MHHS-BR-DS-092	SDS must validate the full set of UTC Period Level Consumption Data for a given submission, including any estimates, in line with the Smart Validation & Estimation Method Statement	NOT FOUND	NOT FOUND	Y	Y	Y	
Data Service	MHHS-BR-DS-093	Data Service must publish/republish validated UTC Period Level Consumption Data (kWh to 3 decimal places) on the Data Integration Platform using the appropriate interface for all appointed MPAN's in line with the Operational Choreography document for each day of their appointment	DS001	VH		Y	Y	
Data Service	MHHS-BR-DS-094	Data Service must republish updated validated UTC Period Level Consumption Data (kWh to 3 decimal places) as actual data, improved estimates or revised input data become available. ADS/SDS must re-estimate if new consumption data, meter reads or Meter Technical Details are received. UMSDS must reprocess data on receipt of updated Inventory Data, PECU Array Data or CMS Data, or where there is a change to ISD.	DS001	VH		Y	Y	
Data Service	MHHS-BR-DS-094.1	Data Service must obtain UTC Settlement Period Consumption Data Rejections, sent by Central Settlements on the Data Integration Platform, via the appropriate interface, investigate the validation failures and resubmit as appropriate	DS001	VH		Y	Y	
Data Service	MHHS-BR-DS-094.2	Data Service must obtain Notification of Defaulted UTC Settlement Period Consumption Data provided by Central Settlements via the appropriate interface on the Data Integration Platform and maintain records accordingly. Data Service could choose to use the characteristics data to derive and validate the load shape used for the default consumption	DS001	VH		Y	Y	

			values. In the case of ADS/UMSDS it should be noted that the GSP Group ID will not be required to determine the load shape.					
Data Service		MHHS-BR-DS-094.3	Data Service must, as a result of a Change of Supplier de-appointment, split Consumption Data on the day of their de-appointment during British Summer Time into two separate IF-021 messages. The Consumption Data for the settlement periods prior to the Deappointment date/time should be shared with the Outgoing Supplier. Consumption Data between the de-appointment date/time and the end of the UTC Settlement day should be shared with the Incoming Supplier as notified within the IF-037 de-appointment message.	DS001	VH		Y	
Data Service		MHHS-BR-DS-095	Data Service must keep a record of data submitted for audit purposes, as outlined in the Non Functional requirements.	DS001	VH		Y	Y
Data Service		MHHS-BR-DS-097	Data Service must support investigations and resolution of issues highlighted by Central Settlements reporting and feedback from other participants	CS001	H		Y	
ADS/SDS		MHHS-BR-DS-098	ADS/SDS must send register meter readings to the Supplier and LDSO via the appropriate interface. Where the readings, pass validation and are used by the Data Service they should have the Meter Reading Status (J0047) set to 'T' or where they fail validation set to 'F' in the D0010 flow.	DS009	H	Y	Y	
ADS/SDS		MHHS-BR-DS-098.1	ADS/SDS must validate meter readings received from site visits or Customer Own Reads provided by the Supplier in line with the relevant Method Statement.	DS004	M	Y	Y	Y
ADS/SDS		MHHS-BR-DS-098.2	ADS/SDS must, where available for Smart and Advanced meters, publish cumulative meter reads to the Supplier and LDSO via the appropriate interface.	DS009	H		Y	Y
ADS/SDS	Annual Consumption	MHHS-BR-AC-004	ADS/SDS must obtain the Annual Consumption, Annual Consumption Quality and Annual Consumption Effective From Date, sent by MDS on the Data Integration Platform, via the appropriate interface, maintain records accordingly and use in line with the estimation processes and guidance within the relevant Method Statement.	DS002	M/H	Y		
Data Service		MHHS-BR-AC-014	Data Service must obtain the Supplier Nominated Annual Consumption from the Data Integration Platform via the appropriate interface, maintain records accordingly and use in line with the estimation processes and guidance within the relevant Method Statement	DS002	M/H	Y		
Data Service	Disconnection	MHHS-BR-DS-104	Data Service must obtain Registration Service Notification of Service De-Appointments, with a de-appointment reason of dereg, via the appropriate interface on the Data Integration Platform and maintain records accordingly.	CS002	H	Y	Y	Y
Data Service		MHHS-BR-DS-105	Data Service must cease submission to settlement for any settlement dates after the effective date of it's de-appointment. For clarity, the Data Service retains responsibility for submitting data for the dates that they were appointed for, even after they have been de-appointed.	CS002	H		Y	Y
Data Service	Change of energisation	MHHS-BR-DS-106	Data Service must obtain Registration Service Notification of Change of Energisation Status updates via the appropriate interface on the Data Integration Platform and maintain records accordingly.	RE003	M	Y	Y	Y
Data service		MHHS-BR-DS-107	Data Service must escalate to the Supplier or UMDSO (UMSDS only) where it is identified that consumption is occurring on a MPAN that is de-energised. However, this should not prevent it's submission into settlements.	RE003	M		Y	
SDS		MHHS-BR-DS-109	SDS must receive register reads from the Metering Service via the appropriate interface for Traditional meters and store for use in estimation processes where no better data is available. Where no reading(s) are provided alongside the change in Energisation Status, the Data Service should, after 5 working days, generate an estimated reading(s) for the Date of the Change of Energisation Status (reflecting the nature of the Energisation Change) using the most appropriate method from the SDS Method Statement.	CS003	M	Y	Y	Y
SDS		MHHS-BR-DS-110	SDS must send change of energisation register meter readings to the LDSO and Supplier for Traditional meters, where received, via the appropriate interface	DS009	H		Y	Y

ADS/SDS		MHHS-BR-DS-111	ADS/SDS must, where provided by the Metering Service, obtain Advanced and Smart cumulative reads via the appropriate interface on the Data Integration Platform and store for use in the estimation process where no better data is available	DS007	M/H	Y	Y	Y	
ADS/SDS		MHHS-BR-DS-115	ADS/SDS must utilise change of energisation read(s) data for settlement, only where a complete set of validated data is not available from the meter	DS009	H		Y	Y	
Data Service		MHHS-BR-DS-116	Data Service must re-process any UTC Period Level Consumption Data previously submitted to settlements, where advised of an energisation status change and no actual consumption has been recorded, particularly where this is back-dated	RE003	M	Y			
ADS/SDS	Change of Metering (Covering Meter exchange, install and removal)	MHHS-BR-DS-117	ADS/SDS must obtain and process updates to meters and meter technical details via the appropriate interface on the Data Integration Platform	RE003	M	Y	Y	Y	
ADS/SDS		MHHS-BR-DS-118	ADS/SDS must obtain and process cumulative meter reads (Smart and Advanced only) received via the appropriate interface on the Data Integration Platform and store for use in estimation processes where no better data is available	DS008	M/H		Y	Y	
SDS		MHHS-BR-DS-121	SDS must receive Traditional meter updates via the appropriate interface, maintain records accordingly and investigate any discrepancies with data received from the Registration Service. In the case where Related MPANs or Import/Export linked meters exist, SDS should expect to receive Meter Technical Details for all the MPANs in the Related MPAN or Import/Export group.	DS007	M/H	Y	Y	Y	
SDS		MHHS-BR-DS-122	SDS must receive register reads via the appropriate interface for Traditional meters and store for use in estimation processes where no better data is available. Where no reading(s) are provided alongside the change in metering, the Data Service should, after 5 working days, generate an estimated reading(s) for the Date of the Removal of the previous meter(s) using the most appropriate method from the Method Statement. Any newly installed meter should be assumed to have been installed with an index position of Zero.	ME002	H		Y	Y	
ADS/SDS		MHHS-BR-DS-123	ADS/SDS must utilise change of metering read(s) data for settlement, only where a complete set of validated data is not available from the meter	DS004	M	Y			
ADS/SDS		MHHS-BR-DS-124	ADS/SDS must re-process any UTC Period Level Consumption Data previously submitted to settlements, where advised of any change of metering and no actual consumption has been recorded, particularly where this is back-dated	DS004	M		Y		
Data Service		Change of registration data	MHHS-BR-DS-125	Data Service must obtain MPL address/ GSP Group ID updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
ADS/SDS			MHHS-BR-DS-126	ADS/SDS must obtain domestic premise indicator updates via the appropriate interface on the Data Integration Platform, maintain records accordingly and consider impacts to service delivery as required	RE003	M		Y	Y
ADS/SDS	MHHS-BR-DS-127		ADS/SDS must obtain Consent Granularity Indicator updates via the appropriate interface on the Data Integration Platform, maintain records accordingly and assess if a change in recovery pattern is required	RE003	M		Y	Y	
ADS/SDS	MHHS-BR-DS-128		ADS/SDS must commence collection of settlement period consumption data (active import) in line with the updated customer consent, from the date that the Consent Granularity Indicator update notification is received, even if the date the change in consent was captured is in the past. There is no requirement to alter data that has been previously captured using the previously consented recovery pattern.	RE003	M		Y	Y	
SDS	MHHS-BR-DS-130		SDS must, via a Meter Data Retrieval Service (MDR), send the required Service Request, as defined in the Smart Energy Code, to the Data Communications Company (DCC) so as to obtain data in line with the updated customer consent, where the change of Consent Granularity Indicator requires this.	DS008	M/H	Y	Y	Y	
ADS/SDS	MHHS-BR-DS-130.1		ADS/SDS must be able to obtain Related MPAN updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	DS004	M		Y	Y	

Data Service		MHHS-BR-DS-130.2	Data Service must be able to obtain Energy Direction updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
Data Service		MHHS-BR-DS-130.3	Data Service must be able to obtain Metered Status updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
SDS		MHHS-BR-DS-130.4	SDS must obtain SMSO updates from Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
Data Service		MHHS-BR-DS-130.5	Data Service must be able to obtain Import/Export linkage updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
Data Service		MHHS-BR-DS-130.6	Data Service must obtain legacy data item (Profile Class/SSC) updates from Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	DS001	VH		Y	Y
SDS		MHHS-BR-DS-130.7	SDS must be able to obtain DCC enrolment updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
SDS	Overall SDS Requirements	MHHS-BR-DS-132	The SDS must be qualified to operate as a Data Service in line with the Qualification Process and the Smart Data Service BSCPs	ME004	M/H	Y	Y	
SDS		MHHS-BR-DS-135	Where a SDS plans to provide a service to support Traditional Meters, that SDS must, where required, engage with Meter Reading Service(s) and agree bilaterally how data will be shared so that the SDS can provide a service for Traditional meters in line with the Smart Data Service BSCP	CS002	M/H		Y	
SDS		MHHS-BR-DS-136	SDS must, where required, engage with a qualified Meter Data Retrieval Service(s) for all Smart meters and agree bilaterally how data will be shared so that the SDS can provide a service for Smart meters in line with the Smart Data Service BSCP	CS002	H	Y		
All Services		MHHS-BR-DS-137	All services should, where possible, build in the ability to configure the settlement period duration during their solution design, in order to support any future move to a different settlement period duration	CS002	H			
All Services		MHHS-BR-DS-138	All services must publish data following ISO8601 format - YYYY-MM-DDTHH:MM:SS±TZH:TZM.	CS002	H	Y		
All Services		MHHS-BR-DS-139	All services must obtain Industry Standing Data (ISD) update notifications via the appropriate interface, and if required take necessary steps to obtain refreshed ISD data, maintain their records accordingly and reference/ utilise ISD as appropriate as part of the service delivery.	CS002	H	Y	Y	Y
All Services		MHHS-BR-DS-139.1	All services must utilise Industry Standing Data to identify the relevant DIP ID/Role or DTN Market Participant ID/Role, as appropriate, to be used when communicating over the DIP/DTN.	CS002	H	Y	Y	Y
All Services		MHHS-BR-DS-139.2	All services must derive and populate the DIP addressing (primary recipients) for all outbound interfaces in line with the rules described in the interface specification	CS002	H	Y		
Data Service		MHHS-BR-DS-141	Data services must retain data in line with the Non Functional requirements	CS002	H	Y		
All Services		MHHS-BR-DS-142	All services must process data and share outputs with other parties in line with timescales set out in the Operational Choreography document	CS003	M		Y	
All Services	MHHS-BR-DS-143	All Services must obtain Data Integration Platform error messages in line with the End to End Solution Architecture, review the impacted data and re-issue corrected messages/transactions as required	CS003	M		Y		

All Services		MHHS-BR-DS-143.1	All services must return Data Integration Platform error messages in line with the End to End Solution Architecture. Unexpected and/or un-processable messages should be returned to the DIP/ originating party	CS002	H	Y		
All Services		MHHS-BR-DS-143.2	All services must undergo qualification in order to realise operational access to the DIP	CS002	H			
All Services		MHHS-BR-DS-144	All services, when transacting via the DIP, must ensure that they implement monitoring so as to identify where expected responses are not received within standard DIP SLA's, as outlined in the Operational Choreography, so that the appropriate investigative/ resolution activity can be undertaken.	CS002	H	Y		
All Services		MHHS-BR-DS-144.1	All services must have familiarity with and actively monitor any Data Integration Platform tools for tracking messages, as outlined in the End to End Solution Architecture, so that the necessary investigative action can be taken when required.	CS002	H		Y	
All Services		MHHS-BR-DS-145	All services must provide and receive reports in line with agreed reporting requirements and delivery method as outlined in MHHS-ERI011B ECS reports and interfaces	CS002	H		Y	
ADS/SDS		MHHS-BR-DS-146	ADS/SDS, where required, must be able to identify (using the appropriate interface) and appropriately manage related MPANs as described in the relevant BSCP	DS004	M	Y	Y	
SDS		MHHS-BR-DS-147.1	SDS must notify any faulty equipment to the Supplier via a D0001 or bilaterally agreed interface as outlined in the relevant BSCP	CS002	H	Y	Y	
All Services		MHHS-BR-DS-149	Some MHHS processes require the continued use of DTC flows, Services should ensure that if they plan to service customer types that utilise these processes then a mechanism will be required for transmitting/receiving DTC flows.	CS002	H	Y	Y	Y
Data Service		MHHS-BR-DS-150	Data Service must ensure that its systems and processes operate in such a way as to support the most up to date and accurate data being available to settlements in advance of the cut off for each formal settlement run as outlined in the Operational Choreography.	DS001	VH	Y		
All Services		MHHS-BR-DS-152	All Services should implement data validation steps and techniques that they feel are appropriate to ensure the most accurate and efficient delivery of the service	DS001	VH		Y	Y
ADS/SDS		MHHS-BR-DS-154.1	ADS/SDS must receive Notification of Customer Details from the Supplier via the appropriate interface and maintain records accordingly	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-154.2	ADS/SDS must, on receipt of updated customer details, delete or obfuscate the previously held customer details	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-154.3	ADS/SDS must receive Priority Service Details from the Supplier via the appropriate interface and maintain records accordingly	RE003	M		Y	Y
ADS/SDS		MHHS-BR-DS-154.4	ADS/SDS must, on receipt of updated PSR details, delete or obfuscate the previously held PSR details	DS006			Y	Y
ADS/SDS		MHHS-BR-DS-154.5	ADS/SDS must, on receipt of a de-appointment notification becoming effective, delete or obfuscate the previously held PSR and customer details	DS006	H		Y	
All Services		MHHS-BR-DS-156	All services could choose to take advantage of the Electricity Enquiry Service (EES previously known as ECOES) in order to obtain the current data associated with an MPAN in cases where a query arises around the accuracy of data held.	RE003	M	Y		
All Services		MHHS-BR-DS-157	All Services must maintain and update their records with any data received on interfaces to ensure the most accurate and efficient delivery of the service.	RE003	M	Y	Y	
ADS/SDS	Change of	MHHS-	ADS/SDS must be able to obtain a Registration Service Change of Segment Meter	DS006	H		Y	Y

	Connection Type/ Change of Segment	BR-DS-158	Exchange confirmation with MTDs and readings via the appropriate interface on the Data Integration Platform, even when it is from a 3rd party Metering Service (ie not the currently appointed Metering Service).					
ADS/SDS		MHHS-BR-DS-159	ADS/SDS must be able to obtain Registration Service Change of Connection Type notifications via the appropriate interface on the Data Integration Platform and maintain records accordingly.	DS006	H		Y	Y
ADS/SDS		MHHS-BR-DS-159.1	ADS/SDS must obtain Invalid Market Segment Advisory notifications, sent from the Registration Service on the Data Integration Platform, via the appropriate interface.	DS006	H		Y	Y
ADS/SDS	Consumption Amendment	MHHS-BR-DS-160	ADS/SDS must obtain Override Reads, sent by the Supplier on the Data Integration Platform, via the appropriate interface and maintain records accordingly.	DS006	H	Y	Y	Y
ADS/SDS		MHHS-BR-DS-161	ADS/SDS must, following consultation with the Supplier if required, use the override read to recalculate any pre-RF consumption and re-issue the consumption data as required. ADS/SDS should bilaterally agree a process for highlighting and resolving any disagreement in the usage of either Agreed or Override Readings as part of their contractual agreements with the Supplier.	DS006	H		Y	Y
ADS/SDS		MHHS-BR-DS-162	ADS/SDS must obtain Consumption Amendment Requests, sent by the Supplier on the Data Integration Platform, via the appropriate interface and maintain records accordingly	DS001	VH		Y	Y
ADS/SDS		MHHS-BR-DS-163	ADS/SDS must validate that they were responsible for the MPAN for the Consumption Amendment Period requested	DS007	M/H		Y	Y
ADS/SDS		MHHS-BR-DS-164	ADS/SDS must calculate the consumption and reactive data, where required, for each UTC period impacted by the Consumption Amendment Request using the relevant Method Statement.	CS002	H		Y	Y
ADS/SDS		MHHS-BR-DS-165	ADS/SDS must validate the UTC period Consumption Amendment data in line with the relevant Method Statement	DS004	M		Y	Y
ADS/SDS		MHHS-BR-DS-166	ADS/SDS must publish a Consumption Amendment rejection on the Data Integration Platform via the appropriate interface, where any validation is failed, with the appropriate rejection reason.	DS004	M	Y	Y	Y
ADS/SDS		MHHS-BR-DS-167	ADS/SDS must publish validated UTC Period Level Consumption and Reactive Data (where required) for the Consumption Amendment on the Data Integration Platform using the appropriate interface	DS004	M		Y	Y
SDS		Off peak declaration	MHHS-BR-DS-168	SDS must obtain Supplier to DS notification containing Off-peak Declarations via the appropriate interface on the Data Integration Platform	CS002	H		Y
SDS	MHHS-BR-DS-169		SDS must, where a Smart Meter is present and Consent Granularity is not set to Half-Hourly, where provided use the latest Off-peak Declaration Proportions received from the currently appointed Supplier, to calculate/re-calculate E7/E10 consumption for each Off-Peak day provided in the Declaration, in line with the SDS Method Statement.	DS007	M/H		Y	Y

4.1.3 Unmetered Supplies Data Service Functional Requirements

Market Role	Area	MHHS Requirements		Settlement Risk	Risk Rating	Proposed Qualification Approach		
						QAD Question	PIT	Qualification Test Scenario
UMSDS	Change of Metering Service	MHHS-BR-DS-002	UMSDS must obtain Registration Service Notification of Service Appointment & Supporting Info updates, confirming a UMISO appointment and providing MPAN details, via the appropriate interface on the Data Integration Platform and maintain records accordingly	UN002	M	Y	Y	Y
Data Service	Change of Data Service	MHHS-BR-DS-007	Data Service must obtain Registration Service Request for Service Appointments, with Data Service proposed appointment requests, via the appropriate interface on the Data Integration Platform	RE001	VH		Y	Y
Data Service		MHHS-BR-DS-008	Data Service must confirm that they are certified to service the connection type and able to contractually deliver the Data Service based on the information contained in the proposed appointment request and publish a response (acceptance or rejection) on the Data Integration Platform via the appropriate interface. Where the Data Service rejects an appointment request, a rejection reason should be provided in the response. Data Service should be aware that following the initial acceptance the appointment remains "prospective" and there is a possibility that it may need to be lapsed.	RE001	VH		Y	Y
Data Service		MHHS-BR-DS-009	Data Service must, where required, make their own arrangements for notifying any third party service providers (eg Meter Reading Service, Meter Data Retrieval Service) via a mechanism agreed bilaterally	ME003	M	Y		
Data Service		MHHS-BR-DS-011	Data Service must be able to process requests to vary the conditions of an existing appointment received via the appropriate interface. For example change of contract code or change of MDR (SDS only). These should be validated and an outcome returned using the appropriate interface. In the case of rejection, a rejection reason should be provided in the response and the existing appointment will continue unamended.	DS001	VH		Y	Y
Data Service		MHHS-BR-DS-012	Data Service must obtain Registration Service Appointment Status Notifications, with Data Service lapsed appointments, via the appropriate interface on the Data Integration Platform and update records accordingly so as to ensure that the appointment does not become effective. ADS/SDS must delete meter technical details received for all lapsed appointments as soon as operationally practicable following receipt of the lapsed notification.	RE003	M		Y	Y
Data Service		MHHS-BR-DS-012.1	Data Service must obtain Registration Service Appointment Status Notification updates, acknowledging the Prospective Data Service accepted/rejected appointments, via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE001			Y	Y
Data Service		MHHS-	Data Service must obtain Registration Service Notification of Service Appointment & Supporting	RE001	VH		Y	Y

		BR-DS-013	Info updates, confirming a Data Service appointment, via the appropriate interface on the Data Integration Platform and update records with MPAN and Meter Technical Details (ADS/SDS only). For the avoidance of doubt this is the message that indicates that an appointment will/has taken effect.					
UMSDS		MHHS-BR-DS-017	The UMDS must be able to access MPAN details from the UMDSO (submeters, location, lat/long, PECU array details) via an agreed delivery method	UN002	M	Y		
Data Service		MHHS-BR-DS-018	Data Service must obtain Registration Service Notification of Service De-Appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE001	VH		Y	Y
Data Service		MHHS-BR-DS-019	Data Service must, where required, make their own arrangements for terminating any third party service providers (eg Meter Reading Service, Meter Data Retrieval Service) via a mechanism agreed bilaterally	RE003	M	Y		
ADS/UMSDS		MHHS-BR-DS-029	ADS/UMSDS must obtain Export MPAN appointments via the appropriate interface on the Data Integration Platform and update records with registration and metering details. ADS should note this message will be automatically triggered when a change of Data Service has successfully completed for the linked import MPAN (ie acceptance of the Export MPAN was implicit in the accepting the appointment to the Import MPAN)	RE003	M		Y	Y
ADS/UMSDS		MHHS-BR-DS-030	ADS/UMSDS must obtain Export MPAN de-appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly. ADS/UMSDS should note this message will be automatically triggered when a change of Data Service has successfully completed for the linked import MPAN.	UN002	M		Y	Y
Data Service	Customer Direct	MHHS-BR-DS-031	Data Service must publish a Customer Direct Contract Advisory on the Data Integration Platform via the appropriate interface for each MPAN that forms part of the contract, this will also include the contract end date. This can be done only where a contract has been formally agreed with the customer.	RE001	VH	Y	Y	Y
Data Service		MHHS-BR-DS-032	Data Service must obtain Registration Service Customer Direct Contract Advisory Responses via the appropriate interface on the Data Integration Platform	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-033	Data Service must, for accepted responses, maintain records to show which MPANs have been flagged as a customer direct contract	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-034	Data Service must continue to manually coordinate the appointment of MPANs within the contract with other industry participants.	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-035	Data Service must have the ability to cancel or change the end date of a customer direct contract using the appropriate interface on the Data Integration platform	RE003	M	Y	Y	
Data Service		MHHS-BR-DS-036	Data Service must investigate any rejections of customer direct contracts and re-submit as appropriate	RE003	M	Y	Y	Y
Data Service		MHHS-BR-DS-037	Data Service must, in the case of rejection for an existing contract, liaise with their customer and other participants to determine why it appears overlapping contracts might exist	RE001	VH	Y	Y	Y
Data Service	Data Collection	MHHS-BR-DS-040	Data Service must process and publish all data in line with timescales set out in the Operational Choreography document	RE003	M	Y	Y	Y
UMSDS		MHHS-BR-DS-061	UMSDS must be able to receive the D0388 unmetered supplies inventory from the UMDSO via the appropriate interface	UN002	M	Y	Y	Y
UMSDS		MHHS-BR-DS-062	UMSDS must be able to validate the D0388 unmetered supplies inventory in line with the UMDSO Method Statement	UN002	M	Y	Y	Y

