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MP162

‘SEC changes required to deliver MHHS’

Modification Report

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About this document

This document is a draft Modification Report. It currently sets out the background, issue, solution, impacts, costs, implementation approach and progression timetable for this modification, along with any relevant discussions, views and conclusions.

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This document also has six annexes:

- **Annex A** contains the business requirements for the solution.
- **Annex B** contains the Data Communications Company (DCC) Impact Assessment response.¹
- **Annex C** contains the redlined changes to the Smart Energy Code (SEC) required to deliver the Proposed Solution.
- **Annex D** contains the full non-confidential responses received to the first Refinement Consultation.
- **Annex E** contains the full responses received to the second Refinement Consultation.
- **Annex F** contains the full non-confidential responses received to the third Refinement Consultation.

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¹ A Word version is available on the [MP162 webpage](#) if you wish to access the embedded document

1. Summary

This proposal has been raised by Richard Vernon from the DCC.

As the smart metering rollout continues, there will be more and more premises with Electricity Smart Metering Equipment (ESME) installed capable of recording consumption in each half-hour period. Ofgem's Electricity Settlement Reform Significant Code Review (SCR) has concluded that settling all consumers on a half-hourly basis would bring net benefits of up to £4.5bn by 2045². It has therefore concluded that Suppliers should be mandated to settle their customers on a half-hourly basis (if that consumer has not opted out).

The full solution for market-wide half-hourly settlement (MHHS) will allow third party organisations to collect half-hourly data from smart meters for settlement on behalf of Suppliers or customers. However, the current smart metering architecture does not support such organisations being able to access and collect this data. Ofgem requested the DCC raise a SEC modification to progress and deliver the changes needed to allow for this.

MP162 proposes to introduce the changes needed under the SEC and the DCC Systems to facilitate independent agents being able to access half-hourly data from ESME, which will include:

- Introducing a new User Role for Parties other than Suppliers who will be carrying out the Meter Data Retrieval (MDR) service.
- The User Entry Process requirements for the new User Role.
- Defining the relevant Service Requests the new User Role will have access to and the associated Target Response Times (TRTs) and testing scenarios.
- The associated security and data privacy arrangements that will apply to the new User Role.

This solution is based on the Ofgem target operating model (TOM); major changes to the technical solution are not expected to be needed to resolve any incorrect design assumptions. The full MHHS solution is still being finalised, and further changes to the SEC may be needed to align with this. These will be raised and progressed under a separate modification due to the lead time needed to implement the DCC System changes under MP162.

This modification is expected to directly impact Suppliers and the DCC and may have indirect impacts on other SEC Parties. The full DCC implementation costs are approximately £9.0m, with a further £2.3m per annum in ongoing costs. This modification is targeted for the February 2024 SEC Release and is being progressed as an Authority-Determined Modification.

² Please see Ofgem's [final business case and decision to implement market-wide half-hourly settlement](#) for more details.

2. Issue

What are the current arrangements?

Generators and Suppliers trade electricity in the wholesale market for each half-hourly period in the run-up to the period of actual consumption. This is based on Suppliers' forecasts of how much energy its customers will consume. The actual amount of energy generated or consumed is then measured, along with any further actions taken by National Grid in real-time to keep the system balanced (the amount of generation at any given time matches the demand from consumers). Settlement reconciles any differences between the electricity a participant buys or sells, and the actual generation or demand realised. Any surplus or shortfall in a participant's position in each half-hour period is subsequently determined through the settlement process, and this difference is charged accordingly. These arrangements are governed and managed under the Balancing and Settlement Code (BSC).

The largest consumers, such as industrial sites, are already required to be settled on a 'half-hourly' basis, and have the metering already equipped to measure consumption in each half-hour period. Suppliers can also choose to settle consumers half-hourly through Ofgem's elective half-hourly settlement work. However, most smaller businesses and households continue to be settled on a 'non-half-hourly' basis. For these consumers, periodic meter reads are taken, usually at intervals of weeks or months. Profiles of average customer usage are then used to allocate the customer's consumption to the half-hourly periods between the meter reads. It is these estimates that are then used in settlement.

Smart Metering Equipment Technical Specification (SMETS) compliant ESME (both SMETS1 and SMETS2+) can record the amount of energy consumed or exported within every half hour period. Although SMETS-compliant meters are classed 'non-half-hourly' and do not meet the requirements needed to be BSC-compliant half-hourly meters, making use of this data still provides an opportunity to improve both the speed and the accuracy of settlement. This can also help to enable new products and services, for example in supporting the use of electric vehicles, heat pumps or making use of smart appliances. These can deliver positive outcomes for consumers through lower bills, reduced environmental impacts, enhanced security of supply and a better quality of service.

What is the issue?

As the smart metering rollout continues, there will be more and more premises with ESME capable of recording consumption in each half-hour period. Ofgem has considered whether the whole electricity market should be settled on a half-hourly basis, and in July 2017 it launched its [Electricity Settlement Reform Significant Code Review](#).

Ofgem's analysis has predicted that settling all consumers on a half-hourly basis would bring net benefits of between £1.6bn and £4.5bn over the period 2021-2045. In April 2021, Ofgem published its [final business case and decision to implement market-wide half-hourly settlement](#), confirming the decision to move forward with MHHS.

During the SCR, Ofgem has developed its TOM for how MHHS should be implemented. The full solution includes a requirement for third-party organisations to be able to be appointed to collect half-hourly readings from smart meters to feed into settlement. However, the Smart Metering Implementation Programme (SMIP) envisioned Suppliers being the only organisations accessing and collecting data from smart meters. Changes to the DCC Systems will therefore be required to allow

third-party 'Meter Data Retrieval Agents' (MDRAs), a new role created through the MHHS design, to be able to access ESME and collect half-hourly meter readings for settlement purposes.

Ofgem recognised that the changes required for the SEC and the DCC Systems to meet the above requirement will have a much longer development and implementation lead time than the changes needed under other Codes. It agreed these changes should be raised and progressed early under the governance of a SEC modification. High level requirements would be initially defined by Ofgem and the MHHS Programme, and then refined via the SEC modification framework. This allows for proper scrutiny of the different options and costs by the SEC Panel, its Sub-Committees, and the wider industry. On 27 April 2021, Ofgem issued a [request to the DCC to raise the SEC modification](#).

What is the impact this is having?

Implementing the full TOM for MHHS requires changes to the SEC and to the DCC Systems to allow third-party organisations to be able to collect half-hourly meter readings from ESME. Without these changes, the Ofgem TOM for MHHS cannot be fully delivered.

Impact on consumers

Ofgem predicts that settling all consumers on a half-hourly basis will bring net consumer benefits of between £1.6bn and £4.5bn over the period 2021-2045. Ofgem considers the full benefits will only be realised if all Suppliers are required to settle their consumers on a half-hourly basis³.

3. Solution

MHHS TOM – SEC requirements

During the SCR, Ofgem developed its TOM for delivery of the full MHHS solution. This modification covers the changes required to deliver the requirement for third-party organisations to be able to collect half-hourly meter readings from ESME on behalf of Suppliers for use in settlement.

Please note that MP162 focusses on the SEC and DCC System changes and processes required to deliver this requirement based on the TOM. This report does not consider the wider steps and activities that participants will need to follow (for example what they subsequently need to do with the data obtained from ESME to feed this into settlement).

The Proposer originally envisioned that MP162 would cover all the SEC changes required for MHHS. However, due to the ongoing development of the full MHHS solution, it will not be possible to pick up all the required changes under MP162 without delaying the implementation date of the DCC System changes needed to facilitate the MDRA role. Further changes to the SEC identified following finalisation of the full MHHS solution will be progressed under a separate modification(s).

³ Domestic consumers can opt out of sharing their import half-hourly data for settlement purposes. In this case, the Supplier would settle these consumers using either their daily or monthly consumption and an appropriate load shape to estimate their half-hourly consumption.

Proposed Solution

The MP162 solution will cover the changes needed under the SEC and the DCC Systems for the new User Role needed for MHHS. This will include:

- The introduction of a new User Role for Parties carrying out the MDR service.
- The User Entry Process requirements for the new User Role.
- Defining the relevant Service Requests the new User Role will have access to and the associated TRTs and testing scenarios.
- The associated security and data privacy arrangements that will apply to the new User Role.

The full MHHS solution is being developed under the wider MHHS programme, and this was not completed before this MP162 Modification Report needed to be finalised for decision. The MP162 solution is based on the TOM; there is a small risk that as the end-to-end solution is refined, changes may be required. The Smart Energy Code Administrator and Secretariat (SECAS) and the DCC have sought to mitigate this risk via regular engagement with the MHHS Programme. SECAS considers that the technical solution developed under MP162 is unlikely to need to materially change at this late stage.

The DCC solution has been based on a set of assumptions on the intended use of the MDR User role, the scheduling of Service Requests specifically in relation to half-hourly settlement data, and the associated TRTs.

The full business requirements and assumptions for this modification can be found in Annex A. The DCC's Impact Assessment providing the full details on the DCC's solution can be found in Annex B.

Introduction of the MDR User Role

A new DCC User Role, 'Meter Data Retriever' (or 'MDR'), will be created.

The identity of the MDRA appointed for a given Meter Point Administration Number (MPAN) and the effective dates for this appointment will be registered in the Meter Point Administration Service (MPAS). This information will be passed to the DCC Systems via the Central Switching Service (CSS) and stored in the Registration Data. The DCC will perform validation for an MDR User against this data.

User Entry Process requirements

A Supplier who elects to operate as its own MDRA will not need to register under the 'MDR' User Role and may continue to operate using its existing Supplier User Roles.

Any Supplier agent operating as an MDRA on behalf of a Supplier will be required to accede to the SEC under the 'Other SEC Party' Party Category if it has not already done so before. It will also be required to register as a DCC User in the new 'MDR' User Role. An MDR User will be required to undergo appropriate User Entry Process Testing (UEPT) for the role; new Test Scenarios will be defined for MDR Users undertaking the User Entry Process.

Service Requests and TRTs

An MDR User will be able to use the following Service Requests (SR):

Valid Service Requests for an MDR User			
DCC SR ref.	Service Request name	On Demand?	DCC Scheduled?
4.1.1	Read Instantaneous Import Registers	Yes	No
4.2	Read Instantaneous Export Register Values	Yes	Yes ⁴
4.6.1	Retrieve Import Daily Read Log	Yes	Yes
4.6.2	Retrieve Export Daily Read Log	Yes	Yes
4.8.1	Read Active Import Profile Data	Yes	Yes
4.8.3	Read Export Profile Data	Yes	Yes
4.17	Retrieve Daily Consumption Log	Yes	Yes
5.1	Create Schedule	Yes	No
5.2	Read Schedule	Yes	No
5.3	Delete Schedule	Yes	No
8.2	Read Inventory	Yes	No

The DCC will use Access Control to validate any Service Request sent by an MDR User against the Registration Data. MDR Users will only be able to access those ESME for which they are the appointed MDRA.

The TRTs associated with MHHS data retrieval for the different User Roles are set out below, and are subject to the following:

- Existing business-as-usual Import Supplier and Export Supplier Service Requests can continue to be submitted on-demand;
- All MHHS-related Service Requests, for all Users, are required to be scheduled for a first attempt to retrieve MHHS data; and
- Any retry to retrieve data can be set as an on-demand Service Request.

TRTs for Eligible Users for MHHS data retrieval Service Requests								
DCC SR ref.	SR sent by existing User Roles				SR sent by 'MDR' User Role			
	SMETS2		SMETS1		SMETS2		SMETS1	
	Scheduled	On-Demand	Scheduled	On-Demand	Scheduled	On-Demand	Scheduled	On-Demand
4.1.1	N/A	30 secs	N/A	16 secs	N/A	N/A	N/A	24 hrs
4.2	24 hrs ⁴	30 secs	24 hrs ⁴	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.6.1	24 hrs	30 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.6.2	24 hrs	30 secs	N/A	N/A	24 hrs	24 hrs	N/A	N/A
4.8.1	24 hrs	5,600 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.8.3	24 hrs	30 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.17	24 hrs	30 secs	N/A	N/A	24 hrs	24 hrs	N/A	N/A

⁴ SR 4.2 is not currently able to be scheduled. This will be made schedulable as part of MP162.

TRTs for Eligible Users for MHHS data retrieval Service Requests								
DCC SR ref.	SR sent by existing User Roles				SR sent by 'MDR' User Role			
	SMETS2		SMETS1		SMETS2		SMETS1	
	Scheduled	On-Demand	Scheduled	On-Demand	Scheduled	On-Demand	Scheduled	On-Demand
5.1	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs
5.2	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs
5.3	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs
8.2	N/A	30 secs	N/A	30 secs ⁵	N/A	30 secs	N/A	30 secs

Users will be expected to issue the correct Service Requests for the data granularity required for a given customer. The DCC will **not** validate whether a customer has opted out of half-hourly settlement or whether the User has requested the right granularity of data.

Introduction of scheduling windows

The DCC will introduce a 'peak' (overnight) and 'off-peak' (during the day) scheduling window for each Communications Service Provider (CSP) and SMETS1 Service Provider (S1SP). This is to control the transactions per second (TSP) processing rate for scheduled requests within each window and minimise the impact of demand spikes on the DCC Total System. The proposed times for each window are:

Scheduling windows		
DCC Service Provider	Peak window	Off-peak window
CSP North	00:00-08:00	10:00-20:00
CSP Central & South	00:00-07:00	10:00-20:00
S1SP-1 Initial Operating Capability (IOC)	00:00-06:00	10:00-20:00
S1SP-2 Middle Operating Capability (MOC)	00:00-06:00	14:00-22:00
S1SP-3 Final Operating Capability (FOC)	00:00-06:00	09:00-23:00
Dual Control Organisation (DCO) ⁶	00:00-06:00	09:00-23:00

A time gap has been allowed after the end of the peak window for retries and the start of Install & Commission (I&C) activity. A gap has also been allowed between the end of the off-peak window and midnight to allow retries and the Service Request Variants (SRVs) to complete before the start of the next day's peak window. The DCC will also ensure that on-demand Service Requests sent during the off-peak scheduling window are prioritised over scheduled Service Requests.

⁵ The current SMETS1 TRT of 16 seconds for SR 8.2 is an anomaly. The process for reading Device details from the Smart Metering Inventory (SMI) is the same for both SMETS2 and SMETS1 Devices with processing of such requests limited to the DSP systems. This TRT will be amended to 30 seconds for all Users as part of this modification for alignment with other DCC-Only Service Requests.

⁶ The DCO's windows will cover the duration of all the S1SP individual windows

The schedulable Service Requests relevant to MHHS will be processed within the corresponding window depending on the User Role that has submitted the request:

Allocation of schedulable Service Requests to scheduling windows		
DCC SR ref.	Users processed in peak window	Users processed in off-peak window
4.2	-	Export Supplier, Meter Data Retriever
4.6.1	Import Supplier, Gas Supplier	Meter Data Retriever
4.6.2	-	Export Supplier, Meter Data Retriever
4.8.1	Import Supplier, Gas Supplier	Meter Data Retriever
4.8.3	-	Export Supplier, Meter Data Retriever
4.17	Import Supplier, Gas Supplier	Meter Data Retriever

All Service Requests submitted by other User Roles and all other scheduled Service Requests will not be affected and will continue to be processed overnight, as part of the peak window, as they are now.

The timings of each window and the allocation of Service Requests and User Roles to these will be fully configurable by the DCC.

Temporary caching of SMETS1 data

When a User submits a Service Reference Variant (SRV) 4.6.1, 4.8.1 or 4.8.3 to a SMETS1 ESME, the data returned will also be stored in a cache held by the DCC for 48 hours. If any other Users subsequently requested the same data during this time, this will be provided from the cache without needing to query the meter. After 48 hours, the cached data will be deleted. This will reduce the traffic to these Devices if more than one User is requesting the half-hourly data.

Due to the security requirements on encrypting SMETS2 consumption data, this data cannot be cached; it will continue to be collected from the meter as requested and sent only to the requesting User.

Security and privacy arrangements

Suppliers will continue to be subject to the existing User Security Assessments and will not need to undergo Privacy Assessments if they elect to perform the MDRA role in-house. No changes to these requirements are proposed due to MHHS.

MDR Users will need to undergo an initial Full User Security Assessment (FUSA) (unless they have already undergone an equivalent assessment as an Other User), which will form part of the User Entry criteria. They will then be required to adhere to the same SEC Section G 'Security' obligations as an Other User and undergo annual User Security Assessments. MDR Users will also need to declare relevant Anomaly Detection Thresholds (ADTs) in line with the existing provisions.

MDR Users will not need to undergo Privacy Assessments.

4. Impacts

This section summarises the impacts that would arise from the implementation of this modification.

SEC Parties

SEC Party Categories impacted			
✓	Large Suppliers	✓	Small Suppliers
	Electricity Network Operators		Gas Network Operators
✓	Other SEC Parties	✓	DCC

Breakdown of Other SEC Party types impacted			
✓	Shared Resource Providers		Meter Installers
	Device Manufacturers		Flexibility Providers

Suppliers will be directly impacted by the changes being introduced for MHHS and the obligations to collect half-hourly meter reads for settlement. Under the MHHS TOM, Suppliers, via the Smart Data Service (SDS), will be able to choose, for each MPAN, whether to collect half-hourly data for settlement themselves or whether to appoint a third-party agent to perform this activity.

- If Suppliers elect to collect the data themselves, it is likely that their internal systems will need changing to set up the additional schedules and manage the additional data that will be received to facilitate the MHHS requirements. This will likely be in addition to any existing data they currently receive.
- If Suppliers elect to appoint an MDRA, they will need to undergo the process to appoint this agent. They may also want to liaise with this agent to manage any potential duplication of data collected.

Changes will be required to relevant Users' systems to set up relevant schedules to retrieve data from relevant ESME, manage the handling of the data, and submit it into settlement.

Any User wishing to register in the new MDR User Role will need to be on the DUIS version that includes MP162 (currently expected to be version 5.3 – see below). Existing Users will need to update their DUIS schema if they wish to schedule SR 4.2 for SMETS1 Devices, but otherwise will not need to update their DUIS version for MHHS.

Suppliers may need to make changes to their interfaces with the CSS for the appointment or de-appointment of the relevant MDRA for an MPAN.

Shared Resource Providers may be impacted if they carry out any relevant activities on behalf of a Supplier. Other Party Categories are not expected to be directly impacted by MP162 but may be indirectly impacted by the increased volume of traffic that the MHHS solution is expected to generate.

Any new MDR Parties will need to accede to the SEC under the 'Other SEC Party' Party Category if they have not done so before. Any new MDR Users will need to develop or obtain a DCC adaptor, undergo UEPT for the 'MDR' User Role, and undergo any required User Security Assessments for this.

The responses received from Parties on the expected impacts on them to deliver MP162 can be found in Annexes D, E and F.

DCC System

The DCC will create a new User Role within the DCC Systems for MDR Users.

The DCC will accept and action Service Requests from the new MDR User role, as well as the existing Supplier roles, to retrieve import consumption data and, where configured, export generation data from specified SMETS1 and SMETS2 ESMES enrolled within the DCC Systems. All Service Requests received from MDR Users will use the existing DCC User Gateway and be subject to Access Control authentication against the identity of the MDR User stored and provided to the DCC within the Registration Data. This authentication will ensure that only registered MDR Users can retrieve the relevant data from each ESME. Where data is successfully retrieved from both SMETS1 and SMETS2+ ESMES, this data shall be returned across the Smart Metering communication networks to the requesting User.

All authenticated data requests from Suppliers and MDR Users shall be retrieved from each ESME using the Data Service Provider (DSP) scheduling services wherever possible. The DCC expects Users to set up a schedule for all applicable Service Requests, with any on-demand requests kept to a minimum. This will allow the DCC to maximise efficiencies across its systems and minimise the impacts of any demand spikes that could be caused by many on-demand Service Requests being sent at once. Any on-demand requests will be processed in line with the TRTs specified in Section 3 above.

The change allowing SR 4.2 to be scheduled will require a DUIS schema change. This will require a minor uplift to Parse and Correlate (P&C). Great Britain Companion Specification (GBCS) Integration Testing for Industry (GFI) and DCC Boxed will also incorporate the new DUIS schema.

The CSPs will implement capacity and infrastructure increases to manage the additional traffic expected from MHHS. Changes will also be made to accommodate the revisions to the scheduling windows.

S1SPs will also require changes to accommodate the new User Role and the changes to the DUIS schema for SR 4.2. A local cache will also be built for data collected through SRVs 4.6.1, 4.8.1 and 4.8.3, so that when subsequent requests are requested from other Users for the same date-time range within 48 hours, data is retrieved from the cache instead from the meter. Infrastructure changes will also be required.

The expected impacts on DCC Systems and the DCC's proposed testing approach can be found in the DCC Impact Assessment response in Annex B.

Northbound prioritisation

After revising the design based on the assumption that the DCC should be able to use existing off-peak capacity for MHHS Service Requests, concerns were raised that traffic for the Export Supplier and MDR Users' scheduled requests could impact on I&C request delivery times during the day. To alleviate these concerns, the DCC has introduced the concept of 'northbound prioritisation' to ensure that on-demand Service Requests sent during the off-peak scheduling window are prioritised over scheduled Service Requests. This will protect the DCC's performance measures relating to TRTs and support Users' daytime priority operational activities such as I&C and prepayment top-up activities.

Northbound prioritisation specifically relates to the off-peak scheduling window only. This control is designed as a single control to apply to all CSPs (SMETS1 and SMETS2).

SEC and subsidiary documents

The following parts of the SEC will be impacted:

- Section A 'Definitions and Interpretations'
- Section G 'Security'
- Section H 'DCC Services'
- Section I 'Data Privacy'
- Section L 'Smart Metering Key Infrastructure and DCC Key Infrastructure'
- Schedule 11 'Technical Specification Applicability Tables'
- Appendix E 'DCC User Interface Services Schedule'
- Appendix R 'Common Test Scenarios Document'
- Appendix AB 'Service Request Processing Document'
- Appendix AD 'DCC User Interface Specification'

The changes to the SEC required to deliver the Proposed Solution can be found in Annex C.

Technical specification versions

MP162 will require changes to the DCC User Interface Specification (DUIS). This will be implemented in the next version of the DUIS at the time of implementation. The MP162 changes will require a minor DUIS uplift; at the time of this report, this is expected to form DUIS version 5.3.

Updates to the DUIS schema and the DCC User Gateway Interface Design Specification (DUGIDS) are needed to incorporate the additional error codes and responses.

Any Users intending to operate in the new MDR User Role and/or take advantage of the potential scheduling of SR 4.2 will need to be on the new version of DUIS incorporating MP162. Existing User Roles, such as Suppliers, will not need to uplift to this version to be able to fully deliver MHHS; they will only need to update if they wish to create schedules for SR 4.2 as part of this.

No Message Mapping Catalogue (MMC) XML changes have been identified.

No changes to any other Technical Specification documents are expected.

Devices

There will be no impact to any Devices because of this modification.

Consumers

Consumers are not expected to be directly impacted by this modification but are expected to benefit from the full MHHS solution once implemented.

Other industry Codes

This modification forms part of the full MHHS solution, which will impact on several Codes including the SEC. The full MHHS solution, the changes required to the other Codes, and the co-ordination of cross-Code impacts are being assessed and developed as part of the wider MHHS programme.

Under [MP200 'Faster Switching consequential changes to the SEC'](#), the registration data used by the DCC's solution is being moved to sit under the Retail Energy Code (REC). The changes to this to validate and record the MDRA registered to each MPAN will need to be developed, tested, and implemented in parallel with MP162. REC Change Proposal [R0044 'MHHS Programme Changes required to Central Switching Service'](#)⁷ has now been raised to develop these changes.

Greenhouse gas emissions

This modification is not expected to impact on greenhouse gas emissions.

5. Costs

DCC costs

The DCC's implementation and ongoing costs are summarised below. More information on these can be found in the DCC Impact Assessment response in Annex B.

The DCC's implementation costs are recovered from SEC Parties via the Fixed Charges in SEC Section K 'Charging Methodology'. As a result, these costs would be split between Suppliers and Network Parties only.

Implementation costs

The DCC implementation cost to implement this modification is £9,039,740. The breakdown of these costs are as follows:

Breakdown of DCC implementation costs		
Activity	SMETS2 Service Provider costs	SMETS1 Service Provider costs
Design and Build	£2,894,166	£1,257,034
Pre-Integration Testing (PIT)	£862,410	£876,091
Systems Integration Testing (SIT)	£1,947,638	£413,897
User Integration Testing (UIT)	£297,544	£272,681
Transition to Live	£153,396	£30,531
Total	£6,155,154	£2,884,586

⁷ You will need to log into the REC Portal to access this page

Application support costs

The DCC will also incur additional application support costs of £194,687 per month (£2,336,244 per annum).

The DCC expects MP162 will significantly increase the volume of messages being processed. As such, the operational service will require an uplift to support and maintain the solution. Due to the potential impact of the additional traffic volumes the operational support will include increased, ongoing, monitoring of the solution as well as technical support.

The DSP is anticipating application support resources related to increased traffic, monitoring, and support calls, as well as infrastructure running costs. The CSPs and S1SPs will also incur additional ongoing costs related to supporting the hardware, storage and bandwidth needed for the additional volume of traffic expected.

Interaction with the DSP re-procurement

The DSP re-procurement is currently expected to take place in late 2024. The DCC has been ensuring that the MP162 changes have been factored into the DSP re-procurement activities. The DCC confirms that the requirements for MP162 will be replicated in the requirements for any new DSP and as such there will be no additional costs related to MP162 arising from this.

SECAS costs

The estimated SECAS implementation cost to implement this as a standalone modification is two days of effort, amounting to approximately £1,200. This cost will be reassessed when combining this modification in a scheduled SEC Release. The activities needed to be undertaken for this are:

- Updating the SEC and releasing the new version to the industry.

SECAS will manage subsequent accession requests from Party agents not yet signatories to the SEC seeking to operate as MDRAs. It will also manage the UEPT and relevant security assessments needed for Users registering in the MDR User Role. It is not known how many additional requests will be received because of MHHS, but these will be managed as part of business-as-usual processes.

SEC Party costs

In the Refinement Consultations, several respondents were not able to provide any firm cost estimates. Suppliers that provided views gave estimates from less than £100,000 to over £1m but stressed that these costs would need to be reviewed once there is more information on the technical solution. Network Parties did not expect to incur any additional costs beyond their share of the central costs. Supplier agent organisations who are planning on registering as MDR Users anticipated costs of up to £500,000 to undergo the processes for registering in this role.

The responses received from Parties on the expected costs for them to deliver MP162 can be found in Annexes D, E and F.

6. Implementation approach

Recommended implementation approach

SECAS is recommending an implementation date of:

- **29 February 2024** (February 2024 SEC Release) if a decision to approve is received on or before 31 August 2022; or
- **The first Thursday on or after the date 18 months following approval** (ad-hoc SEC Release) if a decision to approve is received after 31 August 2022; and
- In either case, the changes to SEC Appendix R would be implemented in the November 2023 SEC Release (2 November 2023) to allow the relevant Common Testing Scenarios to be available for any MDR Users during UIT.

The full MHHS service will begin in 2024, and Ofgem and the MHHS Programme are requesting that all changes for MHHS be in place ahead of this. Due to the DCC's required lead time, the February 2024 SEC Release is the earliest SEC Release that MP162 can be included in. The February SEC Releases are normally a 'documentation-only' release, but for 2024 this could be converted to a SEC Systems Release to accommodate MP162.

Implementing MP162 after the February 2024 SEC Release is likely to adversely impact on the DSP re-procurement project's timelines. It also increases the risk that the changes would not be in place in time for the subsequent MHHS project milestones. For these reasons, an ad-hoc implementation date is proposed as the fall-back option rather than moving back to the June 2024 SEC Release.

The DCC has highlighted that due to the size of the MP162 solution and the significant infrastructure upgrades needed, it is likely that no other DCC System impacting modifications could be included in the same SEC Release. Any other modifications proposed for implementation at the same time will be assessed on a case-by-case basis for whether they can be accommodated.

The DCC will develop and test its system changes for implementation to live in the approved SEC Release. These changes will therefore be available in advance of the full MHHS go-live. Similarly, the SEC governance changes will be implemented in the same SEC Release, allowing third-party organisations seeking to act as MDRAs to accede and register in the MDR User Role as required sufficiently in advance of the full MHHS go-live. The full MHHS delivery plan is being developed as part of the wider MHHS programme.

Some respondents to the Refinement Consultations were generally unable to provide an estimated lead time until there is more certainty around the wider solution. Those that were able to provide a view noted lead times ranging from zero lead time up to 18 months, though were generally able to meet the proposed implementation date above. Some respondents noted that MP162 needed to be implemented prior to the full MHHS go-live, with enough time for necessary testing to be completed and the MHHS qualifying phase undertaken.

The responses received from Parties on the expected lead times for them to deliver MP162 can be found in Annexes D, E and F.

MDR User testing considerations

The DCC considers that MDR Users should start testing in time for UIT. This assumes that the Smart Metering Key Infrastructure (SMKI) Repository Entry Process Testing (SREPT) process is complete

before UEPT. The DCC's UIT team has indicated that the SEC Appendix R changes would need to be in force before the start of UIT, with these changes proposed for inclusion in the November 2023 SEC Release, ahead of the full MP162 solution go-live.

Further information can be found in the DCC's Impact Assessment response in Annex B.

7. Assessment of the proposal

Observations on the issue

Due to the extensive discussions that had taken place on the issue under the SCR, which is looking at the full MHHS solution, the Development Stage was kept short. Each relevant Sub-Committee was consulted to provide initial comments on the modification before it advanced to the Refinement Process.

Change Sub-Committee

The Change Sub-Committee (CSC) was supportive of progressing the modification to the Refinement Process quickly. A member noted it is highly important that the Refinement Process accounts for the large amount of work that has been done by the Code Change and Development Group (CCDG).

One member believed inaccurate assumptions have been made under the SCR around how smart metering works. They noted the Working Group will need to be careful that the smart metering arrangements are not adversely impacted when incorporating half-hourly settlement. The member felt that MHHS has been primarily reviewed from a settlement perspective and has focused mainly on obtaining data from Devices, and not how Devices operate. This was considered out of scope of the CCDG work so this will require SEC Parties to define this in the end-to-end solution. Another member highlighted previous issues caused where only high-level detail had been provided under a modification and stressed that more detail around the solution will be needed to support Parties.

SECAS noted that it would strive to meet Ofgem's overall timetable; however, this should not come at the expense of making sure the smart metering arrangements are not compromised. If any major issues or concerns relating to the smart metering arrangements are identified as part of the Refinement Process, SECAS would raise these with Ofgem and the MHHS Programme as a priority, to assess how these affect the wider solution and timetable. The DCC also noted it has engaged with its Service Providers and was aware of the issues raised. It intended to use all possible resources to fully prepare for this change.

Operations Group

The Operations Group (OPSG) highlighted that the modelling and design assumptions within the DCC's solution will need to account for current performance. The DCC acknowledged that projections and assumptions over capacity will be crucial.

The OPSG queried at what stage it would see how the solution will operate and elements such as traffic patterns and use of the updated provisions. SECAS noted this would be developed and understood as the Refinement Process progresses – see below for more information on the analysis on expected traffic, and Section 3 for more details on the solution and how it will operate. The OPSG

also encouraged the DCC to test the MP162 changes using live Devices rather than emulators, as it has done with other recent changes, as this will reduce costs. The DCC will determine this when the modification is approved and expects that a mix of established Devices and emulators for Devices not available at the time of testing will be used. A member considered the DCC needed to consider how the implementation of the MHHS changes would interact with the planned DSP Re-procurement timescales.

TABASC

The Technical Architecture and Business Architecture Sub-Committee (TABASC) noted the requirement for a new MDR User Role. A member queried what the difference between this and the Supplier User Role was. Another member clarified that the MDRA role was planned to be competitive and so an MDR User may not always be a Supplier.

The TABASC queried how this solution would be implemented in the DUIS, for example through new Service Requests, and how it would be identified whether a Service Request had been sent by a Supplier or an MDR User. It also asked whether Suppliers should be able to request this data from ESME every half hour if they wanted. The TABASC requested these questions be examined as part of the modification. The initial business requirements propose that the existing Service Requests are re-used, with no new Service Requests expected. Any limit on the frequency of data retrieval will also be established as the modification progresses.

One member noted that while SMETS meters can record the consumption in each half-hour period, they considered they had not been designed to be half-hourly meters and would always be treated as non-half-hourly. They echoed previous comments that the end-to-end solution needed to look at the impact of MHHS across the wider smart metering arrangements and ensure that the changes do not have a negative impact.

SSC and SMKI PMA

The SSC and the SMKI Policy Management Authority (PMA) had no comments on the Draft Proposal. They both requested to be consulted on the security and privacy parts of the solution.

Requirement to comply with the MHHS implementation provisions in the BSC

During the Development Stage, Ofgem issued a [consultation seeking to require the DCC to comply with the MHHS implementation provisions within the BSC](#). Sub-Committee members queried how the BSC would place obligations on the DCC and how the DCC would be obliged to comply with other Codes. The TABASC was also concerned how the impacts on the smart metering architecture from any BSC-led change impacting the DCC would be assessed.

BSC Section C12 sets out the high-level governance and co-operation requirements of the MHHS programme for MHHS Participants. The content of this BSC Section were consulted on as part of Ofgem's [consultation on the MHHS implementation and governance arrangements](#). The new licence conditions make the DCC a 'MHHS participant' and require it to comply with this BSC Section. An equivalent requirement on SECAS has been added to the SEC through [MP180 'Market-wide Half Hourly Settlement Implementation'](#). These MHHS programme requirements are high level and are intended to sit alongside established Code governance and will not contain operational or detailed requirements.

How could MHHS impact on DCC System capacity?

The DCC expects a significant increase in the amount of traffic on the DCC Systems because of MHHS. In its Preliminary Assessment⁸, the DCC performed a high-level assessment of the additional capacity that would be needed to accommodate this traffic. While the current capacity is not 100% utilised, the DCC considered it prudent to assess the additional amount of capacity required for MHHS, decoupling this from the existing capacity. The DCC assessed three possible high-level scenarios:

- **Scenario A:** 75% of MHHS data is collected by Suppliers, with the remaining 25% collected by an independent MDRA; all data collected is re-used for other purposes
- **Scenario B:** 50% of MHHS data is collected by Suppliers, with the remaining 50% collected by an independent MDRA; half of the data collected by Suppliers is re-used for existing purposes
- **Scenario C:** All MHHS data is collected by an independent MDRA; Suppliers will continue to collect half-hourly data themselves where needed for existing purposes

Scenario A was used to derive a lower cost estimate of £29m (excluding SIT, UIT and Implement to Live costs), and Scenario C was used to derive an upper cost estimate of £59m.