UMSDS		MHHS-BR-DS-063	UMSDS must be able to send to the UMSO the D0389 UMS Response Flow following validation, outlining whether each MPAN is accepted or rejected and where rejected the reason for rejection, via the appropriate interface.	UN002	M	Y	Y	Y
UMSDS		MHHS-BR-DS-064	UMSDS must, on being appointed, obtain details of Photoelectric Control Unit (PECU) arrays and schedule contact to support delivery of UTC Period Level Consumption Data in line with the Operational Choreography document	CS002	H	Y	Y	
UMSDS		MHHS-BR-DS-065	UMSDS must manage the provision of PECU arrays in line with the UMSDS Method Statement	CS003	M	Y	Y	
UMSDS		MHHS-BR-DS-066	UMSDS must be able to obtain PECU array data and validate the data in line with the UMSDS Method Statement	UN002	M	Y	Y	
UMSDS		MHHS-BR-DS-067	UMSDS must, on being appointed, obtain details of the Central Management System from the customer, UMSO and/or CMS provider and schedule contact to support delivery of UTC Period Level Consumption Data in line with the Operational Choreography document	UN002	M	Y	Y	Y
UMSDS		MHHS-BR-DS-068	UMSDS must be able to obtain switching times and load information from Central Management Systems (CMS) event data and validate the data in line with the UMSDS Method Statement	DS001	VH	Y	Y	Y
UMSDS		MHHS-BR-DS-069	UMSDS must be able to obtain Industry Standing Data and validate using the data in line with the UMSDS Method statement	DS001	VH	Y	Y	Y
UMSDS		MHHS-BR-DS-070	UMSDS must operate an approved Equivalent Meter in line with [BSCP 700]	DS001	VH		Y	Y
UMSDS		MHHS-BR-DS-071	UMSDS must be able to load PECU array data, CMS data, Inventory data and Industry Standing data into an Equivalent Meter to support calculation of UTC Period Level Consumption Data as set out in the UMSDS Method statement	UN002	M	Y	Y	Y
UMSDS	Data Processing	MHHS-BR-DS-078	UMSDS must obtain Load Shape Data and utilise data as described in the UMSDS Method Statement. Load shaping data will be available via the appropriate interfaces on the Data Integration Platform or as static data published to a publically accessible URI.	UN002	M		Y	Y
UMSDS		MHHS-BR-DS-081	UMSDS must be able to, in exceptional circumstances when a new load shape is made available, reprocess previously submitted data following the UMSDS Method Statement	UN002	M		Y	Y
Data Service		MHHS-BR-DS-082	Data Service must, where required for estimating, identify (based on MPAN Registration data) the load shapes associated with each MPAN from the Load Shape Category table in Industry Standing Data. Data Service should maintain a record of any load shapes used.	RE001	VH	Y	Y	Y
UMSDS		MHHS-BR-DS-085	UMSDS must be able to calculate UTC Period Level Consumption Data for all UTC periods using the requirements set out in the UMSDS Method Statement	UN002	M		Y	Y
UMSDS		MHHS-BR-DS-090	UMSDS must be able to re-calculate consumption for any UTC periods where further data becomes available to support more accurate data, in line with the Operational Choreography document	CS002	H		Y	Y
Data Service		MHHS-BR-DS-093	Data Service must publish/republish validated UTC Period Level Consumption Data (kWh to 3 decimal places) on the Data Integration Platform using the appropriate interface for all appointed MPAN's in line with the Operational Choreography document for each day of their appointment	DS001	VH		Y	Y
Data Service		MHHS-BR-DS-094	Data Service must republish updated validated UTC Period Level Consumption Data (kWh to 3 decimal places) as actual data, improved estimates or revised input data become available. ADS/SDS must re-estimate if new consumption data, meter reads or Meter Technical Details are received. UMSDS must reprocess data on receipt of updated Inventory Data, PECU Array Data or CMS Data, or where there is a change to ISD.	DS001	VH		Y	Y
Data Service		MHHS-BR-DS-	Data Service must obtain UTC Settlement Period Consumption Data Rejections, sent by Central Settlements on the Data Integration Platform, via the appropriate interface, investigate the	DS001	VH		Y	Y

		094.1	validation failures and resubmit as appropriate						
Data Service		MHHS-BR-DS-094.2	Data Service must obtain Notification of Defaulted UTC Settlement Period Consumption Data provided by Central Settlements via the appropriate interface on the Data Integration Platform and maintain records accordingly. Data Service could choose to use the characteristics data to derive and validate the load shape used for the default consumption values. In the case of ADS/UMSDS it should be noted that the GSP Group ID will not be required to determine the load shape.	DS001	VH		Y	Y	
Data Service		MHHS-BR-DS-094.3	Data Service must, as a result of a Change of Supplier de-appointment, split Consumption Data on the day of their de-appointment during British Summer Time into two separate IF-021 messages. The Consumption Data for the settlement periods prior to the Deappointment date/time should be shared with the Outgoing Supplier. Consumption Data between the de-appointment date/time and the end of the UTC Settlement day should be shared with the Incoming Supplier as notified within the IF-037 de-appointment message.	DS001	VH		Y		
Data Service		MHHS-BR-DS-095	Data Service must keep a record of data submitted for audit purposes, as outlined in the Non Functional requirements.	DS001	VH		Y	Y	
Data Service		MHHS-BR-DS-097	Data Service must support investigations and resolution of issues highlighted by Central Settlements reporting and feedback from other participants	CS002	H		Y		
Data Service	Disconnection	MHHS-BR-DS-104	Data Service must obtain Registration Service Notification of Service De-Appointments, with a de-appointment reason of dereg, via the appropriate interface on the Data Integration Platform and maintain records accordingly.	CS002	H	Y	Y	Y	
Data Service		MHHS-BR-DS-105	Data Service must cease submission to settlement for any settlement dates after the effective date of it's de-appointment. For clarity, the Data Service retains responsibility for submitting data for the dates that they were appointed for, even after they have been de-appointed.	CS002	H		Y	Y	
UMSDS	Overall UMDS Requirement	MHHS-BR-DS-133	The UMDS must be qualified to operate as a Data Service in line with the Qualification Process and the UMS Data Service BSCPs	CS002	H				
All Services		MHHS-BR-DS-137	All services should, where possible, build in the ability to configure the settlement period duration during their solution design, in order to support any future move to a different settlement period duration	CS002	H		Y		
All Services		MHHS-BR-DS-138	All services must publish data following ISO8601 format - YYYY-MM-DDTHH:MM:SS±TZH:TZM.	CS002	H	Y			
All Services		MHHS-BR-DS-139	All services must obtain Industry Standing Data (ISD) update notifications via the appropriate interface, and if required take necessary steps to obtain refreshed ISD data, maintain their records accordingly and reference/ utilise ISD as appropriate as part of the service delivery.	CS002	H	Y	Y	Y	
All Services		MHHS-BR-DS-139.1	All services must utilise Industry Standing Data to identify the relevant DIP ID/Role or DTN Market Participant ID/Role, as appropriate, to be used when communicating over the DIP/DTN.	CS002	H	Y	Y	Y	
All Services		MHHS-BR-DS-139.2	All services must derive and populate the DIP addressing (primary recipients) for all outbound interfaces in line with the rules described in the interface specification	CS002	H	Y			
Data Service		MHHS-BR-DS-141	Data services must retain data in line with the Non Functional requirements	CS002	H	Y			
All Services		MHHS-BR-DS-142	All services must process data and share outputs with other parties in line with timescales set out in the Operational Choreography document	CS003	M		Y		
All Services		MHHS-BR-DS-143	All Services must obtain Data Integration Platform error messages in line with the End to End Solution Architecture, review the impacted data and re-issue corrected messages/transactions as required	CS003	M		Y		

All Services	MHHS-BR-DS-143.1	All services must return Data Integration Platform error messages in line with the End to End Solution Architecture. Unexpected and/or un-processable messages should be returned to the DIP/ originating party	CS002	H	Y		
All Services	MHHS-BR-DS-143.2	All services must undergo qualification in order to realise operational access to the DIP	CS002	H			
All Services	MHHS-BR-DS-144	All services, when transacting via the DIP, must ensure that they implement monitoring so as to identify where expected responses are not received within standard DIP SLA's, as outlined in the Operational Choreography, so that the appropriate investigative/ resolution activity can be undertaken.	CS002	H	Y		
All Services	MHHS-BR-DS-144.1	All services must have familiarity with and actively monitor any Data Integration Platform tools for tracking messages, as outlined in the End to End Solution Architecture, so that the necessary investigative action can be taken when required.	CS002	H		Y	
All Services	MHHS-BR-DS-145	All services must provide and receive reports in line with agreed reporting requirements and delivery method as outlined in MHHSP-ERI011B ECS reports and interfaces	CS002	H		Y	
UMSDS	MHHS-BR-DS-147.2	UMSDS must investigate any faulty equipment notified by an agreed communication method, as outlined in the relevant BSCP	ME005	n/a		Y	
All Services	MHHS-BR-DS-149	Some MHHS processes require the continued use of DTC flows, Services should ensure that if they plan to service customer types that utilise these processes then a mechanism will be required for transmitting/receiving DTC flows.	CS002	H	Y	Y	Y
Data Service	MHHS-BR-DS-150	Data Service must ensure that its systems and processes operate in such a way as to support the most up to date and accurate data being available to settlements in advance of the cut off for each formal settlement run as outlined in the Operational Choreography.	DS001	VH	Y	Y	
All Services	MHHS-BR-DS-152	All Services should implement data validation steps and techniques that they feel are appropriate to ensure the most accurate and efficient delivery of the service	DS001	VH		Y	Y
All Services	MHHS-BR-DS-156	All services could choose to take advantage of the Electricity Enquiry Service (EES previously known as ECOES) in order to obtain the current data associated with an MPAN in cases where a query arises around the accuracy of data held.	RE003	M	Y		
All Services	MHHS-BR-DS-157	All Services must maintain and update their records with any data received on interfaces to ensure the most accurate and efficient delivery of the service.	CS002	H	Y	Y	

4.1.4 Supplier Functional Requirements

Market Role	Area	MHHS Requirements		Settlement Risk	Risk Rating	Proposed Qualification Approach		
						QAD Question	PIT	Qualification Test Scenario
Supplier	Change of Supplier	MHHS-BR-SU-001	Supplier must be able to obtain registration details via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	H	Y	Y	Y
		MHHS-BR-SU-002	Supplier must appoint an appropriate Data Service and Metering Service for the Supply Start date, in line with the Change of Data Service and Change of Metering Service processes. In the case of Related MPANs, the Supplier only needs to appoint Services for the Primary MPAN. The Secondary MPANs will have the same Metering Service and Data Service automatically appointed. In the case of linked Import/Export MPANs: 1. The Supplier only needs to appoint a Metering Service for the Import MPAN. The Export MPAN will have the same Metering Service automatically appointed. 2. The Supplier must, in the case of a Smart segment meter, appoint a Smart Data Service for the Export MPAN 3. The Supplier only needs to appoint an Advanced Data Service or UMS Data Service for the Import MPAN. The Export MPAN will have the same ADS or UMSDS automatically appointed.	RE001	VH	Y	Y	Y
		MHHS-BR-SU-004	Supplier must be able to obtain registration details via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	H	Y	Y	Y
Supplier	Change of Data Service	MHHS-BR-SU-019	Supplier must determine when it requires to appoint a new Data Service as part of a Change of Supplier, New Connection, Change of Market Segment or Change of Data Service process.	RE001	VH	Y	Y	Y
		MHHS-BR-SU-020	Supplier must publish a new Data Service appointment request using the appropriate interface on the Data Integration Platform	RE001	VH		Y	Y
		MHHS-BR-SU-021	Supplier should check that the request is in line with the validation rules outlined in the appropriate interface specification	RE001	VH		Y	Y
		MHHS-BR-SU-021.1	Supplier must ensure where a complex site requires both an SDS and ADS to service the site, then appointments must be made to a Service Provider that can provide both an ADS and a SDS service	RE003	H	Y	Y	

		MHHS-BR-SU-022	Supplier must obtain initial Data Service rejected appointments from the Registration Service via the appropriate interface on the Data Integration Platform, maintain records accordingly and re-issue Data Service appointment request as appropriate	RE003	M	Y	Y	Y
		MHHS-BR-SU-023	Supplier must obtain initial Data Service accepted appointments from the Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
		MHHS-BR-SU-024	Supplier must obtain Registration Service Appointment Status Notification updates, with Prospective Data Service accepted appointments, via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
		MHHS-BR-SU-025	Supplier must obtain Registration Service Appointment Status Notification updates, with Prospective Data Service lapsed/rejected appointments, via the appropriate interface on the Data Integration Platform, maintain records accordingly and re-issue a new Data Service appointment request as appropriate	RE003	M		Y	Y
		MHHS-BR-SU-026	Supplier must obtain Data Service de-appointment notifications via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
		MHHS-BR-SU-027	Supplier must obtain Registration Service Notification of Service Appointment & Supporting Info via the appropriate interface on the Data Integration Platform and update registration and metering details. For the avoidance of doubt this is the message that indicates that a Data Service appointment will/has taken effect.	RE003	M		Y	Y
		MHHS-BR-SU-028	Supplier must obtain de-appointment notifications for any Secondary Related MPANs and/or linked Export MPANs, sent from the Registration Service on the Data Integration Platform, via the appropriate interface and maintain records accordingly.	RE003	M		Y	Y
		MHHS-BR-SU-029	Supplier must obtain appointment notifications for any Secondary Related MPANs and/or linked Export MPANs, sent from the Registration Service on the Data Integration Platform, via the appropriate interface and maintain records accordingly.	RE003	M		Y	Y
		MHHS-BR-SU-030	Supplier must obtain Customer Direct Contract response via the appropriate interface on the Data Integration Platform and maintain records accordingly. Supplier should utilise this information in future requests for Data Service appointments for the notified MPANs.	RE003	M	Y	Y	Y
Supplier	Change of Existing Service Provider Details	MHHS-BR-SU-031	Supplier must determine when it needs to vary the conditions of an existing Service Provider appointment , for example to change the contract code or change the MDR (SDS only).	RE001	VH	Y	Y	Y
		MHHS-BR-SU-032	Supplier must publish a Supplier Service Appointment Request for a proposed Service Provider amendment via the appropriate interface on the Data Integration Platform	RE001	VH	Y	Y	Y
		MHHS-BR-SU-033	Supplier must obtain Registration Service Response to Supplier Service Appointment Requests, with rejected appointments, via the appropriate interface on the Data Integration Platform, maintain records accordingly and re-issue the Service Provider Appointment Amendment request as appropriate	RE003	M	Y	Y	Y
		MHHS-BR-SU-034	Registration Service must obtain Registration Service Response to Supplier Service Appointment Requests, with accepted appointments, via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-SU-035	Supplier must obtain Registration Service Appointment Status Notification updates, with Service Provider accepted amended appointments, via the appropriate interface on the Data Integration Platform and maintain records accordingly. This confirms that the Service Provider amendment has been successfully completed.	RE003	M	Y	Y	Y
		MHHS-BR-SU-035.1	Supplier must obtain Registration Service Appointment Status Notification updates, including SDS initiated change of MDR updates, via the appropriate interface on the Data Integration Platform and maintain records accordingly.	RE003	M		Y	Y
		MHHS-BR-SU-036	Supplier must obtain Registration Service Appointment Status Notification updates, with Service Provider rejected amended appointments, via the appropriate interface on the Data Integration Platform, maintain records accordingly and re-issue a new Service Provider appointment amendment request as appropriate.	RE003	M	Y	Y	

Supplier	Transfer of Reads	MHHS-BR-SU-141	Supplier must, for Smart meters and following a successful Change of Supplier or Change of Data Service, attempt to download the cumulative and register reads from the Smart meter and maintain records accordingly.	DS008	M/H		Y	Y
		MHHS-BR-SU-142	Outgoing Supplier must be able to obtain cumulative and register reads, where provided, sent by the outgoing Data Service on the Data Integration Platform, via the appropriate interface, and compare against reads down-loaded from the meter. Where the data matches, within an acceptable tolerance, Supplier can use the data for billing. If there is a significant mismatch Supplier can initiate the Agreed Read process.	DS008	M/H		Y	Y
		MHHS-BR-SU-143	Outgoing Supplier must, where no register reads have been downloaded from the meter or received from the outgoing Data Service, estimate closing register reads using internal estimation processes.	DS007	M/H		Y	Y
		MHHS-BR-SU-144	Outgoing Supplier should validate any estimated closing register reads against the cumulative read provided by Outgoing Data Service. Where the data matches, within an acceptable tolerance, Supplier can use the data for final billing. If there is a significant mismatch Supplier can initiate the Agreed Read process.	DS007	M/H		Y	Y
		MHHS-BR-SU-145	Outgoing Supplier must send Smart register reads to the Incoming Supplier via the appropriate interface.	DS007	M/H		Y	Y
		MHHS-BR-SU-146	Incoming Supplier must be able to obtain cumulative and, where provided, register reads, sent by the outgoing Data Service on the Data Integration Platform via the appropriate interface, and compare against reads down-loaded from the meter and/or received from the incoming Data Service/ outgoing Supplier.	DS008	M/H		Y	Y
		MHHS-BR-SU-147	Supplier must be able to obtain cumulative and, where provided, register reads sent by the incoming Data Service on the Data Integration Platform via the appropriate interface, and compare against reads down-loaded from the meter and/or received from the outgoing Data Service/ outgoing Supplier.	DS008	M/H		Y	Y
		MHHS-BR-SU-148	Incoming Supplier must, where provided by the outgoing Supplier, be able to receive Smart register reads via the appropriate interface, and compare against reads down-loaded from the meter and/or received from the outgoing Data Service/ incoming Data Service.	DS008	M/H		Y	Y
		MHHS-BR-SU-149	Incoming Supplier should evaluate all the transfer reads provided and determine whether there is a discrepancy that needs rectifying via the Agreed Reads process.	DS007	M/H		Y	Y
		MHHS-BR-SU-150	Incoming Supplier should reconfigure the Smart meter when required. The transfer reads should be used to commence billing.	DS007	M/H		Y	Y
		MHHS-BR-SU-151	Incoming Supplier must be able to receive Customer Own Transfer Reads and validate them using their internal validation processes	DS009	H		Y	Y
		MHHS-BR-SU-152	Incoming Supplier must, for traditional meters, send validated Customer Own Transfer Reads to the outgoing Supplier via the appropriate interface	DS009	H		Y	Y
		MHHS-BR-SU-152.1	Incoming Supplier must, for traditional meters, receive Customer Own Transfer Read responses from the outgoing Supplier via the appropriate interface	DS009	H		Y	Y
		MHHS-BR-SU-152.2	Incoming Supplier must, for traditional meters, send accepted Customer Own Transfer Reads to the incoming Data Service via the appropriate interface	DS009	H		Y	Y
		MHHS-BR-SU-153	Outgoing Supplier must, for traditional meters, receive Customer Own Transfer Reads from the incoming Supplier via the appropriate interface, validate the reads and send a response to the incoming Supplier via the appropriate interface.	DS009	H		Y	Y
MHHS-BR-SU-154	Outgoing Supplier must, for traditional meters, send validated Customer Own Transfer Reads to the outgoing Data Service via the appropriate interface.	DS009	H		Y	Y		
MHHS-BR-SU-155	Supplier must, for traditional meters, be able to receive estimated register reads from the Data Service, validate the reads and maintain records accordingly. Where the reads provided are not in line with the Suppliers expectation they should initiate the Agreed Reads process. Accepted reads should be used for the Suppliers opening/closing billing as required.	DS009	H		Y	Y		
Supplier	Agreed Reads	MHHS-BR-SU-	Supplier must, where there is a missing transfer read or there is an issue with a	DS010	M/H	Y	Y	Y

		158	transfer read received, provide a suggested transfer read to the other Supplier via the appropriate interface					
		MHHS-BR-SU-159	Supplier must receive proposed transfer reads via the appropriate interface and validate that the read is acceptable	DS010	M/H	Y	Y	Y
		MHHS-BR-SU-160	Supplier must provide a response to the proposed read request via the appropriate interface	DS010	M/H	Y	Y	Y
		MHHS-BR-SU-161	Incoming Supplier must notify the incoming Data Service of accepted Agreed Reads via the appropriate interface	DS009	H		Y	Y
		MHHS-BR-SU-162	Outgoing Supplier must where accepted notify the outgoing Data Service of the Agreed Read via the appropriate interface	DS009	H		Y	Y
Supplier	Data Collection	MHHS-BR-SU-037	Supplier must be able to receive a notification from Advanced Data Service of a failure to obtain a meter reading via the appropriate interface	DS009	H		Y	
		MHHS-BR-SU-038	Supplier must be able to receive and process a notification from Data Service to investigate a potentially faulty metering system via the appropriate interface and action as required in line with the existing fault process.	ME005	M/H		Y	Y
		MHHS-BR-SU-039	Supplier must be able to receive a notification from Smart Data Service of a failure to obtain a meter reading via the appropriate interface	DS009	H		Y	
		MHHS-BR-SU-040	Supplier must be able to send Supplier sourced register read(s) for Traditional and Advanced meters (where appropriate), however sourced, to the Data Service via the appropriate interface.	DS007	M/H		Y	Y
		MHHS-BR-SU-041	Supplier must publish Supplier sourced cumulative reads (Smart and Advanced only), actual/customer however sourced, to the Data Service via the appropriate interface on the Data Integration Platform	DS007	M/H		Y	Y
		MHHS-BR-SU-042	Supplier must publish a Supplier Advisory Notification via the appropriate interface on the Data Integration Platform where the Supplier receives an alert of vacant site, no comms, remote disconnection or reconnection. Notifications can be removed by Suppliers re-sending the Notification with a revised Expiry Date (for the same Event Type-MPAN combination).	DS003	L		Y	Y
Supplier	Data Processing	MHHS-BR-SU-043	Supplier must obtain Load Shape Data via the appropriate interfaces on the Data Integration Platform or via static data published to a publically accessible URI.	CS002	H		Y	Y
		MHHS-BR-SU-044	Supplier must obtain validated UTC Period Level Consumption Data, sent by the Data Service, on the Data Integration Platform using the appropriate interface and use for billing as appropriate. Supplier should be aware that Data Service will provide improved estimates/ actual data on receipt of consumption data, meter reads or updated Meter Technical Details.	DS008	M/H		Y	Y
		MHHS-BR-SU-045	Supplier must obtain validated UTC Period Level Reactive Data, sent by the Data Service, on the Data Integration Platform using the appropriate interface and use for billing as appropriate. Supplier should be aware that Data Service will provide improved estimates/ actual data on receipt of consumption data, meter reads or updated Meter Technical Details.	DS008	M/H		Y	Y
		MHHS-BR-SU-045.1	Supplier must obtain Notification of Defaulted UTC Settlement Period Consumption Data provided by Central Settlements via the appropriate interface on the Data Integration Platform and maintain records accordingly. Supplier could choose to use the characteristics data to derive and validate the load shape used for the default consumption values. In the case of Advanced/UMS segments it should be noted that the GSP Group ID will not be required to determine the load shape.	CS002	H		Y	Y
		MHHS-BR-SU-045.2	Supplier must obtain UTC Settlement Period Consumption Data Rejections, sent by Central Settlements on the Data Integration Platform, via the appropriate interface and maintain records accordingly	CS002	H		Y	Y
		MHHS-BR-SU-046	Supplier could, where required, use consumption data received from the Data Service to reconcile data received from Central Settlements and used for Billing	DS008	M/H		Y	Y
		MHHS-BR-SU-047	Supplier must be able to receive register readings for Traditional Meters sent by the Data Service via the appropriate interface	DS008	M/H		Y	Y