The DCC noted the 'fixed' costs (those that would be incurred irrespective of the increase in data volumes expected) were relatively low compared to the 'variable' costs (those based on the expected increase in data volumes), as it currently has a good understanding about what changes are needed within its systems. However, expected User behaviour is less clear, particularly the number and timings of additional requests that will be submitted. The three scenarios above covered increasing size and complexity but essentially as more Service Requests are issued per day, the capacity needed to service these increases. Smoothing out requests over a longer period will help to reduce costs, as can using capacity and infrastructure in a more efficient way.

Reusing existing capacity

A Working Group member considered that the DCC should know how much of the current capacity is currently being used. They believed the DCC should be seeking to make maximum use of the current system, utilising existing troughs in demand, and enhancing business processes, rather than seeking additional capacity. They asked how the DCC's assessment of traffic under MHHS would compare to current usage. The DCC considered that depending on how Users behaved, the total traffic could be more than double what is seen today.

The member considered that if the DCC is only using 50% of current capacity, and it could make better use of the periods of low demand, a doubling of traffic could be catered for within the current capacity. They considered this implies that better management of Service Requests over time is the best way forward. However, another member believed that any solution shouldn't be entirely driven by making use of existing troughs in demand, as spare capacity is needed in case of unplanned or unexpected events.

When the DCC originally assessed the required capacity to meet the industry's requirements for smart metering, MHHS was not included in that. The requirements had not included the expectation

⁸ The DCC's Preliminary Assessment is available on the [MP162](#) webpage of the SEC Website
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that all meters would need to provide half-hourly data, or that export data would need collecting. The MDRA is also additional party that can submit Service Requests that was not considered in the original requirements. The DCC does understand the profile of its current service and has modelled expected future changes, but the MHHS changes are further additions that need to be modelled.

Another Working Group member agreed with the DCC's comments. When Suppliers originally fed in their requirements to the DCC, they had not been expecting to need to collect all the half-hourly readings for every day. Given the charging model was based on a cost per Service Request, Suppliers opted for the minimum amount of requests needed to meet their obligations.

The member noted the risk that the DCC isn't set up to handle this capacity had been highlighted to Ofgem at the beginning of the MHHS project; the view back had been that the DCC should have been expecting this change. The member noted there is no requirement under this modification to change or curtail current usage or apply any restrictions to this.

Wider capacity needs

Electricity Network Parties in their Refinement Consultation responses queried why the DCC had not considered the whole system impact of multiple Users collecting consumption data from smart meters. They specifically queried why expected Network Party requirements or known system and capacity constraints around the CSP North radio access network had been excluded. Unless this is considered, there remains the risk of further service degradation in performance. The DCC acknowledged that there are wider use cases that will impact on capacity but highlighted that these are outside the scope of MP162, and it only assessed the capacity needs for MHHS under this modification. The DCC has commenced a wider piece of work looking at holistic capacity needs.

Suppliers also queried why the DCC was including the costs for increased capacity under MP162, noting that there is nothing to stop all Users from collecting half-hourly data from all ESME today. They felt the DCC was incorrectly using MP162 to pick up and recover its costs for the MHHS programme. The DCC highlighted that MHHS will create new demand for consumption data, increasing the overall aggregated demand for half-hourly meter reads. As MHHS is requiring this data to be collected from every ESME, this will now make it part of the core service. The DCC therefore considers it appropriate that its capacity is increased to cater for this additional, mandated, demand. The DCC acknowledges that where data volumes increase today for existing business-as-usual services, this is captured under its general capacity planning service, and its operational costs are increased to reflect additional capacity needed over time.

The Working Group requested for the costs to be split between those needed to add the new User Role and those relating to increasing the capacity. The DCC queried what this information would be used for. Members considered the question was how much it will cost to deliver the User Role to meet the core Ofgem principle, and that additional costs for capacity should be explicitly approved by the Authority.

A Working Group member queried if the whole system needs to be reviewed and redesigned to meet future needs, before it reaches a point where it cannot cope with the demand, though conceded this would likely be outside the scope of MP162. They asked whether the DCC had a view on when a full review of the current model would be needed, due to the pipeline of expected changes that will impact on demand. TABASC members also queried whether there is value in reconsidering the end-to-end architecture considering future capacity expectations.

User behaviour and appointment of MDRAs

The DCC noted the large variability in its cost estimates in the Preliminary Assessment was largely due to not knowing how much extra capacity may be needed, as this will be driven by Users' behaviour. The DCC sought to understand the assumptions around User behaviour and how much additional traffic was expected. If the DCC's assumptions are radically different to what Users are planning, then the costs the DCC provides for this modification won't be reflective. The DCC sought to align its expectations with Users to ensure everyone was moving in the same direction.

The DCC needs to be able to support all the different options, but it wanted to better understand how likely or unlikely each given scenario is. The DCC would like all MHHS traffic to be scheduled, but highlighted subtleties in these assumptions, such as Suppliers following existing processes. While some of the potential scenarios, such as all Suppliers using a third-party agent versus all Suppliers performing the function in-house, may seem trivial, these will have big implications for the DCC's solution. Other factors, such as how many customers choose to opt out of having their half-hourly data collected, will also have impacts.

One of the DCC's key questions for its modelling was the proportion of MHHS data collection collected by Suppliers and by independent MDRAs, reflected in the three scenarios assessed above. The Working Group considered whether the DCC's model could be further broken down further into small, medium, and large Suppliers. Members considered that larger Suppliers would likely carry out the MDRA role in-house, while smaller Suppliers may be more likely to outsource this.

A Working Group member considered that Suppliers collecting this data themselves would place less strain on the system. They would want to encourage Suppliers to collect MHHS data themselves, to reduce the load on the system. However, they also wanted to ensure there is a balanced playing field for third-party MDRAs too. If collecting MHHS data is equally onerous for all Users, this could make it more likely Suppliers outsource this to an agent. Another member felt this approach could be unfavourable to third-party MDRAs, and that Ofgem's requirements was for a level playing field between the roles.

The Working Group noted the dilemma, as the solution will likely be less expensive if Suppliers were to collect their own data, but by making it possible for third-party MDRAs to do so too adds complexity and cost. It queried what could be done to balance this without negatively impacting existing Users. The DCC considered this would require a 'trust model', with ways of operation written into the SEC. The member noted that the current load on the DCC Systems is varied, and Users have had to work together to manage this in a form of trust model, which works well when seeking to resolve problems.

Working Group members noted design work for MHHS was in the early stages and participants may not know their expected behaviours before MP162 needs to be decided upon. Any assumptions could also change as participants build their solutions. However, members considered it reasonable for the DCC to ask Suppliers what their intentions are, to better enable the DCC to build the system to meet Users' requirements.

The TABASC cautioned that any information obtained at this stage on expected behaviours will likely change before MHHS goes live due to the dynamic nature of the current environment. It considered the DCC should focus its design on the assumption there will be a varying mix of Suppliers and third-party MDRAs collecting the data. Instead, the DCC should focus on how best to manage and optimise capacity. Members noted the DCC appeared able to accommodate any capacity increase needed, and that the key question is the cost of doing so. The TABASC also considered that Suppliers would likely not make any decisions around this until 2022.

Customers opting out

A Working Group member noted the DCC's assessment of the opt-out rate and queried if this had been based on data. The DCC confirmed that empirical data had been hard to obtain. The DCC was asked if it could determine opt-outs from the SR 5.1 requests sent. The DCC confirmed it could see if a schedule had been set up, but not why, so could not tell if this was due to opt-out or not.

Another member highlighted customers must actively opt in now but will have to actively opt out under MHHS. They considered the DCC's initial assumptions to be reasonable ones based on Ofgem's work. Another member noted the inclusion of collecting export data through the DCC will add a million further MPANs.

Conclusions

The Working Group concluded that MP162 will add additional demand to the DCC Systems which will need a corresponding increase in capacity. At this stage, there is no clear view on the proportion of data that will be collected by Suppliers or third-party MDRAs.

The DCC subsequently based its solution design on Scenario A, based on indicative views from Suppliers of the likelihood of them appointing an independent MDRA. The DCC's design assumptions which were used in its assessment can be found in Annex A.

The DCC has discussed its volume assumptions with Ofgem throughout the programme's progression, who was satisfied with the assumptions made. As the DCC's Impact Assessment was based on the worst-case scenarios, the DCC is not expecting large discrepancies between the assumptions and the actual demand. Once MP162 is implemented, the impact on capacity will be monitored as part of the DCC's business-as-usual capacity monitoring and management approach.

Should the existing scheduling window be changed?

Scheduling Service Requests across the day

The DCC queried whether Users had any constraints over changes to the existing scheduling windows, or whether doing so would be an issue to Users, to help inform design options. Allowing the DCC more freedom to make full use of the TRT for all Service Requests would allow the load to be better spread across the day, but the DCC wanted to ensure doing so would not impact on any existing User processes.

Many Suppliers currently schedule relevant Service Requests and the Working Group considered they would likely not move away from scheduling for MHHS. They also want to avoid the return traffic affecting other processes during working hours, such as I&C. An independent MDRA may be able to schedule requests across the whole day, but Suppliers likely couldn't. A member considered the impacts of receiving scheduled reads later in the day would depend on what the data currently collected is used for. If data is spread too far across the day, this may affect some services Suppliers provide to customers.

A Working Group member considered the biggest constraint for Suppliers is their own infrastructure and the impact collecting MHHS data may have on other processes such as I&C. Suppliers will also need to consider how to manage an increase in the data they receive and whether to do this as they do now or via a third party, as this will impact their infrastructure too. The member highlighted conversations from other forums raising concerns that the overnight processing of reads is already creeping into the following working day without the half-hourly data requests for settlement.

The Working Group noted the expectation for Users to be able to carry on with what they currently do, and for this to continue to happen within current time windows. Members felt there does not appear to be anywhere under the MHHS work that is looking at how businesses are currently operating more generally and how these will be affected by MHHS. They considered that MHHS would be in addition to existing processes but should not affect them. The DCC agreed that the industry needs to work together to make sure the impacts are mitigated on both the DCC and on Users, noting Service Providers have expressed the same concerns.

The DCC noted the TRT for scheduled requests is currently 24 hours, even though the service often delivers more quickly. A Working Group member considered that schedules have been set up based on the information being returned as quickly as it is now. If that was to change, even if it was still within the TRT, that could drive changes in User behaviour to meet customer expectations. Another member noted the TRT for scheduled requests has always been 24 hours, and so Users' expectations should be based on this. The DCC would be within its right to make full use of the TRT. Another member noted that they are already seeing the return of data sought overnight creeping into working hours and did not want to make this worse.

MHHS Programme representatives noted that the decision to collect data daily from all 30 million meters had been a DCC recommendation and not one from the TOM. Under the TOM, it had originally been considered to collect data for a whole month from one million meters each day.

A TABASC member noted that for some services offered to customers, it is important to obtain the previous day's data before the customer wakes up. If there is a day's delay, then this data becomes less valuable. Customers have also become used to having real-time data now, and that the current schedules obtain most of the data needed overnight. In contrast, MHHS data is less time-critical and can be obtained later in the day.

A TABASC member considered that if Suppliers are processing half-hourly data for settlement, they may want to also use that to offer value-add services for customers, who may be more interested in the data if it is available. The DCC noted around one-third of meters currently have a schedule set up for half-hourly data, but that requests are processed in a 'first in first out' method. TABASC members also noted that data can be collected locally by Devices on the Home Area Network (HAN), such as In-Home Displays (IHDs). Members wondered if this would allow alternative approaches for providing data to customers without passing the data through the DCC Systems.

Considering all this, the Working Group concluded that the DCC should be free to schedule any scheduled requests within the relevant 24-hour period.

Proposal to introduce 'peak' and 'off-peak' scheduling windows

In its Impact Assessment, the DCC proposed introducing 'peak' and 'off-peak' scheduling windows. This would allow relevant scheduled requests, primarily from Export Suppliers and MDRAs, to be processed during the day, as these requests would generally be for MHHS purposes. This would reduce the load in the overnight window for requests submitted by other Users who would likely be using these for existing services as well as MHHS. The DCC proposed the configuration to apply for MP162 set out in Section 3 above but highlighted this is fully configurable.

The SEC gives the DCC a 24-hour turnaround time for scheduled requests, but this is often completed a lot quicker. The DCC has tried to move away from processing everything overnight before but received significant pushback from Users who wanted to conserve the current turnaround times. The DCC therefore sought to retain this approach, while making the best use of the time. The

assumption has been that a 24-hour turnaround time is required for MHHS, and whether this comes early or late in the day doesn't really make a difference.

The Working Group reiterated the comments above regarding the impact on Users if the timing of when data is received changes, particularly if this was received during working hours. Members were also concerned over the impacts this may have on I&C requests, which need a fast turnaround. The DCC highlighted that it had left gaps between the peak and off-peak windows to facilitate I&C requests. It believed that I&C requests are likely to peak at the start of the working day, then become more staggered as the day goes on. The DCC has therefore allowed time for the schedules in the overnight window to complete and the initial I&C peak to pass before starting the off-peak window, without this then going too far back in the day.

The TABASC asked why the DCC had not proposed 18:00-24:00 as the off-peak window. The DCC has not proposed the off-peak windows extend beyond 20:00 to avoid impacting maintenance windows. Additionally, while there will be far fewer scheduled requests in the off-peak window, allowing a longer period means the transactions-per-second rate can be kept low to mitigate the impacts on other traffic. This will be fully configurable, so the DCC can monitor any impacts and adapt as needed following go-live.

The Working Group was still concerned whether the traffic for the Export Suppliers and MDRAs' scheduled requests could impact on I&C request delivery times. The DCC clarified that the off-peak requests would be processed at a lower rate and smoothed out across the day. The off-peak window should also contain far fewer requests than the peak window, where most of the scheduled traffic would continue to be processed. The DCC considers there to be sufficient headroom in capacity during the day to manage this. It also noted that Users have an obligation to ensure they have sufficient bandwidth to support the required level of inbound traffic. The DCC also subsequently introduced its 'northbound prioritisation' approach set out in Section 4 above.

The TABASC noted that only the scheduled requests from Export Suppliers and MDRAs would be processed in the off-peak window. All other Users Roles, including Import and Gas Suppliers, would continue to be processed overnight, as currently. Therefore, Suppliers should not receive any additional traffic during working hours unless they are requesting it as an Export Supplier. However, members were concerned the 'first-in-first-out' approach could cause traffic to be held up by large scheduled requests in the processing queue, though noted the DCC is continuing to assess its traffic management approach.

TABASC members asked if Users could specify a time for their scheduled requests. The DCC stressed that scheduling works best if Users do not specify specific times, to give the DSP maximum flexibility around smoothing the load. The DCC is therefore maintaining its guidance for Users not to specify specific times in their schedules.

Suppliers and Network Parties that responded to the third Refinement Consultation were broadly supportive of the proposed approach. However, Other SEC Parties that are intending to register as MDR Users considered this approach to be anti-competitive, creating a two-tier system where Suppliers would receive metered data for MHHS earlier than independent agents. See below for further discussion on this area. The full responses received can be found in Annex F.

A Working Group member queried if the scheduled requests could be randomised so that some MDR Users received this in the peak window and some Suppliers in the off-peak window. The DCC noted this hadn't been looked at. It could be possible but would be a further change for which the requirements would need to be defined and the solution subsequently assessed.

The DCC considered that while MP162 is expected to go live in February 2024, the full programme won't go live until later that year, with a year after that for migration. The DCC therefore expects to see a gradual increase in traffic rather than a 'big bang'. Once the changes have been deployed, any further capacity requirements would then be managed as part of business-as-usual. Additionally, by 2024, the installation rate of SMETS2 meters should have reduced, although next-generation Communications Hubs may be ready to be installed from around this time.

Is SRV 4.1.1 needed for MHHS purposes?

The DCC noted an issue around permissions for SRV 4.1.1 relating to the Access Control Broker Remote Party Role. Currently, for SMETS2 Devices, the use case doesn't allow this role to use this Service Request, meaning that an MDR User would not be able to use this. The Working Group was asked for views on whether to remove the use of SRV 4.1.1 for SMETS2 Devices or whether a future GBCS version should enable DCC to support this. The DCC noted that SMETS1 Devices don't support this SRV as they don't store the relevant data.

A Working Group member queried if the use case for SRV 4.1.1 was just as a check, and whether a User could schedule a SRV 4.6.1 'Retrieve Import Daily Read Log' monthly instead. The DCC considered the primary use case for SRV 4.1.1 seems to be reading the log, so could be an edge case. The only difference between these two requests is that SRV 4.1.1 provides an instantaneous read while SRV 4.6.1 provides a midnight read.

A Working Group member considered the main use of SRV 4.1.1 for Suppliers is for customer contact around billing, where a reading would need to be taken as part of any interaction with that customer. Other than that, they would likely use midnight reads. Another member felt it would not impact them if this was not available.

The Working Group noted the principle of not impacting the GBCS, as otherwise it could take several years for the version to be implemented, and even then, some meters could never be updated to this version. One member considered consistency between SMETS1 and SMETS2 Devices would be beneficial. Representatives from the MHHS Programme felt not having an instantaneous read wouldn't be an issue, as a midnight read would work for settlement.

The TABASC queried why the instantaneous read would be needed for MHHS, considering the midnight reads should suffice. One member considered that the main use for instantaneous reads is in diagnosing issues. If the MDR User is not expected to be involved in fault-finding, not being able to use SRV 4.1.1 shouldn't be an issue. Members also had little appetite to introduce any changes to the GBCS for this, as doing so would likely require a retrospective change across all versions.

The TABASC queried who would be responsible for data investigation. An independent MDRA wouldn't have the ability to investigate if it discovered a discrepancy between the half-hourly data and the reconciliation reads. The expectation is that the MDRA would be expected to do only what it has been contracted to do within the scope of the role. Based on the TOM, this is expected to be to collect the data from smart meters and pass this on into settlement.

The Working Group concluded that SRV 4.1.1 was not needed for SMETS2 Devices.

Should SR 4.2 be schedulable?

The DCC also noted that SR 4.2 'Read Instantaneous Export Register Values' is not currently able to be scheduled. It sought the Working Group's views on if this should be changed, noting there could be an increase in the use of SR 4.2.

A Working Group member felt these likely don't need to be scheduled. Another member noted this would change the existing requirements, and it would depend on the costs. A further member noted the cost-savings around capacity from being able to schedule these requests would likely outweigh the costs of introducing scheduling for these. The DCC agreed that would likely be the case.

A Working Group member was not clear on the rationale for needing ad-hoc SR 4.2 requests and felt Users would use SRV 4.8.1 for MHHS. The DCC's assumption was that Users would collect interval data daily, then take a monthly meter read to validate advances.

The MHHS Programme representatives reminded the Working Group that MHHS is not just about collecting half-hourly data. There will be cases where Parties cannot obtain half-hourly data. In these scenarios, register reads can be used to derive half-hourly values through profiling. In these cases, a midnight reading will suffice, assuming a failure in communications does not prevent this from being collected.

The Working Group asked what scheduling SR 4.2 would mean for TRTs. In these cases, the User would receive the read at some point in the following 24 hours, but the alternative would be a spike of on-demand requests at midnight.

The TABASC noted the advantages of scheduling SR 4.2, to reduce peaks in traffic. Additionally, this only needs a wording change in the SEC to allow the DCC to schedule these Service Requests.

The Working Group concluded it would be sensible to make SR 4.2 schedulable.

Can data collected be stored or reused?

Could consumption data be stored in a cache?

A Working Group member noted the DCC does not store consumption data, and queried if it should, given the number of requests for this data that will be sent to meters. The DCC confirmed this had been investigated. The key constraint is with the security model regarding confidential data. SMETS2 consumption data is encrypted so only the intended recipient can access it, meaning the DCC couldn't reuse it. The DCC has looked at whether this could be changed, but it is a fundamental requirement of the smart metering security model that consumption data from SMETS2 meters is encrypted end-to-end. There is more leeway with SMETS1 Devices though. However, the DCC has worked to a design principle that it doesn't store this data or create another repository.

The DCC developed a proposed caching solution for SMETS1 meters. Under this, when a User requests data from the meter, this data will also be stored in a cache held by the DCC for 48 hours. If any other Users subsequently requested the same data, this can be provided from the cache without needing to query the meter. This approach could reduce traffic to these Devices. However, this approach will only provide benefit if more than one User is requesting the half-hourly data.

A Working Group member queried the setup between the DCO and the CSPs and how the cache will be managed. They sought clarification on whether the DCO could manage traffic to multiple cohorts in parallel or whether requests are managed sequentially. The DCC confirmed the DCO doesn't interact with the CSPs, only with the S1SPs. Requests are managed sequentially but the three different cohorts can be supported in parallel. The Working Group requested the DCC mitigate any impact on

the DCO. The DCC confirmed this solution would affect the DCO. It also highlighted that an increase in the number of Service Requests will have a bigger impact on the DCO as it handles requests in real time.

Another member noted the cache option also only works if there is no reuse of data outside of the DCC, such as through the MDRA passing data on to the Supplier (see below). The DCC noted it is important to futureproof the solution in case further use cases arise generating requests for half-hourly data. It also confirmed the cryptographic design for SMETS1 allows for the cache to be added without affecting Users' processes or experience, but the DCC will work with the SSC to ensure security is maintained.

A Working Group member asked whether it was possible to have a solution where the system could push data out to the MDR User during times of low system demand. The DCC noted that due to the security requirements on encrypting SMETS2 consumption data, it cannot collect and store this data to push out to Users; it must be collected from the meter as requested and sent only to the requesting User. The DCC also noted any solutions around having a Device push the data during quiet times would need changes to those Devices. One of the DCC's key design principles for the MP162 solution is for it not to need any changes to Devices.

The TABASC considered whether this provided an opportunity to rethink how scheduled reads are managed. Members asked whether it could be more efficient for the DSP to pool the schedules for a given Device, and only collect the data once. Members acknowledged the constraint currently posed by the security model but felt this could be an avenue worth exploring separately to this modification.

It was concluded that the DCC's solution will include the proposed caching solution for SMETS1 meters only. There will be no caching for data from SMETS2 meters.

Could the data collected be reused?

Working Group members noted an ambition of the MHHS TOM is for half-hourly data submitted for settlement to be more readily available to others. This could be a route for Parties to obtain this data outside of the DCC, which could reduce the impacts on capacity. Additionally, an MDRA that collects the data could then pass this on to the relevant Supplier or to other parties as required. This could reduce the expected demand and therefore the capacity needed. The DCC noted another scenario where if the Supplier appoints a third-party MDRA the Supplier may not collect any of its own data. Conversely, there is a risk that both the Supplier and the MDRA collect this data, creating duplication. Members felt there shouldn't be both a Supplier and an MDRA collecting the data, and that if an MDRA is in place they should be supplying the data to the Supplier. However, such reusing of data would be a question for the TOM and is outside the scope of MP162.

A Working Group member noted that having Suppliers collect data centrally rather than collecting it for themselves would require business process changes. If such behavioural changes weren't legislated for, they believed that Suppliers would not change their behaviours, considering a Supplier would not wait to receive data from an agent if they could collect it themselves faster and cheaper. Another member considered that legislation to prevent duplication would be beneficial, rather than seeking to place reliance on participants to not duplicate data collection.

A Working Group member asked if there would be any difference between the scenarios assessed in the Preliminary Assessment if there is more re-use of collected data. There are a lot of input parameters and assumptions in its modelling which will form layers. The DCC will perform more sensitivity analysis on this one it has a better understanding of the broader assumptions.

The TABASC noted the question of re-using data collected for MHHS for other uses. Members queried if there would be any security issues associated with that but felt this would sit outside the scope of MP162. Members considered that other Parties, such as Network Parties, could be interested in there being a central repository for half-hourly data, and that having multiple Parties collecting the same data via the current DCC Systems was not optimal.

It was concluded that the question of whether the data collected for MHHS could be reused is a valid question to consider but is beyond the scope of MP162.

Will Parties need to collect reconciliation data?

The Working Group queried the requirement for collecting reconciliation data and the rules for collecting reconciliation data for smart meters under the TOM. The MHHS Programme representatives noted the TOM is proposing Parties collect a total register read, and there is a requirement for Suppliers and MDRAs to carry out a meter advance reconciliation once a month.

A Working Group member queried if this would be mandated and where this requirement had come from, as it is not an activity currently carried out. The Programme representatives confirmed this requirement has come from the CCDG but could be further refined as the detail under the TOM is developed. They also confirmed this is a requirement for the SDS to manage. The Working Group noted concern over whether this requirement could impact for Suppliers' processes; it queried which group is looking at this and what participants would need to do to meet this.

A member asked whether the reconciliation meter reads would be daily or monthly, and whether this could be collected at the same time as the half-hourly data. For meters where the customer has opted out, this would be the data collected for MHHS anyway. The DCC has assumed that reconciliation data will be collected monthly. A member was concerned whether Suppliers would want to wait that long to confirm if any data had been missed. The Working Group also queried if validating less frequently would result in larger files when validation was carried out.

A Working Group member highlighted existing constraints with trying to collect a month's worth of half-hourly data at once. Another member flagged that Users would be collecting data for other uses too, and that this would need to be overlaid with the data collection for settlement. The Working Group also noted constraints on the Communications Hub and that there is a requirement for a Device to hold 13 months' worth of data. While Devices do hold this data, some Devices won't populate a SRV 4.8.1 response with more than 10 days' worth of data.

A member noted that where data is not returned, an Alert would be returned instead explaining the reason why. In some cases, this may be because the data is genuinely missing from the meter. They sought clarity on whether the MDR User will receive Alerts. The DCC confirmed that any DCC Alerts will be sent to the originator of the request, which could be the MDR User. This would include if the MDR User sends an on-demand Service Request which times out – the MDR User would receive the subsequent Alert. However, any Alerts generated by the meter will be returned to the Supplier regardless of who sent the request, as the Device would not recognise the MDR User.

The current MHHS requirements will require MDRAs to carry out a meter advance reconciliation once a month, with the expectation this is based on the total register read. This being collected by Users has been factored in to the MP162 solution.

How can data collected for MHHS purposes be identified?

Being able to distinguish where Service Requests are being sent for MHHS purposes would enable to DCC to better schedule these requests. There is currently no mechanism for identifying the purpose of a Service Request.

Initial proposal – all Users collect MHHS data using the MDR User role

The DCC proposed to the Working Group that a new User Role for 'MDR Users' should be established for the collection of half-hourly data for use in settlement. It initially proposed that anyone seeking to collect this data would need to register in this role. The benefit of this approach is that longer TRTs could then be applied to the corresponding Service Requests, allowing the DCC to better manage traffic through the DCC Systems. If all Users accessed half-hourly data using the current 30 second TRTs daily, the DCC's infrastructure capacity will need to be increased significantly to manage the extra demand.

A Working Group member queried if the new User Role would have any impact on how Suppliers would interact with the DCC, and the impact of using the role for different purposes. The group noted the need for wider guidance on the impact of conforming to the longer TRTs; while the processes may not change, guidance on what Users would need to do may be needed.

A Working Group member sought clarity on how the MDR and Supplier roles would interact. They were concerned if this could mean Suppliers would no longer be able to obtain half-hourly data from smart meters under the Supplier role and would only be able to obtain it using the MDR role. The DCC confirmed this would not be the case, and that existing User Roles would be unaffected by MP162. Another member considered that the Supplier would be able to retrieve data for billing purposes and other consented uses through the Supplier role. However, for settlement data, they would need to create a separate schedule using the MDR User Role.

The Working Group believed that if the calendar function was used to schedule the delivery of half-hourly data, there is a greater than 90% likelihood this pattern will be followed so considered the chances of the system being overloaded should be small. A member also queried why MDRs would need to submit on-demand requests if a schedule had been set up. The DCC noted that ad-hoc requests may be needed if a schedule failed to carry out or if something had gone wrong with the data retrieval.

The MHHS Programme representatives clarified that a Supplier or an MDR would be able to submit partial data (half-hourly values for only part of a day) into settlement and then catch the remaining values up later. The DCC noted that data collected via a scheduled request would collect what it could at that time. If it only collected partial data, the User would need to submit an on-demand request to obtain the rest.

The Working Group noted clarity would be needed on which role a Supplier would use in each scenario, and what would prevent a Supplier using its Supplier role to obtain half-hourly data for settlement. It agreed that any overlap between the roles needed clarifying and how it can be proved the right data is being collected for the right purposes. Members queried what role a Supplier would use if it wanted to obtain half-hourly data for both settlement and billing purposes.

The TABASC Chair noted that from an architectural perspective, it would seem odd to force a Supplier to retrieve data it has already obtained just because it needed to submit it for settlement. This would also create unnecessary traffic through the DCC Systems.

Subsequent proposal – Users tagging their Service Requests as being for MHHS

The DCC acknowledged the comments and concerns raised by the Working Group on its initial proposal. It subsequently developed an alternative approach which would not require a Supplier to register in the MDR User Role but would instead introduce different TRTs for different uses of the data.

If a Supplier was collecting the data for non-MHHS uses, such as for billing or a customer query, the existing TRTs would apply. For data retrieval related to MHHS, the DCC would want the User to state the Service Request is related to MHHS. The relevant Service Requests would be flagged as being for MHHS purposes by default when submitted by an MDR User. The DCC could then use its scheduling service to deliver the data within 24 hours. If a Supplier was collecting data both for settlement and for other uses, the shorter TRT would be used. The DCC confirmed that the processes behind this will be mapped out as the solution is developed but confirmed that any existing smart processes will be unchanged by MP162.

A Working Group member noted that SRV 4.1.1 and SR 4.2 don't bring back profile data. Suppliers need different data for profiling from that for billing, and these two Service Requests relate to billing. Furthermore, members felt Suppliers would likely be seeking billing information on a different frequency to settlement and considered Suppliers would be setting up schedules for these as needed. They also agreed there was several reasons why a Supplier may want to obtain a meter read, particularly if there had been issues affecting the half-hourly data or if the customer had opted out of half-hourly settlement. In the latter case, the Supplier would need to use the reading to calculate an advance which would be applied to a load profile to obtain half-hourly values.

A Working Group member asked how Suppliers' correct notification of a Service Request's purpose would be governed. The DCC proposed to add direction on this into the SEC but would not aim to enforce it; this would therefore be reliant on Users' honesty in tagging the request as being for MHHS. Suppliers could choose to ignore the request to mark MHHS data collection as such, and the DCC would then have to expand its capacity to cater for that. The DCC is not looking to force Suppliers on this, but to place the onus on them to specify whether the data is for MHHS or not.

The alternative approach would be for the DSP to build in some complex validation rules and provide significant, and costly, infrastructure upgrades. The Working Group considered that applying such filters and logic would be undesirable.

The TABASC noted the proposal to introduce this flag and queried whether Suppliers would use this if they weren't mandated to. Members sought clarification over whether this would be codified and were unsure if or how this could be enforced.

Conclusion – no marking of Service Requests as being for MHHS

Following the first Refinement Consultation, the DCC withdrew the proposal to flag a Service Request as being for MHHS purposes. It noted that introducing this flag would have required all relevant Users to uplift to the new DUIS version created by MP162 to deliver the solution. Requiring Suppliers to register in the new User Role (the original proposal) would have also required them to uplift to the new DUIS version.

Unlike adding in new data flows, where only the relevant part of the system needs updating, a DUIS uplift would require Users to implement the full changes to the specifications, which Working Group members noted incurs high cost. A member noted that Users have not yet been mandated to uplift to a higher DUIS version, and that it is up to Suppliers when they do so. As Suppliers can do everything

needed to collect the data needed for MHHS on the current DUIS versions, they would not want to be mandated to uplift to a new version if there was no justification for this.

What TRTs should be applied to MDR Users?

Do MDR Users need a response faster than within 24 hours?

The DCC proposed that all TRTs associated with collecting MHHS data should be 24 hours, regardless of whether the Service Request was scheduled or issued on-demand. As data for settlement is not needed until five Working Days after the relevant day, there is less urgency to collecting this data. Using the 24-hour TRT would also mimic existing schedules, which have a 24-hour TRT regardless of who has set them up.

The Working Group noted that, based on the above discussions, Suppliers would still be able use the shorter TRTs through using their Supplier role. Supplier agents were concerned this could give an advantage to Suppliers, which could be detrimental for competition. Members felt the same standards should apply to both Suppliers and third-party MDRA's, and that these should be the same that Suppliers get now, noting the MHHS policy intent for there to be sufficient competition within the MDRA role. They acknowledged the large cost expected for such changes. They also queried why MDR Users couldn't also be given the option to flag Service Requests as being for MHHS purposes, rather than this being automatically marked as such. However, other members noted that the MDRA's' only role will be to collect metered data and submit this for settlement, for which there is a four Working Day deadline to complete this in, and considered the proposed TRTs would still enable MDRA's to achieve this.

A Working Group member asked what would happen if a third-party MDRA needed the option for a quicker response. Other members queried what scenarios there would be for an MDRA needing a faster response. Supplier agents believed such scenarios could include:

- Extracting data from a meter before it is exchanged, which may need to happen within-day to ensure the last half-hourly reading is obtained before the old meter is removed.
- Retrieving any missing data before the relevant settlement run times, which could require up to two days' worth of data within-day.
- Collecting historic data if a customer fails to specify a collection frequency within seven days following a change of Supplier (CoS) or a new meter installation.

The Supplier agents considered these scenarios would facilitate accurate and timely settlement. They were keen to avoid a solution that could be potentially harmful to settlement because the MDRA could not access the data it needed when it needed to.

A Working Group member queried whether an MDR User may need to retrieve data for its first day of appointment on-demand if it couldn't set up a schedule beforehand. The DCC confirmed that an MDR User would be able to set up future-dated schedules in advance of its effective from date if those schedules don't begin before that date.

A Working Group member acknowledged that these were scenarios where an on-demand Service Request would be needed but was not sure why a response was needed in less than 24 hours. A Supplier agent acknowledged that maybe this was the case for the second and third scenarios noted above, but felt a faster response was needed for the first scenario. The Working Group queried how an MDRA would know a meter is being exchanged. It confirmed this would build upon existing communications about a meter exchange to ensure all relevant agents were notified ahead of time.