		MHHS-BR-SU-047.1	Supplier must obtain and process cumulative meter reads, sent by the Data Service (Smart and Advanced meters only), on the Data Integration Platform, via the appropriate interface	DS008	M/H		Y	Y
Supplier	Annual Consumption	MHHS-BR-AC-008	Supplier must obtain the Annual Consumption, Annual Consumption Quality and Annual Consumption Effective From Date, sent by MDS on the Data Integration Platform, via the appropriate interface, maintain records accordingly and use in Suppliers internal processes as required.	CS002	H		Y	
		MHHS-BR-AC-011	Supplier should identify circumstances where it may be more appropriate for the Data Service to utilise a Supplier Nominated Annual Consumption rather than the Annual Consumption provided by the Market-Wide Data Service (eg following a period of theft, meter faults, vacant sites)	DS002	L		Y	
		MHHS-BR-AC-012	Supplier should determine any Supplier Nominated Annual Consumption value, using the best information available so as to ensure the Supplier Nominated Annual Consumption is as reflective of the customers anticipated consumption as possible.	DS002	L		Y	
		MHHS-BR-AC-013	Supplier must, where required, publish the Supplier Nominated Annual Consumption on the Data Integration Platform, using the appropriate interface.	DS003	L		Y	Y
Supplier	New Connection	MHHS-BR-SU-048	Supplier must be able to receive notification that initial registration is secured from CSS	RE003	M/H	Y	Y	Y
		MHHS-BR-SU-048.1	Supplier must request LDSO to create a new MPAN when a new Connection is required. Supplier will need to specify the anticipated: Connection Type, Energy Direction, Metered/Un-Metered Indicator & Market Segment required for the new MPAN.	RE001	VH	Y	Y	Y
		MHHS-BR-SU-049	Supplier must be able to obtain registration details for an Initial Registration via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
Supplier	Disconnection	MHHS-BR-SU-051	Supplier must identify that a disconnection is required, following existing internal processes.	ME003	M	Y	Y	Y
		MHHS-BR-SU-052	Supplier must, where required, request that any existing metering equipment is removed in line with the Change of Metering process.	RE001	M	Y	Y	
		MHHS-BR-SU-053	Supplier must, before disconnection, ensure that the Meter Point is de-energised.	ME003	M	Y		
		MHHS-BR-SU-054	Supplier must be able to request the LDSO to disconnect a Meter Point via the appropriate interface	ME003	M	Y	Y	Y
		MHHS-BR-SU-055	Supplier must be able to receive a rejection to the disconnection request from the LDSO via the appropriate interface and action, as appropriate, based on the rejection reason.	ME003	M	Y		
		MHHS-BR-SU-056	Supplier must be able to receive confirmation of disconnection of an MPAN via the appropriate interface and maintain records accordingly.	RE003	VH	Y	Y	Y
		MHHS-BR-SU-058	Supplier must be able to receive confirmation of registration deactivation for an MPAN via the appropriate interface and maintain records accordingly	RE003	M		Y	Y
		MHHS-BR-SU-059	Supplier must obtain Service Provider de-appointment notifications via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-SU-059.1	Supplier must be able to receive confirmation of re-connection of an MPAN via the appropriate interface and maintain records accordingly, where the LDSO has notified Registration Service that the MPAN should be reconnected (where this is notified after initial disconnection, but in advance of registration de-activation).				Y	Y
Supplier	Change of Energisation	MHHS-BR-SU-060	Supplier must, on identifying a need to change energisation status for an MPAN, request the Meter Service or LDSO (as appropriate) to change the energisation status via the appropriate interface.	ME003	M	Y	Y	Y
		MHHS-BR-SU-061	Supplier must obtain notifications of a rejection or unable to action a Change of Energisation request via the appropriate interface on the Data Integration Platform and action, as appropriate, based on the rejection reason.	RE003	M	Y	Y	Y

		MHHS-BR-SU-062	Supplier must, for traditional pre payment meters, receive a D0179 from the Metering Service with the pre-payment change in energisation details.	ME003	VH	Y		
		MHHS-BR-SU-063	Supplier must obtain Advanced and Smart cumulative reads for the energisation change, sent by the Metering Service on the Data Integration Platform, via the appropriate interface	DS008	H	Y	Y	Y
		MHHS-BR-SU-064	Supplier must obtain accepted Change of Energisation status notifications from the Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-SU-065	Supplier must receive register reads, for non Smart meters, for the energisation change via the appropriate interface	DS009	M	Y	Y	Y
Supplier	Change of Registration Data	MHHS-BR-SU-075	Supplier must obtain MPL address/ GSP Group ID updates via the appropriate interface on the Data Integration Platform and maintain records accordingly. Supplier should consider if there are any impacts on Service Provider appointments.	RE003	M	Y	Y	Y
		MHHS-BR-SU-075.1	Supplier must notify the LDSO of any changes to MPL address that it becomes aware of (outside of the PUB-018 notification) via email/ SDEP or other bilaterally agreed mechanism	RE001	M	Y	Y	Y
		MHHS-BR-SU-076	Supplier must send Central Switching Service updates on domestic premise indicator via the appropriate interface	RE001	M	Y	Y	Y
		MHHS-BR-SU-077	Supplier must obtain domestic premise indicator updates via the appropriate interface on the Data Integration Platform and maintain records accordingly. Supplier should consider if there is any impact on the Consent Granularity Indicator.	RE003	M	Y	Y	Y
		MHHS-BR-SU-078	Supplier must be able to publish Consent Granularity Indicator updates on the Data Integration Platform via the appropriate interface, following customer notification of a change in consent, review following domestic premise indicator update or installation of a new Smart meter.	RE001	VH	Y	Y	Y
		MHHS-BR-SU-079	Supplier must obtain Consent Granularity Indicator updates via the appropriate interface on the Data Integration Platform and action as appropriate.	RE003	M	Y	Y	Y
		MHHS-BR-SU-080	Supplier must be able to obtain DUoS Tariff ID updates via the appropriate interface on the Data Integration Platform	RE003	M	Y	Y	Y
		MHHS-BR-SU-081	Supplier must notify Registration Service of any change required to the Metering Point Relationships using the appropriate interface	RE001	M	Y	Y	Y
		MHHS-BR-SU-083	Supplier must be able to obtain Related MPAN updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-SU-084	Supplier must, where required, request the LDSO to carry out the one time update to the Energy direction via a bilaterally agreed mechanism (eg SDEP or email)	RE001	VH	Y	Y	Y
		MHHS-BR-SU-085	Supplier must manage any rejections to the Energy Direction update and re-submit as appropriate	RE003	M	Y	Y	Y
		MHHS-BR-SU-086	Supplier must be able to obtain Energy Direction updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-SU-087	Supplier must, where required, request the LDSO to carry out the one time update to the Metered Status via a bilaterally agreed mechanism (eg SDEP or email)	RE001	VH	Y	Y	Y
		MHHS-BR-SU-088	Supplier must manage any rejections to the Metered Status update and re-submit as appropriate	RE003	M	Y	Y	Y
		MHHS-BR-SU-089	Supplier must be able to obtain Metered Status updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-SU-090	Supplier must, where changes to In-House Display (IHD) details are identified, publish an IHD update to Registration Service via the appropriate interface on the Data Integration Platform	RE001	VH	Y	Y	Y
MHHS-BR-SU-091	Supplier must obtain IHD updates from Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y		
MHHS-BR-SU-092	Supplier must, where changes to Smart Metering System Operator (SMSO) are identified, publish an SMSO update to Registration Service via the appropriate interface on the Data Integration Platform	RE001	VH	Y	Y	Y		

		MHHS-BR-SU-093	Supplier must obtain SMSO updates from Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-SU-094	Supplier must, where changes to Import/Export linkages are required, publish an Import/ Export linkage update to Registration Service via the appropriate interface on the Data Integration Platform	RE001	VH	Y	Y	Y
		MHHS-BR-SU-096	Supplier must be able to obtain Import/Export linkage updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-SU-096.1	Supplier must, where changes to legacy data items (Profile Class/SSC) are identified, publish a legacy data update to Registration Service via the appropriate interface on the Data Integration Platform	RE001	VH	Y	Y	Y
		MHHS-BR-SU-096.2	Supplier must obtain legacy data item (Profile Class/SSC) updates from Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-SU-096.3	Supplier must be able to obtain DCC enrolment updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
Supplier	Change of Connection Type/Market Segment	MHHS-BR-SU-097	Supplier must identify when a Change of Connection Type or Market Segment is required following a customer request for change to the connection/metering. The Supplier must liaise with the customer, LDSO and Metering Service as appropriate to coordinate the change and agree a target work date.	ME001	M	Y		
		MHHS-BR-SU-098	Supplier must send a request to the LDSO to change the Connection Type via a bilaterally agreed communication method, where it is identified that a Change of Connection Type is required.	RE001	VH	Y	Y	Y
		MHHS-BR-SU-100	Supplier must receive confirmation from the LDSO of the agreed target work date for any Change to Connection Type requests via a bilaterally agreed communication method.	ME001	M/H	Y	Y	
		MHHS-BR-SU-101	Supplier must receive confirmation from the Proposed Metering Service of the agreed target work date for any Change to Market Segment requests via a bilaterally agreed communication method.	ME001	M	Y	Y	
		MHHS-BR-SU-102	Supplier must, where it identifies that new Service Providers are needed, trigger Service Appointments using the Change of Metering Service and Change of Data Service processes, with a scenario of "SEG".	RE003	M	Y	Y	Y
		MHHS-BR-SU-103	Supplier must work closely with all parties involved to ensure that the Target Date will be achieved. If Supplier is informed that the date has had to be moved Supplier should re-submit any Service Appointments for the new Target Date	RE003	M	Y	Y	
		MHHS-BR-SU-104	Supplier must obtain Connection Type updates from the Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly. Supplier should monitor for these updates after the agreed target work date and liaise with LDSO to ensure a prompt update.	RE003	M	Y	Y	Y
		MHHS-BR-SU-105	Supplier must obtain Market Segment updates from the Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly. Supplier should monitor for these updates after the agreed target work date and liaise with Metering Service/LDSO, as appropriate, to ensure a prompt update.	RE003	M	Y	Y	Y
Supplier	Registration Monitoring and Notification	MHHS-BR-SU-106	Supplier must obtain de-appointment notifications for any Secondary Related MPANs and/or linked Export MPANs, sent from the Registration Service (following MPAN alignment monitoring) on the Data Integration Platform, via the appropriate interface and maintain records accordingly. Supplier should expect to receive automatic notification of the correct Service Provider.	RE003	M	Y	Y	Y
		MHHS-BR-SU-107	Supplier must obtain appointment notifications for any Secondary Related MPANs and/or linked Export MPANs, sent from the Registration Service (following MPAN alignment monitoring) on the Data Integration Platform, via the appropriate interface and maintain records accordingly.	RE003	M	Y	Y	Y
		MHHS-BR-SU-	Supplier must obtain Missing Service Provider Advisory notifications, sent from the	RE003	M	Y	Y	Y

		108	Registration Service on the Data Integration Platform, via the appropriate interface and investigate why no Service Provider has been appointed. If necessary Supplier should trigger a new Service Provider appointment.					
		MHHS-BR-SU-109	Supplier must obtain Invalid Market Segment Advisory notifications, sent from the Registration Service on the Data Integration Platform, via the appropriate interface. Supplier must investigate with the Metering Service and/or LDSO to agree the necessary action to resolve the mismatch of Connection Type to Meter Type combination.	RE003	M	Y	Y	Y
		MHHS-BR-SU-110	Supplier must obtain Inconsistent Consent Advisory notifications, sent from the Registration Service on the Data Integration Platform, via the appropriate interface and update the Domestic Indicator or Consent Granularity as appropriate.	RE003	M		Y	
Supplier	Consumption Amendment	MHHS-BR-SU-111	Supplier must identify when an Override Read is required where it identifies that the consumption issued to settlement is incorrect, but can be amended pre RF by issuing a replacement meter read. (eg following a period of meter faults, vacant sites)	DS009	H	Y	Y	Y
		MHHS-BR-SU-112	Supplier must determine the Override Read using the best information available so as to ensure the resulting consumption is as reflective of the customers anticipated consumption as possible	DS002	L	Y	Y	Y
		MHHS-BR-SU-113	Supplier must publish Override Reads to the Data Service and LDSO via the appropriate interface on the Data Integration Platform	DS007	M/H		Y	
		MHHS-BR-SU-114	Supplier must identify when a Consumption Amendment is required where it identifies that the consumption issued to settlement is incorrect and cannot be amended by issuing a replacement meter read. (Eg Theft)	DS005	L		Y	Y
		MHHS-BR-SU-115	Supplier must determine the gross Consumption Amendment required and period impacted, using the best information available, so as to ensure the resulting consumption is as reflective of the customers anticipated consumption as possible	DS005	L		Y	Y
		MHHS-BR-SU-116	Supplier must issue a Dispute, where a Consumption Amendment is required post RF and the materiality is greater than the Dispute criteria. Where it is post RF and the materiality is less than the Dispute criteria no further action can be taken by the Supplier.	DS005	L	Y	Y	Y
		MHHS-BR-SU-117	Supplier must check that the Consumption Amendment is over the minimum materiality criteria for any pre-RF amendments. If it is less than the minimum materiality criteria, no further action can be taken by the Supplier.	DS005	L	Y	Y	Y
		MHHS-BR-SU-118	Supplier must publish Consumption Amendments to the Data Service on the Data Integration Platform via the appropriate interface	DS007	M/H		Y	Y
		MHHS-BR-SU-119	Supplier must obtain Consumption Amendment rejections, sent by the Data Service on the Data Integration Platform, via the appropriate interface and action as appropriate. If the rejection is because it has failed the Maximum Permissible Value threshold, then Supplier could consider raising a Dispute.	DS005	L		Y	Y
		MHHS-BR-SU-120	Supplier must obtain accepted Consumption Amendments with Consumption and Reactive data (where appropriate), sent by the Data Service on the Data Integration Platform, via the appropriate interface and maintain records accordingly.	DS008	M/H		Y	Y
Supplier	Overall Supplier Requirements	MHHS-BR-SU-121	All Parties should, where possible, build in the ability to configure the settlement period duration during their solution design, in order to support any future move to a different settlement period duration	CS002	H	Y	Y	
		MHHS-BR-SU-122	All Parties must publish data following ISO8601 format - YYYY-MM-DDTHH:MM:SS±TZH:TZM.	CS002	H	Y	Y	Y
		MHHS-BR-SU-123	All Parties must obtain Industry Standing Data (ISD) update notifications via the appropriate interface, and if required take necessary steps to obtain refreshed ISD data, maintain their records accordingly and reference/ utilise ISD as appropriate as part of the service delivery.	CS003	M	Y	Y	
		MHHS-BR-SU-123.1	All Parties must utilise Industry Standing Data to identify the relevant DIP ID/Role or DTN Market Participant ID/Role, as appropriate, to be used when communicating over the DIP/DTN.	CS003	M	Y	Y	

		MHHS-BR-SU-123.2	All Parties must derive and populate the DIP addressing (primary recipients) for all outbound interfaces in line with the rules described in the interface specification	CS002	H	Y	Y	Y
		MHHS-BR-SU-124	All Parties must process data and share outputs with other parties in line with timescales set out in the Operational Choreography document	CS002	H	Y		
		MHHS-BR-SU-125	All Parties must undergo qualification in order to realise operational access to the DIP	CS004	N/A			
		MHHS-BR-SU-126	All Parties must obtain Data Integration Platform error messages in line with the End to End Solution Architecture Document, review the impacted data and re-issue corrected messages/transactions as required	CS004	N/A	Y	Y	
		MHHS-BR-SU-127	All Parties must return Data Integration Platform error messages in line with the End to End Solution Architecture. Unexpected and/or un-processable messages should be returned to the DIP/ originating party	CS004	N/A	Y	Y	
		MHHS-BR-SU-128	All Parties, when transacting via the DIP, must ensure that they implement monitoring so as to identify where expected responses are not received within standard DIP SLA's, as outlined in the Operational Choreography, so that the appropriate investigative/ resolution activity can be undertaken.	CS004	N/A	Y	Y	
		MHHS-BR-SU-129	All Parties must have familiarity with and actively monitor any Data Integration Platform tools for tracking messages, as outlined in the End to End Solution Architecture, so that the necessary investigative action can be taken when required.	CS004	N/A	Y		
		MHHS-BR-SU-130	All Parties must provide and receive reports in line with agreed reporting requirements and delivery method as outlined in MHSP-ER1011B ECS reports and interfaces	CS002	N/A		Y	
		MHHS-BR-SU-132	Supplier must notify faulty equipment it identifies to the ADS and receive updates via the appropriate interfaces as outlined in the relevant BSCP.	ME004	M/H	Y	Y	
		MHHS-BR-SU-133	Supplier must receive notification of any faulty equipment from the SDS via a D0001 or bilaterally agreed interface as outlined in the relevant BSCP. For Smart and Traditional meters the Supplier will take the lead investigating faults. The Supplier will be responsible for notifying the Data Service if they require data to be resubmitted as a result of a fault.	ME005	M/H	Y	Y	
		MHHS-BR-SU-134	Some MHHS processes require the continued use of DTC flows, Services should ensure that if they plan to service customer types that utilise these processes then a mechanism will be required for transmitting/receiving DTC flows.	RE003	M	Y	Y	
		MHHS-BR-SU-135	Supplier must send Notification of Customer Details to the Data Service via the appropriate interface on any change of occupancy	RE001	VH	Y	Y	Y
		MHHS-BR-SU-136	Supplier must send Priority Service Details to the Data Service via the appropriate interface on any update to the Priority Service Register.	RE001	VH	Y	Y	Y
		MHHS-BR-SU-137	Some MHHS processes require the continued use of DTC flows, Services should ensure that if they plan to service customer types that utilise these processes then a mechanism will be required for transmitting/receiving DTC flows.	RE003	M	Y		
		MHHS-BR-SU-138	All Parties should implement data validation steps and techniques that they feel are appropriate to ensure the most accurate and efficient delivery of the service	DS002	L	Y	Y	
		MHHS-BR-SU-140	All Parties must maintain and update their records with any data received on interfaces to ensure the most accurate and efficient delivery of the service.	RE003	M	Y	Y	
Supplier	Off Peak Declaration	MHHS-BR-SU-163	Supplier must, where required (i.e. where a customer has not consented to share HH Data) , for switched load tariff (eg. Economy 7/ Economy 10) sites, with a Smart Meter, calculate the Off-peak Declaration proportion based on the configurable register readings for a given day. Where readings are not available the Supplier should provide an estimate based on historical consumption, or if none available, using their best reasonable estimate. Suppliers must provide an updated Off-peak Declaration if better data is received prior to the Final Settlement Run.	DS007	H		Y	
		MHHS-BR-SU-164	Supplier must, where required for switched load tariff (eg. Economy 7/ Economy 10) sites, with a Smart Meter, publish a Supplier Advisory Notification via the appropriate	DS003	M		Y	Y

			interface on the Data Integration Platform notifying the Off-peak Declaration proportion for each Settlement Day. Notifications should be provided within D+3 days.					
		MHHS-BR-SU-165	Supplier must, where required for switched load tariff (eg. Economy 7/ Economy 10) sites, maintain records of the basis for their Off-peak declaration for each day, for audit purposes.	DS007	M		Y	
Supplier	MPAN ABMU Mapping	MHHS-BR-SU-166	Where a new or changed MPAN_ABMU mapping is identified, the supplier must identify whether the MPAN(s) is/are on Half Hourly or Legacy Settlement	CS004	M/H	Y		
		MHHS-BR-SU-168	Where an MPAN(s) Is on Half Hourly Settlement, the supplier must send a D0297 to MDS	CS004	M/H	Y		

4.1.5 LDSO Functional Requirements

Market Role	Area	MHHS Requirements		Settlement Risk	Risk Rating	Proposed Qualification Approach		
						QAD Question	PIT	Qualification Test Scenario
LDSO	Change of Supplier	MHHS-BR-LD-001	LDSO must obtain new Supplier and registration details for an MPAN from the Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
LDSO	Change of Meter Service	MHHS-BR-LD-002	LDSO must obtain Metering Service de-appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly. In the case where Related MPANs or Import/Export linked meters exist, LDSO should expect to receive de-appointment notifications for all the MPANs in the Related MPAN or Import/Export group.	RE003	M	Y	Y	Y
		MHHS-BR-LD-003	LDSO must obtain Metering Service notification updates via the appropriate interface on the Data Integration Platform, maintain records accordingly and investigate any discrepancies with data received from the Metering Service via the DTN. In the case where Related MPANs or Import/Export linked meters exist, LDSO should expect to receive appointment notifications for all the MPANs in the Related MPAN or Import/Export group.	RE003	M	Y	Y	Y
LDSO	Change of Data Service	MHHS-BR-LD-004	LDSO must obtain Data Service de-appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly. In the case where Related MPANs or Import/Export linked MPANs exist, for the Advanced and UMS Market Segments, LDSO should expect to receive de-appointment notifications for all the MPANs in the Related MPAN or Import/Export group.	RE003	M	is optionality being used?	Y	Y
		MHHS-BR-LD-005	LDSO must obtain Data Service notification updates via the appropriate interface on the Data Integration Platform, maintain records accordingly and investigate any discrepancies with data received from the Metering Service via the DTN. In the case where Related MPANs or Import/Export linked MPANs exist, for the Advanced and UMS Market Segments, LDSO should expect to receive appointment notifications for all the MPANs in the Related MPAN or Import/Export group.	RE003	M		Y	Y
LDSO	Data Processing	MHHS-BR-LD-007	LDSO must obtain and process validated UTC Period Level Consumption data, sent by the Data Service on the Data Integration Platform (For all Connection Types except Whole Current), via the appropriate interface and use for DUoS billing as required	DS002	M	is optionality being used?	Y	Y