A Working Group member considered that the need for an MDR User to send an on-demand request should be rare, so usage should not spike. They considered a meter typically lasts for 10-20 years, and potentially longer if it continues to support the relevant requirements and its metrology remains accurate, so meter exchanges should not be common. For both User types, they questioned why Users would send on-demand requests when scheduled requests are easier. However, they considered that if the meter read takes place when requested, a delay in the subsequent response back should be acceptable. The DCC agreed there should be a low usage of on-demand requests, but there would be no technical control to stop an MDR User sending more. There is the risk of Suppliers sending an increased number of on-demand requests using the shorter TRTs; however, the existing use cases for these still apply.

The DCC noted that the more requests that can be scheduled, the more efficient the system will be, while more on-demand use creates unpredictable behaviour. Its concern is that if Users have the option to issue on-demand requests, it is not certain Users won't issue more of these, with the corresponding impact this has on capacity needs.

A Working Group member asked why the relevant Service Requests couldn't be forced to be scheduled. This is an option but there will be edge cases where an on-demand request may be needed. Furthermore, on-demand requests are available to existing Users for other uses under the SEC, and a key DCC design principle is for the MHHS solution to not impact on existing arrangements. This means MP162 should not change or remove the on-demand options for these Users. Another member also considered that Suppliers had already paid for the smart metering infrastructure. If there is a need for expanding the system's capacity to cater for uses it hadn't been originally built for, they queried who should pay for that. It will be Suppliers and other SEC Parties, rather than third-party MDRAs, who will need to pay for MP162, and the member asked if MDRAs would be benefitting from this for free.

The DCC queried who would own the service requirements for MHHS and queried whether the request for faster response times for Supplier agents would be in response to a service requirement. The MHHS Programme representatives noted it is up to the SDS to tell the MDRA the sites, data required and relevant dates to allow the MDRA to schedule requests.

Are the current TRTs appropriate?

A Working Group member noted that work under [MP122B 'Operational Metrics – Part 2'](#) had shown the current response times can't be met. They thought the most likely outcome of the MP122B work is recognition that the very quick response times set out in the SEC are unachievable without massive investment, while the 24-hour response times may feel pessimistic. They asked if this is leading to excessive caution over response times, and whether there were any wider improvements to response times that could be made.

The DCC highlighted that the main aim of scheduling is to take reads during the quieter parts of a given 24-hour window. If all Users had the 30 second TRT then if one User requests data at a given time this will usually be fine. However, if several, or all, Users requested the data at the same moment, the system would not be able to manage that. The DCC also stressed that the 24-hour TRT is the worst-case scenario, and response times would usually be much quicker, subject to the volume of traffic on the system.

Potential alternative solution – align On-Demand TRTs for MDR Users with existing Users

The Working Group noted an alternative solution raised by Supplier agents through the Refinement Consultation, where MDR Users would receive the same on-demand TRTs as existing Users do.

The DCC has sought to keep costs low for Suppliers and so would seek to do as much as possible under the existing setup. The DCC is assuming that Users would be using the 24-hour TRTs and was not keen on the proposed alternative option. A Working Group member noted the wider MHHS programme was developing solutions to meet the requirements, rather than focusing on the costs and simply going with the cheapest option. The DCC was not keen on taking more than one solution to Impact Assessment as this would increase the costs and timescales due to its approach of treating each alternative option like a separate modification.

A Working Group member sought clarification on why the DCC would be impacted differently by the alternative option, as the DCC would still expect the same volumes of data in each case. The Working Group considered that this would be difficult to firm up until the end-to-end processes for MHHS are developed, to understand how the consumption data is subsequently processed. The MHHS Programme considered that the difference in volumes between the DCC's solution and the alternative option would be the extra volume of requests from Suppliers and queried the current volume of failed scheduled reads. The DCC would need to validate this but felt it was less than 5%.

The MHHS Programme highlighted that the end-to-end design is not complete and will need to actively consider how Suppliers will consume MHHS data and what will need to be mandated as part of the overall design. It asked whether it is an assumption that Suppliers will continue to behave as they do now, whether the use cases for shorter TRTs were clear, and whether these options would materially affect the traffic volumes.

The Working Group asked what impact the alternative option would have on the DCC's solution. The DCC clarified that the challenge with shorter TRTs is that there wouldn't be any technical or regulatory elements to prevent a User from submitting all requests on-demand and overloading the system. While the DCC acknowledged this shouldn't happen, there is nothing to enforce this. A member felt Users should only use an on-demand request if a scheduled request failed. The DCC noted this would need to be codified, and there is no means to mitigate future behavioural changes. The Working Group agreed a provision would be added to the SEC requiring any User collecting data for MHHS purposes to collect this via a scheduled read in the first instance. An on-demand request could be made only if the scheduled request fails for some reason. This was added as Section H3.13A in the legal text in Annex C.

The Working Group queried whether the DCC could monitor and report on the volume of scheduled requests versus on-demand requests. The DCC agreed it could monitor this from now (see above), and if significant increases in on-demand requests are seen around MHHS go-live then the DCC and SECAS can talk to the relevant Users as needed. Additionally, the DCC could only report on this retrospectively.

The DCC noted the preference for Users to obtain the data daily. It also believed MP162 should focus on providing data for settlement, where a 24-hour turnaround will be sufficient. If MDR Users wanted shorter TRTs, they could raise a further modification, or make use of the DCC's elective services.

A Working Group member noted the scenario of a meter exchange where the MDR User would need to obtain readings within-day. Another member noted the cumulative read could be taken and the missing half-hours extrapolated from that.

A Working Group member queried if there is a need to challenge the dominance of Suppliers around smart meters, feeling consumers could benefit from more competition in this space. Another member

noted that it was the Department for Business, Energy and Industrial Strategy's (BEIS) intent that the Supplier managed everything with smart metering. While they did not disagree with the first member's view, they noted this would require unpicking this original intent.

A member considered there should be incentives for Users to not submit on-demand requests frivolously. Another member supported this but noted these incentives and how they would work would need to be defined by the DCC with support from the industry.

A Working Group member highlighted the issue was that the more the playing field is aligned, the more the cost goes up. It needs to be discussed and decided whether equal access for Suppliers and agents is a mandatory requirement regardless of the cost, or whether a more cost-effective solution should be taken forward that doesn't cover this requirement.

Steer from the MHHS Programme

Noting these views, the Working Group elected to seek a steer from Ofgem and the MHHS Programme as to whether equal response times for obtaining consumption data on-demand must be provided under MP162 to meet the policy intent around effective competition, or whether this requirement can be disapplied to reduce the cost of the DCC's solution.

The MHHS Programme confirmed that in the first instance the Programme Senior Responsible Owner (SRO) would want the proposed solution put forward by the DCC (with 24-hour on-demand TRTs for MDR Users) to progress to the Change Board for decision on proceeding to DCC Impact Assessment. This was in recognition of the need to progress with the core activity to protect the Ofgem-set programme timescales. However, it recognised the significant challenge regarding there being a level playing field around the TRTs for the MDR services.

The MHHS Programme is initiating activity through its programme governance to further engage stakeholders to discuss options regarding these concerns and support any ongoing activity that might be required to arrive at an acceptable position. This may take the form of further Impact Assessments or requests for provisions to be made within the SEC and would likely result in further SEC changes arising from the conclusion of the MHHS governance process. This MHHS Programme activity is progressing in parallel with the assessment of MP162 to address these issues.

The [Design Advisory Group](#) (DAG) under the MHHS programme is discussing this area. A principle around equal access has been agreed, but this has not, as yet, been translated into specific solution requirements. SECAS expects that any change in requirements relating to the TRTs will be progressed under a separate modification to ensure the changes already assessed under MP162 can be delivered on time. The DCC's initial view is that this separation would not result in higher implementation costs compared to progressing everything under one modification.

Conclusion on the way forward

Noting the steer, the DCC's proposed solution as set out in Section 3 was taken forward. Under this approach, MDR Users will have a 24-hour TRT for on-demand requests, with Suppliers retaining the existing 30-second TRT.

SECAS and the DCC will support MDRAs in developing a further modification to separately review the business case for shortening the on-demand TRTs for MDR Users, should this be required following the DAG's considerations.

Should third-party MDRAs accede under a new Party Category?

The MP162 solution originally proposed that a new Party Category, 'MDR Party', be established under the SEC. While existing Suppliers electing to operate as an MDRA would not need to register under this Party Category, any third-party organisation operating as an MDRA on behalf of a Supplier would need to if not already an 'Other SEC Party'. The 'MDR Party' Party Category would have been treated the same as the existing 'Other SEC Party' Party Category, with seats on Sub-Committees shared between these groups.

When reviewing the draft legal text, the SEC Lawyer queried the need for this separate Party Category. It considered it inconsistent that MDRAs would have their own Party Category, when Registered Supplier Agents (RSAs) currently do not, given that the Party Categories would be treated the same. The SEC Lawyer suggested that MDRAs should register under the 'Other SEC Party' Party Category to be consistent with RSAs. SECAS and the DCC considered this a sensible amendment that would improve efficiency and updated the solution and legal text accordingly.

Do MDR Users need to undergo Privacy Assessments?

The MP162 solution initially proposed that MDR Users would need to undergo a Full Privacy Assessment as part of registering in the User Role, and annual Privacy Assessments thereafter, similar to the 'Other User' User Role. These Privacy Assessments would be applicable to any Users who aren't a Supplier that are accessing consumption data.

One Working Group and Refinement Consultation respondent queried whether MDR Users would need to undergo Privacy Assessments. They noted that, unlike Other Users, the MDR User would have been appointed by the SDS, who would be qualified under the BSC for this purpose. The SDS would then record the appointment and the effective dates in the Industry Standing Data, which would be the data ultimately used by the DCC when managing the access control for each MDR User. The MDRA would then have an obligation to perform this regulatory function of collecting half-hourly data for settlement. Another consultation respondent considered that the MDR User would not need direct consent from the consumer as this would be collected via the Supplier.

SECAS and the User Independent Privacy Auditor (IPA) agreed with this view and recommended to the Panel that MDR Users should not undergo Privacy Assessments. If the model works as intended, an MDR User should not be able to access any data which it does not have the right to access to complete its responsibilities as an MDR, and that it would only be collecting this data to fulfil its responsibilities as an MDR. Therefore, the MDR User should not be a source of privacy risk. The privacy risk in the system should be managed by the Supplier (via the SDS) successfully performing the mapping of consumer to MDR User and reflecting the consumer's consent to opt in or out within the Industry Standing Data. The obligations for Suppliers to do this will be contained within the Supplier Licence. However, there is no assurance regime which governs these obligations, so while compliance will be required, there will be no proactive confirmation of this. SECAS considers that this assurance could sit under the REC and will provide this view to the MHHS Programme.

The Panel will provide its confirmation of the way forward on 17 June 2022, and this Modification Report will be updated after that to reflect the Panel's decision.

What customer permission is needed to collect this data?

A Working Group member sought clarity on whether Suppliers needed permission to obtain half-hourly data. The MHHS Programme representatives noted that domestic import customers would be

able to opt out of this. The member then queried how data separation would work if a Supplier had the new MDR User role but was also acting as an Import Supplier, and what the data could be used for in each case.

Another member asked whether customers would need to give consent for an agent to collect data on their Supplier's behalf. Such consent would be obtained through the Supplier and Working Group members believed the corresponding Licence changes will be drafted for this under the SCR.

A Working Group member queried, if a new Party was set up on the MDR User role and was then requesting half-hourly data, what certificates and credentials would it need. The DCC clarified that it would be treated like an Other User in this scenario. The DCC would use its DCC credentials to obtain the requested data from the Device. It would then wrap this in further credentials before sending it on to the MDR User so that only intended recipient could read it.

The Working Group considered that the questions of what customer consent is required is not something that needs to be considered under MP162, as it is simply facilitating Users subsequently obtaining that data from meters. The DCC will not be validating the level of consent given by customers when a User submits any request.

How would a change of MDRA be managed?

The MHHS Programme representatives queried how far in advance of its appointment going live a new MDRA would be able to set up schedules. The DCC considered that it would depend how far in advance the registration data is received and highlighted this sequence of events still needed to be clarified by the wider project. A Working Group member noted that next-day switching should be the default by the time MHHS goes live, so this is likely to be a moot point.

Initially, the TOM did not propose Effective To Date be provided for inclusion in the registration data. The DCC believed including this would be the best approach for data matching, but it can work without this information if required. A Working Group member was concerned if this could result in an MDR being appointed indefinitely, and another member queried how this would work if a Supplier was carrying out the MDR activities in-house. The DCC considered work on the wider processes that MP162 is dependent on is still outstanding. It did not believe it was yet clear how this would work if a Supplier did not appoint a separate MDR.

The MHHS Programme representatives highlighted a Supplier could change but the new Supplier could use the same MDR as the old Supplier, which may mean no change in schedules. A Working Group member confirmed that following a change of Supplier, the old Supplier would de-appoint the old MDRA then the gaining Supplier would re-appoint the MDR. This would be the case even if the Supplier was appointing itself as the MDRA or if the MDRA was to remain unchanged after the switch. This means there will be an end-date for anyone fulfilling this role. The CCDG subsequently agreed to include the Effective To Date in the registration data.

What reporting is required for MHHS?

The TABASC considered that there was no reporting on MHHS included in the Preliminary Assessment. The OPSG also considered whether any bespoke reporting was needed around half-hourly settlement.

A Working Group member considered whether the success rate of daily reads should be reported and queried if the SRV 4.8.1 could be assumed as being used for MHHS. However, this is already used

for other requests, so that assumption wouldn't work. The member also queried if there should be reporting around the DCC retrieval process, but other members were concerned this could overlap with existing processes. Furthermore, failures could be down to a wide range of reasons, some of which would be outside the DCC's control.

A Working Group member noted that performance and processes are different under smart compared to half-hourly, with a lot of different moving parts. It would need to be clear what any reporting is for and who is responsible for each part, and there is nothing in the SEC regarding missing data and investigations into this. The member also queried if MDR Users would have access to the Self-Service Interface (SSI), which the DCC confirmed they would.

A Working Group member noted Suppliers will need to be involved in investigating the root cause of issues. The SSI would form part of this but would not be sufficient on its own. They also noted issues could be due to certificates, and consideration would be needed on whether an issue was a one-off or over an extended period. There is a lot of different evidence that needs to be considered when investigating issues, with no one simple diagnostic. Another member flagged that an agent wouldn't be able to assess issues with Devices on-site as no data could be obtained from Devices there. A further member noted issues in the CSP North region can also be due to the telecommunication masts. The Working Group considered that if an MDR User was not receiving readings, there would likely be an agreement with the Supplier to investigate. A member considered there would be obligations covered by Supply License Conditions and that the Codes should not duplicate that.

A Working Group member queried if there should be any auditing or monitoring by a Sub-Committee around Suppliers scheduling Service Requests correctly when they are being submitted for MHHS. Another member considered this would be a significant change and would require policy changes beyond the SEC. The Working Group considered that the DCC could monitor the proportion of on-demand requests versus scheduled requests but did not consider there needed to be any further reporting specifically linked to the MP162 solution. If Parties felt a more robust auditing approach was needed, this could be developed and implemented via a separate modification, in order to not jeopardise the timely delivery of the MP162 technical solution.

Overall, the Working Group considered no additional reporting is required for MHHS. However, the DCC will monitor the proportion of on-demand and scheduled Service Requests, and if it identifies a disproportionate increase in the proportion of on-demand requests it will contact the relevant User to understand the reasons for this. While this ex-post monitoring will not prevent the issue from arising, it will allow Users not scheduling MHHS requests to be identified, followed up on, and raised with the Panel or the Operations Group.

Should Export Supplier schedules be automatically deleted?

The Working Group considered the potential for automatically deleting schedules for Export Suppliers under MP162. Part of the TOM relates to mandating half-hourly settlement for export energy and improving processes around this. Members felt that if MHHS is looking at improving export processes generally, they would be keen to see a requirement around this under MP162. They considered this would be a positive move and would be in scope of this work. It would also be good to resolve any inconsistencies with Import Suppliers.

The DCC queried what the triggers would be for automatically deleting a schedule, noting this needs to be visible. There is currently no trigger for the DCC to know of a change in Export Supplier as SR 6.23 'Update Security Credentials (CoS)' is only for Import Suppliers due to their having Device

certificates to update. The requirements would need to be fully clarified around when and how such deletions would take place.

A Working Group member queried if this would apply following a CoS or more generally. They noted that old schedules are not deleted from a Device until it receives SR6.23. However, in some cases following a CoS the gaining Supplier may not issue a SR6.23 for months, during which time the losing Supplier's schedules would continue to run, and would continually fail, generating unnecessary traffic. Rather than using the Service Request as the driver for completion, they considered whether the DCC could use the information around who is the responsible Supplier at that point to delete old schedules. This may also be useful for other processes that need updating following a CoS. Another Working Group member considered Device switching could be another trigger. They also noted the CSS will speed up this process.

The DCC was concerned that this additional requirement could expand significantly, and the Working Group needed to be clear how far any requirement here would need to be extended. SECAS noted a risk that the time and effort required to clarify this requirement could jeopardise the timely delivery of the core MHHS solution.

Noting this, the Proposer considered this aspect should be picked up under a separate modification, and not considered further under MP162.

Are SMETS meters designed to be half-hourly?

A TABASC member noted that while SMETS meters can record the consumption in each half-hour period, they considered they had not been designed to be half-hourly meters or to be used in settlement and would always be treated as non-half-hourly. The decision to record data at half-hourly granularity was decided upon because that was how available Devices at the time had been built. They had highlighted this to Ofgem and Elexon early in the MHHS programme and was concerned that the TOM had been developed based on incorrect assumptions regarding SMETS meters.

The DCC noted all SMETS1 and SMETS2 meters have the functional requirement to record consumption and generation data every 30 minutes. By design they are designed to support the measurement and recording and retrieval of half-hourly data. However, half-hourly data was not considered to be the primary data source for Supplier billing or for settlement as part of the SMETS2 design. This was expected to be the Register Read data, and hence by design the read is scheduled to be pushed out to the registered Supplier for efficiency.

If half-hourly interval data is to be the driving data set in future, the DCC considers it would be beneficial to have the ESME schedule the sending of this data directly and send Alerts as per the existing register read. This would be more efficient architecturally but making such changes would likely incur high cost.

Who should pay for MP162?

The Working Group recognised the issue that there is currently no mechanism for the Supplier agents to pick up any of the costs for MP162 despite benefitting from the changes, with modification implementation costs being allocated between Suppliers and Network Parties only. Currently, the DCC's costs for delivering modifications is charged to Parties via Fixed Charges, which SEC Section K specifies are split across Suppliers and Network Parties only.

A member was concerned that MDR Users would be heavy users of the DCC's network and felt they would need to pay somehow. While they are supportive of the benefits of MHHS, they did not believe Suppliers, who paid for the initial set-up of the DCC, should be further charged for the new User Role when they can already carry out everything required for MHHS without MP162, and particularly if in doing so the additional traffic generated adversely impact on existing Users' processes. They considered that the SEC was never intended to be a competitive arena for new entrants or parties to carry out activities not previously done by them beforehand. They also queried whether this approach would align with the level playing field principle under the MHHS programme, given that only Suppliers and Network Parties would be picking up the costs for MP162 whereas it will only be MDR Users that materially benefit from this change.

Other SEC Parties intending to become MDR Users noted they would be willing to pay their share of the costs. The Working Group considered whether the charging methodology should be changed, though acknowledged the incremental cost of MP162 would still be huge even if split across more participants. However, members noted a concern that if change wasn't made prior to the new User Role being implemented, it could be harder to do later. The Working Group noted that changes to the current charging model would require approval from Ofgem and queried whether it would be open to reviewing the charging methodology. Furthermore, if a proposal was put forward, Ofgem would likely require much more detail before reaching a decision. This could impact on the progression of MP162 and the delivery of the core MHHS solution. Work is currently underway to review the charging arrangements for Other Users, and a modification around this may be raised soon; SECAS considers that the questions around charging MDR Users should be picked up as part of that work.

A Working Group member queried if there had been any consideration around charging Users based on the volume of requests they submit. There could be different rates for different Service Requests or rates based on whether a User submitted request for consumption data daily or monthly. Another member confirmed this had been considered in the early days of smart metering, but the effort needed to identify who was doing what had been considered excessive and would have needed complex monitoring. A further member noted that where they had seen this done elsewhere, such an approach had often turned out more complex than envisioned.

The SEC currently allows for a 'communication services' charge under SEC Section K7.5(j)⁹, but this is currently set to zero. The DCC has been asked whether this charge should be increased considering the impacts of MHHS. This change would not require a modification and can be made separately to MP162.

A Working Group member highlighted that the costs for MP162 had been raised during discussions with Ofgem over the price control. Ofgem is paying close attention to this modification and will scrutinise the cost and efficiency of this solution.

The Working Group noted the discussions but concluded that changes to the charging methodology would be a significant change that would be best considered separately to MP162.

⁹ Communication services: the number of each of the Services identified in the DCC User Interface Services Schedule which have been provided to that Party during that Charging Period

8. Case for change

Business case

Under the SCR, Ofgem's analysis in its [final business case and decision to implement market-wide half-hourly settlement](#) predicted that settling all consumers on a half-hourly basis would bring net benefits of between £1.6bn and £4.5bn over the period 2021-2045. MP162 forms part of the full MHHS solution. Its implementation costs of £9.0m to deliver and £2.3m per annum in additional DCC operational costs will need to be weighed as part of the total implementation costs across all impacted Energy Codes against the overall benefits case when the Authority makes its final determination.

Views against the General SEC Objectives

Proposer's views

The Proposer believes MP162 will facilitate the following SEC Objectives:

- **Objective (b)**¹⁰, as implementing the changes needed to deliver MHHS will allow the DCC to comply with the requirement introduced into the DCC Licence to facilitate the implementation of MHHS.
- **Objective (c)**¹¹, as the delivery of MHHS will enable consumers to benefit from more accurate allocation of their consumption within settlement.
- **Objective (g)**¹², as delivering the SEC and DCC changes for MHHS will enable the wider programme to be delivered as planned.

Refinement Consultation respondents' views

Respondents to the first Refinement Consultation were mixed in their views. Three respondents agreed with the Proposer's views, while one respondent felt that while changing the SEC and the DCC Systems to deliver MHHS would facilitate the objectives overall, the proposed solution would not be appropriate.

Two respondents to the first Refinement Consultation, from independent agent organisations, felt the modification had the potential to also relate to the following SEC Objectives:

- **Objective (a)**¹³ would also be facilitated as this change would maximise the benefits realisation through extraction of half-hourly data.
- A successful solution would facilitate and promote effective competition between Suppliers and independent organisations, facilitating **Objective (d)**¹⁴. However, they considered the current solution would not better facilitate this objective because there is not this parity.

¹⁰ Enable the DCC to comply at all times with the General Objectives of the DCC (as defined in the DCC Licence), and to efficiently discharge the other obligations imposed upon it by the DCC Licence

¹¹ Facilitate Energy Consumers' management of their use of electricity and gas through the provision to them of appropriate information by means of Smart Metering Systems

¹² Facilitate the efficient and transparent administration and implementation of this Code

¹³ Facilitate the efficient provision, installation, and operation, as well as interoperability, of Smart Metering Systems at Energy Consumers' premises within Great Britain

¹⁴ Facilitate effective competition between persons engaged in, or in Commercial Activities connected with, the Supply of Energy

- Through the Dynamic Dispatch Model, Ofgem has identified between £100m and £1b in Network benefits from MHHS, which would relate to **Objective (e)**¹⁵. However, they considered the current solution would not better facilitate this objective because this had not been considered.

In the second Refinement Consultation, where the solution had been further developed, seven respondents agreed MP162 would better facilitate either some or all of the objectives identified by the Proposer, citing similar reasons. One of these respondents was unclear how it better facilitated Objective (g). Two respondents disagreed. One noted the solution does not consider increasing DCC capacity holistically, while the other, while supportive of the intent, considered there were too many outstanding questions.

These views were largely unchanged in the third Refinement Consultation, issued following the Impact Assessment's completion. Suppliers and Network Parties broadly agreed that MP162 would better facilitate Objectives (b), (c) and/or (g) for the reasons given by the Proposer. However, the Other SEC Party respondents considered that MP162 would be detrimental to Objective (d) due to the solution distorting the market in favour of Suppliers electing to collect data for settlement in-house over those who choose to engage with an independent MDR.

The full responses received to the Refinement Consultations can be found in Annexes D, E and F.

Working Group views

The Working Group noted the views given by respondents to the Refinement consultation. Members broadly agreed with the view that MP162 would better facilitate Objectives (b), (c) and/or (g) but could be detrimental to Objective (d), for the rationale provided above.

Views against the consumer areas

Improved safety and reliability

This modification will have a neutral impact on this area.

One Refinement Consultation respondent considered more frequent collection of consumption data could allow faults on the networks to be identified and rectified faster. However, Electricity Network Parties have noted that MP162 will have no impact on their ability to monitor the networks.

Lower bills than would otherwise be the case

Ofgem has predicted that settling all consumers on a half-hourly basis would bring net consumer benefits of up to £4.5bn over the period up to 2045. Ofgem considers that the full benefits will only be realised if all Suppliers are required to settle their consumers on a half-hourly basis. The changes proposed under MP162 are needed to deliver the full MHHS solution.

¹⁵ Facilitate such innovation in the design and operation of Energy Networks (as defined in the DCC Licence) as will best contribute to the delivery of a secure and sustainable Supply of Energy

Reduced environmental damage

MHHS is expected to be a key enabler of flexibility, which will help reduce reliance on carbon and fossil fuel generation, which damages the environment.

Improved quality of service

This modification could increase innovation through half-hourly enabled propositions that will benefit consumers and quality of service. One Working Group member also considered whether allowing customers to appoint independent MDRs would improve continuity of service across a change of Supplier event and provide assurance this is free from conflict.

Benefits for society as a whole

MHHS could unlock further innovation that will be required to transition to Net Zero efficiently.

Final conclusions

Respondents to the third Refinement Consultation generally felt MP162 should not be approved. Some respondents queried the need for the new User Role and noted concerns over how the costs of this modification were being recovered. Other respondents noted concerns over there not being a level playing field between Suppliers and independent MDRs.

The Working Group has completed its assessment of MP162. Members note the same concerns as consultation respondents but agreed the MP162 solution is sufficiently developed to be progressed to decision.

The TABASC has reviewed the DCC's solution and considers it to be appropriate to delivering the business requirements.

Appendix 1: Progression timetable

The third Refinement Consultation responses have been discussed with the Working Group. The Modification Report will now be presented to the CSC for progression to the Report Phase. MP162 would then be issued for Modification Report Consultation before the Change Board makes its recommendation to the Authority. The final decision on MP162 will be made by the Authority.

SECAS and the DCC will continue to liaise with the MHHS programme's working groups to support the groups with the impacts of the end-to-end solution on the smart arrangements.

Timetable	
Event/Action	Date
Draft Proposal raised	7 May 2021
Presented to CSC for comment and recommendation	25 May 2021
Problem statement discussed with Sub-Committees	Early Jun 2021
Panel converts Draft Proposal to Modification Proposal	18 Jun 2021

Timetable	
Event/Action	Date
Business requirements developed with DCC, Ofgem and Elexon	Jun 2021
Business requirements discussed with Working Group	7 Jul 2021
Business requirements discussed with Sub-Committees	Early Jul 2021
Business requirements updated for comments	Jul 2021
Updated business requirements agreed with Working Group	4 Aug 2021
Preliminary Assessment requested	18 Aug 2021
Preliminary Assessment returned	17 Sep 2021
Preliminary Assessment discussed with Working Group	Oct 2021
Preliminary Assessment and solution elements discussed with Sub-Committees	Oct-Nov 2021
First Refinement Consultation	29 Oct 2021 – 19 Nov 2021
First Refinement Consultation responses and remaining solution elements discussed with Working Group	3 Dec 2021
Impact Assessment costs approved by Change Board	22 Dec 2021
Impact Assessment requested	23 Dec 2021
Second Refinement Consultation	14 Feb 2022 – 4 Mar 2022
Impact Assessment returned	7 Mar 2022
Second Refinement Consultation responses and Impact Assessment discussed with Working Group	4 Apr 2022
Impact Assessment discussed with TABASC	7 Apr 2022
Third Refinement Consultation	3 May 2022 – 24 May 2022
Third Refinement Consultation responses discussed with Working Group	7 Jun 2022
Modification Report approved by CSC	21 Jun 2022
Modification Report Consultation	22 Jun 2022 – 13 Jul 2022
Change Board Vote	27 Jul 2022
Authority decision (anticipated date)	Late Aug 2022

Appendix 2: Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	Full term
ADT	Anomaly Detection Threshold
BSC	Balancing and Settlement Code
BSCP	Balancing and Settlement Code Procedure

Glossary	
Acronym	Full term
CCDG	Code Change and Development Group
CoS	change of Supplier
CSC	Change Sub-Committee
CSP	Communications Service Provider
CSS	Central Switching Service
DAG	Design Advisory Group
DCC	Data Communications Company
DCO	Dual Control Organisation
DSP	Data Service Provider
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
ESME	Electricity Smart Metering Equipment
FOC	Final Operating Capability
FUSA	Full User Security Assessment
GBCS	Great Britain Companion Specification
HAN	Home Area Network
I&C	Install and Commission
IHD	In-Home Display
IOC	Initial Operating Capability
IPA	Independent Privacy Auditor
MDR	Meter Data Retrieval
MDRA	Meter Data Retrieval Agent
MHHS	market-wide half-hourly settlement
MMC	Message Mapping Catalogue
MOC	Middle Operating Capability
MPAN	Meter Point Administration Number
MPAS	Meter Point Administration Service
OPSG	Operations Group
PIT	Pre-Integration Testing
RSA	Registered Supplier Agent
S1SP	SMETS1 Service Provider
SCR	Significant Code Review
SDS	Smart Data Service
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	Systems Integration Testing
SMETS	Smart Metering Equipment Technical Specification
SMKI	Smart Metering Key Infrastructure

Glossary	
Acronym	Full term
SMKI PMA	Smart Metering Key Infrastructure Policy Management Authority
SMI	Smart Metering Inventory
SR	Service Request
SREPT	SMKI Repository Entry Process Testing
SRO	Senior Responsible Owner
SRV	Service Reference Variant
SSC	Security Sub-Committee
TABASC	Technical Architecture and Business Architecture Sub-Committee
TOM	target operating model
TRT	Target Response Time
TSP	transactions per second
UEPT	User Entry Process Testing
UIT	User Integration Testing

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MP162 ‘SEC changes required to deliver MHHS’

Annex A

Business requirements – version 0.7

About this document

This document contains the business requirements that support the solution(s) for this Modification Proposal. It sets out the requirements along with any assumptions and considerations. The Data Communications Company (DCC) will use this information to provide an assessment of the requirements that help shape the complete solution.

Interaction with the MHHS solution

This Modification Proposal forms part of a wider solution to deliver market-wide half-hourly settlement (MHHS). This will include other elements such as changes to Balancing and Settlement Code (BSC) systems, changes to Smart Energy Code (SEC) Parties’ systems, and different ways of working. The solution delivered under MP162 will therefore need to meet the requirements of the wider solution as set out in the MHHS target operating model (TOM) to form a single, integrated solution.

1. Business requirements

This section contains the functional business requirements. Based on these requirements a full solution will be developed.

Business Requirements	
Ref.	Requirement
1	A new DCC User Role will be created for MDR Users
2	MDR Users will need to accede to the SEC and undergo UEPT
3	There shall be Access Control for MDR Users
4	The applicable Service Requests will have extended on-demand TRTs when submitted by MDR Users
5	Only Eligible Users shall have access to retrieve specified data
6	The end-to-end security arrangements for half-hourly settlement will be put in place
7	An MDR User will not be subject to the SEC privacy arrangements

2. Considerations and assumptions

This section contains the considerations and assumptions for each business requirement.

The general design principles and assumptions for the DCC's solution are listed in Section 4 below.

2.1 General

This solution will be applied to Smart Metering Equipment Technical Specifications (SMETS) 1 and SMETS2 Devices.

The key elements of the solution are as follows:

- The DCC Systems shall be able to accept Service Requests from a new Meter Data Retrieval (MDR) User Role to retrieve Import consumption data (Half-Hourly Intervals, Daily Consumption totals and Register Reads) and, where configured, Export generation data (Half-Hourly Intervals, Daily Consumption totals and Register Reads) from specified SMETS1 and SMETS2+ Electricity Smart Metering Equipment (ESME) enrolled within the DCC Systems.
- All Service Requests received from MDR Users will use the existing DCC User Gateway and be subject to Access Control authentication against the identity of the MDR User stored and provided to the DCC within Industry Registration Data. This is to ensure that only registered MDR Users can retrieve the relevant Import consumption and/or Export generation data from each ESME.
- All authenticated data requests from Suppliers and MDR Users shall be retrieved from each ESME using Data Service Provider (DSP) scheduling services wherever possible, and Users

will set up a schedule for all applicable Service Requests. Any on-demand requests will be carried out in line with the Target Response Times (TRTs) specified in Requirement 4.

- Where data is successfully retrieved from both SMETS1 and SMETS2+ ESME, this data shall be returned across the Smart Metering communication networks and these Service Responses shall be returned to the requesting User for use in the wider Settlements purposes.

2.2 Requirement 1: A new DCC User Role will be created for MDR Users

The DCC will create a new DCC User Role for an MDR User.

The DCC shall support the introduction of a new SEC User Role of 'Meter Data Retriever' (or 'MDR') for Meter Data Retrieval Agents (MDRAs) to support the introduction of MHHS.

The Identity of the new MDR Party will be added to Industry Registration Data with a Market Participant Identifier (MPID) and an associated Effective From Date (EFD) and Effective To Date (ETD)¹ for each Meter Point Administration Number (MPAN). It is assumed that a change of MDRA will take effect at 00:00 on the relevant Settlement Day and that the outgoing MDRA will not be able to access data for Settlement Days on or after the EFD for the incoming MDRA.

It is assumed that each MPAN will always have an associated MDRA within the registration data, regardless of whether the MDRA is the Supplier itself or an external third-party agent.

It is assumed that for an MDRA registration completed prior to the relevant EFD, the current and the future MDRA and the relevant EFDs will both be included within the registration data.

This new mapping of MDR Party to MPAN Registration data is expected to be passed to the DCC to use via the new Central Switching Service (CSS) and Enduring Change of Supplier (ECoS) Interfaces. Relevant data extensions will be added to these interfaces. The expectation is that changes to the registration data needed for MHHS will be delivered through the MHHS programme.

2.3 Requirement 2: MDR Users will need to accede to the SEC and undergo UEPT

Any market participant operating as an independent MDRA will be required to accede to the SEC under the 'Other SEC Party' Party Category.

An MDR User will be required to undergo appropriate User Entry Process Testing (UEPT) for the role. New Test Scenarios will be defined for MDR Users undertaking the User Entry Process.

Suppliers will have a choice of either appointing themselves as the MDRA, or an external third-party agent under commercial arrangements for each of their registered MPANs.

A Supplier who elects to appoint itself as its own MDRA will not need to register under the MDR User role and may continue to use the Import Supplier or Export Supplier User Role to collect its metered data as applicable.

Any Supplier agent operating as an MDRA on behalf of a Supplier will be required to accede to the SEC under the 'Other SEC Party' Party Category if it has not already done so. It will also be required to register as a DCC User in the new MDR User role.

¹ The current TOM does not include a requirement for the ETD to be provided in the registration data. Including an ETD will align with existing registration data received by the DCC. Without this, additional processing will be required by the DCC to determine who is the active MDRA.

2.4 Requirement 3: There shall be Access Control for MDR Users

An MDR User will only be allowed to submit the following Service Requests to support half-hourly settlement:

Valid Service Requests for an MDR User			
DCC SR ref.	Service Request name	On Demand?	DCC Scheduled?
4.1.1	Read Instantaneous Import Registers	Yes	No
4.2	Read Instantaneous Export Register Values	Yes	Yes
4.6.1	Retrieve Import Daily Read Log	Yes	Yes
4.6.2	Retrieve Export Daily Read Log	Yes	Yes
4.8.1	Read Active Import Profile Data	Yes	Yes
4.8.3	Read Export Profile Data	Yes	Yes
4.17	Retrieve Daily Consumption Log	Yes	Yes
5.1	Create Schedule	Yes	No
5.2	Read Schedule	Yes	No
5.3	Delete Schedule	Yes	No
8.2	Read Inventory	Yes	No

More information on how these Service Requests would be used for half-hourly settlement can be found in Section 3.

Service Request Variant (SRV) 4.1.1 shall only be available to MDR Users for SMETS1 Devices. The MDR User will not be able to request this SRV for SMETS2 Devices. Suppliers may continue to use SRV 4.1.1 for both SMETS1 and SMETS2 Devices as currently, and extend its use for MHHS purposes, if required.

SRV 4.2 shall be added to the list of available scheduled services for SMETS1 and SMETS2 Devices.

The DCC shall perform Access Control for any Service Requests send by any MDR User to authenticate and authorise that the Service Request is send from a valid SEC Party and that the User is an Eligible User for the Service Request being sent and is authorised to access the relevant Device.

The DCC shall validate and authorise the MDR User sending each Service Request against Industry Registration Data to check that the MDR User is the registered MDRA for the MPAN associated with the Device ID on the corresponding Settlement Day(s) that the Service Request is targeted for.

The DCC shall validate the Identity of the MDRA requesting data from an ESME using the Industry Registration Data in the same manner as the existing Registered Supplier Agent (RSA) User Role Validation Check.

2.5 Requirement 4: The applicable Service Requests will have extended on-demand TRTs when submitted by MDR Users

The relevant Service Requests will be subject to longer on-demand TRTs when submitted by MDR Users.

The TRTs for the relevant Service Requests are shown in the table below:

TRTs for Eligible Users for MHHS data retrieval Service Requests								
DCC SR ref.	SR sent by existing User Roles				SR sent by 'MDR' User Role			
	SMETS2		SMETS1		SMETS2		SMETS1	
	Scheduled	On Demand	Scheduled	On Demand	Scheduled	On Demand	Scheduled	On Demand
4.1.1	N/A	30 secs	N/A	16 secs	N/A	N/A	N/A	24 hrs
4.2	24 hrs	30 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.6.1	24 hrs	30 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.6.2	24 hrs	30 secs	N/A	N/A	24 hrs	24 hrs	N/A	N/A
4.8.1	24 hrs	5,600 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.8.3	24 hrs	30 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.17	24 hrs	30 secs	N/A	N/A	24 hrs	24 hrs	N/A	N/A
5.1	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs
5.2	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs
5.3	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs
8.2	N/A	30 secs	N/A	30 secs	N/A	30 secs	N/A	30 secs

The current SMETS1 TRT of 16 seconds for SR 8.2 is an anomaly. The process for reading Device details from the Smart Metering Inventory (SMI) is the same for both SMETS2 and SMETS1 Devices with processing of such requests limited to the DSP systems. This TRT will be amended to 30 seconds for all Users as part of this modification for alignment with other DCC-Only Service Requests.

Import Suppliers and Export Suppliers may continue to use the existing Service Requests and associated TRTs for data requests that are not sent for the MHHS Service and where existing non-extended TRTs for On Demand services are required.

The DCC shall be free to schedule any Scheduled requests within the relevant 24-hour period. The DCC Systems shall ensure that any responses received to On-Demand requests during business hours are prioritised ahead of any Scheduled requests processed during this time. Scheduled requests may be queued to ensure that the On-Demand requests are not subject to processing delays.

Please see Section 2.6.4 below for assumptions around the collection of data and the impact on capacity. The demand modelling assumptions for MHHS can be found in Section 4.3 below.

The DCC shall implement and manage effective and efficient capacity uplifts to the DCC Systems to manage the additional Service Request demand from Eligible Users associated with the retrieval of data from ESME for the purposes of supporting the MHHS process. The assumptions around non-functional requirements can be found in Section 4.4 below.

2.6 Requirement 5: Only Eligible Users shall have access to retrieve specified data

Suppliers and MDR Users will be required to be Eligible Users for each of the Service Requests that allow existing Users to retrieve Interval or Register Read Consumption and Generation data sets from ESME.

This requirement has been based on assumptions made by the DCC against the MHHS TOM.

Import Suppliers, Export Suppliers and MDR Users will need to use the DCC Scheduling Service to schedule the standard set of data retrieval activities to support the MHHS service. This will depend on the level of granularity the customer has consented to. It is assumed the level of granularity specified by the customer is the lowest level of granularity that can then be collected by the Import Supplier, Export Supplier or MDR User.

This modification will define the data that is required from the registration system to enable this Requirement 5. The expectation is that any changes needed to the registration system for MHHS will be delivered through the MHHS programme

2.6.1 Half-hourly granularity

This will apply where the domestic customer has **not opted out** of half-hourly data collection to support half-hourly settlement. For this level of granularity, it is assumed a User will:

- Each day, collect a set of 48 half-hourly intervals of Import consumption data and, where configured, an additional set of 48 half-hourly intervals of Export generation data.
- Each day, collect a set of register read data for the Import consumption and where configured an additional set of register read data for the Export generation for reconciliation to the half-hourly interval data to act as a check process.

2.6.2 Daily granularity

This will apply where the domestic customer has **opted out** of half-hourly data collection to support half-hourly settlement. For this level of granularity, it is assumed a User will:

- Each day, collect the daily register read for Import consumption and, where configured, the daily register read for Export generation.

It is assumed there is no requirement for additional data collection to support reconciliation data.

2.6.3 Monthly granularity

This will apply where the domestic customer has **opted out** of half-hourly data collection to support half-hourly settlement. The monthly option has been included to allow enduring customer-Supplier contracts to complete without changing the consent arrangements. It is anticipated that monthly read sites will convert to daily reads over time. For this level of granularity, it is assumed a User will:

- Once a calendar month, collect a monthly register read for the Import consumption data and where configured a monthly register read for the Export generation data.

There is no requirement for addition data collection to support reconciliation data.

2.6.4 Assumptions around the collection of data

To support the DCCs demand and capacity management processes, where an Eligible User wishes to retrieve consumption data or generation data from an ESME for the purposes of supporting MHHS, the User shall ensure that all first attempts to retrieve a new data set from each target ESME device shall be made using Scheduled Services.

Where either:

- the use of Scheduled Services fails to return the required data to the requesting Eligible User; or
- Scheduled Services are not possible to retrieve the required data,

then an Eligible User may use On Demand Services to request (or re-request) the required consumption data or generation data to ensure that the required data is successfully retrieved from each target ESME.

Collecting reconciliation data monthly, evenly spread across the month for a User's portfolio of ESMEs, will allow an Import Supplier, Export Supplier or MDR User to fulfil its wider obligations while allowing the DCC to effectively manage capacity on the DCC Systems. More frequent collections would require additional capacity on the DCC Systems, which will increase the cost of the solution.

2.6.5 Service Requests applicable to each scenario

The table below summarises the Service Requests that may reasonably be requested by an Import Supplier, Export Supplier or MDR User for MHHS depending on the level of data granularity the customer has consented to.

Service Requests applicable to each level of data granularity				
DCC SR ref.	Service Request name	Half-hourly	Daily	Monthly
4.1.1	Read Instantaneous Import Registers	Yes	Yes	Yes
4.2	Read Instantaneous Export Register Values	Yes	Yes	Yes
4.6.1	Retrieve Import Daily Read Log	Yes	Yes	No
4.6.2	Retrieve Export Daily Read Log	Yes	Yes	No
4.8.1	Read Active Import Profile Data	Yes	No	No
4.8.3	Read Export Profile Data	Yes	No	No
4.17	Retrieve Daily Consumption Log	Yes	Yes	No

This information has been used by the DCC to inform its assumptions around expected Service Request traffic demand and capacity requirements. Any changes to this over time may impact on these assumptions.

It is assumed that the User will be responsible for ensuring that the Service Requests that it sends to the DCC are in line with the level of granularity the customer has consented to. The DCC will not be required to perform any additional validation on this. The DCC will act in accordance with the Service Requests sent by the User.

2.6.6 DCC monitoring of User behaviour

The DCC shall monitor the proportion of On-Demand Service Requests and Scheduled Service Requests submitted by each User for each of the Schedulable Service Requests listed in Section 2.4. Where the DCC identifies a disproportionate increase in the volume of On-Demand Service Requests submitted relative to the volume of Scheduled Service Requests, the DCC shall contact the relevant User to understand the reasons for this, and shall also inform the Panel and/or the Operations Group.

There is no further reporting specifically linked to the MP162 solution required.

2.7 Requirement 6: The end-to-end security arrangements for half-hourly settlement will be put in place

The existing User Security Assessment for a Supplier will be used for any Supplier operating as its own MDRA.

MDRAs who are not Suppliers will need to undergo an initial Full User Security Assessment, unless they have already undergone an equivalent assessment as an Other User, which will form part of the User Entry criteria in SEC Section H1.10(c). The MDRA will then be required to adhere to the same SEC Section G 'Security' obligations as an Other User and will need to have annual User Security Assessments as defined in SEC Section G8.40.

MDR Users will need to declare relevant Anomaly Detection Thresholds (ADTs) in line with the existing provisions for this.

2.8 Requirement 7: An MDR User will not be subject to the SEC privacy arrangements

MDR Users will not be subject to Privacy Assessments as they will have been appointed by the Supplier who will be responsible for managing the privacy risk through their Supplier Licence obligations.

Any Supplier operating as its own MDRA will, as now, not need to undergo a Privacy Assessment.

3. Service Requests to support half-hourly settlement

The table below sets out more information around the Service Requests that will be used in support of half-hourly settlement:

Service Requests to support MHHS						
Meter type	Measurement quantity	Data type (settlement)	Data required (settlement & validation)	No. of readings	Data availability	DCC SR ref.
SMETS2	Active Import	Settlement Period level data	Active Import Profile data	48 per Settlement Day	13 months	4.8.1
			And Daily Consumption Log	1 per Settlement Day	731 days	4.17
			OR Import Daily Read Log	1 per Settlement Day	31 days	4.6.1

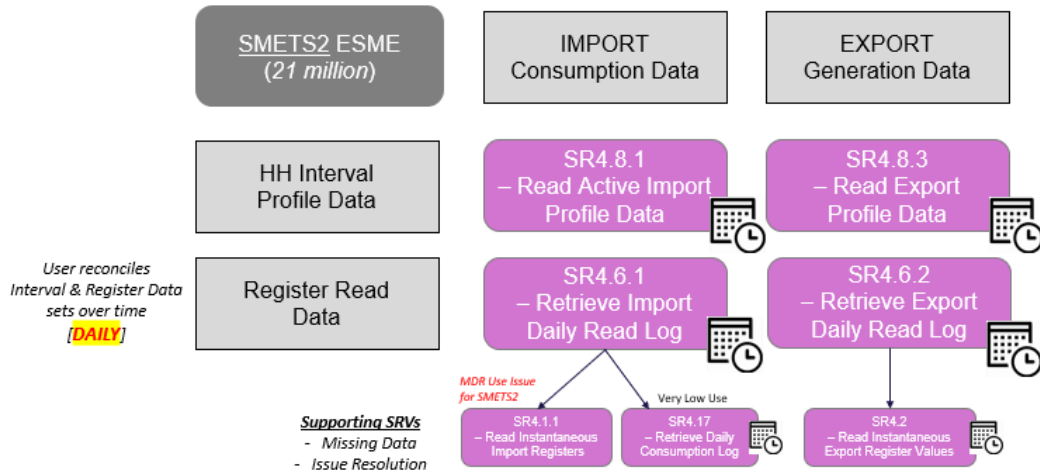
Service Requests to support MHHS						
Meter type	Measurement quantity	Data type (settlement)	Data required (settlement & validation)	No. of readings	Data availability	DCC SR ref.
SMETS2	Active Export	Settlement Period level data	Active Export Profile data	48 per Settlement Day	3 months	4.8.3
			And Export Daily Read Log	1 per Settlement Day	31 days	4.6.2
SMETS1	Active Import	Settlement Period level data	Active Import Profile data	48 per Settlement Day	13 months	4.8.1
			OR Import Daily Read Log	1 per Settlement Day	14 days	4.6.1
SMETS1	Active Export	Settlement Period level data	Active Export Profile	48 per Settlement Day	3 months	4.8.3
			And Total Active Export Register	Snapshot readings	Continuous	4.2
SMETS2	Active Import	Register readings	Daily Consumption Log	1 per Settlement Day	731 days	4.17
			OR Import Daily Read Log	1 per Settlement Day	31 days	4.6.1
			OR Active Import Register	Snapshot readings	Continuous	4.1.1
SMETS2	Active Export	Register readings	Export Daily Read Log	1 per Settlement Day	31 days	4.6.2
			OR Active Export Register	Snapshot readings	Continuous	4.2
SMETS1	Active Import	Register readings	Import Daily Read Log	1 per Settlement Day	14 days	4.6.1
			OR Total Active Import Register	Snapshot readings	Continuous	4.1.1
SMETS1	Active Export	Register readings	Total Active Export Register	Snapshot readings	Continuous	4.2

The DCC has set out the following expected use cases for SMETS2 and SMETS1 ESME:

Anticipated SMETS2 usage

DAILY Data Retrieval from SEC party User Roles (IS, ES or MDR)

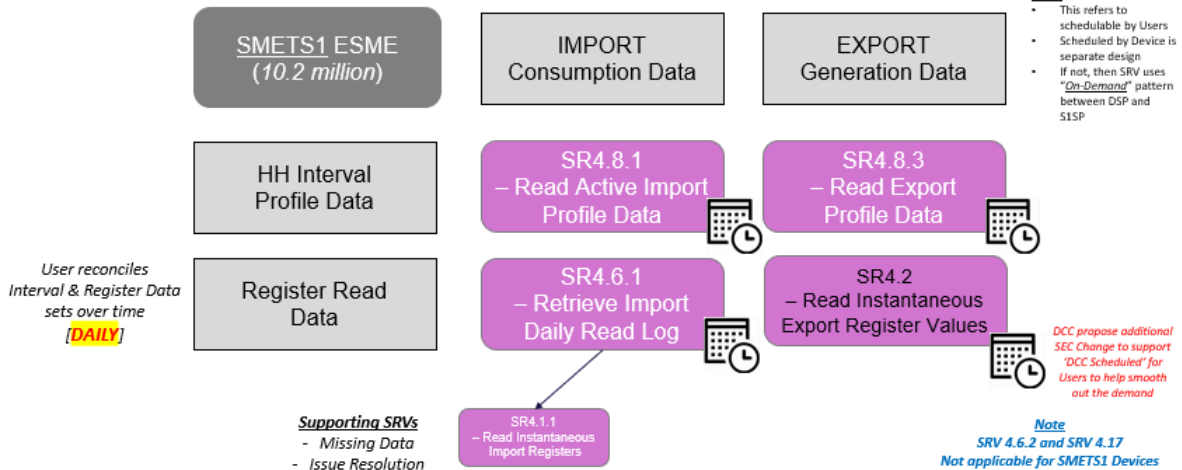
 SRV = DCC Scheduled



Anticipated SMETS1 usage

DAILY Data Retrieval from SEC party User Roles (IS, ES or MDR)

 SRV = DCC Scheduled



4. Design principles and assumptions

4.1 Design principles

The DCC has used the following design principle regarding capacity as part of its high-level solution discussions with Ofgem under the Significant Code Review (SCR) and will use these when developing and assessing the MP162 solution.

DCC design principles for MHHS	
Ref.	Design principle
DP-1	The implementation of the MHHS solution should not negatively impact the wider existing smart metering arrangements.
DP-2	The DCC solution for MHHS will be applied to both SMETS1 and SMETS2 Devices and supporting systems, and wherever possible, offer the same service irrespective of SMETS1 or SMETS2 meters.
DP-3	Re-use existing DCC User Interface Specification (DUIS) Service Requests to limit impacts on SEC Parties. No new DUIS SRVs will be added to support the introduction of the new MHHS service. The MHHS service will re-use or make updates (as required) to existing SRVs.
DP-4	Consumption and generation data sets will remain available to multiple different authorised Users, but these data sets are not stored long-term on the DCC Total System.
DP-5	Wherever possible, futureproof the data retrieval service for consumption and generation data sets for any other authorised Users to create operational efficiencies and minimise any future impacts for demand or capacity issues.

4.2 General scope and service assumptions

This section lists the general scope and service assumptions that will be used by the DCC when developing and assessing the MP162 solution.

General scope and service assumptions	
Ref.	Assumption description
A1	The DCC Total System changes associated with the introduction of the new MHHS Service is targeted for implementation as part of the February 2024 SEC Release, with the MHHS service currently expected to start operating from early 2024. For volumetrics calculations, the DCC has further assumed that the MHHS service use begins for all Smart Meters from the implementation date.
A2	The data collected by Users to support the new MHHS service needs to be presented wherever possible/available to the (Elexon) Central Service for use in the Initial Settlement (SF) run, which is proposed to take place five working days after the settlement date. The Final Reconciliation (RF) run for all data is proposed to take place four months after the settlement date. This provides indicative timescales for how long Users and the DCC must collect import consumption and export generation data, including retries and re-requests.

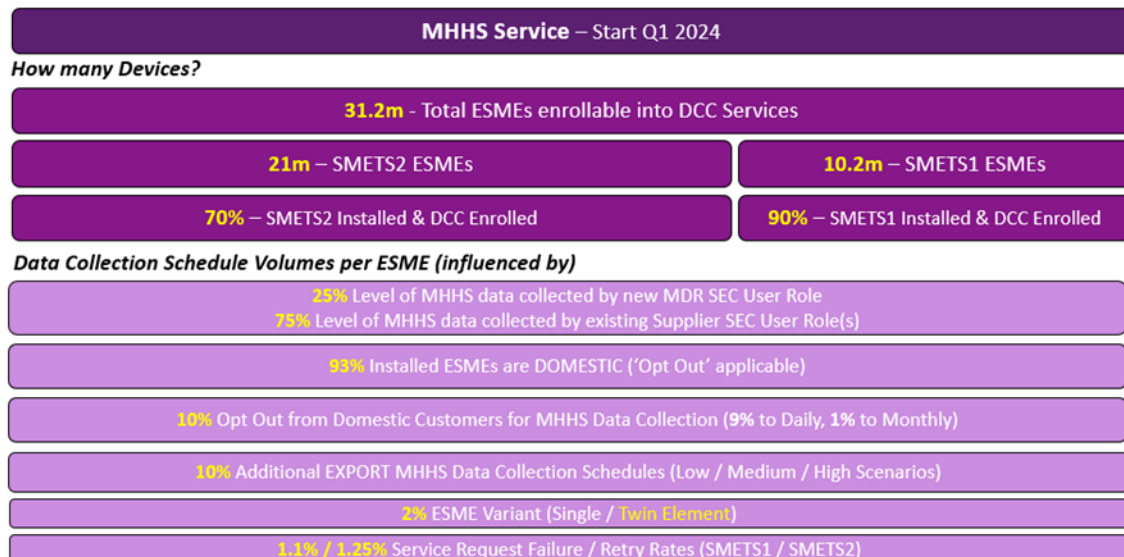
General scope and service assumptions	
Ref.	Assumption description
A3	There will be no changes to any Smart Metering Devices (meters or Communications Hubs) to support the introduction of the new MHHS service, including no changes to the Great Britain Companion Specification (GBCS), the SMETS or the Communications Hub Technical Specification (CHTS) or any new GBGS commands or Device Alerts being introduced in support of the MHHS service.
A4	The MHHS service will operate for both import consumption data and export generation data sets. Both sets of data will need to be retrieved from ESME as part of the MHHS service.
A5	The design approach to the collection of the required import consumption data and export generation data sets from ESMEs will be based on a Request / Response pattern and not on Devices pushing data back to the DCC using Device functionality. DCC scheduled services, rather than Device schedulable services, are expected to align to the 'no changes to Smart Metering Devices' assumption i.e., the data will be "pulled" from the ESME by the DCC upon request from Users instead of the smart meter data being "pushed" to the DCC via Device functionality.
A6	Service Requests sent by Users to retrieve import consumption and export generation data as part of the MHHS service will be expected to be scheduled, wherever possible and practical, to provide flexibility and mitigate capacity impacts. The DCC solution shall control these times and schedule in least impact times to smooth overall traffic. The DCC expects this to be regulated by the SEC and, where possible and practical to do so, technically enforced within the DCC Systems.
A7	Half-hourly profile data can be collected by the MDR User Role irrespective of whether the Supplier has already collected the same data sets from the same ESME. The MHHS service solution must allow for this and there is no regulation design to prevent multiple requests for the same data from different Users. It is expected there may be efficiencies created by industry to reduce costs, but it cannot be guaranteed.
A8	The DCC will be notified of the MDRA appointed to each MPAN by each Supplier and hence which maps to which ESME DeviceId. The DCC assumes that the DSP would receive this information via the CSS interface and the CSS interface definition will be extended to add new additional data items to support the transfer of this information from industry registration systems to the DCC. The additional data items that will be added to the CSS interface will be defined by Elexon's MHHS programme. These include: • The identity of the Registered Supplier's appointed MDR User (using the MPID) • The Effective From Date associated with the appointment of the MDR User • The Effective To Date associated with the appointment of the MDR User
A9	The User requesting either import consumption data or export generation data sets for the MHHS service will be responsible for ensuring that it has the relevant consumer permissions to do so and that the Service Requests sent to the DCC are in line with the consumer's agreed consent granularity. The DCC Total System will not validate any consumer consent as part of the DCC solution.

General scope and service assumptions	
Ref.	Assumption description
A10	Half-hourly data granularity opt-out - Domestic consumers have the choice to "opt-out" of providing half-hourly granularity data for their import consumption data for MHHS service purposes and instead inform their Supplier of their required consent granularity of either "Daily" or "Monthly". - Domestic customers do not have the choice to "opt-out" of providing half-hourly granularity data for their export generation data for MHHS service purposes and consent granularity must be "Half-Hourly". - Non-domestic customers cannot opt out of sharing half-hourly profile data for import consumption data or export generation data for MHHS service purposes.

4.3 Demand modelling assumptions

The diagram below summarises the DCC's key volumetric assumption for DCC demand and capacity consideration at a high level. **These assumptions have been provided as a guide and will be validated through discussion and consultation with the industry to inform the relevant requirements.** Changing any of these working assumptions will have an impact on the forecasted design.

DCC - Key Volumetric Assumptions for Demand / Capacity consideration



4.4 Non-functional requirement assumptions

The table below represents the current set of key assumptions with respect to the non-functional requirements associated with MP162. These non-functional requirements will form the basis of the DCCs determination of:

- The size of solution it will need to build and support;
- How it will quantify the potential additional User demand for SRV processing for MHHS; and
- How it will manage changes to User behaviours and demand over time.

Non-functional requirement assumptions		
Ref.	Category	Solution assumption
NFR-1	DCC User set-up Who will send Service Requests to the DCC?	75% of SRV demand for MHHS data is expected from the <i>Registered Energy Supplier</i> User Role 25% of SRV demand for MHHS data is expected from the new <i>Meter Data Retriever</i> User Role
NFR-2	Supplier User behaviour How is User SRV demand to be modelled?	Where consumption and generation data is requested by the Registered Supplier for MHHS purposes, the data set shall only be requested once from the DCC and this data set will be used internally by the Supplier for all business purposes.
NFR-3	Supplier User behaviour How is User SRV demand to be modelled?	Any SRV demand sent by MDR Users will be in addition to the existing consumption and generation data currently requested for existing business-as-usual purposes by the Registered Supplier and not instead of . • Suppliers will continue to use existing scheduled data requests for non-MHHS purposes.
NFR-4	User Behaviours Which SRVs are to be sent and how often? Main/majority use case scenario	Users will carry out daily scheduled retrieval of 48 half-hourly intervals of import consumption data and, where configured, 48 half-hourly intervals of export generation data. • This is in preference to a <i>weekly</i> or <i>monthly</i> scheduled retrieval activity. Users will carry out daily scheduled retrieval of a set of register read data for import consumption and, where configured, register read data for each day within the month's export generation for reconciliation to the half-hourly interval data to act as a check process. • This is in preference to a <i>weekly</i> or <i>monthly</i> scheduled retrieval activity
NFR-5	User / DCC behaviours How is data to be requested from Users and retrieved by DCC?	All Users requesting data for MHHS purposes shall ensure that all first attempts to retrieve a new data set from each target ESME device shall be made using the DCC's scheduled services . • The number of on-demand SRVs sent for MHHS purposes is low and is for exception management purposes only.

Non-functional requirement assumptions		
Ref.	Category	Solution assumption
NFR-6	User / DCC behaviours Data retrieval User request behaviours	Where an Eligible User wishes to retrieve import consumption data or export generation data sets from an ESME for the purposes of supporting MHHS, the User shall ensure that all first attempts to retrieve a new data set from each target ESME device shall be made using scheduled services. In cases where either: - the use of scheduled services fails to return the required data to the requesting Eligible User; or - scheduled services are not possible to retrieve the required data, then an Eligible User may use on-demand services to request (or re-request) the required consumption data or generation data to ensure that the required data is successfully retrieved from each target ESME.
NFR-7	DCC behaviours to meet requirements What response times are expected to SRVs?	The TRTs as defined in the MP162 business requirements for SRVs sent to support the MHHS service will remain and will not change. 24 hour TRT for all DCC scheduled and on-demand Service Requests for all Users for requests for MHHS service data.
NFR-8	DCC behaviours to meet requirements -How will DCC scheduling operate for MHHS?	The DCC will schedule MHHS SRVs across the day (in line with the TRTs' 24-hour definition) outside the existing read window in order to reduce and smooth any demand peaks for DCC infrastructure and maximising capacity re-use wherever possible. This aligns with Assumption A6.
NFR-9	DCC behaviours to meet requirements -How will DCC scheduling operate for MHHS?	The DCC is not constrained in defining "scheduling time periods" that can be used by the MHHS solution for either existing business-as-usual scheduling windows or any potential newly proposed separate MHHS scheduling windows These DCC-defined scheduling windows (and shared with Users) may be different time periods for each Communications Service Provider (CSP) and SMETS1 Service Provider (S1SP) to maximise capacity efficiencies.
NFR-10	DCC behaviours to meet requirements How will DCC scheduling operate for MHHS?	DCC scheduling time periods for MHHS SRVs would apply to all scheduled SRVs from Suppliers and all MDR SRVs (on-demand, future-dated and scheduled) in line with the TRTs, but would not impinge on existing business-as-usual scheduling time periods.

Non-functional requirement assumptions		
Ref.	Category	Solution assumption
NFR-11	DCC Behaviours to meet non-functional requirements How are changes to User behaviours and associated SRV demand over time to be managed?	Due to the uncertainty of anticipated User behaviours associated with the new MHHS service, there is a risk for the DCC and the industry of potentially under- or over-building system capacity to meet what may be a variable and volatile demand level from Users. In line with customer feedback, the DCC shall take a conservative risk-based approach to estimating the volumetrics and User demand levels associated with the proposed MP162 solution. This creates a risk that any significant changes from anticipated User behaviours as increased demand and capacity requirements are not included within the initial design for MP162. New Design principle: • The DCC shall take a cautious approach to the implementation of any additional infrastructure to deliver increased SRV processing capacity associated with MHHS service changes • The DCC shall initially only deploy a limited amount of additional infrastructure to deliver increased SRV processing capacity directly based upon the defined non-functional requirements associated with MP162. It will increase these capacity levels over time to reflect the variable User behaviours over time based on experience gained from monitoring actual MHHS service usage as and when they occur. This potential risk could be further mitigated by the following: • MP162 is due to be implemented as part of the February 2024 SEC Release. This is prior to the start of the MHHS programme migration activity to implement the new service, which is expected to start early in Q1 2024 and take up to a year to migrate all sites. This allows an implementation window where the volumes of MPANs using the MHHS services will steadily increase and means that all of the new MHHS User demand will not occur from the point of the DCCs implementation of the MHHS solution associated with MP162.

Appendix 1: Glossary

This table lists all the acronyms used in this document and the full term they are an abbreviation for.

Glossary	
Acronym	Full term
ADT	Anomaly Detection Threshold
BSC	Balancing and Settlement Code
CHTS	Communications Hub Technical Specifications
CSP	Communications Service Provider
CSS	Central Switching Service
DCC	Data Communications Company
DSP	Data Service Provider
DUIS	DCC User Interface Specification
ECoS	Enduring Change of Supplier
EFD	Effective From Date
ESME	Electricity Smart Metering Equipment
ETD	Effective To Date
GBCS	Great Britain Companion Specification
MDR	Meter Data Retrieval
MDRA	Meter Data Retrieval Agent
MHHS	market-wide half-hourly settlement
MPAN	Meter Point Administration Number
MPID	Market Participant Identifier
RSA	Registered Supplier Agent
S1SP	SMETS1 Service Provider
SCR	Significant Code Review
SDS	Smart Data Service
SEC	Smart Energy Code
SMETS	Smart Metering Equipment Technical Specifications
SMI	Smart Metering Inventory
TOM	target operating model
TRT	Target Response Time
UEPT	User Entry Process Testing

SEC Modification Proposal, MP162, DCC CR4434

**SEC Changes Required to Deliver MarketWide Half
Hourly Settlement (MHHS)**

Full Impact Assessment (FIA)

Version:

1.0

Date:

29th April, 2022

Author:

DCC

Classification:

Public

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1 Executive Summary

The Change Board are asked to approve:

- Total cost to implement MP162 of £9,039,740 which comprises:
 - £6,155,154 SMETS2 Service Provider costs
 - £2,884,586 SMETS1 Service Provider costs
- A timescale to complete the implementation of **17** months
- Include MP162 in the February 2024 SEC Release

Problem Statement and Solution

Most smaller businesses and households today are settled on a 'non half-hourly' basis. For these consumers, periodic meter reads are taken, at intervals of weeks, or even years, are entered into the electricity settlement process called profiling, where this consumption data is calculated into 30 minute intervals. MHHS will be achieved by mandating that Suppliers or Meter Data Retriever Agents (MDRAs) settle all customers with smart meters in a Half-Hourly (HH) capacity using actual data. Domestic customers will retain the option to opt out of this for import settlement data (but not export). To support this, changes will need to be introduced to enable the correct industry parties to retrieve this settlement data.

Modification Benefits

The MHHS business case relies on exposing energy suppliers to the exact HH costs of customer consumption patterns, rather than being profiled as they are now for Non Half-Hourly (NHH) customers. This exposure will incentivise Suppliers to offer Time of Use (ToU) tariffs, which in turn will incentivise customers to shift load patterns. Customer load shifting will benefit both intermittent generation balancing and reduce network infrastructure investment. Ofgem's Electricity Settlement Reform Significant Code Review (SCR) has concluded that settling all consumers on a half-hourly basis would bring net benefits of between £1.6bn and £4.5bn by 2045.

MHHS will increase overall settlement accuracy. It will also help to enable new products and services, for example, in supporting the use of electric vehicles, heat pumps and smart appliances. These can deliver positive outcomes for consumers through lower bills, reduced environmental impacts, enhanced security of supply and a better quality of service.

Updates from PIA Response

Following on from Working Group feedback received from the Working Group based on the Preliminary Impact Assessment (PIA), DCC and the Service Providers have taken a conservative risk-based approach to estimating the volumetrics and user demand levels, along with the principles of maintaining existing on demand performance and directing any MHHS demand to times of the day when existing capacity is available. This approach has ensured that:

- a. DCC are not building out infrastructure to support increased peak processing loads at already busy times of the day
- b. Costs have been kept down, and only the capacity and infrastructure required to meet the assumed lower demand/usage profile is purchased upfront and implemented for the MHHS service going live

There is a risk with this approach that the proposed solution is heavily aligned to anticipated User behaviours and volumetric assumptions and any changes to these will have an impact on the proposed solution, potentially making it less efficient and requiring capacity and infrastructure changes.

2 Document History

2.1 Revision History

Revision Date	Revision	Summary of Changes
15/02/2022	0.1	Initial compilation
01/03/2022	0.2	Reviewed with Service Providers' Response
07/03/2022	0.4	Internal reviews completed, revised costs, released to SECAS
25/03/2022	0.52	Further reviews
13/04/2022	0.7	Changed SEC Release date, added detail to Scheduling windows
29/04/2022	1.0	Added Northbound Prioritisation, supporting DUIS changes information, update DCO solution

2.2 Associated Documents

This document is associated with the following documents:

#	Title and Originator's Reference	Source	Issue Date
1	MP162 Modification Report v0.4	SECAS	17/12/2021
2	MP162 Business Requirements v0.5	SECAS	17/12/2021
3	SECMP0192 CR4443 - PIA - Extend Scheduled Services v1.0	DCC	17/09/2021

2.3 Document Information

This Modification forms part of a wider solution to deliver the MHHS. This change will include other elements such as changes to Balancing and Settlement Code (BSC) systems, changes to Smart Energy Code (SEC) Parties' systems, and different ways of working.