		MHHS-BR-LD-008	LDSO must obtain and process validated UTC Period Level Reactive data, where required to be collected, sent by the Data Service on the Data Integration Platform, via the appropriate interface and use for DUoS billing as required	DS002	H	Y	Y	Y
		MHHS-BR-LD-008.1	LDSO must obtain Notification of Defaulted UTC Settlement Period Consumption Data provided by Central Settlements via the appropriate interface on the Data Integration Platform and maintain records accordingly	CS002	M		Y	Y
		MHHS-BR-LD-008.2	LDSO must obtain UTC Settlement Period Consumption Data Rejections, sent by Central Settlements on the Data Integration Platform, via the appropriate interface and maintain records accordingly	CS002	M		Y	Y
		MHHS-BR-LD-009	LDSO must be able to receive register readings for Traditional Meters sent by the Data Service via the appropriate interface	DS009	M		Y	
		MHHS-BR-LD-009.1	LDSO must obtain cumulative meter reads, sent by the Data Service (Smart and Advanced meters only), on the Data Integration Platform, via the appropriate interface	DS008	M	Y	Y	Y
		MHHS-BR-AC-009	LDSO must obtain the Annual Consumption, Annual Consumption Quality and Annual Consumption Effective From Date, sent by MDS on the Data Integration Platform, via the appropriate interface, maintain records accordingly and use in LDSOs internal processes as required.	CS002	H		Y	Y
LDSO	New Connection	MHHS-BR-LD-010	LDSO must receive requests from the UMSO to set up a UMS MPAN in CSS, via an agreed communication method, where a new connection is required	UN002	M	is optionality being used?	Y	Y
		MHHS-BR-LD-010.1	LDSO must receive requests from the Supplier/Customer to set up an MPAN in CSS, via an agreed communication method, where a new connection is required	RE003	M	Y	Y	Y
		MHHS-BR-LD-010.2	LDSO must send notification to the Registration Service by internal interface that a new MPAN has been created. LDSO should notify details of Connection Type, Market Segment, Energy Direction, DUoS Tariff ID and Metered Indicator. Energisation status will be set to de-energised. Import/ Export relationships should be provided where required.	RE001	M		Y	Y
		MHHS-BR-LD-011	LDSO must be able to send energisation status and effective date for a new connection to the UMSO via agreed communication method	ME003	M	Y		
		MHHS-BR-LD-012	LDSO must obtain new Supplier details for a New Connection MPAN from the Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-LD-012.1	LDSO must, on receipt of a Metering Service request (D0170), send Site Technical Details to the Metering Service via the appropriate interface	ME002	VH	Y		
LDSO	Disconnection	MHHS-BR-LD-013	LDSO must be able to notify a UMS disconnection request to the UMSO, via an agreed communication method.	ME003	VH	is optionality being used?	Y	Y
		MHHS-BR-LD-014	LDSO must be able to receive a UMS disconnection request from the UMSO to carry out a disconnection once the Supply Point has been de-energised and the inventory updated via an agreed communication method	ME003	M		Y	Y
		MHHS-BR-LD-015	LDSO must be able to carry out a physical disconnection where no meter is on site and the UMSO has requested the disconnection or LDSO requires an emergency disconnection	ME003	VH	Y	Y	Y
		MHHS-BR-LD-016	LDSO must be able to receive a customer disconnection request and carry out the physical disconnection where the request is valid	ME003	M	Y	Y	Y
		MHHS-BR-LD-017	LDSO must be able to receive a disconnection request from the Supplier via the appropriate flow and carry out the physical disconnection where the request is valid	ME003	M	Y	Y	Y

		MHHS-BR-LD-018	LDSO must update records of any disconnected MPANs and notify the Registration Service on completion of a physical disconnection via an internal flow	RE001	VH	Y	Y	Y
		MHHS-BR-LD-019	LDSO must be able to send a rejection to the Supplier with a rejection reason, where the disconnection request is not valid, via the appropriate interface.	ME003	M	Y		
		MHHS-BR-LD-020	LDSO must obtain details of disconnections from the Registration Service via the appropriate interface on the Data Integration Platform.	RE003	M	Y	Y	Y
		MHHS-BR-LD-020.1	LDSO must obtain disconnection notifications, confirming CSS MPAN deactivation, from the Registration Service via the appropriate interface on the Data Integration Platform.	RE003	VH	Y	Y	Y
		MHHS-BR-LD-021	LDSO must obtain Service Provider de-appointment notifications via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
LDSO	Change of Energisation	MHHS-BR-LD-022	LDSO must be able to receive a change of energisation status request via the appropriate interface.	ME003	M	is optionality being used?	Y	Y
		MHHS-BR-LD-023	LDSO must be able to process a change in energisation status and provide the outcome and reads, where appropriate, to the Metering Service via the appropriate interface.	ME003	VH	Y	Y	Y
		MHHS-BR-LD-024	LDSO must obtain updates on change of energisation status via the appropriate interface on the Data Integration Platform and maintain records accordingly	ME003	M	Y	Y	Y
		MHHS-BR-LD-025	LDSO must receive Change of Energisation cumulative reads sent by the Metering Service via the appropriate interface and maintain records accordingly	ME003	M	Y	Y	Y
		MHHS-BR-LD-026	LDSO must receive Change of Energisation register reads from the Data Service via the appropriate interface and maintain records accordingly	ME003	VH	Y	Y	Y
LDSO	Change of Metering	MHHS-BR-LD-027	LDSO must, for Advanced Meters, receive the Meter Technical Details, Commissioning Flows and Meter Readings from the Metering Service via the appropriate interfaces and maintain records accordingly	ME002	M	is optionality being used?	Y	Y
		MHHS-BR-LD-028	LDSO must, for Traditional Meters, receive the new Meter Technical Details & register readings from the Metering Service via the appropriate interfaces and maintain records accordingly	ME002	VH	Y	Y	Y
		MHHS-BR-LD-029	LDSO must obtain Change of Metering cumulative reads via the appropriate interface on the Data Integration Platform and maintain records accordingly	DS009	M	Y	Y	Y
		MHHS-BR-LD-030	LDSO must obtain Change of Metering acceptances via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	VH	Y	Y	Y
		MHHS-BR-LD-031	LDSO must follow existing processes for notifying Suppliers and Metering Services of any LDSO led removal of metering equipment (eg Emergencies)	RE001	M	Y		
LDSO	Change of Registration Data	MHHS-BR-LD-032	LDSO must receive notification of any changes of MPL Address notified by the UMSO or Supplier via an agreed mechanism	UN002	VH	is optionality being used?	Y	Y
		MHHS-BR-LD-033	LDSO must send notification to the Registration Service of any changes of MPL Address and/or GSP Group ID via internal interface	RE001	M	Y		
		MHHS-BR-LD-	LDSO must obtain domestic premise indicator updates, issued by Registration Service on the Data Integration Platform, via the appropriate interface and maintain records accordingly	RE003	M	Y	Y	Y

		034						
		MHHS-BR-LD-035	LDSO must set Duos Tariff ID on MPAN creation and maintain DUoS Tariff ID's in line with their Charging Method Statement. This should include updating the Duos Tariff ID, as required, following any updates to Domestic Premise Indicator, Connection Type and Energy Direction	RE003	M	Y	Y	Y
		MHHS-BR-LD-036	LDSO must send notification to Registration Service of updated DUoS Tariff IDs via internal interface	RE001	VH	Y	Y	Y
		MHHS-BR-LD-037	LDSO must obtain successful Related MPAN updates, issued by Registration Service on the Data Integration Platform, via the appropriate interface and maintain records accordingly	RE003	VH	Y	Y	Y
		MHHS-BR-LD-038	LDSO must receive requests from the Supplier to update the Energy direction and set it for a New Connection via an agreed mechanism (eg SDEP or email) and reject if it is not a valid one time request or if the MPAN is part of a linked Import/ Export group.	RE003	M		Y	Y
		MHHS-BR-LD-039	LDSO must update records accordingly if it is a valid one time request and send notification to the Registration Service of the updated Energy Direction via Internal Interface	RE001	M		Y	Y
		MHHS-BR-LD-040	LDSO must be able to obtain Energy Direction updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
		MHHS-BR-LD-041	LDSO must receive requests from the Supplier to update the Metered Indicator via an agreed mechanism (eg SDEP or email) and reject if it is not a valid one time request	RE003	M		Y	Y
		MHHS-BR-LD-042	LDSO must update records accordingly if it is a valid one time request and send notification to the Registration Service of the updated Metered Indicator via Internal Interface	RE001	M		Y	Y
		MHHS-BR-LD-043	LDSO must be able to obtain Metered Status updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M	Y	Y	Y
		MHHS-BR-LD-043.1	LDSO must obtain Import/Export relationship update requests from the Supplier via the appropriate interface.	RE003	M	Y	Y	Y
		MHHS-BR-LD-043.2	LDSO must check that it is a valid update to the Import/Export relationship and update records for valid requests.	RE003	M	Y	Y	Y
		MHHS-BR-LD-043.3	LDSO must send accepted Import/Export relationship updates to the Registration Service via the appropriate interface	RE001	M		Y	Y
		MHHS-BR-LD-043.4	LDSO must publish rejected Import/Export relationship updates on the Data Integration Platform using the appropriate interface	RE001	M		Y	Y
		MHHS-BR-LD-046	LDSO must be able to obtain Import/Export linkage updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
		MHHS-BR-LD-046.1	LDSO must obtain legacy data item (Profile Class/SSC) updates from Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	M		Y	Y
LDSO	Change of Connection Type/Market Segment	MHHS-BR-LD-047	LDSO must receive requests from the Supplier to change the Connection Type via a bilaterally agreed communication method.		L	Is optionality being used?	Y	Y
		MHHS-BR-LD-048	LDSO must liaise with the Supplier to agree and confirm a target work date		M	Y	Y	Y

		MHHS-BR-LD-049	LDSO must carry out the agreed change of Connection Type site work in line with the Supplier request and on the agreed date		L	Y	Y	Y
		MHHS-BR-LD-050	LDSO must notify the Supplier via a bilaterally agreed mechanism, if the Connection Type site work cannot be completed on the agreed date		L	Y		
		MHHS-BR-LD-051	LDSO must notify the Registration Service via internal interface, when the Connection Type has been successfully updated. LDSO should provide the update as quickly as possible, but no later than 2 working days after completion of the work. In the case of Related MPANs the LDSO must update and notify changes for all Secondary MPANs in line with the Connection Type for the Primary MPAN. In the case of linked Import/Export MPANs, the LDSO must update and notify changes for all Export MPANs in line with the Connection Type for the linked Import MPAN.		L	Y	Y	Y
		MHHS-BR-LD-052	LDSO must liaise with Suppliers and Metering Services to resolve queries where it is identified that an existing Connection Type is not accurate. A Change of Connection Type Change should be agreed (Supplier/Metering Service/LDSO); and actioned by the LDSO with an Effective Date equal to that at which the discrepancy was identified i.e it should not be backdated.		L		Y	Y
		MHHS-BR-LD-053	LDSO must notify the Advanced Metering Service of the Commissioning Details using the appropriate interface.		M			
		MHHS-BR-LD-054	LDSO must obtain Change of Metering acceptances, following on site works by the prospective Metering Service for a Change in Market Segment, via the appropriate interface on the Data Integration Platform and maintain records accordingly		L	Y		
LDSO	Consumption Amendment	MHHS-BR-LD-055	LDSO must obtain Override Reads, sent by the Supplier on the Data Integration Platform, via the appropriate interface and maintain records accordingly.		M		Y	Y
		MHHS-BR-LD-056	LDSO must obtain accepted Consumption Amendments with Consumption and Reactive data (where appropriate), sent by the Data Service on the Data Integration Platform, via the appropriate interface and maintain records accordingly.		H		Y	Y
LDSO	Overall LDSO Requirements	MHHS-BR-LD-057	All Parties should, where possible, build in the ability to configure the settlement period duration during their solution design, in order to support any future move to a different settlement period duration	CS002	M			
		MHHS-BR-LD-058	All Parties must publish data following ISO8601 format - YYYY-MM-DDTHH:MM:SS±TZH:TZM.	CS002	M	Y	Y	Y
		MHHS-BR-LD-059.1	All Parties must utilise Industry Standing Data to identify the relevant DIP ID/Role or DTN Market Participant ID/Role, as appropriate, to be used when communicating over the DIP/DTN.	CS003	H	Y	Y	Y
		MHHS-BR-LD-059.2	All Parties must derive and populate the DIP addressing (primary recipients) for all outbound interfaces in line with the rules described in the interface specification	CS002	H	Y	Y	Y
		MHHS-BR-LD-061	All Parties must undergo qualification in order to realise operational access to the DIP	CS004	N/A			
		MHHS-BR-LD-062	All Parties must obtain Data Integration Platform error messages in line with the End to End Solution Architecture Document, review the impacted data and re-issue corrected messages/transactions as required	CS004	N/A	Y	Y	Y
		MHHS-BR-LD-063	All Parties must return Data Integration Platform error messages in line with the End to End Solution Architecture. Unexpected and/or un-processable messages should be returned to the DIP/ originating party	CS004	N/A	Y	Y	Y
		MHHS-BR-LD-	All Parties must have familiarity with and actively monitor any Data Integration Platform tools for tracking messages, as outlined in the End to End Solution Architecture, so that the	CS004	H			

		065	necessary investigative action can be taken when required.					
		MHHS-BR-LD-066	All Parties must provide and receive reports in line with agreed reporting requirements and delivery method as outlined in MHHSP-ERI011B ECS reports and interfaces	CS002	M			
		MHHS-BR-LD-067	All Parties, where required, must be able to identify (using the appropriate interface) and appropriately manage related MPANs as described in the Retail Energy Code.	RE003	M			
		MHHS-BR-LD-068	All Parties should implement data validation steps and techniques that they feel are appropriate to ensure the most accurate and efficient delivery of the service	DS002	N/A			
		MHHS-BR-LD-069	All Parties must maintain and update their records with any data received on interfaces to ensure the most accurate and efficient delivery of the service.	RE003	N/A			

4.1.6 Supplier Meter Registration Agent

Market Role	Area	MHHS Requirements		Settlement Risk	Risk Rating	Proposed Qualification Approach		
						QAD Question	PIT	Qualification Test Scenario
SMRA	General	MHHS-BR-RS-001	Registration Service must be able to publish all data in line with timescales set out in the Operational Choreography document	RE001	H	Y		
		MHHS-BR-RS-002	Registration Service must derive and populate the DIP addressing (primary recipients) for all outbound interfaces in line with the rules described in the interface specification	RE002	VH		Y	Y
		MHHS-BR-RS-004	Registration Service must be able to publish data in line with population notes, validation rules and formats as set out in the appropriate interface specifications.	RE002	VH			
		MHHS-BR-RS-004.1	Registration Service must stop processing all D-flows* for an MPAN once a new MHHS Service Provider has been appointed.	RE003	H			
		MHHS-BR-RS-004.2	Registration Service must not provide IHD or SMSO information, even where this may be held in the Registration Service, for MPANs that do not reside in the SMART segment at the point of message creation.	RE003	M/H			
		MHHS-BR-RS-004.3	Registration Service must ensure all Service Provider appointments take effect at midnight clock time and de-appointments take effect at one second to midnight clock time.	RE003	M/H			
SMRA	Change of Supplier	MHHS-BR-RS-005	Registration Service must be able to receive a Change of Supplier (COS) pending notification from the Central Switching Service and maintain records accordingly	RE003	H	Y	Y	Y
		MHHS-BR-RS-006	Registration Service must, on receipt of a COS pending notification, be able to publish initial Registration details of the MPAN to the Supplier via the appropriate interface on the Data Integration Platform	RE002	VH	Y	Y	Y
		MHHS-BR-RS-007	Registration Service must be able to receive a Change of Supplier (COS) secured notification from the Central Switching Service and maintain records accordingly. The Domestic Premise Indicator Effective From Date should be set as the Supply Start Date	RE003	H	Y	Y	Y
		MHHS-BR-RS-	Registration Service must, on receipt of a COS secured notification, be able to	RE002	VH	Y	Y	Y

		008	publish a Change of Supplier event to Supplier, Central Settlements and LDSO outlining the new Supplier and registration details for the MPAN, via the appropriate interface on the Data Integration Platform					
SMRA	Change of Metering	MHHS-BR-RS-009	Registration Service must obtain Supplier Service Appointment Requests for a proposed Metering Service via the appropriate interface on the Data Integration Platform	RE003	H	Y	Y	Y
		MHHS-BR-RS-010	Registration Service must validate Supplier Service Appointment Requests for a proposed Metering Service in line with the validation rules set out in the appropriate interface specification (MHHS-IF-031).	RE003	H	Y	Y	Y
		MHHS-BR-RS-011	Registration Service must publish a Registration Service Response to Supplier Service Appointment Request, using the appropriate interface on the Data Integration Platform, with initial acceptance of the proposed Metering Service where validation rules are met.	RE002	VH		Y	Y
		MHHS-BR-RS-012	Registration Service must publish a Registration Service Response to Supplier Service Appointment Request, using the appropriate interface on the Data Integration Platform, with a rejection of the proposed Metering Service and associated rejection reason, where validation rules are not met.	RE002	VH		Y	Y
		MHHS-BR-RS-014.1	Registration Service must notify the Proposed Domestic Premise Indicator provided by the Supplier, advised in the Suppliers Appointment Service Request, when sending a Registration Service Request for Service Appointment.	RE002	VH		Y	Y
		MHHS-BR-RS-015	Registration Service must publish a Registration Service Request for Service Appointment for the proposed Metering Service using the appropriate interface on the Data Integration Platform where initial validation rules are met.	RE002	VH		Y	Y
		MHHS-BR-RS-016	Registration Service must obtain Service Provider Response to Appointment Requests from the proposed Metering Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	H		Y	Y
		MHHS-BR-RS-017	Registration Service must validate Service Provider Response to Appointment Requests from the proposed Metering Service in line with the validation rules set out in the appropriate interface specification (MHHS-IF-034).	RE003	H		Y	Y
		MHHS-BR-RS-018	Registration Service must publish a Registration Service Appointment Status Notification to the Supplier and Metering Service confirming the Metering Service response using the appropriate interface on the Data Integration Platform	RE002	VH		Y	Y
		MHHS-BR-RS-019	Registration Service must, where a Traditional or Advanced Meter is installed, publish a Registration Service Appointment Status Notification to the incumbent Metering Service, where the proposed Metering Service has accepted.	RE002	VH		Y	Y
		MHHS-BR-RS-020	Registration Service must, in cases where the proposed Metering Service appointment is accepted, determine the processing path to be followed: 1. "On the day" (Service Appointment start date = processing date AND existing supplier = requesting supplier) , 2. "Retro" (Service Appointment start date = Previous Service Appointment End Date +1 AND Service Appointment start date< processing date AND Existing Supplier = Requesting Supplier) 3. "Prospective" (All other appointments)	RE003	H	Y	Y	Y
		MHHS-BR-RS-021	Registration Service must, where more than one Metering Service appointment request is received from the same Supplier for the same CSS Registration Request ID, takes the last received Metering Service appointment (based on the Sender timestamp) as containing the correct information. Any earlier appointments should be lapsed.	RE003	H		Y	Y
		MHHS-BR-RS-022	Registration Service must be able to hold Prospective Metering Service appointments in a Prospective Appointments Queue for future validation and re-processing as the daily CSS COS secured notifications are received.	RE003	H		Y	Y

	MHHS-BR-RS-023	Registration Service must process "On the day" and "Retro" Metering Service appointments as soon as they are identified ie should not be held in the queue, for any longer than is necessary, ahead of the CSS COS secured notifications being received.	RE003	H		Y	Y
	MHHS-BR-RS-024	Registration Service must, following receipt of the CSS COS secured notifications, select Prospective Appointments from the Prospective Appointment Queue to process. Where a new Supplier ID and Supply Start Date combination (notified by a CSS COS secured notification) exactly matches the Supplier ID and Appointment start date of a prospective Metering Service then this prospective appointment should be processed.	RE003	H		Y	Y
	MHHS-BR-RS-024.1	Registration Service must publish a Registration Service Appointment Status Notification, to lapse the proposed appointment, using the appropriate interface on the Data Integration Platform where a CSS switch cancellation notification has been received where the Effective from date of the Metering Service matches the [now cancelled] Supply Start Date for that Supplier.	RE003	H	Y		
	MHHS-BR-RS-025	Registration Service must, following receipt of the CSS COS secured notifications, process Prospective Appointments from the Prospective Appointment Queue, where the current Supplier ID matches the Supplier ID that requested a prospective Metering Service appointment AND the Metering Service Start Date equals the System Date + 1 but is less than the [future] Supply End Date.	RE003	H			
	MHHS-BR-RS-027	Registration Service must re-run validation, in line with the validation rules set out in the appropriate interface specification, for all Metering Service appointments that have been confirmed to re-process from the Prospective Appointment Queue, to ensure that the appointment is still valid.	RE003	H			
	MHHS-BR-RS-028	Registration Service must lapse prospective appointment requests, following receipt of the CSS COS secured notifications and checking for appointments to process, where remaining prospective appointment start dates can no longer be achieved (Metering Service Appointment Start Date <= System Date)	RE003	H		Y	Y
	MHHS-BR-RS-029	Registration Service must lapse prospective appointment requests following receipt of the CSS COS secured notifications, where the existing Supplier requested the new Metering Service Appointment, but the Appointment Start Date is greater than or equal to the Supply End Date.	RE003	H			
	MHHS-BR-RS-030	Registration Service must publish a Registration Service Notification of Service De-appointment using the appropriate interface on the Data Integration Platform where the end date for the incumbent Metering Service has been confirmed by a CSS secured notification.	RE002	VH		Y	Y
	MHHS-BR-RS-031	Registration Service must publish a Registration Service Notification of Service De-appointment using the appropriate interface on the Data Integration Platform where a Change of Metering Service only appointment is confirmed	RE002	VH		Y	Y
	MHHS-BR-RS-032	Registration Service must publish a Registration Service Appointment Status Notification (MSAppLapsed) using the appropriate interface on the Data Integration Platform where the proposed Metering Service appointment has lapsed or is rejected following failed validation	RE002	VH		Y	Y
	MHHS-BR-RS-033	Registration Service must publish a Registration Service Notification of Service Appointment & Supporting Info with registration and metering details via the appropriate interface on the Data Integration Platform when a Metering Service appointment has been confirmed and will become effective.	RE002	VH		Y	Y
	MHHS-BR-RS-033.1	Registration Service must re-publish a Registration Service Notification of Service De-appointment using the appropriate interface on the Data Integration Platform where a retrospective Change of Metering Service appointment is confirmed. (ie original de-appointment will not have had incoming Service Provider(s) populated and the re-publish provides the missing details)	RE002	VH	Y		