This document contains the design for the complete MHHS solution along with the business requirements, volumetric calculations, design principles, and the costing information required to complete the Full Impact Assessment.

The Proposer for this Modification is Richard Vernon of Smart DCC. The problem statement was submitted to SECAS on 7th May 2021.

The Preliminary Impact Assessment (PIA) was requested of DCC on 18th August 2021, and accepted on 25th August 2021. The completed PIA was submitted on 17th September 2021.

A Full Impact Assessment (FIA) request was accepted from SECAS on 7th January 2022.

3 Solution Requirements and Overview

In this section, the context of the Modification, assumptions, and the requirements are stated.

The requirements have been provided by SECAS, the Proposer, and the Working Group.

3.1 Context

As the smart metering rollout continues, there will be more and more premises with Electricity Smart Metering Equipment (ESME) installed capable of recording consumption in each half-hour period. Ofgem's Electricity Settlement Reform Significant Code Review (SCR) has concluded that settling all consumers on a half-hourly basis would bring net benefits of between £1.6bn and £4.5bn by 2045¹. It has therefore concluded that Suppliers should be mandated to settle their customers on a half-hourly basis (if that consumer has not opted out). Delivering the full solution for MHHS will require changes to the Smart Energy Code (SEC) and to the DCC Systems. Ofgem requested the DCC raise a SEC Modification to progress and deliver these changes.

3.2 Problem Statement

The largest consumers, such as industrial sites, are already required to be settled on a 'half-hourly' basis, and have the metering already equipped to measure consumption in each half-hour period. Suppliers can also choose to settle consumers half-hourly through Ofgem's elective half-hourly settlement work. However, most smaller businesses and households continue to be settled on a 'non half-hourly' basis. For these consumers, periodic meter reads are taken, usually at intervals of weeks or months. Profiles of average customer usage are then used to allocate the customer's consumption to the half-hourly periods between the meter reads, and these estimates that are then used in settlement.

Both SMETS1 and SMETS2+ Electricity Smart Metering Equipment (ESME) can record the amount of energy consumed or exported within every half hour period. This provides an opportunity to improve both the speed and the accuracy of settlement. This can also help to enable new products and services, for example in supporting the use of electric vehicles, heat pumps or making use of smart appliances. These can deliver positive outcomes for consumers through lower bills, reduced environmental impacts, enhanced security of supply and a better quality of service.

This Modification forms part of a wider solution to deliver MHHS which will include other elements such as changes to Balancing and Settlement Code (BSC) systems, changes to Smart Energy Code (SEC) Parties' systems, and different ways of working. The Modification solution will therefore need to meet the requirements of the wider solution as set out in the MHHS Target Operating Model (TOM) to form a single, integrated solution. Changes to the DCC Total System required to implement MHHS are covered in the following sections.

¹ As detailed at <https://www.ofgem.gov.uk/publications/electricity-retail-market-wide-half-hourly-settlement-decision-and-full-business-case>

3.3 Business Requirements

The table below contains the business requirements provided by SECAS that support the solution(s) for this Modification and are expected to be used by the DCC to shape the solution.

#	Requirement
1	A new DCC User Role will be created for Meter Data Retriever (MDR) Users
2	MDR Users will need to accede to the SEC and undergo User Entry Process Testing (UEPT)
3	There shall be Access Control for MDR Users
4	The applicable Service Requests will have extended Target Response Times (TRTs) when submitted to obtain MHHS data
5	Only Eligible Users shall have access to retrieve specified data
6	The end-to-end security arrangements for half-hourly settlement will be put in place
7	An MDR User will be subject to the SEC privacy arrangements

Table 1: Functional Requirements for MHHS

The valid SRVs for MHHS usage are unchanged from the PIA as follows.

SR ref.	Service Request Name	On Demand?	DCC Scheduled?
4.1.1	Read Instantaneous Import Register	Yes	No
4.2	Read Instantaneous Export Register Values	Yes	No
4.6.1	Retrieve Import Daily Read Log	Yes	Yes
4.6.2	Retrieve Export Daily Read Log	Yes	Yes
4.8.1	Read Active Import Profile Data	Yes	Yes
4.8.3	Read Export Profile Data	Yes	Yes
4.17	Retrieve Daily Consumption Log	Yes	Yes
5.1	Create Schedule	Yes	No
5.2	Read Schedule	Yes	No
5.3	Delete Schedule	Yes	No
8.2	Read Inventory	Yes	No

Table 2: Service Requests Available to MDR Users

Although the business requirement for TRTs for “On-Demand” for MHHS data collection is 24 Hours, Existing User Roles already have access today for a 30 second TRT for these same SRVs for other existing non MHHS data collection use cases.

DCC can technically only operate a single TRT for “On-Demand” SRVs without asking Users to state the business purposes for each Service Request. This option was rejected as part of the DCC solution. Therefore, although the “logical” regulatory TRT for “On-Demand” for MHHS data collection is 24 Hours, existing User Roles such as Suppliers will in practice receives responses quicker within 30 secs as per the existing solution design.

The Target Response Times associated with MHHS data retrieval and User Roles remain as defined in the PIA, but have been modified as follows:

- Existing Business as Usual Import Supplier (IS) and Export Supplier (ES) Service Requests can remain as On Demand
- Service Request 4.2 will be updated to be both Scheduled and On Demand
- All MHHS-related SRs, for all Users, should be Scheduled for a first attempt to retrieve MHHS data
- Any retry to retrieve data can be set as an On Demand Service Request

Eligible Users	SR to Support Existing Services <i>IS, ES</i>				SR sent by MDR User <i>MDR</i>			
	SMETS2		SMETS1		SMETS2		SMETS1	
SR	Scheduled	On Demand	Scheduled	On Demand	Scheduled	On Demand	Scheduled	On Demand
4.1.1	N/A	30 secs	N/A	16 secs	N/A	24 hrs	N/A	24 hrs
4.2	24 hrs	30 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.6.1	24 hrs	30 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.6.2	24 hrs	30 secs	N/A	N/A	24 hrs	24 hrs	N/A	N/A
4.8.1	24 hrs	5,600 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.8.3	24 hrs	30 secs	24 hrs	16 secs	24 hrs	24 hrs	24 hrs	24 hrs
4.17	24 hrs	30 secs	N/A	N/A	24 hrs	24 hrs	N/A	N/A
5.1	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs
5.2	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs
5.3	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs	N/A	24 hrs
8.2	N/A	30 secs	N/A	30 secs	N/A	30 secs	N/A	30 secs

Table 3; Target Response Times for MHHS Service Requests

The DCC has noted an issue around permissions for SRV 4.1.1 relating to the Access Control Broker (ACB) Remote Party Role. For SMETS2 Devices, currently the use case does not allow this role to use this Service Request, meaning that a MDR User would not be able to use this. After discussion at the Working Group and TABASC, it was confirmed that SRV 4.1.1 will not be supported for SMETS2 Devices.

It should be noted that the concept of adding "tags" and changing the DCC User Interface Specification (DUIS) to enforce "correct" usage envisaged before the PIA has been dropped as this was seen as too complex and costly. However, it would be appropriate to baseline the level of MHHS-related Service Requests prior to the implementation of this Modification, and for a regular review of the usage of On Demand and Scheduled SRVs to check that Suppliers and MDRs are using the MHHS functionality in an appropriate way.

Further requirements and design principles were used for this solution design, and are included in section 4.1 and following, as well as Appendix C: Supporting Materials;

- Design Principles
- Design Assumptions
- Non-Functional Requirement Assumptions
- Functional Requirement Enhancements
- Assumptions for User Demand and Infrastructure Capacity

In addition, see the document “MP162 Business Requirements v0.5” as listed above in section 2.3 for additional requirement context and information.

3.4 Updates from PIA Response

As part of the PIA Response, DCC noted that there were several key points that created a level of uncertainty which heavily influenced the variable ROM costs. DCC further noted that resolving these in a clear and unambiguous manner should significantly reduce solution costs as part of any requested FIA and maximise the value of the FIA.

DCC is happy to report that with the support of the Working Group, DCC has managed to reduce the level of ambiguity in the key areas noted within the PIA, by proposing a more complete set of anticipated User behaviours and key volumetric assumptions as well as a firmer DCC System end-to-end (E2E) solution design using these, that the FIA proposed DCC solution has been designed against.

This has resulted in reduced solution costs as anticipated but has meant that the proposed DCC solution is now more sensitive to any future changes to the documented anticipated User behaviours and key volumetric assumptions and this should be noted by Industry.

3.5 Overview of the Required MHHS Solution

To meet the MHHS requirements, the DCC System shall be able to accept Service Requests from Eligible Users to retrieve Import consumption data (HH Intervals, Daily Consumption totals and Register Reads) and where configured, Export generation data (HH Intervals, Daily Consumption totals and Register Reads) from SMETS1 and SMETS2 ESME enrolled in the DCC Total System.

MHHS-related Service Requests received from Users will be subject to Access Control authentication to ensure that only registered Users can retrieve the relevant Import consumption and Export generation data from each Smart Meter.

MHHS-related Service Requests received from Suppliers and Meter Data Retriever Agents (MDRA) will be scheduled by the DSP for completion at Off Peak hours. Where data is successfully retrieved from both SMETS1 and SMETS2 Smart Meters this data shall be returned across the Smart Metering communication networks and these Service Responses shall be returned to the requesting User for use in the wider Settlements purposes.

4 Requirement and Solution Design Refinement Methodology

As part of the work required to review the PIA, and to develop the MHHS solution to a level where Service Providers could provide accurate and timely FIA responses, DCC have worked with Industry on how and when the data required to support the MHHS service is expected to be collected by Users and create a greater alignment within the DCC solution to User expectations and behaviours. DCC worked with SECAS and the Working Group to review the requirements and to develop assumptions and guidelines that would allow DCC and the Service Providers to provide accurate forecasts for the required functionality, capacity, and infrastructure to meet the MHHS requirements.

The following sections identify the themes and outputs associated with key points noted by DCC as part of the solution design, developing the assumptions, design principles, and non-functional requirements into the basis for the FIA.

A complete RAID submitted by DCC, and the Service Providers is included in Appendix A: Risks, Assumptions, Issues, and Dependencies.

4.1 Key Points for Consideration

DCC is keen to re-iterate the key risks associated with this Modification.

4.1.1 Non-Functional Requirement Concerns

The functional requirements for this Modification are well established, but the non-functional requirements have been a challenge to identify, document and reach firm agreement with a sufficient level of confidence that they are representative for the new MHHS service; this creates a risk for the DCC solution.

The proposed DCC solution has been created against a more than usual number of assumptions rather than firm requirements. This increases the risk associated with the proposed solution as if there are changes/variances to these design assumptions over time, this will reduce the solution appropriateness and effectiveness, which in turn, would have a significant negative impact on the service experienced by Users. The key concerns are:

1. *What size solution are DCC being asked to build and support?*
2. *How does DCC quantify the potential additional User Demand for SRV processing for MP162 ?*
 - a. *High level of variability in SRV volumes*
 - b. *Different expectations for User Behaviours and key volumetric variables*

As part of the solution for this Modification, DCC has defined sets of assumption relating to the following areas to answer these key questions:

- General scope and service assumptions
- Anticipated User SRV usage patterns associated with the new MHHS service for both SMETS1 and SMETS2 electricity Smart Meters
- User Demand modelling assumptions
- Non-functional requirement assumptions

DCC recognises that these sets of assumptions have been discussed with the Working Group and TABASC throughout the Modification refinement process and so will not be a surprise, but DCC requests all parties recognise that the absence of firm and true non-functional requirements in this area is a risk for the proposed solution. Note the level of impact is variable and dependent upon the number of variations and the size of the deviation from the assumptions listed.

DCC have taken on board direction from the Working Group for the sizing of the solution as defined in assumption NFR-11 as follows:

“In line with customer feedback, the DCC shall take a conservative risk-based approach to estimating the volumetrics and User demand levels associated with the proposed MP162 solution. This creates a risk that any significant changes from anticipated User behaviours as increased demand and capacity requirements are not included within the initial design for MP162.”

The implications of this are reflected in the DCC Design Principles as follows:

- The DCC shall take a conservative risk-based approach to limit any additional infrastructure to deliver increased SRV processing capacity and reporting associated with MHHS service changes
- The DCC shall initially deploy only additional infrastructure to deliver increased SRV processing capacity directly based upon the defined non-functional requirements associated with MHHS
- After implementation, if DCC Demand Management identify significant variations to the expected User behaviours with impacts on the DCC Total System, DCC may need to increase these capacity levels

Any significant changes in anticipated User behaviours that create a gap between the operational service experience by Users and the MP162 Modification assumptions that the solution was designed against, could result in service issues for Users. This risk would be mitigated by monitoring by DCC Demand Management after implementation of the solution, and the potential addition of capacity and infrastructure to support any additional system load.

4.1.2 Non-Functional Requirements

As part of the development of this Modification, DCC derived detailed non-functional requirements for the solution which are intended to show the detailed behaviour of a solution when fully operational. These were reviewed and approved by the Working Group and TABASC before the FIA was started.

Eligible Users (Import Suppliers, Export Suppliers and Meter Data Retrievers) will send Service Requests either to create DCC schedules to retrieve data or collect data on demand for DCC enrolled Smart Meters, or to retrieve all the import consumption and export generation data required to perform HH Settlement activities according to the new TOM and associated settlement timetables. The DCC Total System must be able to meet these demand usage levels and therefore each Service Provider solution must also therefore support these demand usage levels.

DCC recognised that determining the likely usage requirements from Users and the associated potential impacts on capacity for the DCC and individual Service Provider solutions is a key part of the DCC solution for the new MHHS service. It is noted that

the usage requirements will have a level of variability based on the assumptions made against key variables.

4.1.3 Volumetrics

The table following illustrates the anticipated additional daily Service Request volumes and associated message sizes to be supported by the new MHHS service for service start. The DCC Forecast Volume column uses the conservative risk based approach to estimating the volumetrics and user demand level identified in section 4.2.

Key Variables	Forecast Volume
Installed ESMEs for DCC MHHS service	23.9 m
% MHHS data collected by Supplier	75%
% MHHS data collected by MDR	25%
% Export Take Up	10%
Expected additional SRV requests per day to retrieve data	circa 18.7 m
Expected additional Data Transfer Volumes per day size associated with additional SRV requests	circa 8.6 GB

4.1.4 Operating at Scale - Future Scaling and Optimisation Still to Occur

The SMETS2 Smart Meter Roll-out and has not yet reached “at scale” operational levels and the volume of enrolled meters is increasing every day for SMETS1. There is still work scheduled to complete scaling and optimisation activities for the DCC Total System to support “At Scale” operational levels by the end of the Smart Rollout.

This makes an additional challenge of determining the impacts of additional capacity for the service in two years’ time, against a moving demand / capacity baseline, when scaling and optimisation activities are ongoing for the existing service being delivered today at lower enrolled Smart Meter volumes. For example, for the SMETS1 Final Operating Cohort (FOC) cohort of meters, Service Providers have noted that they have experienced challenges in estimating the additional message volumes impacts of the proposed MHHS service changes on their solution as they are still at the early stages of implementation and extended capacity is difficult to estimate accurately currently as they have limited data from production to base further capacity increases on.

It should be noted that CSP North are undergoing a programme titled “Service Scaling and Optimisation” which is designed to improve service reliability and performance in this region. It is assumed that this work will be complete when MP162 goes live.

4.1.5 Modification Alignment to the Wider MHHS Programme

DCC is concerned that industry-related MDRA information documented as part of the SECMP0162 PIA, which was discussed with the Working Group during the refinement stage, carried through into the FIA request and included in the solution, is not currently documented within the wider MHHS programme. This creates a potential gap or misalignment and a solution design risk. This could have a significant impact on the proposed solution, as if these assumptions are not true then the DCC solution is at risk of not working.

The general scope and service assumption A8, states:

- *The DCC will be notified of the MDRA appointed to each MPAN by each Supplier and hence which maps to which ESME DeviceId. The DCC assumes that the DSP would receive this information via the CSS interface and the CSS interface definition will be extended to add new additional data items to support the transfer of this information from industry registration systems to the DCC. The additional data items that will be added to the CSS interface will be defined by Elexon's MHHS programme. These include:*
 - *The identity of the Registered Supplier's appointed MDR User (using the MPID)*
 - *The Effective From Date associated with the appointment of the MDR User*
 - *The Effective To Date associated with the appointment of the MDR User*

New registration appointment data relating to the new MDR parties needs to be recorded in central registration systems, passed to CSS and then on to DCC. The recorded data is outside the scope of this Modification, but is a dependency on the wider Elexon programme.

DCC and the Service Providers have neither received the interface specification for this required change, nor any documented evidence that this is expected for the overall E2E process, nor a change mechanism to enact the required changes. This means that there is a Risk that this Modification is the only place where this is assumed, and it may not happen. The impact of this would be that DCC would not receive data on who the registered MDR parties are for each MPAN and that all MDR SRVs sent to DCC would fail Access Control and leave the new MDR User role unable to access Smart Meters.

There is also an associated concern of any consequential changes associated with the change to existing Meter Operator roles changing to Metering Services Parties for each market segment and how this will be handled by Registration changes, how this flows through to DCC for the Registered Supplier Agent (RSA) User Role and how Access Control will be performed by the DCC Systems.

For both these issues, the current assumption is timely delivery of the interface specification and no change to the existing Operator roles. Any change to this, would require a DCC Change Request to assess the impact..

4.2 Assumptions

As part of the review of the PIA, the Working Group clearly instructed the DCC to take a conservative risk based approach to estimating the volumetrics and user demand levels associated with the proposed MHHS solution. This created a risk that any significant changes from anticipated user behaviours that could result in increased demand and capacity requirements are not included in the solution design. In addition, the volumetrics used as the basis for the Service Provider and DCC designs should be viewed as "best estimates" in that SEC Parties were unable to state their projected anticipated activities and plans for key assumptions such as Supplier take up of the MDR services.

This FIA does not include information on how Suppliers might send their MHHS data to the Elexon Service, as that design is out of scope for the DCC.

4.3 Design Principles

As part of the Modification development, DCC developed a series of design principles to be used in the design of the MHHS solution. These are included in Appendix C: Supporting Materials. In addition three further principles and approaches were establishing during the PIA reviews working with the Working Group and TABASC.

1. Approach to User Demand / Infrastructure Capacity

DCC have worked with Industry to stress the importance of gaining a greater understanding and better definition of how Users will access the Service Request Variants (SRV) defined in the business requirements to support the new MHHS service and better define the expected User Behaviours and their associated impacts on additional SRV message volumes.

The expected Service Request Variants behaviour expected to be used by Users to retrieve data from ESME for MHHS purposes varies slightly between SMETS2 and SMETS1 devices. The following diagrams illustrate the anticipated behaviours.

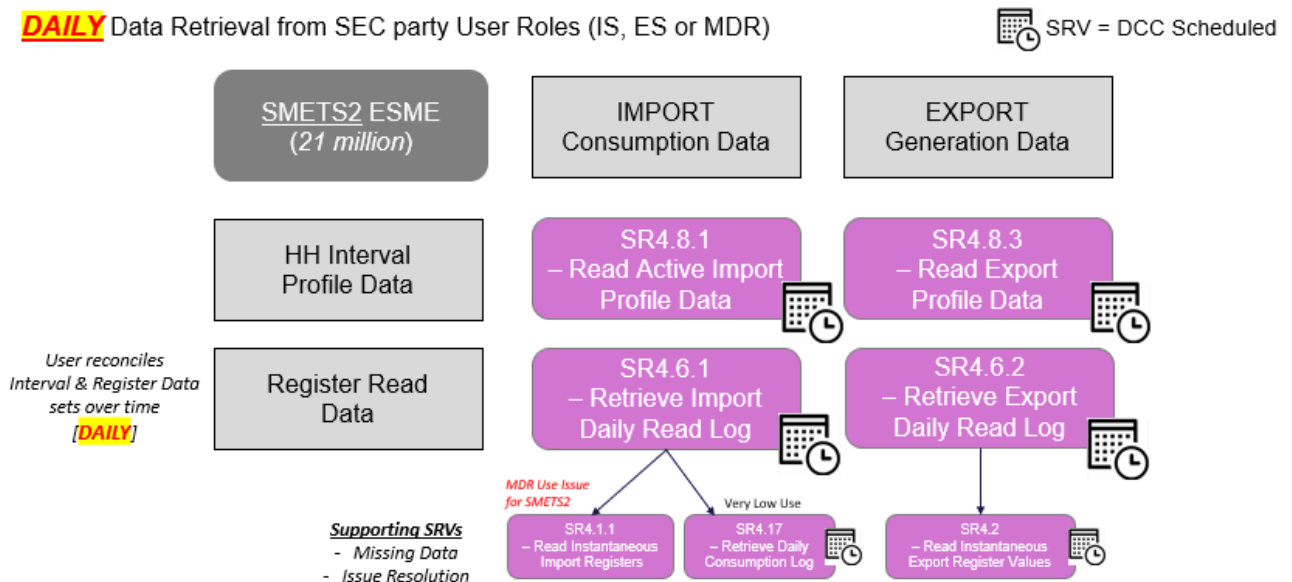


Figure 1: MHHS Anticipated User Behaviours - SMETS2 ESME

DAILY Data Retrieval from SEC party User Roles (IS, ES or MDR)

 SRV = DCC Scheduled

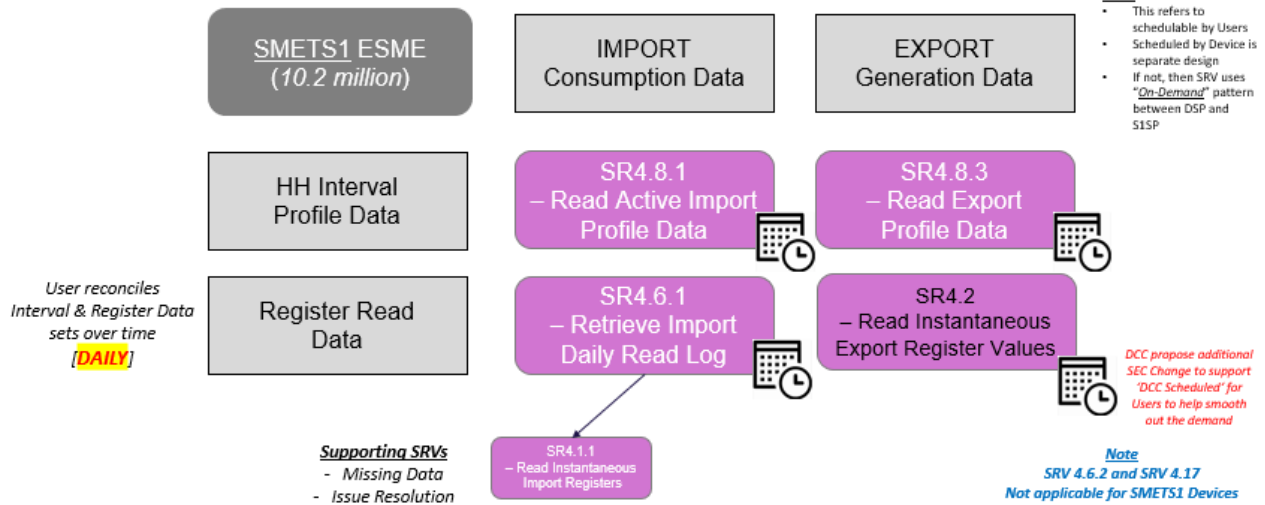


Figure 2: MHHS Anticipated User Behaviours - SMETS1 ESME

2. Scheduling Services – Definition of Scheduling Windows for MHHS Data

The DSP Systems will define the following configurable scheduling windows for each CSP and S1SP:

- 'Peak' Scheduling Window
- 'Off Peak' Scheduling Window

The DSP Systems shall use these scheduling windows to control the Transactions per Second (TPS) processing rate for scheduled SRVs that are sent to each CSP or S1SP within the start and end times for these scheduling windows.

This will control the processing rate for each CSP and S1SP throughout the scheduling window and minimise the impact of creating demand spikes within the DCC Total System. A time gap after the end of the Peak window has been allowed for retries and the start of Install and Commission (I&C) activity, while the gap after the Off Peak window and 00:00 is in place to allow retries and the SRVs to complete before the start of next day's Peak window.

CSP/S1SP Name	Service	Peak Scheduling Window	Off Peak Scheduling Window	Notes
CSP North (Arqiva)	SMETS2	00:00 to 08:00	10:00 to 20:00	[10 hour] window
CSP South and Central (VM02)	SMETS2	00:00 to 07:00	10:00 to 20:00	[10 hour] window
S1SP-1 (CGI-IE)	SMETS1	00:00 to 06:00	10:00 to 20:00	[10 hour] window
S1SP-2 (Secure)	SMETS1	00:00 to 06:00	14:00 to 22:00	8 hour] window
S1SP-3 (Trilliant/DXC)	SMETS1	00:00 to 06:00	09:00 to 23:00	Maximum [14 hour] window
DCO (Capgemini)	SMETS1	00:00 to 06:00	09:00 to 23:00	Covers the duration of all the above S1SP individual times

Table 4: Scheduling Windows

The allocation of SRVs to Peak or Off Peak processing periods will be set as shown following. The MHHS Additional Demand shown in red matches the red entries in the Scheduling window below, such that Export Suppliers using Scheduled Service Requests will be added to the Off Peak Scheduling Window.

Scheduled Services – Supporting MHHS

User Role	SRV	Scheduling Window
IS / GS / MDR	4.1.1	n/a
ES / MDR	4.2	Off Peak
IS / GS	4.6.1	Peak
MDR	4.6.1	Off Peak
ES / MDR	4.6.2	Off Peak
IS / GS	4.8.1	Peak
MDR	4.8.1	Off Peak
ES / MDR	4.8.3	Off Peak
IS / GS	4.17	Peak / Off Peak
MDR	4.17	Off Peak

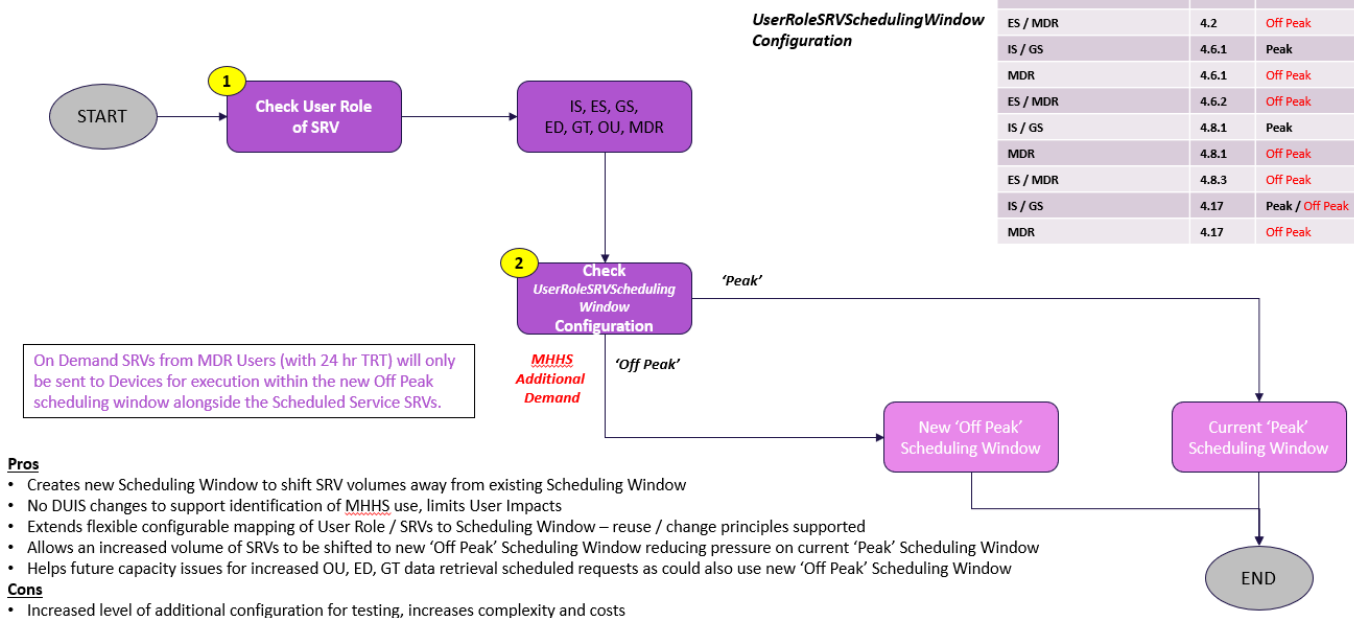


Figure 3: Scheduled Services for MHHS

For both SMETS1 and SMETS2 devices, all MHHS-related SRVs shall be DSP Scheduled for a first attempt to retrieve MHHS data.

DCC notes that scheduling works best if Users do not specify specific times, to give the DSP maximum flexibility around smoothing the load. The DCC is therefore maintaining its guidance for Users not to specify specific times in their schedules, as stated in Guidance Point 32 of the DCC Guidance Note, Use of DUIS.²

4.4 Northbound Prioritisation

After revising the design based on the assumption that DCC should use existing off peak capacity resulting in the introduction of the Off Peak Scheduling Window, concerns were raised by both the Working Group and TABASC that traffic for the Export Suppliers and MDRA scheduled requests could impact on I&C request delivery times during the day. To alleviate these concerns, DCC have introduced the concept of Northbound Prioritisation to ensure that On Demand Service Requests sent during the Off Peak Scheduling Window are prioritised for sending to Users over Scheduled SRs ahead of any Service Responses received relating to DCC Scheduled Requests.

The following additional Business Requirements have been added for Northbound Prioritisation for implementation as part of the proposed MHHS solution.

- The DCC Systems shall ensure that any Service Responses received to 'On-Demand' requests within the new additional MHHS Scheduling window (referred to as the Off Peak

² <https://smartenergycodecompany.co.uk/download/26144/>

Scheduling Window) shall always be prioritised for sending to Users ahead of any Service Responses received relating to DCC Scheduled Requests.

This will protect DCC's Performance Measures relating to TRTs and support Users 'within day' priority operational activities e.g., Install and Commission and Prepay top up activities.

2. Any Service Responses received relating to a DCC Scheduled Request in the new, additional MHHS Scheduling window may be queued within the DCC Systems to ensure that the Priority Service Responses received relating to 'On-Demand' requests are not subject to processing delays.

For example in a case where the receipt of large volumes of DCC Scheduled Responses would slow down the delivery of the priority "On Demand" responses, the solution shall ensure the On Demand Service Responses are returned to Users before DCC Scheduled Responses.

Northbound Prioritisation specifically relates to the Off Peak Scheduling Window only. This control is designed as a single control to apply to all CSPs (SMETS1 and SMETS2).

As part of the PIA development, it was clear that the potential introduction of short-term caching capability of meter reads data at the S1SPs would reduce the number of SMETS1 device interactions against the additional MHHS volume of Service Requests, resulting in less impact on the Dual Control Organisation (DCO) and SMETS1 CSP for each cohort. This is referred to as the approach to Caching Solution for Consumption and Generation Data.

The diagram illustrates the DCC Scheduling Architecture, showing the flow of data and requests between various components:

- User**: The end user who initiates requests.
- DSP** (DCC Scheduling Platform): Receives requests from the User and processes them. It includes a calendar icon and a clock icon, indicating scheduling and timing functions.
- DCO** (DCC Optimization): Processes requests from the DSP. It is associated with the text: "DSP Smooths SRV Demand over 'scheduling window' time period to reduce Demand Peaks".
- S1SP** (S1 Scheduling Platform): Receives requests from the DSP and processes them. It includes a red box labeled "Local data cache 4.8.1 / 4.6.1 / 4.8.3". It is associated with the text: "Data from devices 'Held' to fulfil subsequent data requests from Users, without need for repeat device requests".
- ESME** (External Service Management Entity): Receives requests from the S1SP and processes them.

Key annotations and flow details:

- Flow from User to DSP**: Labeled "Request".
- Flow from DSP to S1SP**: Labeled "Request".
- Flow from S1SP to ESME**: Labeled "Request".
- Flow from DSP to DCO**: Labeled "Cryptographic processing (where required)".
- Flow from DCO to S1SP**: Labeled "Cryptographic processing (where required)".
- Local data cache**: A red box next to S1SP containing the text "Local data cache 4.8.1 / 4.6.1 / 4.8.3".
- Annotations**:
 - "Use 'DCC Scheduled' DUIS Pattern for MHHS wherever possible" (top left).
 - "DCO and S1SPs process all User 'DCC Scheduled' requests on demand" (top right).
 - "Check data cache for data – does it already exist?" (bottom left).
 - "If so, Create Response from cache" (bottom left).
 - "If not, then send request to device for Response" (bottom left).

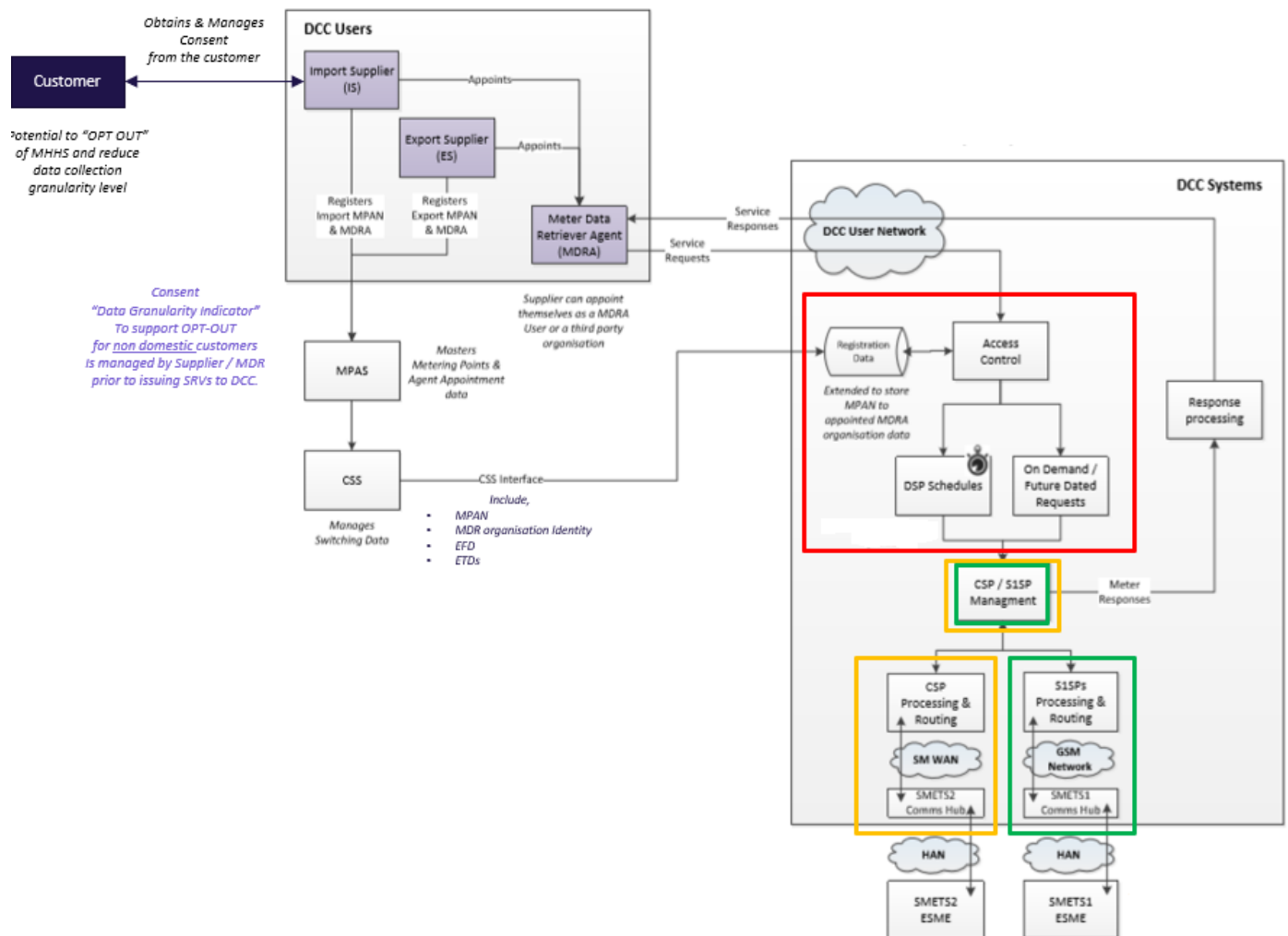
- a temporary local cache at each S1SP for the response data of the following:
 - SRV 4.8.1 – Read Active Import Profile Data
 - SRV 4.6.1 – Retrieve Import Daily Read Log
 - SRV 4.8.3 - Read Export Profile Data
- when any of the above Service Requests with the same ReadLogPeriod are subsequently received from either the same or other Users within the Data Retention Period, the S1SP may return the data from the local data cache instead of retrieving the data from the Meter.
- the Data Retention Period for S1SP local cache shall not be more than 48 hours, from the date and time of the original SRV response receipt and storage. After the Data Retention Period, data shall be deleted from the S1SP local cache.

A similar cache solution for SMETS2 was not considered in the scope of this Modification due to the cryptographic complexity of data retrieval from SMETS2 meters.

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5 Solution Overview

The following diagram gives a high level architecture view of the complete MHHS system.



Details of the changes to each Service Provider is given in the following sections.

5.1 DSP Changes

Changes to the DSP are required to support these requirements, although there are no Security-based changes anticipated.

The DSP will maintain MDRA appointments against Meter Point Administration Numbers (MPANs) by processing a new data flow received over the CSS interface and will involve the following:

- processing a new Registration message from CSS to create, maintain or remove MDRA appointments, using a message similar to RECM_SN_CSS03200 (Smart Metering MEM Synchronisation) and delivered over the existing RMPRegApptSync interface
- the physical RegistrationEventSynchronisation message will be extended to allow roles of MDR and Supplier as well as Supplier Nominated Agent in the Supplier Arranged Appointments

Data from this new flow will be maintained in the DSP and not passed on to another parts of the DCC Total System. DSP will require updates to store and maintain MDR data associated with Electricity Registrations.

DSP will introduce a new MDR User Role with access to the Service Request Variants listed in Table 2: Service Requests Available to MDR Users, and associated DCC Alerts. DSP will perform Role-Based Access Control (RBAC) with respect to Service Requests received from MDR Users including:

- validation that the sender is a valid MDR
- validation that the sender has an MDRA appointment for the specified MPAN for the entire duration of the requested period of consumption/export data
- validation that the sender is requesting a valid Service Request Variant/Mode of Operation combination

5.1.1 Service Request Processing

DSP motorway processing will be modified to accommodate the new User Role of MDR such that a MDR user will be able to submit and retrieve a response to a limited set of (Non-Critical Read Only) Service Requests as follows, in order to retrieve half hourly settlement data from ESME:

SRV4.1.1	read instantaneous import registers (SMETS1 only**)
SRV4.2*+	read instantaneous export registers (SMETS1 & SMETS2+)
SRV4.6.1*	retrieve import daily read log (SMETS1 & SMETS2+)
SRV4.6.2*	retrieve export daily read log (SMETS2+ only)
SRV4.8.1*	read active import profile data (SMETS1& SMETS2+)
SRV4.8.3*	read export profile data (SMETS1& SMETS2+)
SRV4.17*	read daily consumption log (SMETS2+ only)

Notes

* = SRV may be scheduled

*+ = SRV can be scheduled (new for this Modification)

** = although SRV4.1.1 is supported by SMETS1 and SMETS2+ devices, MDR Users can only use it to retrieve data from SMETS1 devices (as GBCS does not support the Unknown Remote Party (URP) pattern for 4.1.1 on SMETS2+ devices); E040101 will be extended to validate that if the user's role is MDR then the device must be SMETS1.

The DSP will also allow a DCC Service User, as a MDR user, to maintain Schedules for those Read Only Service Requests above that allow a DSP Scheduled Mode of Operation, using the scheduling Service Requests:

SRV5.1	create Schedule
SRV5.2	read Schedule
SRV5.3	delete Schedule

DSP scheduling will be modified so that specific windows can be configured as Peak and Off Peak for CSPs and the S1SPs in order to ensure that the DSP, CSPs, and S1SPs are not overloaded. Multiple windows can be defined for each SP in a day, with a maximum TPS throughput set as well. The schedule windows will apply to all requests (on demand with 24 hour Target Response Time, future dated and scheduled).

5.1.2 Northbound Prioritisation Changes

As part of the PIA review, the Work Group directed that DCC should endeavour to use existing off peak capacity rather than building out the capacity to support increased peak traffic. This design decision resulted in the introduction of the Off Peak Scheduling Window, but concerns were raised by both the Working Group and TABASC that traffic for the Export Suppliers and MDRA scheduled Service Requests could impact on I&C request delivery times during the day. To alleviate these concerns, the DCC have introduced the concept of Northbound Prioritisation to ensure that On Demand SRVs sent during the Off Peak Scheduling Window are prioritised over Scheduled SRVs. This will protect DCC's Performance Measures relating to TRTs and support User's daytime priority operational activities e.g., Install and Commission and Prepay top up activities.

The requirement has been worded to specifically relate to the Off Peak Scheduling Window only. This control is designed as a single control to apply to all SRs sent to all CSPs, both SMETS1 and SMETS2.

5.1.3 Infrastructure

After reviewing the anticipated changes to load, the DSP peak demand requirements are within the current capacity forecasts for Supplier data collection in the overnight period and are therefore catered for in current capacity planning.

The off-peak demand requirements introduce an additional load of 614 TPS which is within the spare capacity calculated above for the 10:00 – 00:00 period and on this basis, it is assumed that no further processing capacity uplift is required to handle the additional MHHS load on the DSP.

Some increases in storage arrays for the reporting and data analysis components is anticipated, and are included in the solution implementation and application support costs.

5.1.4 MDR User Support in the Self-Service Interface (SSI)

MDR users will be able to use the SSI with the same access rights as users with the RSA User Role, and hence will be able to view SAT records for their own requests.

5.1.5 Reporting

The MDR User Role will be added to all relevant Reports to the DCC SSMI and Data Extracts to the S1SPs as a new User. Note that there are no specific requirements relating to Reporting, and hence no changes to the DCC Technical Operations Centre (TOC) Reporting solution. However, it would be appropriate to baseline the level of MHHS-related requests against Service Users prior to the implementation of this Modification, and for a regular review of the usage of On Demand and Scheduled SRVs to check that Suppliers and MDRs are using the MHHS functionality in an appropriate way.

5.1.6 Technical Specifications

Updates to the DUIS schema and DCC User Gateway Interface Design Specification (DUGIDS) are required to incorporate a change in definition of E040101 error code and new error E050111. A new DCC Alert N66 for schedule deletion resulting from MDRA appointment changes is required. Updates to DUIS are shown with tracked changes in the following file:



SEC-Appendix-AD-
DUIS-v5.1 MHHS Ch.

For avoidance of doubt, and in line with DCC's standard DUIS design principles, Users are not mandated to move to this new later version of DUIS (version TBC) that will be introduced to support the proposed MHHS solution. The DUIS uplift would only be required for Users wishing to use the new MDR User Role, or to take advantage of the potential scheduling of SRV 4.2. A further explanation is given in Appendix D: DUIS Uplift Supporting Information.

No Message Mapping Catalogue (MMC) XML changes have been identified.

Subject to the assumption regarding SRV4.1.1 being used only for SMETS1 devices, no changes to GBCS have been identified.

As noted in the Business Requirements [2], the current SMETS1 TRT of 16 seconds for SR8.2 is an anomaly, which is a SEC wording issue rather than anything material to the DSP or S1SP MHHS implementation. The process for reading Device details from the Smart Metering Inventory (SMI) is the same for both SMETS2 and SMETS1 Devices with processing of such requests limited to the DSP systems. This TRT will be amended to 30 seconds for all Users as part of this modification for alignment with other DCC Only Service Requests. SEC Appendix E, DCC User Interface Services Schedule which currently shows the TRT for all "DCC Only" (that is, DSP Only) Service Requests as 16 seconds for SMETS1 whereas in fact they should all be 30 seconds for both SMETS2 and SMETS1 since these Service Requests only go to the DSP. The DCC contract is for a 30 second TRT for these Service Requests (including SR8.2).

5.1.7 Impact on Performance

Based on the volumetric projections in the requirements section, it is anticipated that the amount of Service Request processing, whilst increasing, will not require the procurement of additional motorway lanes for the DSP as part of this Modification.

Other areas of the DCC Total System which may be performance impacted are:

- the CSS Interface will need to process MDRA Appointments for each Electricity Registration.
- reporting will be impacted by the increased volume of Service Requests. This will be particularly noticeable in the Service Audit Trail (SAT), the volume of files sent to the TOC. Registration data extracts sent to the TOC will increase slightly in size to include the MDR appointments.
- the number of logs written by the various logging functions (generated by motorway and non-motorway activity) will increase (Event Logs, Diagnostic Logs, Alert Logs, SM WAN Usage logs and DNS Timing Reports for CSP S&C, CSS Message Log and the Registration Audit Trail).

Due to the small number of additional DCC Service Users, the impact on SSI usage is considered to be negligible.

5.1.8 Impact on Resilience and Disaster Recovery

There will be no change to the system resilience solution or the Disaster Recovery solution procedures as a result of this change.

5.1.9 Changed DSP Component Summary

The following DSP components will be impacted by this Modification.

CSS Gateway	The CSS Gateway will need to be modified to accept MDRAs as new role in the context of Supplier Arranged Appointments (SAA).
CSS Processor	The CSS Processor will need to be modified to process MDRAs and SNAs within the SAA element of a Registration message.
Request Manager and Data Management Changes	Authorise, validate, schedule and process the MDR SRVs, including the management of the new type of Schedule Window. Process the MDRA appointments received from the CSS. Extend CSS processing to close off any MDRA appointments as a result of a change of Supplier, from a RegistrationEventSynchronisation message or a RegistrationSecuredInactiveSynchronisation message notifying the end of a Supplier's Registration.
Message Gateway	Will use the revised DUIS schema
Data Model	The Data Model will require modification to store the MDRA appointments and to accommodate the new schedule window.
SSI and SSML	Changes are required in SSI to allow access to the new MDR User Role. Changes are required in SSML to allow the MDR User Role to be assigned to a DCC Service User.

The revised DUIS XML Schema will need to be deployed on the corresponding DataPower appliances.

5.2 Changes to CSP South and Central

Changes to the CSP South and Central (CSP S&C) are mostly limited to capacity and infrastructure increases related to the additional traffic related to MHHS data requests. There will be a new 10 hour scheduling window (10:00 to 20:00) for the DSP to schedule and collect the meter reads for MHHS purposes.

This Modification will cause additional SMWAN read traffic across the network, and CSP S&C to be able to store and process the daily SMWAN files from the DSP, additional storage and bandwidth related to MHHS in both test and production is required. Changes to the SMWAN Gateway interface between CSP S&C and the DSP will be delivered by the DSP. Additional storage and bandwidth for moving the increased SMWAN usage file size to the reporting systems is also required.

5.3 Changes to CSP North

To support MHHS in the 10-hour DSP scheduled window from 10:00 to 20:00, CSP North will:

- make three new messaging channels available to the radio network
- create a channel plan to assign the required additional channels to each base station Transceiver Kit (TK)
- provide MHHS service in the Fylingdales area with additional channel licences being granted by OFCOM – an application to OFCOM has been made

- increase Splunk data analytics licensing and data storage capacity by 10% (or 22GB) per annum to deal with the additional log data.

The main impact on the SMWAN is the additional capacity requirements, which drive additional radio channels at the Base Station Transceiver Kits (TKs) once Communications Hubs and SRVs reach a certain level. The standard SRVs (excluding firmware downloads) are carried over-the-air on bulk messaging channels between the base stations and Communications Hubs. The current radio network design based upon ISFT (Submit Final Tender, as set out in the Agreement) allows for four bulk messaging channels to be deployed at each TK. As the baseline case within the provided messaging model, it is assumed that 70% or 4,557,000 SMETS2 Communications Hubs are enrolled for MHHS in CSP North.

The new messaging in the new 10-hour window was calculated in terms of the additional downlink and uplink packets to be supported and it was found that the downlink is the limiting case for capacity at each TK. This additional capacity was then used to calculate the additional channel requirements at the highest loaded TK supporting circa 10,000 Communications Hubs enrolled in the MHHS service. Channel requirements are calculated assuming a maximum channel loading of 70% to account for peak-to-average loading and provide some capacity headroom.

Based on these assumptions, three additional channels are required per TK to support MHHS in the Off Peak scheduled window. The number of additional channels required per TK is dependent on the number of MHHS enrolled Communications Hubs connected. These additional channels would be assigned from a pool of 10 new messaging channels made available to the radio network and a channel plan created that assigns the required additional channels to each TK.

No other changes or upgrades are required to the radio network. Without these infrastructure and capacity upgrades, the MHHS solution could not function on the CSP North network.

It should be noted that the Fylingdales area is currently not in scope for this Modification, as CSP North have applied for additional channel licenses, but have not had any response from OFCOM to date.

5.4 Changes to SMETS2 Critical Software

For Parse and Correlate (P&C) there are no functional impacts as there are no GBCS changes or new SRVs. However the DUIS XML Schema includes a section defining DSPScheduled SRVs, which means there is a need to add SR4.2 into this list. This is a DUIS Schema change which means a minor uplift to P&C.

Both GBCS Integration Testing For Industry (GFI) and DCC Boxed will also use the new DUIS schema.

There would be a small change to the Reference Test Data Set (RTDS) to show an example of a SR4.2 that is scheduled but this is very minor.

5.5 Changes to the SMETS1 Service Provider Solutions

The changes to the SMETS1 Cohorts are summarised in the following table.

	Functionality	S1SP 1 (CGI-IE)	S1SP 2 (Secure Meters)	S1SP 3 (Trilliant & DXC)
Functional Impacts	Introduction of New DCC User Role (MDR)	Support the changes in S1SP Management Interface between DSP and S1SPs to receive the new mapping of MDR Party to MPAN Registration data.		
		SRVs from the new MDR user are non-critical and therefore no changes are required in existing RBAC and validation checks.		
	Supporting SRV4.2 Schedule	Enhanced processing of SRV5.1 and 5.3 for support of new scheduled SRV4.2.		
		Support new DUIS schema due to change on SRV5.1 for SRV4.2 schedule.		
Non-functional Impacts	Off-peak schedule window for MHHS SR volume	Support a 10-hour scheduling window to distribute the MHHS Scheduled requests to CGI IE.	Support an 8-hour scheduling window with multiple slots with varying SRV/second flow rate to distribute the MHHS Scheduled requests to Secure Meter S1SP.	Support a 14-hour scheduling window to distribute the MHHS Scheduled requests to S1SP-3.
	S1SP local cache	A local cache will be built for the Service Requests as mentioned in section 4.5. When subsequent SR is requested for the same datetime range within the Data Retention Period, data is retrieved from cache instead of the meter resulting in less impact on the DCO and the WAN. This solution will be designed based on the existing technical architecture of S1SP system and device data retrieval capability, but the technical solution and implementation could be different across S1SPs. Where a SMETS1 Device is capable of configuring the data push, that S1SP will configure the device appropriately to push data to cache, based on creation of SR schedule; where it cannot, data will be retrieved from the meter and stored in cache when requested data cannot be served from cache for a scheduled or on demand read. This solution will not supersede any existing functionality related to data cache of the MHHS-related SRVs and Data Retention Period.		

			Update SRV 5.1 and SRV 5.3 processing functionality appropriately to enable/disable device push capability.	Update SRV 5.1 and SRV 5.3 processing functionality appropriately to enable/disable device push capability.
	Impact on the SMETS1 CSP	Peak load: Use DSP Schedule capability for MHHS SRs to spread additional SR volume throughout the day. Hence no increase required for: • physical connectivity with both SMETS1 CSP (e.g. MPLS) • APN sizing • API traffic • Data usage per device – while MHHS SRV volumes are expected to result in more data usage per device, the additional data is anticipated to be within the contracted data volume.	Similar observations are anticipated for this cohort.	Similar observations are anticipated for this cohort.
	Impact on the Infrastructure	Additional storage, servers, memory uplifts and licenses would be required to support the additional MHHS SRV volumes.	Infrastructure uplift required for additional data on IP5B, S1SP offline system, Secure's offline reporting system, import engine, validation engine, SQL tuning and cache storage	Additional adapter nodes, task manager per data centre, servers for microservices. Adapters are required along with PROD and DR RACs needs to be scaled horizontally.

All the S1SPs have collaborated with the relevant SMETS1 CSPs to analyse the impact of additional volume of MHHS SRVs, the increase in data volume for MHHS SRV Responses, and the number of API calls relating to the use of S1SP cache solution. Based on this analysis, all SMETS1 CSPs have indicated that there is enough capacity on the physical network, IP pool, API calls and data volume as per current contract and no upgrade is required for this Modification.

5.6 Changes to DCO

Functional Changes

Considering the business requirements of reusing existing Service Requests for retrieving half-hourly consumption and generation data by DCC Users (Supplier or MDR), no functional change is required on the DCO component.

Non-Functional Changes

The following areas are considered to assess the non-functional impact on the DCO component:

- Based on the non-functional requirements and volumetric assumptions in section 4.1.3, significant amounts of Service Requests sent by Suppliers and MDR user will be delivered by the DSP to the DCO
- Only S1SP1 (CGI-IE) interacts with the DCO for cryptographic processing for "Read" non-critical Service Requests
- Availability of local cache at S1SP is expected to reduce the DCO interaction with S1SP1 though it is subject to User behaviour
- Use of the DSP scheduling for MHHS SRs to spread the load though the day has little impact on the DCO because DCO cryptographic processing is done in real-time as an on demand request

Considering the current production system utilisation, enrolled meters volume, daytime utilisation of DCO system capacity for firmware related Service Request and projected MHHS related Service Requests, a proposal to route and process firmware related Service Requests in a separate piece of DCO infrastructure (DCO2) to ensure the existing DCO system infrastructure can deal with the off-peak MHHS SR volume effectively was proposed in the PIA. However working with SMETS1 meter providers, DCC determined that almost all SMETS1 meter manufacturers have no plans for firmware updates for SMETS1 functionality changes, and that one remaining tranche of firmware updates is planned to complete this year. Given that the firmware updates have been most problematic for the DCO, and that the DCC Demand Management team believe that any future significant traffic increases through the DCO could be covered by temporary on demand scaling managed by the DCC and Capgemini Demand Management, the proposal for a DCO-2 change has been descope from the MHHS release.

5.7 Changes to SEC Party Systems

While out of scope of the work for the Service Providers, changes will be required to Supplier and MDRA systems:

- Set up SRVs to retrieve data from ESME belonging to customers that have agreed to provide HH data
- Potentially modify their own systems to handle data retrieved during DCC Total System Off Peak Scheduling window
- Manage the handling of the data whenever retrieved
- Sending the data to the Elexon MHHS central service
- Suppliers or Adapter Providers will need to update their DUIS schema if they wish to schedule SRV 4.2 for SMETS1 devices

If a Supplier elects to use the MDRA service, then they still have to manage their own ESME.

5.8 Guidance to SEC Parties

Guidance to SEC Parties, namely Suppliers and MDRAs will be developed by DCC after the Modification is approved, and issued as part of the supporting materials for the SEC Release. This information will also be shared at the Design Release Forum (DRF).

DCC will maintain the guidance for Users not to specify set times in their schedules for a SRV such as 4.8.1. Other content of the guidance will include preferred usage patterns, such as daily reads of 48 HH readings, the use of scheduled services, and so on. As part of accreditation process, MDR Users will need to request DCC User Gateway connections appropriate to their anticipated Service Request volumes, and this will be included in the guidance.

6 Testing Considerations

This Full Impact Assessment includes the cost to develop, fully test and deliver this SEC Modification.

DCC has challenged, and continues to challenge, all the Service Providers' figures for Testing. In some cases, the Service Provider is moving to a different model with a greatly reduced run rate, but the approvals and permission to change must be gathered from different teams such as DCC Commercial and Test Assurance.

6.1 Testing Assumptions

The following Testing Assumptions were provided to Service Providers for their FIA submissions.

PIT Area	Assumption
Scope	Include only Production codebase products, e.g., exclude ITCH or RTL
Communication Hub	Change testing will be limited to PIT testing of the new functionality outlined in the Modification plus one cycle of targeted regression testing.
Repeat Testing	A subset of PIT System test cases will be conducted for DCC Test Assurance witnessing
Non-Functional & Performance Testing	Will be carried out at the PIT stage

SIT and UIT Area	Assumption
Standalone Release	As required by SECMP0049, with costs calculated as if no other Modifications or CRs are in the SEC release
SIT Testing	Eight weeks
UIT Testing	Six weeks
Test Sets (SMETS2)	10 Test Sets per Communication Hub type (meaning 20 for CSP South and Central 5 Single Band CH, 5 Dual Band CH but two manufacturers). A device set will be agreed.
Regression Testing	Risk based regression testing.

Note that CSP South and Central reduced the required test sets to 16.

This Modification is characterised by limited functionality changes and capacity uplifts, with a high proportion of the overall costs associated with SIT and UIT. In previous SEC Releases, the testing mandate has been to provide full-sized SIT and UIT (A and B-stream) environments. DCC recommends the investigation of the testing regime with a view to potentially reducing the test environment sizing and testing extent in some of those environments, with consequential significant cost saving implications at a low risk to testing integrity. This work would be carried out by DCC Test Assurance as part of the definition of the Release (post-PIT) Change Request for the SEC Release.

6.2 Pre-Integration Testing (PIT)

PIT activities will include the following Service Provider activities.

DSP	• Development of the technical implementation of the functional and non-functional requirements, including Technical Assurance activities to ensure quality of code and lead integration activities. • Security changes are very limited in this Modification; penetration testing will not be required. • Performance Testing in the PIT performance environment.
CSP S&C	None
CSP N	• deploy and test the TK channel plan update in the PIT environment • verify all Comms Hubs types successfully passing SRVs
CGI IE	• Validation of MHHS functionality changes
Secure	• Testing cycles with targeted testing containing positive and negative testing use cases and scenarios • A regression cycle to ensure the associated components are working as expected • Extract data to its reporting systems where development and testing would be required in both the S1SP system and Offline system • Test the changes within its offline system against scheduled SRV 4.2 • End-to-end testing including performance reporting
Trilliant	• Testing to ensure new functionality correctly implemented • Limited regression testing to validate components not impacted by MHHS • Performance testing
DXC	• Validation of MHHS functionality changes • Check that infrastructure for Production built and implemented correctly
Capgemini (DCO)	• regression test existing DCO non-firmware functionality • tests for system capacity against the updated infrastructure model • test DCO functionality against the updated infrastructure • test DCO system capacity against the updated infrastructure
	•

Table 5: PIT Activities for MHHS

6.3 System Integration Testing (SIT)

The expected SIT activities are documented below. All testing is expected to be carried out as part of February 2024 SEC Release testing on the "B Stream" environments, in accordance with existing practices for SEC releases. At this time it is considered unlikely that this Release will contain other Modifications and CRs,

The DSP SIT team will plan, prepare and execute tests that demonstrate the key changes in behaviour across the DCC Total system, comprising:

- a. maintenance of MDRA appointments within the registration data for each MPAN, with the CSS responsible for the data and its distribution to DSP, covering the initial bulk load and changes of MDRA party for an MPAN

- b. maintaining Users in the MDR role, mapping them to registration data and obtaining their SMKl certificates
- c. providing the MDR Users with access to SSI functions
- d. MDR Users are able to submit only the 11 SRVs identified for their use
- e. collection of the HH data for meter sets with variations to the Customer and Supplier preference
- f. SMETS1 meters for each S1SP and SMETS2 meters for each CSP
- g. concurrent collection of MHHS data from multiple meter sets, across multiple Suppliers, some using MDR Users, for both Import and Export data over a period of time to measure performance
- h. reporting of MHHS collections and the MDR User activities³

The DSP SIT team will be in control of all tests executed within the SIT environment, planning and co-ordinating test across all other Service Providers and CSS.

CSP North will also deploy and test the TK channel plan update in the SIT environments.

The SMETS2 and SMETS1 Service Providers will provide SIT support, including Test Lab, Functional / Regression test support, Triage, Release, Defect and Test Management support. The estimates for this effort reflect previous SEC Releases, and will be recalculated as part of the Release (post-PIT) CR. As currently specified, the SIT-A and SIT-B environments will need to be created for the S1SPs.

Critical Software will provide general support for other SIT-B activities.

6.4 User Integration Testing (UIT)

The scope and extent of the testing is expected to include:

- the creation of DSP schedules as the new MDR user creating schedules for the relevant Service Requests
- performing tests against three already migrated SMETS1 (IOC, MOC, FOC) meter sets to test the change to the S1SP interface
- performing tests against two SMETS2 meter sets
- running automated Service Request regression test packs on one SMETS2 meter set to regression test the DUIS changes
- running the automated Service Request regression test packs on one (1) SMETS1 meter set to regression test the DUIS changes

The SMETS2 Service Providers, S1SPs and SMETS1 CSPs will provide defect, triage and Release Management support in UIT for the MDR new role. CSP North will also deploy and test the TK channel plan update in the UIT environments.

As currently specified, new UIT-A and UIT-B environments will need to be created for the S1SPs with extensive testing.

Critical Software will provide support to DCO testing carried out by Capgemini as part of UIT-B, and general support for other UIT-B activities.

³ Notice that this item is not a requirement for the Modification, rather a test artefact

6.5 User Entry Process Tests (UEPT)

Although not part of the technical solution, in terms of the MDRs carrying out UEPT, DCC believe . MDRs should start testing in time for UIT. This assumes that the SMKI Repository Entry Process Testing (SREPT) process is complete before UEPT. DCC's UIT team has indicated that the Common Test Scenarios Document (CTSD) would have to be in force before the start of UIT, with an anticipated release of the CTSD in the November 2023 SEC Release. That is a staggered implementation, but not of the technical solution.

6.6 System Integration

The role of the DSP Systems Integrator (SI) will be focused on release management of the integrated SIT-B, UIT-B, SIT-A and UIT-A environments; particularly maintaining the Release Baselines where any changes or defect fixes will increment the release baseline in that environment. This activity will also include uplift management of SIT-A, UIT-A and Production environments.

The Modification will significantly increase the volume of messages being processed by the DSP, and as such, the DSP Operational Service will require an uplift in order to support and maintain the solution. DSP has provisioned an increase in the support during the SIT and UIT period to ensure that any issues raised during this period are resolved with minimal impact. Also during this period DSP will refine and review alerting thresholds based on the increased volumes in SRV processing. Due to the potential impact of the additional traffic volumes the operational support will include increased, ongoing, monitoring of the solution as well as technical support.

6.7 Implementation and Deployment

DXC are required to deploy new software in any of the Trilliant regulated test environments.

7 Implementation Timescales and Releases

This Modification is expected to be included in a SEC Release in February 2024. Implementation timescales will be finalised as part of the relevant SEC Release Change Request.

7.1 Change Lead Times and Timelines

From the date of approval (in accordance with Section D9 of the SEC), to implement the changes proposed DCC requires a lead time of approximately **17 months**.

The broad breakdown of the testing regime is shown in the following table in months after an approval decision date (D).

Phase	Timing
SECAS agreement on scope of release	D
CAN signature	D+1 month
Design, Build and PIT Phase	D + 9 months
SIT and UIT Phase, aligned with Release Dates	D + 17 months
Transition to Operations and Go Live	D + 17 months

7.2 SEC Release Allocation and Other Code Impacts

This Modification is expected to be implemented as part of the February 2024 SEC Release, however the allocation to a release may be dependent on other Modification timings and the suitability of a release. No functionality overlap with other Modifications has been identified at the time of undertaking this Impact Assessment.

It should be noted that there are no shared code elements, such as DUIS changes or Parse and Correlate updates, nor is there any shared regression testing in the February 2024 Release.

7.3 Costs and Charges

This section indicates the quote for all phases of application development stage for this Modification. Note these costs assume a release of just this SEC Modification without any other Modifications or Change Requests, and as planned, this Modification is likely to make up all of the February 2024 SEC Release. A further calculation of the post-PIT will be costs determined through a "Release CR" also referred to as a "post-PIT CR".

£	Design and Build	PIT	SIT	UIT	TTO	Total
SMETS2 Service Providers	£2,894,166	£862,410	£1,947,638	£297,544	£153,396	£6,155,154
SMETS1 Service Providers	£1,257,034	£876,091	£413,897	£272,681	£30,531	£2,884,586
Total	£4,151,200	£1,738,500	£2,361,535	£570,225	£183,927	£9,039,740

Design The production of detailed System and Service designs to deliver all new requirements. General mobilisation activities may be included in this phase.

Build The development of the designed Systems and Services to create a solution (e.g. code, systems, or products) that can be tested and implemented.

Pre-Integration Testing (PIT) Each Service Provider tests its own solution to agreed standards in isolation of other Service Providers. This is assured by DCC.

Systems Integration Testing (SIT) All the Service Provider's PIT-complete solutions are brought together and tested as an integrated solution, ensuring all SP solutions align and operate as an end-to-end solution. If the Modification makes up the entire release, there are unlikely to be reductions in costs of PIT and SIT typically seen in other SEC Releases.

User Integration Testing (UIT) Users are provided with an opportunity to run a range of pre-specified tests in relation to the relevant change.

Implementation to Live (TTO) The solution is implemented into production environments and made ready for use by Users as part of a live service.

7.4 Application Support

The Modification is expected to significantly increase the volume of messages being processed by the application, and as such, the Operational Service will require an uplift in order to support and maintain the solution. In general, the potential impact of the additional traffic volumes will include hardware and capacity upgrades with associated running costs, increased, ongoing, monitoring of the solution as well as technical support. A generalised monthly cost is provided, as each SP has a different end of contract date, for example, DSP will support the additional functionality until the end of the current Term of the Agreement (31st October 2024).

DSP	Application Support related to increased traffic, monitoring and increases of support calls, plus infrastructure running costs.
CSP S&C	Additional Storage and bandwidth support in its reporting platform (due to SMWAN traffic) – to be able to handle the increase in the SMWAN traffic introduced in this change. Monitoring support for the SMWAN traffic received in the new window.
CSP N	Additional frequency costs, data licencing, additional volume charges for data relating to data, monthly charge for additional SMWAN channels provided for MHHS for Standard 420 and Standard 420 DB Communications Hubs.
CGI IE	Additional Redis database support and licensing costs
DXC	Hardware, Application Support and Annual Elastic Search Licence Charge running costs
Vodafone	30 days enhanced Support at initial rollout.

Note that DCC are challenging all the Service Provider's figures for Application Support. In some cases, the Service Provider is moving to a different model with a greatly reduced run rate, but the approvals and permission to change must be gathered from different teams such as DCC Commercial and Test Assurance.

App Support Subsequent months	£194,687

7.5 Contracts and Schedules

The contract updates will be detailed within the CAN and will impact the following schedules:

- Schedule 1 (New definitions)
- Schedule 2.1 (DCC Requirements)
- Schedule 3 (DCC Responsibilities)
- Schedule 4.1 (Contractor Solution)
- Schedule 6.1 (Implementation Planning)
- Schedule 7.1 (Charges and Payment)

Appendix A: Risks, Assumptions, Issues, and Dependencies

The tables below provide a summary of the Risks, Assumptions, Issues, and Dependencies (RAID) observed during the production of the Full Impact Assessment. DCC requests that the Working Group considers this section and considers any material matters that have been identified. Changes may impact the proposed solution, implementation costs and/or implementation timescales.