		MHHS-BR-RS-034	Registration Service must check for any linked Export MPANs when a Metering Service appointment has been confirmed.	RE002	VH	Y	Y	Y
		MHHS-BR-RS-035	Registration Service must automatically publish an Export MPAN de-appointment, with a reason of "IMPEXP", via the appropriate interface on the Data Integration Platform for any linked Export MPANs. The same new Metering Service and effective date should be notified.	RE002	VH		Y	Y
		MHHS-BR-RS-036	Registration Service must automatically publish an Export MPAN appointment confirmation via the appropriate interface on the Data Integration Platform for any linked Export MPANs. The same new Metering Service and effective date should be notified.	RE002	VH		Y	Y
		MHHS-BR-RS-037	Registration Service must check for any linked Related MPANs when a Metering Service appointment has been confirmed.	RE002	VH		Y	Y
		MHHS-BR-RS-038	Registration Service must automatically publish a Related MPAN de-appointment, with a reason of "RELATE", via the appropriate interface on the Data Integration Platform for any linked Related MPANs. The same new Metering Service and effective date should be notified.	RE002	VH		Y	Y
		MHHS-BR-RS-039	Registration Service must automatically publish a Related MPAN appointment confirmation via the appropriate interface on the Data Integration Platform for any linked Related MPANs. The same new Metering Service and effective date should be notified.	RE002	VH			
		MHHS-BR-RS-040	Registration Service must hold a history of Metering Service customer direct contract flags against each MPAN. This must consist of the following new data items: Customer Direct Contract Metering Service DIP ID Customer Direct Contract Metering Service Effective To Date	RE003	H	Y	Y	Y
		MHHS-BR-RS-041	Registration Service must obtain Customer Direct Contract Advisory notifications from a Metering Service via the appropriate interface on the Data Integration Platform, validate the request in line with the validation rules set out in the appropriate interface specification and update records accordingly	RE003	H		Y	Y
		MHHS-BR-RS-042	Registration Service must publish a customer direct contract acceptance or rejection, to the requesting Metering Service, using the appropriate interface on the Data Integration Platform. Where validation rules are not met, a rejection reason should be included.	RE002	VH		Y	Y
SMRA	Change of Data Service	MHHS-BR-RS-043	Registration Service must obtain Supplier Service Appointment Requests for a proposed Data Service via the appropriate interface on the Data Integration Platform	RE003	H	Y	Y	Y
		MHHS-BR-RS-044	Registration Service must validate Supplier Service Appointment Requests for a proposed Data Service in line with the validation rules set out in the appropriate interface specification (MHHS-IF-031).	RE002	VH		Y	Y
		MHHS-BR-RS-045	Registration Service must publish a Registration Service Response to Supplier Service Appointment Request, using the appropriate interface on the Data Integration Platform, with initial acceptance of the proposed Data Service where validation rules are met.	RE002	VH			
		MHHS-BR-RS-046	Registration Service must publish a Registration Service Response to Supplier Service Appointment Request, using the appropriate interface on the Data Integration Platform, with a rejection of the proposed Data Service and associated rejection reason, where validation rules are not met.	RE002	VH		Y	Y
		MHHS-BR-RS-048.1	Registration Service must notify the Domestic Premise Indicator provided by the Supplier, advised in the Suppliers Appointment Service Request, when sending a Registration Service Request for Service Appointment.	RE002	VH	Y		
		MHHS-BR-RS-049	Registration Service must publish a Registration Service Request for Service Appointment for the proposed Data Service using the appropriate interface on the Data Integration Platform where initial validation rules are met.	RE002	VH		Y	Y

	MHHS-BR-RS-050	Registration Service must obtain Service Provider Response to Appointment Requests from the proposed Data Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	H		Y	Y
	MHHS-BR-RS-051	Registration Service must validate Service Provider Response to Appointment Requests from the proposed Data Service in line with the validation rules set out in the appropriate interface specification (MHHS-IF-034).	RE002	VH		Y	Y
	MHHS-BR-RS-052	Registration Service must publish a Registration Service Appointment Status Notification to the Supplier and Data Service confirming the Data Service response using the appropriate interface on the Data Integration Platform	RE002	VH	Y	Y	Y
	MHHS-BR-RS-053	Registration Service must, where a Traditional or Advanced Meter is installed, publish a Registration Service Appointment Status Notification to the incumbent Metering Service, where the proposed Data Service has accepted.	RE002	VH		Y	Y
	MHHS-BR-RS-054	Registration Service must, in cases where the proposed Data Service appointment is accepted, determine the processing path to be followed: 1. "On the day" (Service Appointment start date = processing date AND existing supplier = requesting supplier) , 2. "Retro" (Service Appointment start date = Previous Service Appointment End Date +1 AND Service Appointment start date< processing date AND Existing Supplier = Requesting Supplier) 3. "Prospective" (All other appointments)	RE003	H		Y	Y
	MHHS-BR-RS-055	Registration Service must, where more than one Data Service appointment request is received from the same Supplier for the same MPAN and for the same date, take the last received Data Service appointment (based on the Sender timestamp) as containing the correct information. Any earlier appointments should be lapsed.	RE003	H			
	MHHS-BR-RS-056	Registration Service must be able to hold Prospective Data Service appointments in a Prospective Appointments Queue for future validation and re-processing as the daily CSS COS secured notifications are received.	RE003	H		Y	Y
	MHHS-BR-RS-057	Registration Service must process "On the day" and "Retro" Data Service appointments as soon as they are identified ie should not be held in the queue, for any longer than is necessary, ahead of the CSS COS secured notifications being received.	RE003	H			
	MHHS-BR-RS-058	Registration Service must, following receipt of the CSS COS secured notifications, select Prospective Appointments from the Prospective Appointment Queue to process. Where a new Supplier ID and Supply Start Date combination (notified by a CSS COS secured notification) exactly matches the Supplier ID and Appointment start date of a prospective Data Service then this prospective appointment should be processed.	RE003	H		Y	Y
	MHHS-BR-RS-058.1	Registration Service must publish a Registration Service Appointment Status Notification, to lapse the proposed appointment, using the appropriate interface on the Data Integration Platform where a CSS switch cancellation notification has been received where the Effective from date of the Data Service matches the [now cancelled] Supply Start Date for that Supplier.				Y	Y
	MHHS-BR-RS-059	Registration Service must, following receipt of the CSS COS secured notifications, process Prospective Appointments from the Prospective Appointment Queue, where the current Supplier ID matches the Supplier ID that requested a prospective Data Service appointment AND the Data Service Start Date equals the System Date + 1 but is less than the Supply End Date.	RE003	H		Y	Y
	MHHS-BR-RS-061	Registration Service must re-run validation, in line with the validation rules set out in the appropriate interface specification, for all Data Service appointments that have been confirmed to re-process from the Prospective Appointment Queue, to ensure that the appointment is still valid	RE003	H		Y	Y
	MHHS-BR-RS-	Registration Service must lapse prospective appointment requests, following	RE003	H		Y	Y

	062	receipt of the CSS COS secured notifications and checking for appointments to process, where remaining prospective appointment start dates can no longer be achieved (Data Service Appointment Start Date <= System Date)					
	MHHS-BR-RS-063	Registration Service must lapse prospective appointment requests following receipt of the CSS COS secured notifications, where the existing Supplier requested the new Data Service Appointment, but the Appointment Start Date is greater than or equal to the Supply End Date.	RE003	H		Y	Y
	MHHS-BR-RS-064	Registration Service must publish a Registration Service Notification of Service De-appointment using the appropriate interface on the Data Integration Platform where the end date for the incumbent Data Service has been confirmed by a CSS secured notification.	RE002	VH		Y	Y
	MHHS-BR-RS-065	Registration Service must publish a Registration Service Notification of Service De-appointment using the appropriate interface on the Data Integration Platform where a Change of Data Service only appointment is confirmed	RE002	VH		Y	Y
	MHHS-BR-RS-066	Registration Service must publish a Registration Service Appointment Status Notification (DSAppLapsed) using the appropriate interface on the Data Integration Platform where the proposed Data Service appointment has lapsed or is rejected following failed validation	RE002	VH		Y	Y
	MHHS-BR-RS-067	Registration Service must publish a Registration Service Notification of Service Appointment & Supporting Info with registration and metering details via the appropriate interface on the Data Integration Platform when a Data Service appointment has been confirmed and will become effective.	RE002	VH		Y	Y
	MHHS-BR-RS-067.1	Registration Service must set the Consent Granularity in line with the Consent Granularity associated with the appointment and with an effective date of the appointment start date.	RE003	H			
	MHHS-BR-RS-067.2	Registration Service must re-publish a Registration Service Notification of Service De-appointment using the appropriate interface on the Data Integration Platform where a retrospective Change of Data Service appointment is confirmed. (ie original de-appointment will not have had incoming Service Provider(s) populated and the re-publish provides the missing details)	RE002	VH			
	MHHS-BR-RS-068	Registration Service must check for any linked Export MPANs when a Data Service appointment has been confirmed.	RE003	H		Y	Y
	MHHS-BR-RS-069	Registration Service must, for Advanced and UMS MPANs, automatically publish an Export MPAN de-appointment, with a reason of "IMPEXP", via the appropriate interface on the Data Integration Platform for any linked Export MPANs. The same new Data Service and effective date should be notified.	RE002	VH		Y	Y
	MHHS-BR-RS-070	Registration Service must, for Advanced and UMS MPANs, automatically publish an Export MPAN appointment confirmation via the appropriate interface on the Data Integration Platform for any linked Export MPANs. The same new Data Service and effective date should be notified. In cases where Consent Granularity for the export MPAN is not available, this should be defaulted to "H".	RE002	VH		Y	Y
	MHHS-BR-RS-072	Registration Service must check for any linked Related MPANs when a Data Service appointment has been confirmed.	RE003	H		Y	Y
	MHHS-BR-RS-073	Registration Service must automatically publish a Related MPAN de-appointment, with a reason of "RELATE", via the appropriate interface on the Data Integration Platform for any linked Related MPANs. The same new Data Service and effective date should be notified.	RE002	VH		Y	Y
	MHHS-BR-RS-074	Registration Service must automatically publish a Related MPAN appointment confirmation via the appropriate interface on the Data Integration Platform for any linked Related MPANs. The same new Data Service and effective date should be notified.	RE002	VH		Y	Y
	MHHS-BR-RS-	Registration Service must hold a history of Data Service customer direct	RE003	H		Y	Y

		075	contract flags against each MPAN. This must consist of the following new data items: Customer Direct Contract Data Service DIP ID Customer Direct Contract Data Service Effective To Date					
		MHHS-BR-RS-076	Registration Service must obtain Customer Direct Contract Advisory notifications from a Data Service via the appropriate interface on the Data Integration Platform, validate the request in line with rules in the interface specification and update records accordingly	RE003	H		Y	Y
		MHHS-BR-RS-077	Registration Service must publish a customer direct contract acceptance or rejection to the requesting Data Service using the appropriate interface on the Data Integration Platform. Where validation rules are not met, a rejection reason should be included.	RE002	VH		Y	Y
SMRA	CSS and DCC Update	MHHS-BR-RS-078	Registration Service must, on successful completion of a Change in Meter Data Retriever (MDR), send an update to CSS/DCC of the new MDR using the existing Electricity Retail Data Service (ERDS) interface.	RE002	VH	Y	Y	
		MHHS-BR-RS-078.1	Registration Service must, on notification that a Meter Data Retriever (MDR) appointment is ending, send an update to CSS/DCC to end date the MDR appointment using the existing Electricity Retail Data Service (ERDS) interface	RE002	VH	Y	Y	
		MHHS-BR-RS-078.2	Registration Service must populate the ERDS interface with: 1. The four digit Market Participant Identifier derived from the DIP/DTN routing look-up list in ISD, based on the DIP ID/ DIP Role code provided in the appointment 2. The Role Code for MDR should be set to "MDR". 3. The Effective From Date of the MDR 4. The Effective To Date of the MDR (Only expected when end dating following notification of "de-appointment") 5. CSS Registration ID	RE003	H	Y	Y	
		MHHS-BR-RS-079	Registration Service must receive a response from CSS/DCC as to whether the MDR details have been updated, using the Electricity Retail Data Service (ERDS) interface. Registration Service should maintain a flag against the SDS/MDR appointment record to show the most recent CSS update outcome.	RE003	H	Y	Y	
		MHHS-BR-RS-080	Registration Service must publish a Registration Service Appointment Status Notification to the Data Service, using the appropriate interface on the Data Integration Platform, to pass on the outcome of a new MDR update to CSS/DCC.	RE002	VH	Y	Y	
SMRA	Change of Existing Service Providers	MHHS-BR-RS-081	Registration Service must obtain Supplier Service Appointment Requests for a proposed Service Provider amendment via the appropriate interface on the Data Integration Platform	RE003	H	Y	Y	Y
		MHHS-BR-RS-082	Registration Service must validate Supplier Service Appointment Requests for a proposed Service Provider amendment in line with the validation rules set out in the appropriate interface specification (MHHS-IF-031).	RE003	H	Y	Y	Y
		MHHS-BR-RS-083	Registration Service must publish a Registration Service Response to Supplier Service Appointment Request, using the appropriate interface on the Data Integration Platform, with initial acceptance of the proposed Service Provider amendment where validation rules are met.	RE002	VH	Y	Y	Y
		MHHS-BR-RS-084	Registration Service must publish a Registration Service Response to Supplier Service Appointment Request, using the appropriate interface on the Data Integration Platform, with a rejection of the proposed Service Provider Amendment and associated rejection reason, where validation rules are not met.	RE002	VH	Y	Y	Y
		MHHS-BR-RS-085	Registration Service must publish a Registration Service Request for Service Appointment for the proposed Service Provider using the appropriate interface on the Data Integration Platform where initial validation rules are met.	RE002	VH	Y	Y	Y

		MHHS-BR-RS-086	Registration Service must obtain Service Provider Response to Appointment Requests from the proposed Service Provider via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	H	Y	Y	Y
		MHHS-BR-RS-086.1	Registration Service must obtain SDS initiated change of MDR requests via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	H	Y	Y	Y
		MHHS-BR-RS-087	Registration Service must validate Service Provider Response to Appointment Requests from the proposed Service Provider and SDS initiated change of MDR requests in line with the validation rules set out in the appropriate interface specification (MHHS-IF-034).	RE003	H	Y	Y	Y
		MHHS-BR-RS-088	Registration Service must publish a Registration Service Appointment Status Notification confirming the Service Provider response/ SDS initiated MDR update using the appropriate interface on the Data Integration Platform	RE002	VH	Y	Y	Y
		MHHS-BR-RS-088.1	Registration Service must, where the MDR has been updated (or if the same MDR is provided and the CSS update flag for the appointment shows as failed), inform CSS of the MDR.	RE003	H	Y		
		MHHS-BR-RS-088.2	Registration Service must, in the case of an accepted Data Service update, apply the updated Contract Reference (Advanced/UMS MPANs) and Read Frequency (Advanced MPANs only) for any linked Export MPANs and publish a Registration Service Appointment Status Notification using the appropriate interface on the Data Integration Platform	RE003	H	Y	Y	Y
		MHHS-BR-RS-088.3	Registration Service must, in the case of an accepted Data Service update, apply the updated Contract Reference, MDR (SDS Smart MPANs) and Read Frequency (Advanced/SDS MPANs) for any Secondary Related MPANs and publish a Registration Service Appointment Status Notification using the appropriate interface on the Data Integration Platform	RE003	H	Y	Y	Y
		MHHS-BR-RS-088.4	Registration Service must, in the case of an accepted Metering Service update, apply the updated Contract Reference for any linked Export MPANs and publish a Registration Service Appointment Status Notification using the appropriate interface on the Data Integration Platform	RE003	H	Y	Y	Y
		MHHS-BR-RS-088.5	Registration Service must, in the case of an accepted Metering Service update, apply the updated Contract Reference for any Secondary Related MPANs and publish a Registration Service Appointment Status Notification using the appropriate interface on the Data Integration Platform	RE003	H	Y	Y	Y
SMRA	New Connections	MHHS-BR-RS-089	Registration Service must receive notification from the LDSO by internal interface that a new MPAN has been created	RE003	H	Y	Y	Y
		MHHS-BR-RS-090	Registration Service must notify Central Switching Service (CSS) that the Registerable Measurement Point (RMP) status is "created" for the MPAN via the Electricity Retail Data Service (ERDS) interface	RE002	VH		Y	Y
		MHHS-BR-RS-091	Registration Service must set the energisation status to "D" on notification that a new MPAN has been created	RE003	H	Y	Y	Y
		MHHS-BR-RS-091.1	Registration Service must set the DUoS Tariff ID, Metered Indicator and Energy Direction on MPAN creation in line with the information provided by the LDSO and ensure consistency between data items and the Connection Type provided. Where mutually agreed, between LDSO and Registration Service, data items may be derived from the Connection Type where appropriate.	RE003	H			
		MHHS-BR-RS-091.2	Registration Service must receive notification from the LDSO by internal interface of any Export MPAN relationships where required and update records accordingly. Validation should be undertaken to ensure that an Export MPAN is only linked to a single Import MPAN and there is only one import MPAN as part of the Group.	RE003	H			
		MHHS-BR-RS-092	The initial Connection Type of an MPAN in the Registration Service must be based on the type of physical connection requested at the point of MPAN	RE003	H			

			creation					
		MHHS-BR-RS-093	The initial Market Segment of an MPAN in the Registration Service must be based on the Connection Type notified at the point of MPAN creation. Where the connection type is whole current, the Supplier requesting the MPAN creation should nominate an initial segment (Smart or Advanced) based on their best understanding of the metering to be installed at the site.	RE003	H			
		MHHS-BR-RS-093.1	Registration Service must publish an EES update, on creation of a new MPAN in the Registration Service, using the appropriate interface on the Data Integration Platform	RE002	VH			
		MHHS-BR-RS-094	Registration Service must receive details of the "Initial Registration" for the supply point from Central Switching Service via the Electricity Retail Data Service (ERDS) interface	RE003	H		Y	Y
		MHHS-BR-RS-094.1	Registration Service must, following the initial Data Service Appointment and the Data Service Effective From Date being reached, set the MP status to "Traded" and RMP status to "Operational"	RE002	VH		Y	Y
		MHHS-BR-RS-096	Registration Service must publish an Initial Registration event to Supplier, Central Settlements and LDSO outlining the Supplier and Registration details for the New Connection, on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
SMRA	Disconnection	MHHS-BR-RS-097	Registration Service must receive updates of any disconnected MPANs from the LDSO via internal interface and update records accordingly	RE003	H	Y	Y	Y
		MHHS-BR-RS-098	Registration Service must publish details of disconnection to the Supplier and LDSO on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
		MHHS-BR-RS-099	Registration Service must notify CSS of disconnection, via the Electricity Retail Data Service (ERDS) interface, so that the Registerable Measurement Point status can be "terminated"	RE002	VH		Y	Y
		MHHS-BR-RS-100	Registration Service must receive notification of a registration de-activation from CSS and update the Registration Service systems	RE003	H		Y	Y
		MHHS-BR-RS-101	Registration Service must, on receipt of a registration de-activation notification from CSS, publish details of the registration de-activation to Central Settlements and LDSO on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
		MHHS-BR-RS-102	Registration Service must, on receipt of a registration de-activation notification from CSS, send a de-appointment notification, with a reason of disconnection, for any active Services via the appropriate interface.	RE002	VH	Y	Y	Y
		MHHS-BR-RS-102.1	Registration Service must, on receipt of a registration de-activation notification from CSS, update the status to de-energised and send a de-energised notification for any MPANs where the energisation status is currently energised, via the appropriate interface.	RE002	VH	Y		
		MHHS-BR-RS-103	Registration Service must, on receipt of a registration de-activation notification from CSS, publish a Registration Service Appointment Status Notification (lapsed notification) via the appropriate interface on the Data Integration Platform, for any outstanding prospective Service Provider appointments for that MPAN	RE002	VH		Y	Y
		MHHS-BR-RS-103.1	Registration Service must publish details of re-connection to the Supplier on the Data Integration Platform via the appropriate interface, on notification from the LDSO that the MPAN should be reconnected (where this is notified after initial disconnection, but in advance of registration de-activation)	RE002	H			
		MHHS-BR-RS-103.2	Registration Service must publish an EES update, on notification from the LDSO that the MPAN should be reconnected (where this is notified after initial disconnection but in advance of registration de-activation), using the appropriate interface on the Data Integration Platform	RE002	H			
SMRA	Change of	MHHS-BR-RS-	Registration Service must obtain details of a successful change of energisation	RE003	H		Y	Y

	Energisation	104	request from the Metering Service via the appropriate interface on the Data Integration Platform					
		MHHS-BR-RS-105	Registration Service must carry out validation in line with the validation rules set out in the appropriate interface specification (MHHS-IF-007).	RE003	H	Y	Y	Y
		MHHS-BR-RS-106	Registration Service must, on failure of any validation rules, publish a rejection of the energisation update to the Metering Service, with associated failure reason, on the Data Integration Platform via the appropriate interface	RE002	VH	Y	Y	Y
		MHHS-BR-RS-107	Registration Service must, on passing all validation rules, update Registration Service systems and publish acceptance of the energisation update on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
SMRA	Change of Metering	MHHS-BR-RS-108	Registration Service must obtain updated metering details from the Metering Service via the appropriate interface on the Data Integration Platform	RE003	H		Y	Y
		MHHS-BR-RS-108.1	Registration Service must obtain updated meter history details from the Metering Service via the appropriate interface on the Data Integration Platform and consider if/how a change history might be maintained	RE003	H		Y	Y
		MHHS-BR-RS-109	Registration Service must carry out validation of the metering update in line with the validation rules set out in the appropriate interface specification (MHHS-IF-005).	RE003	H		Y	Y
		MHHS-BR-RS-110	Registration Service must, on failure of any validation rules, publish a rejection of the metering update, with associated failure reason, to the Metering Service via the appropriate interface on the Data Integration Platform	RE002	VH		Y	Y
		MHHS-BR-RS-111	Registration Service must, on passing all validation rules, update Registration Service systems and publish acceptance of the metering update via the appropriate interface on the Data Integration Platform	RE002	VH		Y	Y
SMRA	Change of Registration Data	MHHS-BR-RS-113	Registration Service must receive notification from LDSO of change of MPL address and/or GSP Group ID via internal interface and update records accordingly	RE003	H		Y	Y
		MHHS-BR-RS-114	Registration Service must send Central Switching Service updates on MPL address via the appropriate Electricity Retail Data Service (ERDS) interface	RE002	VH		Y	Y
		MHHS-BR-RS-115	Registration Service must publish MPL address/ GSP Group ID updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
		MHHS-BR-RS-116	Registration Service must receive notification of domestic premise indicator updates from CSS via the Electricity Retail Data Service (ERDS) interface and update the Domestic Premise Indicator as notified and the Domestic Premise Indicator Effective From Date with the date the notification is received	RE003	H		Y	Y
		MHHS-BR-RS-117	Registration Service must publish domestic premise indicator updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
		MHHS-BR-RS-118	Registration Service must obtain Consent Granularity Indicator updates from the Supplier via the appropriate interface on the Data Integration Platform	RE003	H		Y	Y
		MHHS-BR-RS-119	Registration Service must carry out validation of the Consent Granularity Indicator update in line with the validation rules set out in the appropriate interface specification (MHHS-IF-025).	RE003	H		Y	Y
		MHHS-BR-RS-120	Registration Service must publish Consent Granularity Indicator updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
		MHHS-BR-RS-121	Registration Service must receive notification from LDSO of updated DUoS Tariff ID via internal interface from LDSO and maintain records accordingly	RE003	H		Y	Y
		MHHS-BR-RS-122	Registration Service must publish DUoS Tariff ID updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
		MHHS-BR-RS-071	Registration Service must receive and validate Related MPAN updates using the appropriate interface on the Data Integration Platform and maintain records accordingly. Registration Service should populate Primary and Secondary MPAN fields in line with current practise for Related MPANs.	RE003	H	Y	Y	Y