This RAID should be viewed in conjunction with the following sections relating to the DCC design which were used by the Service Providers in their FIA submissions in Appendix C: Supporting Materials:

- Design Principles
- Design Assumptions
- Non-Functional Requirement Assumptions
- Functional Requirement Enhancements
- Assumptions for User Demand and Infrastructure Capacity

Risks

Ref	Description	Status/Mitigation
MP162-DR1	Should the Assumption in Section 4.2 regarding User Behaviours prove not to be true, there is a risk that the volumetric assumptions, provided by DCC in section 4.1.3, will need to be reviewed and, therefore, the assumptions and costings of this Modification will need to be reviewed.	Medium risk, high impact. Additional capacity would be required as part of DCC Demand Management
MP162-DR2	The SMETS1 local cache solution discussed in Section 4.5 was proposed during the PIA and discussed with the Industry via the Working Group and TABASC. However DCC is aware of recent issues using a similar cache solution in FOC cohort at the time of submission of this FIA and assumes the FOC issues around data cache (Opt-in, Opt-out) will be resolved before the approval of this Modification. Any changes in proposed SMETS1 cache solution would require re-assessment of SMETS1 solution for this Modification due to overall assumptions made in the non-functional area as explained in section 4.	Closed. Decision made to allow the S1SP cache for selected SRVs with limited period for retention.
MP162-DR3	The lack of an integrated performance test environment could result in unpredictable behaviour once Service Provider solutions are deployed to the Production environment.	DCC will assure each SP's performance testing and validate compliance with the agreed volumetric assumptions. Further, DCC will carefully plan the MHHS rollout schedule with industry bearing in mind the inability to test at

		volume across the DCC Total System.
MP162-DR4	There is currently an operational problem with Service Users inability to receive Service Responses at the rate they are generated during overnight Scheduled data collection. The collection of Settlement data during the working day increases the risk of this problem occurring in working hours and impacting other Service User activity such as Install and Commission of SMETS2 devices.	While MHHS does not provide a solution to this concern, other DCC programmes including BaU enhancement will mitigate this concern. The Northbound Prioritisation component will mitigate concerns on I&C activity.
MP162-DR5	Infrastructure procurement lead times could increase due to the impact of COVID-19 and global component shortages.	No risk for SPs with no infrastructure upgrades, low risk for remaining SPs.
MP162-CR6	Given the predicted change in user behaviour, it is likely that the number of Service Requests the DCO is going to receive after Go Live (Feb24) will increase. That poses the risk that if no action is taken, the overall system performance will degrade.	Carefully monitor Service User behaviour around the CGI-IE S1SP load in terms of SRVs impacted by MHHS, and take action to scale the DCO System if/when needed. This monitoring will be undertaken by DCC.
MP162-DR7	After consultations with SMETS1 meter manufacturers, DCC have determined no firmware updates for SMETS1 meters are planned in 2023 or later. This led to the descoping of the DCO2 change. If there is a requirement for a firmware update this could be a risk to the DCO.	DCC Demand Management to carefully monitor system load, and DCC to monitor if there is a need for firmware updates. DCC Demand Management can scale the solution if required.

Assumptions

These assumptions have been used in the creation of this Full Impact Assessment. Any changes to the assumptions may require DCC to undertake further assessment, prior to the contracting and implementation of this change.

Ref	Description	Status/Mitigation
MP162-DA1	The DSP will maintain MDRA appointments to Meter Point Administration Numbers (MPANs) by processing a new data flow received over the CSS interface. However as described in section 4.1.5, this design has not been confirmed yet for the wider MHHS programme.	DCC will continue to press wider MHHS programme for interface specifications.
MP162-DA2	The on boarding of MDRs to use the DSP will be a similar process to that of other DCC Service Users, including the setting up of SMKI certificates.	Accepted
MP162-DA3	The MDR will sign XML messages using the generic "XML Signing" role and the SMKI policy will be updated to allow the User Role MDR to request Key Agreement Key (KAK) certificates for encryption with a SMKI role of "Other".	Accepted
MP162-DA4	Since the MHHS is a new service, there is no requirement to process a backlog of MDRA appointments.	Accepted.
MP162-DA5	The appropriate modifications to the CSS interface to include the data will be made before work commences on this Modification, and the MDR appointment data will be provided to DCC Data Systems via CSS.	Similar to MP162-DA1
MP162-DA6	The CSS RegistrationEventSynchronisation message can be extended to accommodate MDRA assignments as Supplier Arranged Appointments.	Accepted
MP162-DA7	SIT Device sets only need to contain a Comms Hub and an ESME.	Accepted although CSP N test sets relating to network optimisation are likely to contain GSME and PPMIDs.
MP162-DA8	The DCC Total System has no knowledge of the Opted Out status of any meter point, e.g. SIT will not be able to validate the correct SR is submitted by a MDR or Supplier for any meter point. It is down to the Supplier or MDR to collect MHHS data from the correct device.	Accepted
MP162-DA9	An MDR User will not use SRV4.1.1 to collect data from a SMETS2+ device. It is therefore not required to update GBCS to accept an ECS17b command from the ACB.	Accepted
MP162-DA10	DUIS schema and DUGIDS need to be updated to support scheduling of SRV 4.2. There will be no changes to the SMETS or CHTS technical specifications.	Accepted, likely to be a minor change
MP162-DA11	Newly accredited MDR Users will request DCC User Gateway connections appropriate to their anticipated Service Request volumes.	Accepted, but guidance should

		be given to MDRAs
MP162-DA12	For some SMETS1 ESME where device is configured to push data based on DSP schedule, data against scheduled SRV 4.2 will be returned with last midnight snaps only.	Accepted
MP162-TA13	Assume no changes to Comms Hubs, Comms Hub memory, or Comms Hub firmware related to this Modification.	Accepted
MP162-TA14	CSP S&C assumes that the list of devices and emulators to validate this CR in SIT, UIT will be similar to that of previous SEC Programme Releases, e.g., November 2021 SEC Release.	Not the case, but this will be re-assessed as part of the Release CR.

Issues

Ref	Description	Status/Mitigation
MP162-AI1	For CSP North to provide the MHHS service in the Fylingdales area, additional channel licences must be granted by OFCOM. CSP North have requested licenses, but have received no responses from OFCOM. Currently MHHS cannot be rolled out in the Fylingdales postcodes.	Open. If OFCOM provide the required licenses, this will be added to the scope of this Modification.

Dependencies

Ref	Description	Status/Mitigation
MP162-DCCD1	The DSP will maintain MDRA appointments to Meter Point Administration Numbers (MPANs) by processing a new data flow received over the CSS interface. However as described in section 4.1.5, this design has not been confirmed yet for the wider MHHS programme.	Accepted
MP162-DCCD2	Changes to the CSS will be required to accept the new data flow from the wider MHHS programme, and to pass the required data to the DSP.	Accepted

Appendix B: Glossary

Acronym	Definition
ACB	Access Control Broker
ANSO	Application, Network, System Operator
BSC	Balancing and Settlement Code
CAN	Contract Amendment Note
CGI IE	CGI Instant Energy
CR	DCC Change Request
CSP	Communication Service Provider
CSS	Central Switching Service
Comms Hub, CH	Communications Hub
DCC	Data Communications Company
DCO	Dual Control Organization
DPIA	Data Protection Impact Assessment
DSP	Data Service Provider
DUGIDS	DCC User Gateway Interface Design Specification
DUIS	DCC User Interface Specification
EFD	Effective From Date
ES	Export Supplier
ESME	Electricity Smart Metering Equipment
ETD	Effective To Date
E2E	End to End
FIA	Full Impact Assessment
FOC	Final Operating Capability
GB	Gigabytes
GBCS	Great Britain Companion Specification
GFI	GBCS Integration Testing For Industry
GSME	Gas Smart Metering Equipment
HH	Half-Hourly
IOC	Initial Operating Capability
IS	Import Supplier
I&C	Install and Commission
KAK	Key Agreement Key
MDR	Meter Data Retriever - (New User

	Role)
MDRA	MDR Agents
MHHS	Marketwide Half-Hourly Settlement
MOC	Middle Operating Capability
MPAN	Meter Point Administration Number
MPID	Market Participant Identifier
MT SMS	Mobile terminating SMS message
NHH	Non Half-Hourly
OU	Other User
PDP Context	Packet Data Protocol context
PIA	Preliminary Impact Assessment
PIT	Pre-Integration Testing
P&C	Parse & Correlate
RAN	Radio Access Network
RBAC	Role Based Access Control
RF	Radio Frequency
ROM	Rough Order of Magnitude (cost)
RNI	Regional Network Interface
RSA	Registered Supplier Agent
RTDS	Reference Test Data Set
SAA	Supplier Arranged Appointments
SAT	Service Audit Trail
SCR	Ofgem's Electricity Settlement Reform Significant Code Review
SEC	Smart Energy Code
SECAS	Smart Energy Code Administrator and Secretariat
SIT	System Integration Testing
SLA	Service Level Agreement
SMETS	Smart Metering Equipment Technical Specification
SM WAN, SMWAN	Smart Metering Wide Area Network
SMI	Smart Metering Inventory
SR	Service Request
SRV	Service Request Variant

SSI	Self Service Interface	TK	Transceiver Kit
SSMI	Self Service Management Interface	TOM	Target Operating Model
S1SP	SMETS1 Service Provider	TRT	Target Response Times
TABASC	The Technical Architecture and Business Architecture Sub-Committee	UEPT	User Entry Process Testing
		UIT	User Integration Testing
		URP	Unknown Remote Party

Appendix C: Supporting Materials



FIA-SECMP016
Context and Require

Appendix D: DUIS Uplift Supporting Information

For avoidance of doubt, and in line with DCC's standard DUIS design principles, Users are not mandated to move to the new version of DUIS that will be introduced to support the proposed MHHS solution.

Existing Users have a choice to implement this new version or not, and if not, can continue to use their existing DUIS interface version.

Existing User?	Will use MDR User Role?	New DUIS Version Impacts?
Yes	No	Existing Users have the choice to implement this new version, and if not, can continue to use their existing DUIS interface version. This scenario would apply for any existing Supplier who is not looking to use the new MDR User Role and use their existing Supplier User Role(s) for MHHS data collection purposes. <u>Limitation</u> – Users who do not upgrade to use the latest DUIS version would not be able to use the additional DCC Scheduling Services for <u>SRV 4.2 – ReadInstantaneousExportRegisters</u> and these would have to be sent to the DCC using "On-Demand" - Until an existing User upgrades to the latest released DUIS version to support the proposed MHHS solution changes, DCC recognises SRV 4.2 sent for MHHS purposes can ONLY be sent on an "On Demand" basis by Users. - DCC would encourage all Users to upgrade to the latest DUIS version as soon as practically possible to help DCC and Users manage the additional SRV 4.2 Request and Response Volumes for SMETS1 meters as using this as an On Demand SR is not as efficient as using the new scheduled service option.
Yes	Yes	Existing Users who want to extend their Eligible User Roles to include the new MDR User Role must upgrade their DUIS version to align with the new MDR User Role definition and Eligible Users status in the updated DUIS version.
No	Yes	New Users are usually expected to use the latest DUIS version and so will be able to use all the new features and functionality included within the latest DUIS version. This scenario would apply for any new MDR party who is not an existing User of DCC Services.
No	No	New Users are usually expected to use the latest DUIS version and so will be able to use all the new features and functionality included within the latest DUIS version.

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MP162 ‘SEC changes required to deliver MHHS’

Annex C

Legal text – version 0.5

About this document

This document contains the redlined changes to the SEC that would be required to deliver this Modification Proposal.

Section A ‘Definitions and Interpretations’

These changes have been redlined against Section A version 24.0.

Amend the following definitions in Section A1.1 as follows:

Appropriate Permission

means, in respect of a Communication Service or Local Command Service to be provided to a User in respect of a Smart Metering System at a premises that will result in the User obtaining Consumption Data, either:

- (a) (where that User is the Import Supplier, Export Supplier, Gas Supplier, Electricity Distributor or Gas Transporter for that Smart Metering System) that the User does not need consent to access that Consumption Data in accordance with its Energy Licence, or that the User has consent (whether explicit or implicit) in accordance with the requirements of its Energy Licence; or
- (b) (where that User is not the Import Supplier, Export Supplier, Gas Supplier, Electricity Distributor or Gas Transporter for that Smart Metering System) that the Energy Consumer has given the User Unambiguous Consent to obtain that Consumption Data and such consent has not been withdrawn.

For clarity, where a Registered Supplier Agent or Meter Data Retriever is acting on behalf of a Supplier Party as described in Section H2.2 (Responsibility for Registered Supplier Agents) or Section H2A.2 (Responsibility for Meter Data Retrievers), then it may do so in reliance on paragraph (a) above, by reference to the Energy Licence of and/or consent obtained by the Supplier Party in question.

Other SEC Party

means a Party that is not the DCC, is not a Network Party, and is not a Supplier Party. For clarity, this includes those Parties which are not Network Parties or Supplier Parties and which intend to operate as Registered Supplier Agents and/or Meter Data Retrieval Services.

Other User

means, for a Smart Metering System or a Device and any period of or point in time, a User that is not acting in the User Role of Import Supplier, Export Supplier, Gas Supplier, Electricity Distributor, Gas Transporter, ~~or~~ Registered Supplier Agent or Meter Data Retriever (regardless of whether in fact that User is a Responsible Supplier or the Electricity Distributor or the Gas Transporter or the Registered Supplier Agent or the Meter Data Retriever during that period of or at that point in time).

Security Sub-Committee (~~MDR~~ and Other User) Member

has the meaning given to that expression in Section G7.10 (Membership of the Security Sub-Committee)

User Role

means, in respect of the Service set out in the DCC User Interface Services Schedule and Elective Communication Services, one of the categories of User that is capable of being an Eligible User in respect of those Services (determined without reference to a particular Smart Metering System), and which comprise the following categories (construed without reference to a

particular Smart Metering System): Import Supplier, Export Supplier, Gas Supplier, Electricity Distributor, Gas Transporter, Registered Supplier Agent, Meter Data Retriever and Other User.

Add the following new definitions to Section A1.1 in alphabetical order as follows:

<u>Meter Data Retrieval Service</u>	<u>means the person that is appointed by the Smart Data Service to retrieve metering data for the purposes of market-wide half-hourly settlement.</u>
<u>Meter Data Retriever (or MDR)</u>	<u>means, for a Smart Metering System or a Device and any period of or point in time, the User that is appointed by the Smart Data Service as the Meter Data Retrieval Service in respect of the MPAN relating to that Smart Metering System or Device.</u>
<u>Smart Data Service</u>	<u>has the meaning given to that expression in the BSC.</u>

Section G ‘Security’

These changes have been redlined against Section G version 13.0.

G7. SECURITY SUB-COMMITTEE

Membership of the Security Sub-Committee

Amend Section G7.3 as follows:

G7.3 The Security Sub-Committee shall be composed of the following persons (each a “**Security Sub-Committee Member**”):

- (a) the Security Sub-Committee Chair (as further described in Section G7.5);
- (b) eight Security Sub-Committee (Supplier) Members (as further described in Section G7.6);
- (c) two Security Sub-Committee (Network) Members (as further described in Section G7.8);
- (d) one Security Sub-Committee (MDR and Other User) Member (as further described in Section G7.10);
- (e) one Security Sub-Committee (Shared Resource Provider) Member (as further described in Section G7.12);
- (f) one representative of the DCC (as further described in Section G7.15).

Amend Sections G7.10 and G7.11 as follows:

G7.10 The “**Security Sub-Committee (MDR and Other User) Member**” shall (subject to any directions to the contrary made by the Secretary of State for the purpose of transition on the incorporation of this Section G7 into this Code):

- (a) be appointed in accordance with Section G7.11, subject to compliance by the appointed person with Section C6.9 (Member Confirmation);
- (b) retire two years after his or her appointment (without prejudice to his or her ability to be nominated for a further term of office); and
- (c) be capable of being removed from office in accordance with Sections C4.5 and C4.6 (Removal of Elected Members), for which purpose those Sections shall be read as if references to “Elected Member” were to “Security Sub-Committee (MDR and Other User) Member”, references to “Panel” were to “Security Sub-Committee”, references to “Panel Chair” were to “Security Sub-Committee Chair”, and references to “Panel Members” were to “Security Sub-Committee Members”.

G7.11 The Security Sub-Committee (MDR and Other User) Member shall (subject to Section G7.14) be appointed in accordance with a process:

- (a) by which he or she is elected by those Other SEC Parties which are Meter Data Retrievers and/or Other Users; and
- (b) that is otherwise the same as that by which Elected Members are elected under Sections C4.2 and C4.3 (as if references therein to “Panel” were to “Security Sub-Committee”, references to “Panel Chair” were to “Security Sub-Committee Chair”, references to “Panel Members” were to “Security Sub-Committee Members”, and references to provisions of Section C or D were to the corresponding provisions set out in or applied pursuant to this Section G7).

Amend Section G7.14 as follows:

G7.14 The following shall apply in respect of all candidates nominated or re-nominated for election as a Security Sub-Committee (Supplier) Member, Security Sub-Committee (Network) Member, Security Sub-Committee (MDR and Other User) Member or Security Sub-Committee (Shared Resource Provider) Member:

- (a) the Security Sub-Committee may, by no later than 5 Working Days following the expiry of the period of time set out in the request for nominations, reject a candidate (by notifying the candidate of such rejection) where the Security Sub-Committee determines that the candidate does not satisfy one or more of the following requirements:
 - (i) the candidate must have been nominated by a company or other organisation, and the individual who submitted the nomination on behalf of the organisation must hold a senior position within the organisation;
 - (ii) the organisation which nominated the candidate must have confirmed that it is satisfied that the candidate has the relevant security expertise in relation to the category of membership of the Security Sub-Committee for which the candidate has been nominated;
 - (iii) the organisation which nominated the candidate must have confirmed that the candidate has successfully completed a BS7858 security assessment (or a security assessment named by such organisation which the organisation confirms to be equivalent); and
 - (iv) the candidate must have sufficient security expertise in relation to the category of membership of the Security Sub-Committee for which the candidate has been nominated;
- (b) a candidate who is rejected under paragraph (a) above shall not (subject to paragraph (c) below) be an eligible candidate for the relevant election;
- (c) where a candidate disputes a rejection notification under paragraph (a) above, the candidate shall have 3 Working Days following receipt of such notification to refer the matter to the Panel for its final determination of whether the candidate satisfies the requirements set out in paragraph (a) above; and
- (d) where necessary, the Secretariat shall delay giving notice of the names of eligible candidates pending expiry of the time periods set out in paragraph (a) and/or (c) or determination by the Panel under paragraph (c) (as applicable).

G8. USER SECURITY ASSURANCE

Amend Section G8.47 as follows:

Security Assurance Assessments: Post-User Entry Process

[...]

Meter Data Retrievers and Other Users

G8.47 Where a User is neither a Supplier Party nor a Network Party, Section G8.40 requires the User to schedule a User Security Verification Assessment and the User shall:

- (a) within 12 months after the previous User Security Verification Assessment, schedule a User Security Self-Assessment;
- (b) within 12 months after the User Security Self-Assessment schedule a Full User Security Assessment with the User Independent Security Assurance Service Provider; and
- (c) within 12 months after each Full User Security Assessment, schedule a User Security Verification Assessment.

Amend Section G8.63 as follows:

Shared Resource Providers

[...]

G8.63 For the purposes of Section G8.40, where a Shared Resource Provider provides Shared Resources to Users which are:

- (a) Supplier Parties, the provisions of Sections G8.41 and G8.42 shall apply to the Shared Resource Provider as if it was a Supplier Party and the Smart Metering Systems for which those Supplier Parties are the Responsible Suppliers were Smart Metering Systems for which it is the Responsible Supplier;
- (b) Network Parties, the provisions of Sections G8.44 to G8.46 shall apply to the Shared Resource Provider as if it was a Network Party and the Smart Metering Systems for which those Network Parties are the Electricity Distributor and/or Gas Transporter were Smart Metering Systems for which it is the Electricity Distributor and/or Gas Transporter;
- (c) Meter Data Retrievers and/or Other Users, the provisions of Section G8.47 shall apply to the Shared Resource Provider as if it was a Meter Data Retriever and/or an Other User (respectively).

Section H ‘DCC Services’

These changes have been redlined against Section H version 14.0.

H1. USER ENTRY PROCESS

Amend Section H1.6 as follows:

User IDs

[...]

H1.6 The DCC shall accept each identification number proposed by each Party in respect of each of its User Roles (and record such numbers as identifying, and use such numbers to identify, such Party in such User Role); provided that the DCC shall only accept the proposed number if it has been issued by the Panel, and if (at the time of the Party's proposal) the Party:

- (a) holds for the User Role of ‘Import Supplier’ or ‘Export Supplier’, an Electricity Supply Licence;
- (b) holds for the User Role of ‘Gas Supplier’, a Gas Supply Licence;
- (c) holds for the User Role of ‘Electricity Distributor’, an Electricity Distribution Licence;
- (d) holds for the User Role of ‘Gas Transporter’, a Gas Transportation Licence; ~~and~~

~~(e)~~ is for the User Role of ‘Registered Supplier Agent’, identified in the Registration Data as a Meter Operator or a Meter Asset Manager for at least one MPAN or MPRN; ~~and~~

~~(e)(f)~~ is for the User Role of ‘Meter Data Retriever’, qualified as part of the Smart Data Service under the BSC.

Amend Section H1.10 as follows:

User Entry Process Requirements

H1.10 The User Entry Process for each User Role requires that the Party has:

- (a) received confirmation from the DCC of its acceptance of at least one User ID for the Party and that User Role in accordance with Section H1.6;
- (b) successfully completed the User Entry Process Tests for that User Role in accordance with Section H14 (Testing Services);
- (c) successfully demonstrated in accordance with the procedure set out in Section G8 (User Security Assurance) that the Party meets the applicable security requirements required by that Section;

- (d) (in the case only of the User Roles of Meter Data Retriever and Other User) successfully demonstrated in accordance with the procedure set out in Section I2 (Meter Data Retriever and Other User Privacy Audits) that the Party meets the applicable privacy requirements required by that Section; and
- (e) provided the Credit Support or additional Credit Support (if any) that the DCC requires that Party to provide, to be calculated by the DCC in accordance with Section J3 (Credit Cover) as if that Party were a User for that User Role (which calculation will include the DCC's reasonable estimates of the Charges that are likely to be incurred by that Party in that User Role in the period until the first Invoice for that Party is due to be paid by that Party in that User Role).

Add Section H2A as follows:

H2A METER DATA RETRIEVERS

Rights and Obligations of Meter Data Retrievers

H2A.1 Meter Data Retrievers are Parties to this Code in their own right, and as such have rights and obligations as Other SEC Parties or as Users acting in the User Role of Meter Data Retriever.

Responsibility for Meter Data Retrievers

H2A.2 It is acknowledged that the following Services (as described in the DCC User Interface Services Schedule) are only available to Users acting in the User Role of Meter Data Retriever by virtue of their appointment by the Smart Data Service as a Meter Data Retrieval Service in respect of the relevant MPAN:

- (a) Read Instantaneous Registers;
- (b) Retrieve Daily Read Logs;
- (c) Read Profile Data; and
- (d) Retrieve Daily Consumption Log.

H2A.3 Without prejudice to the rights and obligations of each Meter Data Retriever (as described in Section H2A.1), the Supplier Party described in Section H2A.4 shall ensure that each Meter Data Retriever that sends Service Requests for the Services described in Section H2A.2 shall only do so for the purposes of providing services to that Supplier Party in a manner consistent with that Supplier Party's Energy Supply Licence.

H2A.4 The Supplier Party referred to in Section H2A.3 is, in respect of a Service relating to a Smart Metering System or Device, the Responsible Supplier for that Smart Metering System or Device.

H2A.5 Nothing in this Code obliges Supplier Parties to contract with Meter Data Retrieval Services in order to procure from the Meter Data Retrieval Service services that result in the need for the Meter Data Retrieval Service to send Service Requests.

H2A.6 Each Supplier Party shall be responsible for controlling the ability of the Meter Data Retriever to send the Service Requests referred to in Section H2A.2 in circumstances where that Supplier Party would be liable under Section H2A.3.

H3. DCC USER INTERFACE

Amend Sections H3.8 and H3.10 as follows:

Eligibility for Services Over the DCC User Interface

H3.6 A User shall not send a Service Request in respect of a Smart Metering System (or a Device forming, or to form, part of a Smart Metering System) unless it is an Eligible User for that Service and Smart Metering System (save that a User may send a Service Request in circumstances where it is not an Eligible User in order to rectify errors, as further described in the Service Request Processing Document).

H3.7 Whether or not a User is an Eligible User for the following Services is determined as follows:

- (a) for Enrolment Services, Core Communication Services and Local Command Services, the entitlement is described in Section H3.8; or
- (b) for Elective Communication Services, the entitlement is described in the relevant Bilateral Agreement.

H3.8 Subject to Sections H3.9 to H3.10B (inclusive), the following Users are entitled to receive the following Services in respect of a Smart Metering System (or a Device forming, or to form, part of that Smart Metering System):

- (a) the Import Supplier for that Smart Metering System is entitled to those Services described in the DCC User Interface Services Schedule as being available to the 'Import Supplier';
- (b) the Export Supplier for that Smart Metering System is entitled to those Services described in the DCC User Interface Services Schedule as being available to the 'Export Supplier';
- (c) the Gas Supplier for that Smart Metering System is entitled to those Services described in the DCC User Interface Services Schedule as being available to the 'Gas Supplier';
- (d) the Electricity Distributor for that Smart Metering System is entitled to those Services described in the DCC User Interface Services Schedule as being available to the 'Electricity Distributor';
- (e) the Gas Transporter for that Smart Metering System is entitled to those Services described in the DCC User Interface Services Schedule as being available to the 'Gas Transporter';
- (f) the Registered Supplier Agent for that Smart Metering System is entitled to those Services described in the DCC User Interface Services Schedule as being available to the 'Registered Supplier Agent';

(g) the Meter Data Retriever for that Smart Metering System is entitled to those Services described in the DCC User Interface Services Schedule as being available to the 'Meter Data Retriever';

(g)(h) any User acting in the User Role of Other User is entitled to those Services described in the DCC User Interface Services Schedule as being available to an 'Other User'; and

(h)(i) in respect of certain Services (where specified in the DCC User Interface Services Schedule) and where an electricity Smart Metering System and a gas Smart Metering System share a Communications Hub Function, the Import Supplier is entitled to those Services in respect of the gas Smart Metering System.

H3.9 Subject to Sections H3.10 and H3.10A, a User's eligibility for a Service in respect of a Smart Metering System (or a Device forming, or to form, part of that Smart Metering System) is also dependent upon the status of that Smart Metering System (or such a Device), such that:

- (a) the Responsible Supplier may send Service Requests in respect of Devices that have an SMI Status of 'pending', 'whitelisted', 'installed not commissioned', 'commissioned', or 'suspended';
- (b) Users that are not the Responsible Supplier may only send Service Requests in respect of Devices that have an SMI Status of 'installed not commissioned' or 'commissioned'; and
- (c) Communication Services are not available in respect of a Smart Metering System until it has been Enrolled.

H3.10 Certain Services are available on the basis of Eligible User Role (rather than a User's status as an Eligible User in respect of a particular Smart Metering System or Device). In respect of these Services, references in the DCC User Interface Services Schedule to 'Electricity Import Supplier', 'Electricity Export Supplier', 'Gas Import Supplier', 'Electricity Network Operator', 'Gas Network Operator', 'Registered Supplier Agent', 'Meter Data Retriever' and 'Other Users' are to the corresponding User Roles. The Services in question are those described in the DCC User Interface Services Schedule as:

- (a) 'Request WAN Matrix';
- (b) 'Device Pre-notifications';
- (c) 'Read Inventory';
- (d) 'Communications Hub Status Update - Install Success';
- (e) 'Communications Hub Status Update - Install No SM WAN';
- (f) 'Communications Hub Status Update - Fault Return'; and
- (g) 'Communications Hub Status Update - No Fault Return'.

H3.10A Certain Services (or certain functionality in respect of certain Services) may be identified in the DCC User Interface Services Schedule as not being available in respect of SMETS1 Devices in general or in relation to particular SMETS1 Device Models. Where this is the case, Users are not

Eligible Users for the Services (or affected functionality) that are identified as being unavailable in such circumstances.

H3.10B A Party can, to the extent permitted under the Common Test Scenarios Document, complete User Entry Process Testing for a User Role (and consequently become an Eligible User for that User Role) without successfully completing testing for all the Service Requests potentially available to a User in that User Role. However, such a User will only be an Eligible User for those Service Requests in respect of which it has successfully completed testing (and not those which it has not).

Add Section H3.13A as follows:

Use of Services for purposes relating to the electricity settlements process

H3.13A Users shall submit any Service Requests for the purpose of submitting data into the electricity settlements process through a Scheduled Service where such a Service is available and shall only request an On-Demand Service where a Scheduled Service fails or is not available.

Section I 'Data Privacy'

These changes have been redlined against Section I version 10.0.

Amend Section I1.2 as follows:

I1. DATA PROTECTION AND ACCESS TO DATA

User Obligations

Consumption Data

- I1.2 Each User undertakes that it will not request, in respect of a Smart Metering System, a Communication Service or Local Command Service that will result in it obtaining Consumption Data, unless:
- (a) the User has the Appropriate Permission in respect of that Smart Metering System; and
 - (b) (where that User is not the Import Supplier, Export Supplier, Gas Supplier, Electricity Distributor or Gas Transporter for that Smart Metering System and is not a Registered Supplier Agent or Meter Data Retriever acting on behalf of such Import Supplier, Export Supplier or Gas Supplier as described in Section H2.2 (Responsibility for Registered Supplier Agents) or Section H2A.2 (Responsibility for Meter Data Retrievers)) the User has, at the point of obtaining Appropriate Permission and at such intervals as are reasonably determined appropriate by the User for the purposes of ensuring that the Energy Consumer is regularly updated of such matters, notified the Energy Consumer in writing of:
 - (i) the time periods (by reference to length) in respect of which the User obtains or may obtain Consumption Data;
 - (ii) the purposes for which that Consumption Data is, or may be, used by the User; and
 - (iii) the Energy Consumer's right to object or withdraw consent (as the case may be) to the User obtaining or using that Consumption Data, and the process by which the Energy Consumer may object or withdraw consent.

Section L ‘Smart Metering Key Infrastructure and DCC Key Infrastructure’

These changes have been redlined against Section L version 14.0.

L3. THE SMKI SERVICES

Authorised Subscribers

Amend Section L3.18 as follows:

Organisation Certificates and OCA Certificates

L3.18 Where the DCC, a Network Party or another Party which is (or is to become) a User, or any RDP, is an Authorised Subscriber in accordance with the Organisation Certificate Policy, that person will be an Eligible Subscriber in respect of an Organisation Certificate or OCA Certificate only where:

- (a) if the Subject of that Certificate is:
 - (i) either the DCC (acting pursuant to its powers or duties under the Code) or a DCC Service Provider, that person is the DCC; or
 - (ii) not the DCC, that person is the Subject of the Certificate; and
- (b) if the value of the X520OrganizationalUnitName field in that Certificate is a Remote Party Role corresponding to that listed in the table immediately below, either:
 - (i) that person is the DCC, it is the Party identified with that Remote Party Role in the second column of that table, the Certificate Signing Request originates from the individual System referred in the paragraph of the definition of DCC Live Systems identified in the fourth column of that table, and the Certificate is to be issued to the same individual System from which the Certificate Signing Request originates; or
 - (ii) that person is identified with that Remote Party Role in the second column of that table, and the value of the subjectUniqueID field in the Certificate is a User ID or RDP ID associated with any such User Role or with an RDP as may be identified in the third column of that table.

<u>Remote Party Role</u>	<u>Party</u>	<u>User Role or RDP</u>	<u>DCC Live Systems definition paragraph</u>
root	The DCC	[Not applicable]	(d)
recovery	The DCC	[Not applicable]	(f)
transitionalCoS	The DCC	[Not applicable]	(c)
wanProvider	The DCC	[Not applicable]	(a)

accessControlBroker	The DCC	[Not applicable]	(a) or (b) (as provided for in Section L3.18A)
issuingAuthority	The DCC	[Not applicable]	(d)
networkOperator	A Network Party	Either: (a) Electricity Distributor; or (b) Gas Transporter.	[Not applicable]
supplier	A Supplier Party	Either: (a) Import Supplier; or (b) Gas Supplier.	[Not applicable]
other	An RDP or any Party other than the DCC	Either: Other User; Meter Data Retriever Registered Supplier Agent; Registration Data Provider; or Export Supplier.	[Not applicable]
pppXmlSign	The DCC	[Not Applicable]	(g)
pPRDPFileSign	The DCC	[Not Applicable]	(g)
s1SPxmlSigning	The DCC	[Not Applicable]	(h)
xmlSign	An RDP or any Party other than the DCC	Either: Import Supplier; Gas Supplier; Electricity Distributor; Gas Transporter; Other User; Meter Data Retriever ; Registered Supplier Agent; Registration Data Provider; or Export Supplier.	[Not applicable]
commissioningPartyFileSigning	The DCC	[Not Applicable]	[Only relevant during SMETS1 Migration]
requestingPartyFileSigning	The DCC	[Not Applicable]	[Only relevant during SMETS1 Migration]
s1SPMigrationSigning	The DCC	[Not Applicable]	[Only relevant during SMETS1 Migration]
commissioningPartyXmlSigning	The DCC	[Not Applicable]	[Only relevant during SMETS1 Migration]
loadController	None	None	[Not applicable]
coSPartyXmlSign	The DCC	[Not Applicable]	(c)
dSPXmlSign	The DCC	[Not Applicable]	(a)
aCBXmlSign	The DCC	[Not Applicable]	(b)
wANProviderXmlSign	The DCC	[Not Applicable]	(a)

L3.18A For the purposes of the fourth column of row 5 of the above table, where:

- (a) the Certificate to be issued is to have a keyUsage value of digitalSignature, the Certificate Signing Request must only have originated from the individual System referred to at paragraph (a) of the definition of DCC Live Systems; and
- (b) the Certificate to be issued is to have a keyUsage value of keyAgreement, the Certificate Signing Request must only have originated from the individual System referred to at paragraph (b) of the definition of DCC Live Systems.

L3.18B For the purposes of Section L3.18A, the term 'keyUsage', 'digitalSignature', and 'keyAgreement' shall have the meaning given to that term in the Organisation Certificate Policy.

Schedule 11 ‘TS Applicability Tables’

These changes have been redlined against Schedule 11 version 16.0.

Amend the DUIS Maintenance Validity Period table as follows (*the DUIS version and maintenance start date will be confirmed during implementation*):

DUIS Maintenance Validity Period

DUIS Version	Maintenance Start date	Maintenance End date
1.1	21/07/2017	26/11/2021
2.0	01/02/2018	26/11/2021
3.0	28/07/2019	TBC
3.1	29/11/2019	TBC
4.0	29/11/2020	TBC
5.0	04/11/2021	TBC
<u>X.X</u>	<u>DD/MM/YYYY</u>	<u>TBC</u>

Appendix E 'DCC User Interface Services Schedule'

These changes have been redlined against Appendix E version 6.0.