MHHS-BR-RS-071.1	Registration Service must publish successful Related MPAN updates on the Data Integration Platform via the appropriate interface and trigger a market segment re-evaluation	RE002	VH		Y	Y
MHHS-BR-RS-071.13	Registration Service must notify CSS of any successful Related MPAN updates via the appropriate CSS interface	RE003	H		Y	Y
MHHS-BR-RS-071.2	Registration Service must continue to allow the one time change of Energy Direction by the LDSO using the appropriate interface. Registration Service should prevent any proposed updates where there is a Linked Import/ Export MPAN.	RE003	H		Y	Y
MHHS-BR-RS-071.3	Registration Service must publish successful Energy Direction updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
MHHS-BR-RS-071.31	Registration Service must notify CSS of any successful Energy Direction updates via the appropriate CSS interface	RE002	VH		Y	Y
MHHS-BR-RS-071.4	Registration Service must continue to allow the one time change of Unmetered status by the LDSO using the appropriate interface and update the Metered Indicator and Connection Type accordingly	RE003	H		Y	Y
MHHS-BR-RS-071.5	Registration Service must publish Metered Indicator updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
MHHS-BR-RS-071.51	Registration Service must notify CSS of any successful Metered Indicator updates via the appropriate CSS interface	RE002	VH		Y	Y
MHHS-BR-RS-071.6	Registration Service must obtain Import/Export relationship updates from the LDSO via the appropriate interface.	RE003	H		Y	Y
MHHS-BR-RS-071.8	Registration Service must publish Import/Export relationship updates on the Data Integration Platform via the appropriate interface. For Linked Import/ Export MPANs the new Data item "Linked Import/Export MPAN" should be populated for Export MPANs with the Linked Import MPAN.	RE002	VH		Y	Y
MHHS-BR-RS-071.9	Registration Service must obtain and validate In-house Display (IHD) updates from the Supplier via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	H		Y	Y
MHHS-BR-RS-071.10	Registration Service must publish validated IHD updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
MHHS-BR-RS-071.11	Registration Service must obtain and validate Smart Metering System Operator (SMSO) updates from the Supplier via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE003	H		Y	Y
MHHS-BR-RS-071.12	Registration Service must publish validated SMSO updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
MHHS-BR-RS-071.13	Registration Service must notify CSS of any successful Related MPAN updates via the appropriate CSS interface	RE003	H		Y	Y
MHHS-BR-RS-071.13	Registration Service must obtain and validate legacy data item (Profile Class/SSC) updates from the Supplier via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE002	VH		Y	Y
MHHS-BR-RS-071.14	Registration Service must publish validated legacy data item (Profile Class/SSC) updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
MHHS-BR-RS-071.15	Registration Service must receive notification from DCC of updated DCC enrolment information via the existing interface	RE003	H		Y	Y
MHHS-BR-RS-071.16	Registration Service must publish valid DCC enrolment updates on the Data Integration Platform via the appropriate interface	RE002	VH		Y	Y
MHHS-BR-RS-071.17	Registration Service must receive notification from GDCC of active Green Deal Plans on an MPAN via the appropriate interface	RE003	H			
MHHS-BR-RS-071.18	Registration Service must publish Green Deal updates to EES on the Data Integration Platform via the appropriate interface	RE002	VH			

		MHHS-BR-RS-071.19	Registration Service must issue an EES update using the appropriate interface on the Data Integration Platform, when the MP Status and/ or RMP Status changes	RE002	VH			
SMRA	Change of Connection Type/Segment	MHHS-BR-RS-123	Registration Service must hold a Market Segment Valid Flag, Market Segment Valid Flag Date and a history of Market Segment against each MPAN. This must consist of the following new data items: Market Segment Market Segment Effective From Date	RE003	H		Y	
		MHHS-BR-RS-123.1	Registration Service must receive Connection Type updates from the LDSO via the appropriate internal mechanism/interface and maintain records accordingly. In the case of Related MPANs and linked Import/Export MPANs, Registration Service must only accept updates for the Primary/Import MPAN. All secondary Related MPANs or linked Export MPANs should be updated accordingly.	RE003	H	Y		
		MHHS-BR-RS-124	"Registration Service must derive a value for Market Segment based on the Connection Type and Meter Type following a Change of Metering, Change of Connection Type (Change of Unmetered Indicator) or Change of Related MPAN relationships. In the case of multiple meters where there is a mix of Advanced and Smart determined Market Segments, then the segment should be set as Advanced."	RE003	H	Y	Y	Y
		MHHS-BR-RS-124.1	Registration Service must, in the case of Related MPANs and following derivation of Market Segment for individual MPANs, update the Market Segment for the Primary MPAN and all the Secondary MPANs based on the following rule: 1. If any MPAN in the Related MPAN Group has a (derived) Market Segment of Advanced, then set the Market Segment for all the MPANs to Advanced and set the Market Segment Valid Flag to "Yes" for all the MPANs	RE003	H	Y		
		MHHS-BR-RS-124.2	Registration Service must, in the case of Linked (Import/Export) MPANs and following derivation of Market Segment for individual MPANs, update the Market Segment for the Import MPAN and/ or Export MPANs based on the following rule: 1. If any MPAN in the Linked MPAN Group has a (derived) Market Segment of Advanced, then set the Market Segment for all the Linked MPANs to Advanced and set the Market Segment Valid Flag to "Yes" for all the MPANs	RE003	H	Y		
		MHHS-BR-RS-125	Registration Service must , in circumstances where the derived market segment is valid, update to the new Market Segment and set the Market Segment Valid Flag to "Yes" and set the Market Segment Valid Flag Date.	RE003	H		Y	Y
		MHHS-BR-RS-125.1	Registration Service must notify participants of any MPAN where the Connection Type has changed using the appropriate interface on the Data Integration Platform.	RE002	VH		Y	Y
		MHHS-BR-RS-126	Registration Service must notify participants of any MPAN where the Market Segment has changed using the appropriate interface on the Data Integration Platform.	RE002	VH		Y	Y
		MHHS-BR-RS-127	Registration Service must , in circumstances where the derived market segment is invalid (and has not been overridden by Linked/Related MPAN logic), maintain the existing Market Segment and set the Market Segment Valid Flag to "No" and set the Market Segment Valid Flag Date.	RE003	H	Y		
		MHHS-BR-RS-129	Registration Service must, for sites that are not unmetered and where there is no metering installed, continue to maintain the existing market segment until such time as either a Connection Type change or new metering is successfully applied to that site. During this time the Market Segment Valid Flag should be set to "Yes" . On completion of a Connection Type only change the Market Segment should be re-evaluated and set appropriately for the new Connection Type, even if there is no meter installed. Again the Market Segment Valid Flag	RE003	H		Y	Y

			should be set to "Yes".					
		MHHS-BR-RS-130	Registration Service must not apply any segment based validation rules on receipt of a Supplier Service Appointment Request, where the Appointment reason is "SEG". All other validation rules, as set out in the appropriate interface specification should be applied.	RE003	H		Y	Y
		MHHS-BR-RS-131	Registration Service must, where the Appointment reason is SEG, send a lapsed/rejected appointment notification to the Service Provider if it is 2 working days (configurable) beyond the appointment date,	RE002	VH			
		MHHS-BR-RS-132	Registration Service must allow a prospective Metering Service to provide updated metering details for an MPAN, via the appropriate interface, where there is a prospective Metering Service Appointment for that MPAN, the Appointment reason is "SEG" and the metering activity date is >= the prospective appointment date	RE003	H		Y	Y
		MHHS-BR-RS-134	Registration Service must, following re-evaluation of Market Segment, where any currently appointed Service Provider is no longer compatible with the revised Market Segment, auto de-appoint that Service Provider with an Effective End Date of the Market Segment Effective From Date - 1. In the case of Related MPANs and linked Import/Export MPANs, Registration Service must also de-appoint all secondary Related MPANs/ linked Export MPANs when the Primary or Import MPAN is de-appointed. De-appointment should not be triggered by the secondary Related MPAN or a linked Export MPAN.	RE002	VH			
SMRA	Advisory Notifications	MHHS-BR-RS-128	Registration Service must notify the responsible Supplier of any MPAN where the Market Segment Valid Flag has been set to "No" for more than 2 days (configurable), via the appropriate interface on the Data Integration Platform. This notification should be re-triggered every 7 days (configurable) until Market Segment Valid Flag is "Yes" and continue even where there is a Change of Supplier.	RE002	VH		Y	Y
		MHHS-BR-RS-128.1	Registration Service must notify the responsible Supplier of any MPAN where there are missing Service Provider(s) on the Supply Start Date via the appropriate interface on the Data Integration Platform. This notification should be re-triggered every 7 days (configurable) until all Service Providers are appointed.	RE002	VH		Y	Y
		MHHS-BR-RS-128.2	Registration Service must notify the responsible Supplier of any MPAN where the Consent Granularity is not valid for the Domestic Premise Indicator and/or Market Segment/ Energy Direction. This notification should be re-triggered every 7 days (configurable) until a valid Consent Granularity is set.	RE002	VH			
		MHHS-BR-RS-128.3	Registration Service must, after processing the prospective appointment queue each day, in the case where there are Related MPANs or linked Import/Export MPANs, review for any Secondary MPANs/ Export MPANs that do not have the same Metering Service as the Primary MPAN/ linked Import MPAN.	RE003	H			
		MHHS-BR-RS-128.4	Registration Service must automatically publish a de-appointment notification via the appropriate interface on the Data Integration Platform, for any Secondary MPAN/ linked Export MPAN which has a mis-aligned Metering Service. The Metering Service should be de-appointed with an effective date of D+1.	RE002	VH		Y	Y
		MHHS-BR-RS-128.5	Registration Service must automatically publish an appointment confirmation via the appropriate interface on the Data Integration Platform, for any Secondary MPAN/ linked Export MPAN needing to be aligned with the Primary/ Import MPAN Metering Service. The same Metering Service as the Primary/ Import should be appointed with an effective date of D+2.	RE002	VH			
		MHHS-BR-RS-128.6	Registration Service must, after processing the prospective appointment queue each day, in the case where there are Related MPANs or linked Import/Export MPANs (Advanced and Unmetered only), review for any Secondary MPANs/	RE003	H		Y	Y

			Export MPANs that do not have the same Data Service as the Primary MPAN/ linked Import MPAN.					
		MHHS-BR-RS-128.7	Registration Service must automatically publish a de-appointment notification via the appropriate interface on the Data Integration Platform, for any Secondary MPAN/ linked Export MPAN which has a mis-aligned Data Service. The Data Service should be de-appointed with an effective date of D+1.	RE002	VH		Y	Y
		MHHS-BR-RS-128.8	Registration Service must automatically publish an appointment confirmation via the appropriate interface on the Data Integration Platform, for any Secondary MPAN/ linked Export MPAN needing to be aligned with the Primary/ Import MPAN Data Service. The same Data Service as the Primary/ Import should be appointed with an effective date of D+2.	RE002	VH		Y	Y
SMRA	Overall SMRA Requirements	MHHS-BR-RS-135	Publish data in agreed ISO8601 date/time format	RE002	VH	Y		
		MHHS-BR-RS-136	All services should obtain Industry Standing Data (ISD) update notifications via the appropriate interface, and where required must take necessary steps to obtain refreshed ISD data, maintain their records accordingly and reference/ utilise ISD as appropriate as part of the service delivery.	RE003	H	Y		
		MHHS-BR-RS-136.1	All services must utilise Industry Standing Data to identify the relevant DIP ID/Role or DTN Market Participant ID/Role, as appropriate, to be used when communicating over the DIP/DTN.	RE003	H	Y		
		MHHS-BR-RS-137	All Services must obtain Data Integration Platform error messages in line with the End to End Solution Architecture Document, review the impacted data and re-issue corrected messages/transactions as required	CS004	N/A			
		MHHS-BR-RS-137.0	All services must undergo qualification in order to realise operational access to the DIP	CS004	N/A			
		MHHS-BR-RS-138	All services must return Data Integration Platform error messages in line with the End to End Solution Architecture. Unexpected and/or un-processable messages should be returned to the DIP/ originating party	CS004	N/A			
		MHHS-BR-RS-139	All services, when transacting via the DIP, must ensure that they implement monitoring so as to identify where expected responses are not received within standard DIP SLA's, as outlined in the Operational Choreography, so that the appropriate investigative/ resolution activity can be undertaken.	CS004	N/A			
		MHHS-BR-RS-140	All services must have familiarity with and actively monitor any Data Integration Platform tools for tracking messages, as outlined in the End to End Solution Architecture, so that the necessary investigative action can be taken when required.	CS004	H			
		MHHS-BR-RS-141	All services must provide and receive reports in line with agreed reporting requirements and delivery method as outlined in MHHSP-ERI011B ECS reports and interfaces	CS002	H			
		MHHS-BR-RS-142	Some MHHS processes require the continued use of DTC flows, Services should ensure that if they plan to service customer types that utilise these processes then a mechanism will be required for transmitting/receiving DTC flows.	RE003	H		Y	
		MHHS-BR-RS-143	All Services should implement data validation steps and techniques that they feel are appropriate to ensure the most accurate and efficient delivery of the service	RE003	H	Y		
		MHHS-BR-RS-145	All Services must maintain and update their records with any data received on interfaces to ensure the most accurate and efficient delivery of the service.	RE003	M/H			
MHHS-BR-RS-146	Registration must only carry out auto-alignment of Linked MPANs (Import/Export) if all MPANs in the group have migrated to the MHHS operation.	RE003	M/H					

4.1.7 Unmetered Supplies Operator

Market Role	Area	MHHS Requirements		Settlement Risk	Risk Rating	Proposed Qualification Approach		
						QAD Question	PIT	Qualification Testing
UMSO	Change of Metering Service	MHHS-BR-MS-001	Metering Service must obtain Registration Service Request for Service Appointment with Metering Service proposed appointment requests, via the appropriate interface on the Data Integration Platform	RE001	H	Y	Y	Y
		MHHS-BR-MS-002	Metering Service must confirm that they are certified to service the connection type and able to contractually deliver the Metering Service based on the information contained in the proposed appointment request and publish a response (acceptance or rejection) on the Data Integration Platform via the appropriate interface. Where a request is rejected the Metering Service must provide an appropriate rejection reason in the response. When the appointment request is accepted the Metering Service should be aware that at this point the appointment remains "prospective" and there is a possibility that it may need to be lapsed at a later stage.	RE001	H	Y	Y	Y
		MHHS-BR-MS-003	Metering Service must, for any proposed appointments it rejects, delete any metering details received, within 30 days of notifying the rejection.	RE001	M	Y	Y	Y
		MHHS-BR-MS-004	Metering Service must be able to process requests to vary the conditions of an existing appointment received via the appropriate interface. For example change of contract code. These should be validated and an outcome returned using the appropriate interface. In the case of rejection the existing appointment will continue unamended.	RE001	M	Y	Y	Y
		MHHS-BR-MS-005	Metering Service must obtain Registration Service Notification of Service De-Appointments via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE001	M	Y	Y	Y
		MHHS-BR-MS-006.1	Metering Service must obtain Registration Service Appointment Status Notification updates, acknowledging the Prospective Metering Service accepted/rejected appointments, via the appropriate interface on the Data Integration Platform and maintain records accordingly	RE001	M	Y	Y	Y
		MHHS-BR-MS-006	Metering Service must obtain Registration Service Appointment Status Notifications, with prospective Metering Service appointments, via the appropriate	RE001	M	Y	Y	Y

			interface on the Data Integration Platform and maintain records of prospective Metering Service					
		MHHS-BR-MS-007	Metering Service must obtain Registration Service Notification of Service Appointment & Supporting Info updates, with confirmed Metering Service appointments, via the appropriate interface on the Data Integration Platform and update records with MPAN and Meter Technical Details (ADS and SDS only). For the avoidance of doubt this is the message that indicates that an appointment will/has taken effect.	RE001	M	Y	Y	Y
		MHHS-BR-MS-025	Metering Service must obtain Registration Service Appointment Status Notifications, with Metering Service lapsed appointments, via the appropriate interface on the Data Integration Platform and update records accordingly so as to ensure that that the appointment does not become effective. Metering Service must delete meter technical details received for all lapsed appointments within 30 days.	RE001	M	Y	Y	Y
UMSO	Change of Data Service	MHHS-BR-MS-026	Metering Service must obtain Registration Service Appointment Status Notifications, with prospective Data Service appointments, via the appropriate interface on the Data Integration Platform and maintain records of prospective Data Service	RE001	H	Y	Y	Y
		MHHS-BR-MS-029	UMSO must send MPAN related details to the UMSDS (Submeter ID, Locations, Lat/long, PECU Arrays locations.) via an agreed communication method	UN002	M	Y		
		MHHS-BR-MS-030	Metering Service must obtain Registration Service Notification of Service Appointment & Supporting Info updates, with confirmed Data Service appointments, via the appropriate interface on the Data Integration Platform and maintain records accordingly	UN001	VH	Y	Y	Y
		MHHS-BR-MS-030.1	UMSO must, on receipt of a confirmed Data Service appointment, send the D0388 unmetered supplies inventory to the UMSDS via the appropriate interface	UN001	VH	Y	Y	Y
UMSO	Data Collection	MHHS-BR-MS-031	UMSO must be able to receive the detailed unmetered supplies inventory from the customer and pass UMS inventory to the UMSDS, in line with the UMSO Method statement, via the appropriate interface	UN001	M	Y	Y	Y
		MHHS-BR-MS-032	UMSO must be able to receive the response from UMSDS via the appropriate interface, maintain records accordingly and investigate any rejections in consultation with the customer as required.	UN001	L	Y	Y	Y
UMSO	New Connection	MHHS-BR-MS-033	UMSO must request LDSO to set up a UMS MPAN in CSS, via agreed communication method, where a new connection is required	ME001	M	Y	Y	Y
		MHHS-BR-MS-036	UMSO must be able to receive energisation status and effective date from LDSO via agreed communication method	ME003	M	Y	Y	Y
		MHHS-BR-MS-037	UMSO must be able to manage a change of energisation	ME003	M	Y	Y	Y
UMSO	Disconnection	MHHS-BR-MS-038	UMSO must be able to receive and process details for a UMS disconnection received from the supplier, customer or LDSO, via the agreed communication method, and request the LDSO to carry out the disconnection once the Supply Point has been de-energised and the inventory updated	ME003	M	Y	Y	Y
		MHHS-BR-MS-040	Metering Service must obtain Registration Service Notification of Service De-Appointments, with a de-appointment reason of disconnection, via the appropriate interface on the Data Integration Platform and maintain records accordingly.	RE001	M	Y	Y	Y
UMSO	Change of Energisation	MHHS-BR-MS-041	Metering Service must be able to receive a change of energisation status request via the appropriate interface.	ME003	M	Y	Y	
		MHHS-BR-MS-042	Metering Service must be able to receive a change of energisation status outcome from the LDSO via the appropriate interface.	ME003	M	Y	Y	
		MHHS-BR-MS-042.1	Metering Service must be able to publish a notification to the Supplier, advising when a change in energisation status cannot be actioned, to the Data Integration Platform via the appropriate interface	ME003	M	Y	Y	
		MHHS-BR-MS-	UMSO must be able to receive and process details for a UMS change of	ME003	M	Y	Y	Y

		047	energisation request received from the supplier, customer or LDSO via agreed communication method					
		MHHS-BR-MS-048	UMSO must update the Unmetered Supplies Inventory in line with the energisation change, as set out in the UMSO Method Statement.	UN001	M	Y		
		MHHS-BR-MS-049	Metering Service must be able to provide updated energisation status details to the Data Integration Platform via the appropriate interface	ME003	H	Y	Y	Y
		MHHS-BR-MS-050	Metering Service must be able to obtain and process Registration Service Notification of Change of Energisation Status updates via the appropriate interface on the Data Integration Platform. Any rejections should be investigated and re-submitted as appropriate.	ME003	H	Y	Y	Y
UMSO	Change of Registration	MHHS-BR-MS-064	UMSO must be able to inform LDSO of any MPL address updates, via the agreed communication method	UN001	M	Y	Y	Y
		MHHS-BR-MS-065	Metering Service must obtain MPL address/ GSP Group ID updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	UN001	M	Y	Y	
		MHHS-BR-MS-066.2	Metering Service must be able to obtain Energy Direction updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	UN001	M	Y	Y	
		MHHS-BR-MS-066.3	Metering Service must be able to obtain Metered Status updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	UN001	M	Y	Y	
		MHHS-BR-MS-066.5	Metering Service must be able to obtain Import/Export linkage updates via the appropriate interface on the Data Integration Platform and maintain records accordingly	UN001	M	Y	Y	
		MHHS-BR-MS-066.6	Metering Service must obtain legacy data item (Profile Class/SSC) updates from Registration Service via the appropriate interface on the Data Integration Platform and maintain records accordingly	UN001	M	Y	Y	
UMSO	Overall UMSO Requirements	MHHS-BR-MS-069	The UMSO must be qualified to operate as a Metering Service in line with the Qualification Process and the UMSO Service BSCPs	N/A	H			
		MHHS-BR-MS-071	All services must obtain Industry Standing Data (ISD) update notifications via the appropriate interface, and if required take necessary steps to obtain refreshed ISD data, maintain their records accordingly and reference/ utilise ISD as appropriate as part of the service delivery.	CS003	H	Y	Y	Y
		MHHS-BR-DS-71.1	All services must utilise Industry Standing Data to identify the relevant DIP ID/Role or DTN Market Participant ID/Role, as appropriate, to be used when communicating over the DIP/DTN.	CS003	H	Y	Y	Y
		MHHS-BR-DS-71.2	All services must derive and populate the DIP addressing (primary recipients) for all outbound interfaces in line with the rules described in the interface specification	CS002?	M	Y	Y	
		MHHS-BR-MS-072	All services must process data and share outputs with other parties in line with timescales set out in the Operational Choreography document	CS002	M	Y		
		MHHS-BR-MS-73.0	All services must undergo qualification in order to realise operational access to the DIP	CS002	H	Y		
		MHHS-BR-MS-073	All Services must obtain Data Integration Platform error messages in line with the End to End Solution Architecture, review the impacted data and re-issue corrected messages/transactions as required	CS002	M	Y	Y	
		MHHS-BR-MS-073.1	All services must return Data Integration Platform error messages in line with the End to End Solution Architecture. Unexpected and/or un-processable messages should be returned to the DIP/ originating party	CS002	M	Y	Y	
		MHHS-BR-MS-074	All services, when transacting via the DIP, must ensure that they implement monitoring so as to identify where expected responses are not received within standard DIP SLA's, as outlined in the Operational Choreography, so that the appropriate investigative/ resolution activity can be undertaken.	CS002	M		Y	
MHHS-BR-MS-	All services must have familiarity with and actively monitor any Data Integration	CS002	M		Y			

		075	Platform tools for tracking flows, as outlined in the End to End Solution Architecture, so that the necessary investigative action can be taken when required.					
		MHHS-BR-MS-076	All services must provide and receive reports in line with agreed reporting requirements and delivery method as outlined in MHHSP-ERI011B ECS reports and interfaces	CS002	M			
		MHHS-BR-MS-077	All services, where required, must be able to identify (using the appropriate interface) and appropriately manage related MPANs as described in the relevant BSCP	CS002	M	Y		
		MHHS-BR-MS-080	UMSO must receive notification of any fault resolution by the UMSDS via an agreed communication method, as outlined in the relevant BSCP	ME004	M	Y	Y	
		MHHS-BR-MS-081	Some MHHS processes require the continued use of DTC flows. Services should ensure that if they plan to service customer types that utilise these processes then a mechanism will be required for transmitting/receiving DTC flows.	CS005	M		Y	
		MHHS-BR-MS-083	All Services should implement data validation steps and techniques that they feel are appropriate to ensure the most accurate and efficient delivery of the service	UN002	M	Y		
		MHHS-BR-MS-090	All services could choose to take advantage of the Electricity Enquiry Service (EES previously known as ECOES) in order to obtain the current data associated with an MPAN in cases where a query arises around the accuracy of data held.	RE003	M	Y		
		MHHS-BR-MS-091	All Services must maintain and update their records with any data received on interfaces to ensure the most accurate and efficient delivery of the service.	CS002	M		Y	

4.2 Non-Functional Requirements

The following assessment criteria to cover MHHS Non-Functional Requirements has been developed by the Elexon Qualification Team based on MHHS-DEL2128 NFR Categorisation v2.0 and presented to BSC PAB for approval. This may be updated as further information is published by the MHHS Programme.

Market Role	NFR Category	NFR Sub-Category	NFR Reference	NFR Title	NFR Description	Proposed Qualification Approach		
						QAD Question	PIT	Qualification Test Scenario
All	Compatibility	Interoperability	E2E0014	Messaging Interfaces	All services shall send and receive messages for all DIP interfaces and publications via the API definitions in the MHHS Swagger documentation (E2E003)		Y	Y
All	Compatibility	Interoperability	E2E0108	Message Validation (Level 1)	All services shall interpret the http response code to determine the outcome of DIP validation level 1 for each message sent referenced by Sender Unique Reference & Transaction Id		Y	Y
All	Compatibility	Interoperability	E2E0109	Message Validation (Level 2)	All services shall connect to the Receive Status Messages webhook DIP to establish the outcome of level 2,3,4 validation with messages referenced by Transaction Id		Y	Y
All	Compatibility	Interoperability	E2E0201	Schema validation	Services shall undertake Level 3 message validation including structure and the format of individual data fields/elements shall be performed against the appropriate message schema definition of all interface interactions.		Y	Y
All	Compatibility	Interoperability	E2E0207	Content Validation	Level 4 validation of the message content shall be established during processing by the Recipient and reported back to the Sender via the Send Status Messages API using the corresponding status code		Y	Y
All	Compatibility	Interoperability	E2E0211	Message Receipt	All messages received by DIP Participant systems shall be initially acknowledged as received in the http response of the API transaction		Y	Y
All	Maintainability	Modifiability	E2E0013	Settlement Granularity	All newly developed components of services shall align to the current settlement period of 30 min. This may change in the future and therefore these components should be designed such that any change in this value can be accommodated without the need for fundamental system change, i.e. a reduction to 15 mins		Y	
All	Performance	Capacity	E2E1004	Message Throughput	All Services (see exceptions) shall have capacity to process the		Y	

	Efficiency				following volumes of messages: - average daily volume of 66,000 - peak daily volume of 300,000 - average hourly volume of 2,750 - peak hourly volume of 35,000 - annual volume of 24M			
All	Performance Efficiency	Capacity	E2E1005	Message Throughput (Secure Active)	All Services (unless explicitly referenced below) shall have capacity to process the following volumes of messages: - peak daily volume of 300,000 2,100,000 * portfolio coefficient - peak hourly volume of 300,000 2,100,000 * portfolio coefficient - annual volume of 110M * portfolio coefficient		Y	
All	Performance Efficiency	Capacity	E2E1006	Message Channel Scalability	All services shall be designed to cope with an increase in message volumes of 25% over 5 years	Y	Y	
All	Performance Efficiency	Capacity	E2E1007	Message Throughput (Transition)	During transition all meter points (ca. 31M) will be transition between the old and new services. Therefore, assuming a linear migration over the year this would result in the load below, hence services shall be capable of processing the following volumes: - average daily volume of 680,000 - peak daily volume of 2.4M 5.0M - annual volume of 248M 500M	Y	Y	
All	Performance Efficiency	Resource Utilisation	E2E0208	Participant Message/Event Consumption	DIP Participants shall be able to process messages at their own speed, independently to other consumers	Y	Y	
All	Performance Efficiency	Resource Utilisation	E2E1008	Message Pattern B Payloads	Services sending messages via the 'Pattern B' model shall provide a publicly available (or using a Federated Identity Management (FIM) capability) URI location that other Services/ Market Participants can access and download content		Y	Y
All	Performance Efficiency	Time behaviour	E2E0101	API Message Capacity	All services shall have the capability to control the number of messages that are sent within a single API call	Y	Y	
All	Performance Efficiency	Time behaviour	E2E1003	Level 3 Processing Times (synchronous)	All Services shall provide an initial synchronous response (Level 3 validation) to a message within the following timeframes: - up to average hourly volume, mean response time of 2s or less - up to average hourly volume, 90th percentile response time of 4s or less - from average hourly to peak hourly volume, mean response time of 5s or less - from average hourly to peak hourly volume, 90th percentile response time of 8s or less		Y	
All	Performance Efficiency	Time behaviour	E2E1009	Level 4 Processing Times (Asynchronous)	All Services shall provide an asynchronous response (Level 4 validation) to a message within the following timeframes - up to average hourly volume, mean response time of 6s or less - up to average hourly volume, 90th percentile response time of 12s or less - from average hourly to peak hourly volume, mean response time of 10s or less - from average hourly to peak hourly volume, 90th percentile response time of 16s or less		Y	
All	Reliability	Availability	E2E0105	Participant Back Off & Retry	Each service after invoking a DIP API shall implement an exponential backoff and retry with jitter policy in the event of a comms failure with the DIP resulting from a http 429 response	Y	Y	Y
All	Reliability	Availability	E2E0106	Message/Event Buffering	In the event of a failure to communicate with the DIP, the Service shall be able to buffer messages for a period of at least 72 hours		Y	Y
All	Reliability	Availability	E2E0206	Message/Event Receipt	In the event of a failure to communicate with the DIP, Participant	Y	Y	

					systems shall be able to buffer messages for a period of at least 72 hours			
All	Reliability	Availability	E2E0402	Participant Downtime	When participant systems/services are unavailable from both unplanned and planned outages the outage shall be communicated to the DIP via e-mail or via the DIP portal **TBC once DIP governance procedures are available**	Y	Y	
All	Reliability	Availability	E2E1001	Service Availability	All services (those components that physically interface with the DIP, i.e. send and receive messages), unless explicitly defined, shall have an availability of 98% outside planned outage periods	Y	Y	
All	Reliability	Availability	E2E1009	Unplanned Outages	All services (involved in BP affecting the Secured Active process), shall not plan outages within the Secured Active processing window	Y	Y	
All	Reliability	Fault Tolerance	E2E0204	Participant Idempotency (SUR)	Participant systems shall check for duplicate messages with the same SUR under Level 3 or Level 4 validation		Y	Y
All	Reliability	Fault Tolerance	E2E0205	Participant Idempotency (Transaction Id)	Participant systems shall check for duplicate messages with the same Transaction Id under Level 3 or Level 4 validation		Y	Y
All	Reliability	Fault Tolerance	E2E0210	Participant Idempotency	In terms of handling messages all participant systems shall be idempotent and have mechanism for handling duplicate messages		Y	Y
All	Reliability	Maturity	E2E0401	Participant Software/Systems	Participants shall maintain all DIP facing systems so that all operating system, programming languages and their runtime libraries are at minimum supported versions from their respective vendors	Y	Y	
All	Reliability	Maturity	E2E0404	Participant Software/Systems	Participants shall maintain all DIP facing systems so that all operating system, programming languages and their runtime libraries are at recommended supported versions from their respective vendors	Y	Y	
All	Reliability	Recoverability	E2E0011	Data Loss	There shall be no data loss in the event of a single component failing	Y	Y	
All	Reliability	Recoverability	E2E0403	Participant Data Retention	Participant systems shall maintain an archive of all transactional data for 24 months	Y		
All	Reliability	Recoverability	E2E1002	Service Recovery	In the event of an unplanned outage, each service shall be able to resume operation within 1 hour.	Y	Y	
All	Security	Accountability	E2E0012	Instance Separation	DIP Participants shall ensure measures are put in place to ensure separation of production and non-production environments	Y	Y	Y
All	Security	Authenticity	E2E0103	Signing Messages	All Services shall digitally sign messages	Y	Y	Y
All	Security	Authenticity	E2E0202	Signing Messages	All services shall check that messages are digitally signed with the correct certificate from the Sender of the message	Y	Y	Y
All	Security	Non-repudiation	E2E0102	Sender Unique Reference	All Services shall generate a Sender Unique Reference (SUR) for each message/event		Y	Y
All	Security	Non-repudiation	E2E0104	Sender Unique Reference/ Transaction Id	All Services shall use DIP generated Transaction Ids returned in the response body of the API transaction to map against messages for audit and tracking purposes		Y	Y
All	Security	Non-repudiation	E2E0107	Message Receipt	When sending messages all services shall use the http response of the API transaction to establish whether a message has been received by the DIP		Y	Y
All	Security	Non-repudiation	E2E0209	Message/Event Replay Response	DIP Participants shall put in measures to differentiate the processing of replayed messages c.f. original messages		Y	Y
All	Usability	Operability	E2E0203	Error Reporting	When Level 3 validation fails, e.g. when payload contents cannot be reconciled (schema validation), a response with the corresponding error code shall be reported back to the DIP via the http response in the webhook call-back		Y	Y
SDS	Performance	Time behaviour	E2E2002	Response Times	SDS shall submit all half-hourly consumption data (IF-021) so that		Y	

	Efficiency			(asynchronous)	the maximum number of submissions submitted in an hour is 1/6th of their portfolio size (a lower limit of portfolio size under which where this does not apply shall be maintained)			
SDS	Performance Efficiency	Time behaviour	E2E2003	Response Times (asynchronous)	SDS shall submit all half-hourly consumption data (IF-021) so that no more than ½ of their portfolio size can be submitted in a single 6 hour period (a lower limit of portfolio size under which where this does not apply shall be maintained)		Y	
SDS	Performance Efficiency	Time behaviour	E2E2004	Message Throttling	An SDS that submits data with extreme peaks, i.e. where all data submitted is concentrated in short timespans, shall be subject to throttling by the DIP and shall need to buffer and resubmit data		Y	

4.3 Migration Requirements

The following assessment criteria to cover MHHS-DEL974 MHHS Migration Design Requirements Log v1.1 has been developed by the Elexon Qualification Team and presented to BSC PAB for approval. This may be updated as further information is published by the MHHS Programme.

4.3.1 Data Service Migration Requirements

Market Role	Forward or Reverse Migration	Area	MHHS Requirements		Proposed Qualification Approach		
					QAD Question	PIT	Qualification Test Scenario
Data Service	Forward	Change of Agent – Smart	MHHS-Migration-CoA(DS)-DS-001	The incoming DS to retrieve a midnight read from the Smart Meter and send an IF-041 to the DIP. No half-hourly profile data (D0036 / D0380) to be sent in the case of half-hourly Smart Meters.		Y	
		Change of Agent – HH Adv	MHHS-Migration-CoA(DS)-DS-002	In the case of half-hourly Advanced meters, new Data Service to receive a D0036 from the outgoing DC containing 3 months' of data.		Y	
		Change Of Agent – Trad	MHHS-Migration-CoA(DS)-DS-003	In the case of CoA only, incoming DS will receive a D0010 from the incumbent Supplier with specific values. Incoming DS to then use this read as the start read for the new MHHS arrangements.		Y	
Data Service	Cancellation of Migration	Cancellation of a Migration CoA	MHHS-Migration-Can-DS-001	When a future dated CoA Migration fails to take place, the Data Service needs to be able to process the relevant de-appointment flows (as per MHHS BAU processes) from the Registration Service.		Y	
			MHHS-Migration-Can-DS-002	When a CoS Migration is cancelled the Data Service needs to be able to process the relevant de-appointment flows (as per MHHS BAU processes) from the Registration Service.		Y	Y

Data Service	Unmetered Migration	Migration of an Unmetered site	MHHS-Migration-UNM-DS-001	When an Unmetered site is being migrated, the Supplier should liaise with the new and outgoing Agents outside of any market messaging / interfaces in order to work out how they will migrate the meter.		Y	
Data Service	Miscellaneous Requirements	All	MHHS-Migration-Mis-DS-001	All Agents will need to have made changes to their services and business processes by M11 to support the Migration of MPANs away from their portfolios when a Migration CoS occurs.	Y		
			MHHS-Migration-Mis-DS-002	All Agents wishing to operate the Reverse Migration process (to Switch consumers whose MPAN is under the MHHS arrangements) must have made changes to their services and business processes by M11.	Y		
		Change of Agent - HH Smart	MHHS-Migration-Mis-DS-003	New DS will not receive any historical data from the outgoing HHDC.		Y	
		Change of Supply	MHHS-Migration-Mis-DS-004	Reverse Migration: DS to adhere to the SLAs specified within the MHHS BAU Design as part of the various read sharing processes, unless explicitly called out.		Y	
		Change of Agent or Change of Supply	MHHS-Migration-Mis-DS-005	When sending and processing DIP messages, DS's to adhere to the Migration Timelines outlined in the Migration Design document for Change of Agent appointments and BAU MHHS Design SLAs for Change of Supply appointments, which will apply unchanged throughout the Migration period.		Y	
			MHHS-Migration-Mis-DS-006	DS's to send all Legacy Data Flows via the DTN or via other agreed means.		Y	

4.3.2 Supplier Migration Requirements

Market Role	Forward or Reverse Migration	Area	MHHS Requirements		Proposed Qualification Approach		
					QAD Question	PIT	Qualification Testing
Supplier	Forward	Change of Supply	MHHS-Migration-CoS-SUP-001	If the Supplier is Qualified and they inherit a MHHS MPAN, under no circumstances can the MPAN be reverted to Legacy as part of this particular switch. Reverse Migration is not permitted.	Y		
			MHHS-Migration-CoS-SUP-002	If MPAN is Legacy and the incoming Supplier is MHHS Qualified, the incoming Supplier will make a decision whether to migrate MPAN or continue operating under Legacy arrangements.	Y		
			MHHS-Migration-CoS-SUP-003	Supplier to check whether MPAN is MHHS or Legacy within EES. This will determine whether the Supplier migrates the MPAN or continues to operate it under Legacy or MHHS arrangements.	Y		
Supplier	Forward	Change of Agent - Traditional & NHH Smart	MHHS-Migration-CoA(DS)-SUP-001	In the case of CoS only, new Supplier to send D0010 to outgoing Supplier which will inform outgoing Supplier what type of Migration is occurring. Will use the 'Meter Reading Reason Code' to specify this. This will inform outgoing Supplier that they need to operate different business processes, including sending a D0010 to the outgoing DC.		Y	
		Change of Agent - Traditional, HH Advanced, NHH Advanced & NHH Smart	MHHS-Migration-CoA(DS)-SUP-002	Supplier to send IF-031 to Registration Service (via the DIP) and include Migration-specific codes within the Service Provider Appointment Scenario data item to make explicit the intent to migrate the MPAN.		Y	Y
		Change of Agent - Traditional, HH Advanced, NHH Advanced & NHH Smart	MHHS-Migration-CoA(DS)-SUP-003	Suppliers, as standard business process, should ensure the effective from date for CoA appointments is at least 1 day in the future from the transmission date of the IF-031. The maximum length between IF-031 send and requested effective from date is 28 calendar days (inclusive of the 28th day).	Y		

			MHHS-Migration-CoA(DS)-SUP-004	Suppliers to ensure they do not have open IF-031's which are left unresponded to by Agents beyond appointment effective from dates. Suppliers to chase Agents to respond with an IF-034 with an Accept or Reject in this case.	Y		
			MHHS-Migration-CoA(DS)-SUP-005	Supplier should send the D0151 using Legacy SLAs.		Y	
		Change of Agent - NHH Smart	MHHS-Migration-CoA(DS)-SUP-006	If no comms exist, the Supplier must estimate a read in place of an actual read obtained from the meter.	Y		
		Change of Agent - Traditional, HH Advanced, NHH Advanced & NHH Smart	MHHS-Migration-CoA(DS)-SUP-007	Supplier to send a D0151 to outgoing DC for a Change of Agent. Specific enumerated value to be included within 'Termination Reason' (J0279) data item is: 'CA'.		Y	
			MHHS-Migration-CoA(DS)-SUP-008	In the case of CoS only, outgoing/incumbent Supplier to send a D0151 to the outgoing DC. Specific enumerated value to be included within 'Termination Reason' (J0279) data item is: 'LC'.		Y	
		Change of Agent - Traditional	MHHS-Migration-CoA(DS)-SUP-009	In the case of CoA only, incumbent Supplier will receive a D0010 / D0019 from the outgoing DC. Supplier to then send this same read to the incoming DS via a D0010 with specific values.		Y	
		Change of Agent - Smart NHH	MHHS-Migration-CoA(DS)-SUP-010	In the case of CoA only, incumbent Supplier to send a D0010 to NHHDC with specific values. The D0010 will contain the active TOU Registers (mapped to the active SSC).		Y	
			MHHS-Migration-CoA(DS)-SUP-011	In the case of CoA only, incumbent Supplier to receive a D0010 / D0019 from NHHDC with specific values. Incumbent Supplier will use this reading to close out customer billing.		Y	
		Change of Agent - Traditional	MHHS-Migration-CoA(DS)-SUP-012	In the case of CoS only, incoming Supplier to attempt to retrieve a CoS read and share this with outgoing Supplier via a D0010 with specific values. The D0010 will contain the active TOU Registers (mapped to the active SSC).		Y	
			MHHS-Migration-CoA(DS)-SUP-013	In the case of CoS only, outgoing Supplier to validate reading received from incoming Supplier and share this with outgoing DC via a D0010 with specific values. The D0010 will contain the active TOU Registers (mapped to the active SSC).		Y	
		Change of Agent - Smart NHH	MHHS-Migration-CoA(DS)-SUP-014	In the case of CoS only, incoming Supplier to send a D0010 to the outgoing Supplier with specific values. The D0010 should contain the cumulative read and each of the 48 TOU Registers (as per the current BSCP504 requirement).		Y	
			MHHS-Migration-CoA(DS)-SUP-015	In the case of CoS only, outgoing Supplier to receive D0010 from incoming Supplier, validate this read, compare to their own reading and then share with outgoing NHHDC via a D0010 with specific values. The reading will contain the relevant TOU registers to align with the SSC.		Y	
Supplier	Reverse	Change of Supply	MHHS-RMigration-CoS-SUP-001	If the Supplier is Qualified and they inherit a MHHS MPAN, under no circumstances can the MPAN be reverted to Legacy as part of this particular switch. Reverse Migration is not permitted.	Y		
			MHHS-RMigration-CoS-SUP-002	Supplier to check whether MPAN is MHHS or Legacy within EES. This will determine whether the Supplier migrates the MPAN or continues to operate it under Legacy or MHHS arrangements.	Y		
Supplier	Reverse	Change of Agent - Traditional, Advanced & Smart	MHHS-RMigration-CoA(DS)-SUP-001	New Supplier to appoint Legacy Agent by sending a D0155 to the new DC. Will add an additional Group 318 (Agreed Service Details) to indicate a Reverse Migration is occurring.		Y	Y
			MHHS-RMigration-CoA(DS)-SUP-002	New Supplier to send D0205 to the Registration Service before Secured Active sync is received from CSS. The timely send of the D0205 to the Registration Service is critical as the D0205 informs of the incoming DC's identity. If the D0205 is not received before the Secured Active sync, the IF-003 will not confirm the incoming DC's identity to the outgoing DS.		Y	
			MHHS-RMigration-	The receipt of a PUB-003 will serve as the definitive statement to each service that	Y		

			CoA(DS)-SUP-004	a Reverse Migration has occurred.			
		Change of Agent - Traditional	MHHS-RMigration-CoA(DS)-SUP-003	New Supplier to send D0010 to outgoing Supplier which will inform outgoing Supplier what type of Migration is occurring. Will use the 'Meter Reading Reason Code' to specify this.		Y	
			MHHS-RMigration-CoA(DS)-SUP-005	Incoming Supplier to attempt to obtain a CoS read via a COR and then share this read (if obtained) with the outgoing Supplier via a D0010 with specific values.		Y	
			MHHS-RMigration-CoA(DS)-SUP-006	Outgoing Supplier to validate D0010 that is received and re-share with incoming Supplier via a D0010 with specific values. Or, in the case that no COR read was received from incoming Supplier, outgoing Supplier to create a CoS read and share with the outgoing DS and the incoming Supplier (within 5 days of the CoS). The outgoing DS will then utilise this reading to close out settlement arrangements for their effective to date.		Y	
			MHHS-RMigration-CoA(DS)-SUP-007	Once incoming Supplier receives D0010 from the outgoing Supplier, they will then share it with the new DC via a D0010 with specific values.		Y	
		Change of Agent - Smart	MHHS-RMigration-CoA(DS)-SUP-008	Outgoing Supplier to compare and validate actual readings received in the IF-041 before issuing a read to the new Supplier via a D0010 with specific values. If the meter has no operable comms the Supplier should estimate a reading. The D0010 should contain the cumulative meter read and the 48 TOU register reads within the meter.		Y	
			MHHS-RMigration-CoA(DS)-SUP-009	Once incoming Supplier receives D0010 from outgoing Supplier, they will compare this reading to one they have remotely retrieved and then share with incoming DC via a D0010 with specific values. The D0010 should contain the TOU registers associated to the SSC which they have instructed the NHHDC to operate.		Y	
Supplier	Cancellation of a Migration	Cancellation of a Migration CoA	MHHS-Migration-Can-SUP-001	Supplier to send a D0151 with the switch date and specific enumerated value in Termination Reason (J0279) data item to existing MOP and DC.		Y	
		Cancellation of a Migration CoS	MHHS-Migration-Can-SUP-002	The Supplier needs to be able to follow the standard process for informing their existing Agents that their appointment is still in place.	Y	Y	
Supplier	Miscellaneous	Change of Supply and Change of Agent	MHHS-Migration-Mis-SUP-001	Suppliers will not be able to change Market Segment as part of a Migration. They must set Services that match the current Market Segment. If a Change of Market Segment is required, it will need to be completed post successful Migration.	Y	Y	Y
			All	MHHS-Migration-Mis-SUP-002	All Suppliers will need to have made changes to their services and business processes by M11 to support the Migration of MPANs away from their portfolios when a Migration CoS occurs.	Y	
			MHHS-Migration-Mis-SUP-003	All Suppliers wishing to operate the Reverse Migration process (to Switch consumers whose MPAN is under the MHHS arrangements) must have made changes to their services and business processes by M11.	Y		
		Change of Supply	MHHS-Migration-Mis-SUP-004	Reverse Migration: Suppliers to adhere to the SLAs specified within the MHHS BAU Design as part of the various read/MTD sharing processes, unless explicitly called out.		Y	
		Change of Agent or Change of Supply	MHHS-Migration-Mis-SUP-005	When sending and processing DIP messages, Supplier to adhere to the Migration Timelines outlined in the Migration Design document for Change of Agent appointments and BAU MHHS Design SLAs for Change of Supply appointments, which will apply unchanged throughout the Migration period.		Y	
			MHHS-Migration-Mis-SUP-006	Suppliers to send all Legacy Data Flows via the DTN or via other agreed means.		Y	

4.3.3 LDSO Migration Requirements

Market Role	Forward or Reverse Migration	Area	MHHS Requirements		Proposed Qualification Approach		
					QAD Question	PIT	Qualification Test Scenario
LDSO	Forward	Change Of Agent – Data Service	MHHS-Migration-CoA(DS)-LDSO-001	LDSO to receive PUB-036 from Registration Service (via the DIP), containing DS appointment notification and MTD.		Y	Y
LDSO	Reverse	Change of Agent – Data Service	MHHS-RMigration-CoA(DS)-LDSO-001	LDSO to receive PUB-003 from Registration Service (via the DIP), informing of DS de-appointment notification.		Y	Y
			MHHS-RMigration-CoA(DS)-LDSO-002	The receipt of a PUB-003 will serve as the definitive statement to each service that a Reverse Migration has occurred.	Y		
LDSO	Miscellaneous Requirements	Change of Agent or Change of Supply	MHHS-Migration-Mis-LDSO-001	When sending and processing DIP messages, LDSOs to adhere to the BAU MHHS Design SLAs, which will apply unchanged throughout the Migration period.	Y	Y	
			MHHS-Migration-Mis-LDSO-002	LDSOs to send all Legacy Data Flows via the DTN or via other agreed means.		Y	

4.3.4 SMRA Migration Requirements

Market Role	Forward or Reverse Migration	Area	MHHS Requirements		Proposed Qualification Approach		
					QAD Question	PIT	Qualification Test Scenario
SMRA	Forward	Change of Supply	MHHS-Migration-CoS-RS-001	In the scenario that a Legacy MPAN is switching to a MHHS Qualified Supplier, the Registration Service will send both the IF-002 and the D0217 / D0260 to the incoming Supplier at the same time.		Y	Y
			MHHS-Migration-CoS-RS-002	Each time a Pending registration is received, Registration Service to consult ISD to determine Qualification status of Supplier in respect to the status of the MPAN. In this way, the Registration Service will determine the type of switch that is needed.	Y	Y	
			MHHS-Migration-CoS-RS-003	Registration Service to send the D0217/D0260 the next working day at the very latest after the IF-002 (although in most cases the messages will be sent only a few hours apart).	Y	Y	
SMRA	Forward	Change of Agent – Data Service	MHHS-Migration-CoA(DS)-RS-001	The Registration Service will send a D0170 to the outgoing DC to instigate the Change of Agent Process. This D0170 will include a specific enumeration value within the data item 'Requested Action Code' which will specify whether a CoA or CoS Migration is occurring. This flow informs the outgoing DC of the intent to migrate the MPAN.	Y	Y	Y
			MHHS-Migration-	In the scenario that a Migration is already underway and a	Y	Y	Y

			CoA(DS)-RS-002	Pending switch is received, when the D-1 effective from status of the Agent appointment is reached, Registration Service to send IF-035 in place of an IF-036 with specific Migration cancellation event code to inform incoming Service Providers and incumbent Supplier that the Migration has been cancelled. The IF-035 will be received at the same time as the Agents would normally receive an IF-036.			
			MHHS-Migration-CoA(DS)-RS-004	Related MPANs: Following receipt of a PUB-031, the Registration Service must reject any requested change to the Related status of an MPAN.		Y	Y
			MHHS-Migration-CoA(DS)-RS-005	Related MPANs: The Registration Service must automatically migrate Secondary MPANs alongside Primary MPANs.		Y	Y
			MHHS-Migration-CoA(DS)-RS-006	Registration Service to send an IF-036 to Elexon Central Systems (ECS) to inform that settlement activities for the MPAN can now begin.		Y	Y
			MHHS-Migration-CoA(DS)-RS-007	If the Registration Service receives both an IF-031 (with Migration-specific code) and a D0205 at the same time, only the IF-031 will be progressed. Where the IF-031 is received first, subsequent D0205's will be rejected. Where the D0205 is received first, the IF-031 will not be rejected and will instead overwrite the NHH Agents when the registration becomes Secured Active.	Y	Y	Y
			MHHS-Migration-CoA(DS)-RS-008	Registration Service to remove MPAN from inclusion in the Legacy EES Extract upon successful completion of Forward Migration, indicated through the send of an IF-036.		Y	Y
			MHHS-Migration-CoA(DS)-RS-009	If MPAN is Legacy and an IF-031 is sent using a non-Migration appointment code in the 'Service Provider Appointment Scenario' data item, this will be rejected using REG9009 validation rule.		Y	Y
			MHHS-Migration-CoA(DS)-RS-010	If an IF-031 is rejected due to MPAN being Legacy and the IF-031 is sent using a non-Migration appointment code in the 'Service Provider Appointment Scenario' data item, an IF-032 will be sent back with specific Response Code and Response Message.		Y	Y
			MHHS-Migration-CoA(DS)-RS-011	Related MPANs: If MPAN is a Secondary MPAN and an IF-031 is sent using a Migration appointment code in the 'Service Provider Appointment Scenario' data item, the IF-031 will be rejected using REG1039 validation rule.		Y	Y
			MHHS-Migration-CoA(DS)-RS-012	If an IF-031 is rejected due to MPAN being a Secondary MPAN and the IF-031 is sent using a Migration appointment code in the 'Service Provider Appointment Scenario' data item, an IF-032 will be sent back with specific Response Code and Response Message.		Y	Y
			MHHS-Migration-CoA(DS)-RS-013	In the scenario that a Pending switch is already in place and a Migration is initiated, Registration Service must reject the IF-031 using REG9004 validation rule.		Y	Y
			MHHS-Migration-	If an IF-031 is rejected due to Pending switch already		Y	Y

			CoA(DS)-RS-014	being in place, an IF-032 will be sent back with specific Response Code and Response Message.			
			MHHS-Migration-CoA(DS)-RS-016	Registration Service will not automatically migrate Export MPAN following successfully Migration of the Import MPAN; they will be migrated independently of one another.	Y	Y	
			MHHS-Migration-CoA(DS)-RS-017	Registration Service to automatically appoint same MS and DS to Related MPANs post-Forward Migration.	Y	Y	
			MHHS-Migration-CoA(DS)-RS-018	Registration Service to send the IF-036 at the Service Appointment effective from date.		Y	Y
			MHHS-Migration-CoA(DS)-RS-019	Registration Service to send a D0209 to end-date the DA at the same point the IF-036 is sent. This will set an effective to date for the DA which will be D-1 of when the Forward Migration becomes effective.		Y	
			MHHS-Migration-CoA(DS)-RS-020	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.	Y	Y	
SMRA	Reverse	Change of Supply	MHHS-RMigration-CoS-RS-001	In the scenario that a MHHS MPAN is switching to a Legacy Supplier, the Registration Service will only send the D0217 / D0260 to the incoming Supplier. No IF-002 will be sent.	Y	Y	Y
			MHHS-RMigration-CoS-RS-003	Each time a Pending registration is received, Registration Service to consult ISD to determine qualification status of Supplier in respect to the status of the MPAN. In this way, the Registration Service will determine the type of switch that is needed (Forward or Reverse Migration).		Y	
			MHHS-RMigration-CoS-RS-004	If a Pending registration prompts a Reverse Migration and the MPAN did not previously exist in Legacy arrangements, MPRS to populate default Legacy data. This default data would only be set for an MPAN where the initial registration was made by a MHHS Supplier.		Y	Y
			MHHS-RMigration-CoS-RS-005	If a Pending registration prompts a Reverse Migration and the MPAN previously existed in Legacy arrangements, MPRS to populate data items from the previous Legacy Registration.	Y	Y	Y
			MHHS-RMigration-CoS-RS-007	Registration Service to send D0209 to DA as soon as Pending notification is received. The D0209 will set the effective from date for the DA.	Y	Y	
			MHHS-RMigration-CoS-RS-008	Once a Reverse Migration is initiated (indicated through the receipt of a Pending Registration) or if a MPAN is Legacy, the Registration Service will not accept DIP flows for a given MPAN.	Y	Y	Y
SMRA	Reverse	Change of Agent – Data Service	MHHS-RMigration-CoA(DS)-RS-002	Although the Registration Service can process multiple D0205's, it will only use information from the last accepted D0205 before Secured Active processing at 1800 hours to generate an IF-003 at Secured Active acceptance.		Y	
			MHHS-RMigration-CoA(DS)-RS-003	D0205 batch processing to occur within the Registration Service on a frequent basis with batch processing running every 2 hours or more frequently, in the majority of cases.		Y	
			MHHS-RMigration-CoA(DS)-RS-004	Registration Service to send a D0209 whenever a D0205 is received to update either DA or DC appointment up to		Y	

				the point of de-appointment (which would cause a D0209 to be generated under normal Legacy processing).			
			MHHS-RMigration-CoA(DS)-RS-005	Registration Service to include identity of DC in IF-003 if this data was provided in the D0205.		Y	
			MHHS-RMigration-CoA(DS)-RS-007	As soon as an IF-003 is sent, marking the completion of a Reverse Migration, Registration Service to add MPAN back into the Legacy EES Extract.		Y	
SMRA	Cancellation of Migration	Cancellation of a Migration – Change of Agent	MHHS-Migration-Can-RS-001	When a future dated CoA Migration fails to take place, the Registration Service needs to be able to cancel the Migration and send out the relevant lapsed appointment flow (an IF-035) as per MHHS BAU processes to the new Service providers.		Y	Y
			MHHS-Migration-Can-RS-002	When a future dated CoA Migration fails to take place, the Registration Service needs to be able to cancel the Migration and send a D0209 to the existing DA.		Y	Y
	Cancellation of Migration – Change of Supply	MHHS-Migration-Can-RS-003	When a Migration CoS is cancelled, the Registration Service needs to be able to cancel the Migration and send out the relevant lapsed appointment flow (an IF-035) as per MHHS BAU processes to the new Service providers.		Y	Y	
		MHHS-Migration-Can-RS-004	When a Migration CoS is cancelled, the Registration Service needs to be able to cancel the Migration and send out the relevant flows to the existing DA.	Y	Y	Y	
	Cancellation of Migration – Change of Supply or Change of Agent	MHHS-Migration-Can-RS-005	If subsequent IF-031's are received before the initial Migration completes (Migration completion is indicated through the send of an IF-036), the original IF-031 should be lapsed and the IF-031 with the most recent timestamp should be used instead. In this case, an IF-035 would be sent immediately to cancel the Migration.		Y	Y	
		MHHS-Migration-Can-RS-006	If MPAN state changes to terminated, an IF-035 would be sent which would cancel the Migration. In this case, future IF-031s are to be rejected.		Y	Y	
SMRA	Miscellaneous Requirements	Change of Agent or Change of Supply	MHHS-Migration-Mis-RS-002	Registration Service will need to check for incomplete Migrations and issue an IF-045 where a Supplier has only migrated either the MS or DS, to inform the Supplier that their Migration is incomplete. This can be done using existing functionality (MHHS-BR-RS-128.1).		Y	
			MHHS-Migration-Mis-RS-003	If a Forward Migration is underway or MPAN is already MHHS and a D0205 is sent, this will be rejected. A D0203 will be sent back with enumeration value 62 in the 'Rejection Reason Code' data item to specify the rejection reason.		Y	Y
			MHHS-Migration-Mis-RS-004	If a Forward Migration is underway or MPAN is already MHHS and a D0205 is sent, this will be rejected. A D0203 will be sent back with enumeration value 62 in the 'Rejection Reason Code' data item to specify the rejection reason.		Y	Y
			MHHS-Migration-Mis-RS-005	If a Forward Migration is underway or MPAN is already MHHS and a D0304 is sent, this will be rejected. A D0304 will be sent back with enumeration value Q in the 'MPAS D0304 Response Code' data item to specify the rejection reason.		Y	Y
			MHHS-Migration-Mis-	If a Forward Migration is underway or MPAN is already		Y	Y

			RS-006	MHHS and a D0312 is sent, this will be rejected. A D0312 will be sent back with enumeration value AD in the 'MOP Flow Response Code' data item to specify the rejection reason.			
			MHHS-Migration-Mis-RS-007	If a Forward Migration is underway or MPAN is already MHHS and a D0386 is sent, this will be rejected. A D0386 will be sent back with enumeration value Y in the 'Related MPAN Response Code' data item to specify the rejection reason.		Y	Y
			MHHS-Migration-Mis-RS-008	If a Reverse Migration is underway or MPAN is Legacy and an IF-005 is sent, this will be rejected using REG1029 validation rule.		Y	Y
			MHHS-Migration-Mis-RS-009	If an IF-005 is rejected due to MPAN either undergoing Reverse Migration or being Legacy, an IF-006 will be sent back with specific Response Code and Response Message.		Y	Y
			MHHS-Migration-Mis-RS-010	If a Reverse Migration is underway or MPAN is Legacy and an IF-019 is sent, this will be rejected using REG1066 validation rule.		Y	Y
			MHHS-Migration-Mis-RS-011	If an IF-019 is rejected due to MPAN either undergoing Reverse Migration or being Legacy, an IF-020 will be sent back with specific Response Code and Response Message.		Y	Y
			MHHS-Migration-Mis-RS-012	If a Reverse Migration is underway or MPAN is Legacy and an IF-025 is sent, this will be rejected using REG1046 validation rule.		Y	Y
			MHHS-Migration-Mis-RS-013	If an IF-025 is rejected due to MPAN either undergoing Reverse Migration or being Legacy, an IF-026 will be sent back with specific Response Code and Response Message.		Y	Y
			MHHS-Migration-Mis-RS-014	If a Reverse Migration is underway or MPAN is Legacy and an IF-038 is sent, this will be rejected using REG1075 validation rule.		Y	Y
			MHHS-Migration-Mis-RS-015	If an IF-038 is rejected due to MPAN either undergoing Reverse Migration or being Legacy, an IF-039 will be sent back with specific Response Code and Response Message.		Y	Y
			MHHS-Migration-Mis-RS-016	If a Reverse Migration is underway or MPAN is Legacy and an IF-040 is sent, this will be rejected using Level 4 validation rule RCP1076.		Y	Y
			MHHS-Migration-Mis-RS-017	If a Forward Migration is underway and an IF-019 is sent, this will be rejected using REG1067 validation rule.		Y	Y
			MHHS-Migration-Mis-RS-018	If an IF-019 is rejected due to MPAN undergoing Forward Migration, an IF-020 will be sent back with specific Response Code and Response Message.		Y	Y
			MHHS-Migration-Mis-RS-019	Reverse Migration: Registration Service to adhere to the SLAs specified within the MHHS BAU Design as part of the various read/MTD sharing processes, unless explicitly called out.		Y	Y
			MHHS-Migration-Mis-RS-020	When sending and processing DIP messages, Registration Service to adhere to the BAU MHHS Design SLAs, which will apply unchanged throughout the Migration period.		Y	Y

			MHHS-Migration-Mis-RS-021	Registration Service to send all Legacy Data Flows via the DTN or via other agreed means.		Y	Y
			MHHS-Migration-Mis-RS-022	The Registration Service will perform a daily scan for any Import / Export MPANs where both Import and Export MPANs have been fully migrated, but they have been appointed to different Agents. Where any examples of this occur, the Registration Service will auto-align the Export MPAN to the Import MPAN by sending an IF-036.	Y	Y	Y

4.3.5 UMSO Migration Requirements

Market Role	Forward or Reverse Migration	Area	MHHS Requirements		Proposed Qualification Approach		
					QAD Question	PIT	Qualification Test Scenario
UMSO	Unmetered Migration	Migration of an Unmetered site	MHHS-Migration-UNM-MS-001	When an Unmetered site is being migrated, the Supplier should liaise with the new and outgoing Agents outside of any market messaging / interfaces in order to work out how they will migrate the meter.	Y	Y	

4.4 Operational Requirements

The following assessment criteria to cover MHHS Operational Requirements has been developed by the Elexon Qualification Team based on MHHS-DEL2417 SIT Operational Approach and Plan v1.0 and MHHSP-OPC001 Operational Choreography v5.4 and presented to BSC PAB for approval. This may be updated as further information is published by the MHHS Programme.

LDSO	SMRA	UMSO	Supplier	ADS	SDS	UMSDS	Reference ID	Requirement Description	Proposed Qualification Approach		
									QAD	PIT	Qualification Testing
			Y				OPC_120	Supplier to process and issue required IF031 within 60 minutes	Y	Y	
	Y						OPC_130	Registration Service to process and issue required IF-032 / IF033 within 60 minutes	Y	Y	
Y	Y		Y	Y	Y	Y	OPC_061	Processing time is at the discretion of the recipient but must be within 24 hours		Y	
				Y	Y	Y	OPC_150	Data/Metering Service to process and Issue required IF034 messages within 60 minutes. It is noted that some requests may require manual work and may be as a result of incorrect appointments from the Supplier. The expectation will be 90% of requests are systemically processed within 60 minutes with the residual being processed by the end of the following working	Y	Y	

	Y						OPC_160	Registration Service to process and issue required IF-035 messages within 60 minutes	day	Y	Y	
				Y	Y	Y	OPC_170	Incumbent Metering Services and Prospective Data/Metering Services to process within 60 minutes. Incumbent Metering Service issues Advanced/Trad MTDs to Incoming Metering and Data Service where applicable within 120 minutes			Y	
		Y					OPC_175	UMSO to process within 60 minutes and to issue D0388 to incoming UMSDS where applicable within 120 minutes			Y	
	Y						OPC_180	Secured Active processing and associated IF-035 / IF-036 / IF-037 issued by 21:00			Y	
			Y	Y	Y	Y	OPC_190	Messages to be processed within 60 minutes		Y	Y	
Y			Y	Y	Y	Y	OPC_200	Messages to be processed within 60 minutes		Y	Y	
Y				Y	Y	Y	OPC_210	Messages to be processed within 60 minutes		Y	Y	
			Y				OPC_140	Supplier to process and issue any required IF-031 messages within 60 minutes It is noted that some requests may require manual work and may be as a result of incorrect appointments from the Supplier. The expectation will be 90% of requests are systemically processed within 60 minutes with the residual being processed by the end of the following working day.		Y	Y	
			Y				OPC_220	Message to be processed within 60 minutes of delivery		Y	Y	
							OPC_230	Notification of works to be completed by D+3 Working Days (This should provide time for consumption to be provided using new MTDs ahead of the SF run.)			Y	
Y							OPC_250	Notification of works to be completed by D+3 Working Days (This should provide time for consumption to be provided using new MTDs ahead of the SF run.)			Y	
							OPC_240				Y	
							OPC_260	Notification of works to be completed by D+3 Working Days			Y	
Y			Y	Y	Y	Y	OPC_280			Y	Y	
	Y						OPC_290	Message to be processed within 60 minutes of delivery			Y	
Y			Y	Y	Y	Y	OPC_300	Message to be processed within 60 minutes of delivery		Y	Y	
	Y						OPC_270	Message to be processed and triggered IF-006 messages to be generated within 60 minutes of receipt			Y	
Y			Y	Y	Y	Y	OPC_320	All data received prior to 23:00hrs is made available to other parties (as applicable) by 06:00hrs the following Working Day. Data received after 23:00hrs will be made available to other parties (as applicable) by the second Working Day - as per existing REC ERDS Service Definition v1.1		Y	Y	
	Y						OPC_330	Registration service to process and issue IF-018 messages within 60 minutes			Y	
	Y						OPC_310	All data received prior to 23:00hrs is made available to other parties (as applicable) by 06:00hrs the following Working Day. Data received after 23:00hrs will be made available to other parties (as applicable) by the second Working Day - as per existing REC ERDS Service Definition v1.1			Y	
			Y	Y	Y	Y	OPC_340	Files to be processed within 60 minutes		Y	Y	
Y			Y	Y	Y	Y	OPC_360	Governed by requirements for delivery of Estimated consumption ahead of Gate Closure points (See OPC-020)			Y	
Y			Y	Y	Y	Y	OPC_370	Governed by requirements for delivery of Estimated consumption ahead of Gate Closure points (See OPC-020)			Y	
							OPC_350	Governed by Soft Throughput limits and gate closure events			Y	

				Y	Y	Y	OPC_390	described in Settlement timeline and End to End Architecture. Processing timeline to be governed by gate closure points for provision of estimation. However would note that the duration could influence the level of re-estimation required noting the principle of best estimates being provided for Estimation gate closure ahead of Settlement runs		Y	
			Y				OPC_380	IF-024 to be triggered within the day the condition has been identified		Y	
				Y	Y	Y	OPC_390	IF-025 to be triggered within the day the condition has been identified		Y	
	Y						OPC_410	Messages to be processed and IF-026 messages to be issued within 60 minutes	Y	Y	
Y			Y	Y	Y	Y	OPC_420	Messages to be processed within 60 minutes	Y	Y	
	Y						OPC_430	Message to be issued by Service Providers within 2 working days of the Direct Contract being agreed. Registration Service to process and issue IF-039 within 60 minutes		Y	
			Y	Y	Y	Y	OPC_440	Message to be processed within 60 minutes	Y	Y	
			Y				OPC_400	Supplier notified Registration system within 1 working day of becoming aware of change	Y	Y	
			Y				OPC_450	Supplier to send to Data Service by 17:00 at the end of the following working day of read receipt from customer		Y	
				Y	Y	Y	OPC_470	Processing timeline to be governed by gate closure points for provision of estimation. However would note that the duration could influence the level of re-estimation required noting the principle of best estimates being provided for Estimation gate closure ahead of Settlement runs		Y	
	Y						OPC_480	Messages to be processed within 60 minutes of receipt.		Y	
Y			Y	Y	Y	Y	OPC_490	Messages to be processed within 60 minutes of receipt.	Y	Y	
	Y						OPC_500	On receipt of a paired Connection Type Change and Meter Exchange (referenced by Change of Segment Process) the change of segment will be deemed complete and IF044 will be issued within 60 minutes. Note there is a strict time limit of 3 WD (from prospective Appointment start date) for Change of Segment Process to be completed before a Supplier's service provider appointments are expired and would have to resubmitted		Y	
Y			Y				OPC_510	Notifications to be processed within 60 minutes	Y	Y	
	Y						OPC_520	Daily batch process following processing of Service Appointment queue post Secured Active window processing		Y	
			Y				OPC_460	Data Service to be notified at the latest SSD+5		Y	
			Y				OPC_530	Notifications to be processed within 60 minutes	Y	Y	
							OPC_540	Published according to the ISD publication schedule		Y	
Y	Y	Y	Y	Y	Y	Y	OPC_550	Consumed and processed prior to ISD Effective Date		Y	
			Y	Y	Y	Y	OPC_580	IF-014 – where event type is [ActivePowerRejected] to be issued by ECS within 180 minutes of corresponding IF-021 message being published. Where the event type is [ConsumptionOnDeEnergisedMPAN], it is accepted that this event will be generated as part of a 'batch response' therefore, response time will be as per the IF-013, i.e. as part of the MDS Processing Run. Extended time period to accommodate system peaks of consumption data provision		Y	
			Y	Y	Y	Y	OPC_570	SLA's are driven by downstream activity governed by parties		Y	

								need to provide actual or estimated consumption for subsequent Settlement Runs			
							OPC_590	As per, "BP003B Exchange of Readings following COS" participants are encouraged to attempt to obtain & exchange reading data as soon after the COS/ChgOfDS event as possible. In the event that the Outgoing SDS is unable to retrieve actual data from the meter after a period of 5 days following the COS/ChgOfDS event then he should issue estimated (Cumulative or Traditional Register) Reading(s) as appropriate. The cut off period for the exchange and consideration of a 'Customer Reading' or planned site reading on/around the transfer event, is also 5 days following the transfer event.		Y	
							OPC_600	Expected timescales and escalation points associated with the D0300 process are subject to existing processes. However, the MHHS Design expectation is that Suppliers should seek to identify & resolve transfer reading disputes, via the D0300 process, as expeditiously as possible.		Y	