Amend the following entries in the DCC User Interface Services Schedule as follows:

4.1	4.1.1	Read Instantaneous Import Registers	Import Supplier, Gas Supplier, Electricity Distributor, Gas Transporter	30 seconds	16 seconds		
			<u>Meter Data Retriever</u>	<u>n/a</u>	<u>24 hours</u>		<u>MDRs may only be Eligible Users for this Service in respect of SMETS1 Devices</u>
4.2	4.2	Read Instantaneous Export Register Values	Export Supplier, Electricity Distributor	30 seconds	16 seconds		
			<u>Meter Data Retriever</u>	<u>24 hours</u>	<u>24 hours</u>		
4.6	4.6.1	Retrieve Import Daily Read Log	Import Supplier, Gas Supplier	30 seconds	16 seconds		Where a change of supplier occurs on any day, both the new supplier and the old supplier will be eligible to retrieve the daily read log for that day.
			<u>Meter Data Retriever</u>	<u>24 hours</u>	<u>24 hours</u>		<u>Where a change of supplier occurs on any day, both the new MDR and the old MDR will be eligible to retrieve the daily read log for that day.</u>
4.6	4.6.2	Retrieve Export Daily Read Log	Export Supplier	30 seconds	n/a		Where a change of supplier occurs on any day, both the new

Managed by

							supplier and the old supplier will be eligible to retrieve the daily read log for that day. Users may only be Eligible Users for this Service in respect of SMETS2+ Devices
			Meter Data Retriever	24 hours	n/a		Where a change of supplier occurs on any day, both the new MDR and the old MDR will be eligible to retrieve the daily read log for that day. Users may only be Eligible Users for this Service in respect of SMETS2+ Devices

4.8	4.8.1	Read Active Import Profile Data	Import Supplier, Gas Supplier, Electricity Distributor, Gas Transporter, Other User	5,600 seconds	16 seconds		
			Meter Data Retriever	24 hours	24 hours		

4.8	4.8.3	Read Export Profile Data	Export Supplier, Electricity Distributor, Other User	30 seconds	16 seconds		
			Meter Data Retriever	24 hours	24 hours		

4.17	4.17	Retrieve Daily Consumption Log	Import Supplier, Gas Supplier, Electricity Distributor, Gas Transporter, Other User	30 seconds	n/a		Users may only be Eligible Users for this Service in respect of SMETS2+ Devices

			Meter Data Retriever	24 hours	n/a		Users may only be Eligible Users for this Service in respect of SMETS2+ Devices
5.1	5.1	Create Schedule	Import Supplier, Gas Supplier, Electricity Distributor, Gas Transporter, Export Supplier, Meter Data Retriever , Other User	24 hours	24 hours	✓	
5.2	5.2	Read Schedule	Import Supplier, Gas Supplier, Electricity Distributor, Gas Transporter, Export Supplier, Meter Data Retriever , Other User	24 hours	24 hours	✓	
5.3	5.3	Delete Schedule	Import Supplier, Gas Supplier, Electricity Distributor, Gas Transporter, Export Supplier, Meter Data Retriever , Other User	24 hours	24 hours	✓	

8.2	8.2	Read Inventory	Import Supplier, Gas Supplier, Electricity Distributor, Gas Transporter, Export Supplier, Registered Supplier Agent, <u>Meter Data Retriever</u> , Other User	30 seconds	~~1630~~ seconds	✓	

Appendix R 'Common Test Scenarios Document'

These changes have been redlined against Appendix R version 4.0.

8. Annex C: Test Scenarios

Add Section 8.1.10A as follows:

8.1.10A Meter Data Retriever (MDR) User Role

Service Reference	Service Reference Variant	Name	Critical	CV1 – On Demand	CV1 – Future Dated	CV2 – On Demand	CV3 – On Demand	CV4 – On Demand	CV5 – On Demand	CV5 – Future Dated	CV6 – On Demand	CV7 – On Demand	CV8 – DCC Only	MDR
4.1	4.1.1	Read Instantaneous Import Registers	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MDR
4.2	4.2	Read Instantaneous Export Register Values	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MDR
4.6	4.6.1	Retrieve Import Daily Read Log	N	Mandatory	N/A	Mandatory SMETS 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MDR
4.6	4.6.2	Retrieve Export Daily Read Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MDR
4.8	4.8.1	Read Active Import Profile Data	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MDR
4.8	4.8.3	Read Export Profile Data	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MDR
4.17	4.17	Retrieve Daily Consumption Log	N	Mandatory	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	MDR
5.1	5.1	Create Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	MDR
5.2	5.2	Read Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	MDR
5.3	5.3	Delete Schedule	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	MDR
8.2	8.2	Read Inventory	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mandatory	MDR
-		Count of N/A	-	4	11	10	11	11	11	11	11	11	7	-
		Count of Mandatory	-	5	0	0	0	0	0	0	0	0	4	9
		Count of Mandatory SMETS 2	-	2	0	1	0	0	0	0	0	0	0	3
		Total Tests												12

Amend Sections 8.1.26 and 8.1.27 as follows:

8.1.26. Response Code Tests

The following table outlines the Response Code Tests required to be executed by User Role. The purpose of these tests is to prove that a party can receive a subset of Response Code messages based on the differing types of response codes that can be received.

New User

The following User Role tables reflect the test Response Codes that must be executed by a new Party seeking to undertake UEPT, unless the Testing Participant has descoped a subset of Service Requests and this have been agreed with DCC or, where referred to the Panel, has been determined by the Panel. The tests are those indicated as ‘Mandatory, Mandatory SMETS1 and Mandatory SMETS2+ ‘ in the test scenario column, for which they must be executed for each specific User Role. Those indicated as ‘Mandatory’ must be executed in respect of a SMETS1 Device and a SMETS2+ Device. Those indicated as ‘Mandatory SMETS1’ must be executed in respect of a SMETS1 Device. Those indicated as ‘Mandatory SMETS2+’ must be executed in respect of a SMETS2+ Device. Where the Response Code Tests are indicated as N/A there is no requirement to test during execution of the test scenarios.

Reference	Name	Test Scenario	User Role
E11	Failed Validation - Invalid Service Request / Device Type combination	Mandatory	IS ES GS ED GT RSA <u>MDR</u> OU
E13	Failed Validation – Invalid Request Type for URL	Mandatory	IS ES GS ED GT RSA <u>MDR</u> OU
E19	Failed Validation – Device doesn’t exist	Mandatory	IS ES GS ED GT RSA <u>MDR</u> OU
E60	Failed Validation – Invalid Service Request for SMETS1 Devices	Mandatory SMETS1	IS ES GS ED GT RSA <u>MDR</u> OU
E61	Failed Validation – Invalid Command Variant for SMETS1 Service Request	Mandatory SMETS1	IS ES GS ED GT RSA <u>MDR</u> OU

8.1.27. Self Service Interface Test

The following tables outline the test required to be executed by a Testing Participant to determine whether the prospective User can access the SSI.

Test Scenario	
Title:	Testing Participant can successfully log into and access the Self Service Interface.
Prerequisite:	Testing Participant holds the role of IS, ES, ED, GT, RSA, <u>MDR</u> or OU for testing purposes. Connection to DCC System. Party SSI login authentication via DCC or own IDP.

Steps	Description	Objective	Actions	Acceptance Criteria
1	Login via IDP	Authenticate via IDP	Party to open the web service for SSI logon and complete Party login via DCC or own IDP.	Login success and the authenticating SEC Party will be presented with Self Service Interface.

Appendix AB 'Service Request Processing Document'

These changes have been redlined against Appendix AB version 6.0.

Add Section 20 as follows:

20 Obligations of the User: Scheduling Service Requests submitted for electricity settlement purposes

20.1 A User will submit all Service Request made for the purpose of collecting metered data for use in the electricity settlements process as a Scheduled Service where such a service is available.

20.2 A User may only submit such Service Requests as an On-Demand Service where the Scheduled Service fails or is not available.

Appendix AD ‘DCC User Interface Specification’

These changes have been redlined against Appendix AD version 5.0.

3 MESSAGES SENT OVER THE INTERFACE

Amend Section 3.1 as follows:

3.1 Service Request Matrix

For each Service Request, this section sets out the following attributes:

- Service Request Name
- Service Reference
- Service Reference Variant
- whether the Service Request is Critical or Non-Critical
- modes of operation which vary how the Service Request or Signed Pre-Command will be executed.
- whether or not the Service Request is a Non-Device Service Request
- the User Roles eligible to submit the Service Request
- whether the Service Request is available as a SMETS1 Service Request

User Role Reference	User Role Description
IS	Import Supplier
ES	Export Supplier
GS	Gas Supplier
RSA	Registered Supplier Agent
ED	Electricity Distributor
GT	Gas Transporter
<u>MDR</u>	<u>Meter Data Retriever</u>
OU	Other User

Table 17 : User Roles

The following table (the “Service Request Matrix”) sets out these attributes (i.e. the ones referred to above) for each Service Request. The description of Eligible User Roles is only a summary, as further qualifications concerning Eligible User Roles are set out in the DCC User Interface Services Schedule.

Amend the following rows in the table in Section 3.1 as follows (extract of full table):

Service Request Name	Service Reference	Service Reference Variant	Critical	Modes of Operation				Eligible User Roles	Available in relation to SMETS1 Devices
				On Demand	Future Dated Response Pattern	DCC Scheduled	Non-Device Request		
Read Instantaneous Import Registers	4.1	4.1.1	No	Yes	DSP	No	No	IS GS ED GT <u>MDR</u>	Yes
Read Instantaneous Export Registers	4.2	4.2	No	Yes	DSP	~~No~~ Yes	No	ES ED <u>MDR</u>	Yes
Retrieve Import Daily Read Log	4.6	4.6.1	No	Yes	DSP	Yes	No	IS GS <u>MDR</u>	Yes
Retrieve Export Daily Read Log	4.6	4.6.2	No	Yes	DSP	Yes	No	ES <u>MDR</u>	No
Read Active Import Profile Data	4.8	4.8.1	No	Yes	DSP	Yes	No	IS GS ED GT <u>MDR</u> OU	Yes
Read Export Profile Data	4.8	4.8.3	No	Yes	DSP	Yes	No	ES ED <u>MDR</u> OU	Yes
Retrieve Daily Consumption Log	4.17	4.17	No	Yes	DSP	Yes	No	IS GS ED GT <u>MDR</u> OU	No

Service Request Name	Service Reference	Service Reference Variant	Critical	Modes of Operation				Eligible User Roles	Available in relation to SMETS1 Devices
				On Demand	Future Dated Response Pattern	DCC Scheduled	Non-Device Request		
Create Schedule	5.1	5.1	No	No	No	No	Yes	IS ES GS ED GT <u>MDR</u> OU	Yes
Read Schedule	5.2	5.2	No	No	No	No	Yes	IS ES GS ED GT <u>MDR</u> OU	Yes
Delete Schedule	5.3	5.3	No	No	No	No	Yes	IS ES GS ED GT <u>MDR</u> OU	Yes
Read Inventory (Current and Future Suppliers may use this Service Request)	8.2	8.2	No	No	No	No	Yes	IS ES GS RSA ED GT <u>MDR</u> OU	Yes

3.8 Service Request Definitions

Amend Section 3.8.17 as follows:

3.8.17 Read Instantaneous Import Registers

3.8.17.1 Service Description

Service Request Name	ReadInstantaneousImportRegisters	
Service Reference	4.1	
Service Reference Variant	4.1.1	
Eligible Users	Import Supplier (IS) Gas Supplier (GS) Electricity Distributor (ED) Gas Transporter (GT) Meter Data Retriever (MDR)	
Security Classification	Non Critical	
BusinessTargetID - Device Type applicable to this request	Electricity Smart Meter (ESME) Gas Smart Meter (GSME) Gas Proxy Function (GPF)	
Can be future dated?	DSP	
On Demand?	Yes	
Capable of being DCC Scheduled?	No	
Command Variants applicable to this Request (Only one populated)	1 - Send (Non-Critical) 2 - Return for local delivery (Non-Critical) 3 - Send and Return for local delivery (Non-Critical)	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns - Acknowledgement - Service Response from Device – GBCSPayload - Response to a Command for Local Delivery Request - LocalCommand Format Also see Response Section below for details specific to this Request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	0x0027	0x0074
GBCS Use Case	ECS17b	GCS13a

3.8.17.2 Specific Data Items for this Request

ReadInstantaneousImportRegisters Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
ExecutionDateTime	A User shall only add this Data Item to the Service Request where they require the Service Request to be executed at a future date and time. The UTC date and time the User requires the command to be executed on the Device. Date-time in the future that is either $\leq$ current date + 30 days or the date = '3000-12-31T00:00:00Z'	xs:dateTime	No	N/A	UTC Date-Time

Table 126 : ReadInstantaneousImportRegisters (sr:ReadInstantaneousImportRegisters) data items

3.8.17.3 Specific Validation for this Request

See clause 3.2.5 for general validation applied to all Requests and also Execution Date Time validation (clause 3.10.2)

Response Code	Response Code Description
E040101	The Gas Transporter can only read Instantaneous Import Registers from the GPF and not the Gas Smart Meter <u>A Meter Data Retriever cannot read Instantaneous Import Registers from a SMETS2+ Device</u>

Amend Section 3.8.21 as follows:

3.8.21 Read Instantaneous Export Registers

3.8.21.1 Service Description

Service Request Name	ReadInstantaneousExportRegisters
Service Reference	4.2
Service Reference Variant	4.2
Eligible Users	Export Supplier (ES) Electricity Distributor (ED) <u>Meter Data Retriever (MDR)</u>
Security Classification	Non Critical
BusinessTargetID	Electricity Smart Meter (ESME)

- Device Type applicable to this request		
Can be future dated?	DSP	
On Demand?	Yes	
Capable of being DCC Scheduled?	~~No~~ Yes	
Command Variants applicable to this Request (Only one populated)	1 - Send (Non-Critical) 2 - Return for local delivery (Non-Critical) 3 - Send and Return for local delivery (Non-Critical)	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns - Acknowledgement - Service Response from Device – GBCSPayload - Response to a Command for Local Delivery Request - LocalCommand Format Also see Response Section below for details specific to this Request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	0x0026	N/A
GBCS Use Case	ECS17a	N/A

3.8.21.2 Specific Data Items for this Request

The data items applicable depend on whether the Request is On Demand or DCC Scheduled.

For execution of this Service Request as an On Demand Service, the ReadInstantaneousExportRegisters XML element defines this Service Request.

ReadInstantaneousExportRegisters Definition (On Demand)

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
ExecutionDateTime	A User shall only add this Data Item to the Service Request where they require the Service Request to be executed at a future date and time. The UTC date and time the User requires the command to be executed on the Device. Date-time in the future that is either $\leq$ current date + 30 days or the date = '3000-12-31T00:00:00Z'	xs:dateTime	No	N/A	UTC Date-Time

Table 130 : ReadInstantaneousExportRegisters (sr:FutureDatedAbstractType) data items

For execution of this Service Request as a DCC Scheduled Service, the `DSPReadInstantaneousExportRegisters` XML element defines this Service Request and does not contain any other specific data items. The User shall include this XML element within the Service Request 5.1 (Create Schedule).

3.8.21.3 *Specific Validation for this Request*

No specific validation is applied for this Request, see clause 3.2.5 for general validation applied to all Requests and also Execution Date Time validation (clause 3.10.2).

Amend Section 3.8.27 as follows:

3.8.27 Retrieve Import Daily Read Log

3.8.27.1 *Service Description*

Service Request Name	RetrieveImportDailyReadLog
Service Reference	4.6
Service Reference Variant	4.6.1
Eligible Users	Import Supplier (IS) Gas Supplier (GS) <u>Meter Data Retriever (MDR)</u> Where a change of supplier occurs on any day, both the new supplier <u>and new MDR</u> and the old supplier <u>and old MDR</u> will be eligible to retrieve the daily read log for that day.
Security Classification	Non Critical
BusinessTargetID - Device Type applicable to this request	Electricity Smart Meter (ESME) Gas Smart Meter (GSME) Gas Proxy Function (GPF)
Can be future dated?	DSP
On Demand?	Yes
Capable of being DCC Scheduled?	Yes
Command Variants applicable to this Request (Only one populated)	1 - Send (Non-Critical) 2 - Return for local delivery (Non-Critical) 3 - Send and Return for local delivery (Non-Critical)
Common Header Data Items	See clause 3.4.1.1
Data Items Specific to this Service Request	See Specific Data Items Below
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns - Acknowledgement - Service Response from Device – GBCSPayload

	- Service Response (from Device) - DSPScheduledMessage Format - Response to a Command for Local Delivery Request – LocalCommand Format Also see Response Section below for details specific to this Request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	0x0033	0x0077
GBCS Use Case	ECS21a	GCS16a

3.8.27.2 Specific Data Items for this Request

The data items applicable depend on whether the Service Request is executed on an On Demand or DCC Scheduled basis.

For execution of this Service Request as an On Demand Service, the RetrieveImportDailyReadLog XML element defines this Service Request.

RetrieveImportDailyReadLog (On Demand) Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
ExecutionDateTime	A User shall only add this Data Item to the Service Request where they require the Service Request to be executed at a future date and time. The UTC date and time the User requires the command to be executed on the Device Date-time in the future that is either <= current date + 30 days or the date = '3000-12-31T00:00:00Z'	xs:dateTime	No	None	UTC Date-Time
ReadLogPeriod	The Start and End Date-Times for which the data is required	sr:ReadLogPeriod (see clause 3.10.1.14)	Yes	None	N/A
KAPublicSecurityCredentials	The Key Agreement Public Security Credentials (of the requesting party) to be used where the request is from an Unknown Remote Party (i.e. Old Responsible Supplier) with respect to the BusinessTargetID specified within the Service Request.	sr:Certificate (xs:base64Binary)	Responsible Supplier: N/A Old Responsible Supplier: Yes <u>MDR: Yes</u>	None	N/A

			Mandatory for User Roles IS/GS that do not have their credentials on the Device when sending the Service Request e.g. Old Suppliers		

Table 136 : RetrieveImportDailyReadLog (sr:ReadLogFutureDataAndURPCredentials) data items

For execution of this Service Request as DCC Scheduled Service, The DSPRetrieveImportDailyReadLog XML element defines this Service Request. The User shall include this XML element within the Service Request 5.1 (Create Schedule).

DSPRetrieveImportDailyReadLog (Create Schedule) Definition

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
DSPRetrieveImportDailyReadLog	The Start and End Date Offsets from the scheduled execution date and the Start and End Times which together define the date-time period for which the data is required	sr:ReadLogPeriodOffset (See clause 3.10.1.15)	Yes	None	N/A

Table 137 : DSPRetrieveImportDailyReadLog (sr:ReadLogPeriodOffset) data items

3.8.27.3 Specific Validation for this Request

Specific validation is applied for this Request as below and see clause 3.2.5 for general validation applied to all Requests.

For On Demand Services, see clause 3.10.2 for Execution Date Time, Key Agreement Public Security Credentials, Device Applicability and Read Log Period validation.

For DCC Scheduled Services, see clause 3.10.2 for Read Log Period Offset and Device Applicability validation.

Amend Section 3.8.28 as follows:

3.8.28 Retrieve Export Daily Read Log

3.8.28.1 Service Description

Service Request Name	RetrieveExportDailyReadLog	
Service Reference	4.6	
Service Reference Variant	4.6.2	
Eligible Users	Export Supplier (ES) Meter Data Retriever (MDR) Where a change of supplier occurs on any day, both the new supplier <u>and new MDR</u> and the old supplier <u>and old MDR</u> will be eligible to retrieve the daily read log for that day.	
Security Classification	Non Critical	
BusinessTargetID - Device Type applicable to this request	Electricity Smart Meter (ESME)	
Can be future dated?	DSP	
On Demand?	Yes	
Capable of being DCC Scheduled?	Yes	
Command Variants applicable to this Request (Only one populated)	1 - Send (Non-Critical) 2 - Return for local delivery (Non-Critical) 3 - Send and Return for local delivery (Non-Critical)	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns - Acknowledgement - Service Response from Device – GBCSPayload - Service Response (from Device) - DSPScheduledMessage Format - Response to a Command for Local Delivery Request – LocalCommand Format Also see Response Section below for details specific to this Request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	0x0035	N/A
GBCS Use Case	ECS21c	N/A

3.8.28.2 Specific Data Items for this Request

The data items applicable depend on whether the Service Request is executed on an On Demand or DCC Scheduled basis.

For execution of this Service Request as an On Demand Service, the RetrieveExportDailyReadLog XML element defines this Service Request.

RetrieveExportDailyReadLog (On Demand)

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
ExecutionDateTime	A User shall only add this Data Item to the Service Request where they require the Service Request to be executed at a future date and time. The UTC date and time the User requires the command to be executed on the Device ID Date-time in the future that is either $\leq$ current date + 30 days or the date = '3000-12-31T00:00:00Z'	xs:dateTime	No	None	UTC Date-Time
ReadLogPeriod	The Start and End Date-Times for which the data is required	sr:ReadLogPeriod (see clause 3.10.1.14)	Yes	None	N/A

Table 138 : RetrieveExportDailyReadLog (sr:ReadLogFutureData) data items

For execution of this Service Request as DCC Scheduled Service, The DSPRetrieveExportDailyReadLog XML element defines this Service Request. The User shall include this XML element within the Service Request 5.1 (Create Schedule).

DSPRetrieveExportDailyReadLog (Create Schedule)

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
DSPRetrieveExportDailyReadLog	The Start and End Date Offsets from the current date and the Start and End Times which together define the date-time period for which the data is required	sr:ReadLogPeriod Offset (See clause 3.10.1.15)	Yes	None	N/A

Table 139 : DSPRetrieveExportDailyReadLog (sr:ReadLogPeriodOffset) data items

3.8.28.3 *Specific Validation for this Request*

Specific validation is applied for this Request as below and see clause 3.2.5 for general validation applied to all Requests.

For On Demand Services, see clause 3.10.2 for Execution Date Time and Read Log Period validation.

For DCC Scheduled Services, see clause 3.10.2 for Read Log Period Offset validation.

Amend Section 3.8.29 as follows:

3.8.29 Read Active Import Profile Data

3.8.29.1 *Service Description*

Service Request Name	ReadActiveImportProfileData
Service Reference	4.8
Service Reference Variant	4.8.1
Eligible Users	Import Supplier (IS) Gas Supplier (GS) Electricity Distributor (ED) Gas Transporter (GT) <u>Meter Data Retriever (MDR)</u> Other User (OU)
Security Classification	Non Critical
BusinessTargetID - Device Type applicable to this request	Electricity Smart Meter (ESME) Gas Smart Meter (GSME) Gas Proxy Function (GPF)
Can be future dated?	DSP
On Demand?	Yes
Capable of being DCC Scheduled?	Yes
Command Variants applicable to this Request (Only one populated)	1 - Send (Non-Critical) 2 - Return for local delivery (Non-Critical) 3 - Send and Return for local delivery (Non-Critical)
Common Header Data Items	See clause 3.4.1.1
Data Items Specific to this Service Request	See Specific Data Items Below
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns • Acknowledgement • Service Response from Device – GBCSPayload • Service Response (from Device) - DSPScheduledMessage Format • Response to a Command for Local Delivery Request – LocalCommand Format Also see Response Section below for details specific to this Request

Managed by

Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	0x0037	0x0078
GBCS Use Case	ECS22b	GCS17

3.8.29.2 Specific Data Items for this Request

The data items applicable depend on whether the Service Request is executed on an On Demand or DCC Scheduled basis.

For execution of this Service Request as an On Demand Service, the ReadActiveImportProfileData XML element defines this Service Request.

ReadActiveImportProfileData (On Demand)

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
ExecutionDateTime	A User shall only add this Data Item to the Service Request where they require the Service Request to be executed at a future date and time. The UTC date and time the User requires the command to be executed on the Device Date-time in the future that is either <= current date + 30 days or the date = '3000-12-31T00:00:00Z'	xs:dateTime	No	None	UTC Date-Time
ReadLogPeriod	The Start and End Date-Times for which the data is required	sr:ReadLogPeriod (see clause 3.10.1.14)	Yes	None	N/A
KAPublicSecurityC redentials	The Key Agreement Public Security Credentials (of the requesting party) to be used where the Service Request is from an Unknown Remote Party (i.e. Other User or previous Responsible Supplier) with respect to the BusinessTargetID specified within the Service Request.	xs:base64Binary	User Role IS, GS, ED,GT: N/A User Role <u>MDR</u> , OU: Yes Also Mandatory for User Roles: • IS and GS that do not have their	None	N/A

			credentials on the Device when sending the Service Request e.g. Old Suppliers		

Table 140 : ReadActiveImportProfileData (sr:ReadLogFutureDataAndURPCredentials) data items

For execution of this Service Request as DCC Scheduled Service, The DSPReadActiveImportProfileData XML element defines this Service Request. The User shall include this XML element within the Service Request 5.1 (Create Schedule).

DSPReadActiveImportProfileData (Create Schedule)

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
DSPReadActiveImportProfileData	The Start and End Date Offsets from the current date and the Start and End Times which together define the date-time period for which the data is required	sr:ReadLogPeriodOffset (See clause 3.10.1.15)	Yes	None	N/A

Table 141 : DSPReadActiveImportProfileData (sr:ReadLogPeriodOffset) data items

3.8.29.3 Specific Validation for this Request

Specific validation is applied for this Request as below and see clause 3.2.5 for general validation applied to all Requests.

For On Demand Services, see clause 3.10.1 for Execution Date Time, Read Log Period, KAPublicSecurityCredentials and Device Applicability validation.

For DCC Scheduled Services, see clause 3.10.1 for Read Log Period Offset and Device Applicability validation.

Amend Section 3.8.31 as follows:

3.8.31 Read Export Profile Data

3.8.31.1 Service Description

Service Request Name	ReadExportProfileData	
Service Reference	4.8	
Service Reference Variant	4.8.3	
Eligible Users	Export Supplier (ES) Electricity Distributor (ED) Meter Data Retriever (MDR) Other User (OU)	
Security Classification	Non Critical	
BusinessTargetID - Device Type applicable to this request	Electricity Smart Meter (ESME)	
Can be future dated?	DSP	
On Demand?	Yes	
Capable of being DCC Scheduled?	Yes	
Command Variants applicable to this Request (Only one populated)	1 - Send (Non-Critical) 2 - Return for local delivery (Non-Critical) 3 - Send and Return for local delivery (Non-Critical)	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns - Acknowledgement - Service Response from Device – GBCSPayload - Service Response (from Device) - DSPScheduledMessage Format - Response to a Command for Local Delivery Request – LocalCommand Format Also see Response Section below for details specific to this Request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	0x0036	N/A
GBCS Use Case	ECS22a	N/A

3.8.31.2 Specific Data Items for this Request

The data items applicable depend on whether the Service Request is executed on an On Demand or DCC Scheduled basis.

For execution of this Service Request as an On Demand Service, the ReadExportProfileData XML element defines this Service Request.

ReadExportProfileData (On Demand)

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
ExecutionDateTime	A User shall only add this Data Item to the Service Request where they require the Service Request to be executed at a future date and time. The UTC date and time the User requires the command to be executed on the Device Date-time in the future that is either $\leq$ current date + 30 days or the date = '3000-12-31T00:00:00Z'	xs:dateTime	No	None	UTC Date-Time
ReadLogPeriod	The Start and End Date-Times for which the data is required	sr:ReadLogPeriod (see clause 3.10.1.14)	Yes	None	N/A

Table 144 : ReadExportProfileData (sr:ReadLogFutureData) data items

For execution of this Service Request as DCC Scheduled Service, The DSPReadExportProfileData XML element defines this Service Request. The User shall include this XML element within the Service Request 5.1 (Create Schedule).

DSPReadExportProfileData (Create Schedule)

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
DSPReadExportProfileData	The Start and End Date Offsets from the current date and the Start and End Times which together define the date-time period for which the data is required	sr:ReadLogPeriod Offset (See clause 3.10.1.15)	Yes	None	N/A

Table 145 : DSPReadExportProfileData (sr: ReadLogPeriodOffset) data items

3.8.31.3 Specific Validation for this Request

Specific validation is applied for this Request as below and see clause 3.2.5 for general validation applied to all Requests.

For On Demand Services, see clause 3.10.1 for Execution Date Time and Read Log Period validation.

For DCC Scheduled Services, see clause 3.10.1 for Read Log Period Offset validation

Amend Section 3.8.41 as follows:

3.8.41 Retrieve Daily Consumption Log

3.8.41.1 Service Description

Service Request Name	RetrieveDailyConsumptionLog	
Service Reference	4.17	
Service Reference Variant	4.17	
Eligible Users	Import Supplier (IS) Gas Supplier (GS) Electricity Distributor (ED) Gas Transporter (GT) Meter Data Retriever (MDR) Other User (OU)	
Security Classification	Non Critical	
BusinessTargetID - Device Type applicable to this request	Electricity Smart Meter (ESME) Gas Proxy Function (GPF)	
Can be future dated?	DSP	
On Demand?	Yes	
Capable of being DCC Scheduled?	Yes	
Command Variants applicable to this Request (Only one populated)	1 - Send (Non-Critical) 2 - Return for local delivery (Non-Critical) 3 - Send and Return for local delivery (Non-Critical)	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns • Acknowledgement • Service Response from Device – GBCSPayload • Service Response (from Device) - DSPScheduledMessage Format • Response to a Command for Local Delivery Request – LocalCommand Format Also see Response Section below for details specific to this Request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	0x0060	0x00A0

GBCS Use Case	ECS66	GCS61

3.8.41.2 Specific Data Items for this Request

The data items applicable depend on whether the Service Request is executed on an On Demand or DCC Scheduled basis.

For execution of this Service Request as an On Demand Service, the RetrieveDailyConsumptionLog XML element defines this Service Request.

RetrieveDailyConsumptionLog (On Demand)

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
ExecutionDateTime	A User shall only add this Data Item to the Service Request where they require the Service Request to be executed at a future date and time. The UTC date and time the User requires the command to be executed on the Device Date-time in the future that is either $\leq$ current date + 30 days or the date = '3000-12-31T00:00:00Z'	xs:dateTime	No	None	UTC Date-Time
ReadLogPeriod	The Start and End Date-Times for which the data is required. The daily log entry is created and dated at midnight and therefore the Start and End Date-Times must encompass at least one midnight time.	sr:ReadLogPeriod (see clause 3.10.1.14)	Yes	None	N/A
KAPublicSecurityCredentials	The Key Agreement Public Security Credentials (of the requesting party) to be used where the request is from an Unknown Remote Party (i.e. Other User) with respect to the BusinessTargetID specified within the Service Request.	sr:Certificate (xs:base64Binary)	User Role ED, GT: N/A User Role <u>MDR</u> , OU: Yes User Roles IS/GS that do not have their credentials on the Device when sending the Service Request e.g. Old Suppliers	None	N/A

			Yes		

Table 154 : RetrieveDailyConsumptionLog (sr:ReadLogFutureDataAndURPCredentials) data items

For execution of this Service Request as DCC Scheduled Service, The DSPRetrieveDailyConsumptionLog XML element defines this Service Request. The User shall include this XML element within the Service Request 5.1 (Create Schedule).

DSPRetrieveDailyConsumptionLog (Create Schedule)

Data Item	Description / Allowable values	Type	Mandatory	Default	Units
DSPRetrieveDailyConsumptionLog	The Start and End Date Offsets from the current date and the Start and End Times which together define the date-time period for which the data is required	sr:ReadLogPeriodOffset (See clause 3.10.1.15)	Yes	None	N/A

Table 155 : DSPRetrieveDailyConsumptionLog (sr:ReadLogPeriodOffset) data items

3.8.41.3 Specific Validation for this Request

Specific validation is applied for this Request as below and see clause 3.2.5 for general validation applied to all Requests.

For On Demand Services, see clause 3.10.1 for Execution Date Time, Read Log Period and KAPublicSecurityCredentials validation.

For DCC Scheduled Services, see clause 3.10.1 for Read Log Period Offset validation

Response Code	Response Code Description
E041701	The ReadLogPeriod (or ReadLogPeriodOffset) specified within the Service Request does not span at least 1 midnight

Amend Section 3.8.43 as follows:

3.8.43 Create Schedule

3.8.43.1 Service Description

Service Request Name	CreateSchedule

Service Reference	5.1	
Service Reference Variant	5.1	
Eligible Users	Import Supplier (IS) Export Supplier (ES) Gas Supplier (GS) Electricity Distributor (ED) Gas Transporter (GT) <u>Meter Data Retriever (MDR)</u> Other User (OU)	
Security Classification	Non Critical	
BusinessTargetID - Device Type applicable to this request	DCC Access Control Broker	
Can be future dated?	No	
On Demand?	No	
Capable of being DCC Scheduled?	No	
Command Variants applicable to this Request - (Only one populated)	8 - DCC Only	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns • Response to a Non-Device Service Request Also see Response Section below for details specific to this Request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	N/A	N/A
GBCS Use Case	N/A	N/A

3.8.43.2 Specific Data Items for this Request

CreateSchedule Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units
ScheduleFrequency	The frequency of which the required service reference is executed Valid set - Daily - Weekly (The specified Service Request will be scheduled once a week, on the Schedule Start Date day of the week.) - Monthly (The specified Service Request will be scheduled once a month, on the Schedule Start Date day of the month, where possible. For those months where the Schedule Start Date day of the month doesn't exist, the Service Request will be scheduled on the last day of that month.) - Quarterly (The specified Service Request will be scheduled once every three months, with Scheduled Start Date as for Monthly.) - Half-Yearly (The specified Service Request will be scheduled once every six months, with Scheduled Start Date as for Monthly.) - Yearly (The specified Service Request will be scheduled once every 12 months, with Scheduled Start Date as for Monthly.)	sr:ScheduleFrequency (Restriction of xs:string (Enumeration))	Yes	None	N/A
ScheduleStartDate	The UTC date that the scheduled repeating request is required to commence from Valid date in the future	xs:date	Yes	None	UTC Date
ScheduleEndDate	The UTC date that the scheduled repeating request is required to cease, or if not present then the repeating schedule shall remain in force until deleted by the User or by the DCC Systems, e.g. because of Device Decommission Valid date in the future $\geq$ ScheduleStartDate	xs:date	User Role IS, GS, ES, ED, GT, <u>MDR</u>: No User Role OU: Yes	None	UTC Date

ScheduleExecutionStartTime	The UTC start time after which a scheduled Command (invoked by the schedule) may be run Valid Time	xs:time	No	00:01:00	UTC Time
KAPublicSecurityCredential	The Key Agreement Public Security Credentials, associated with the User submitting the Request that will be relied upon for Sensitive data Responses. Only applicable to those Scheduled Service Requests that can be submitted by User Roles for which the Device doesn't hold Security Credentials.	sr:Certificate (xs:base64Binary)	User Role IS, ES, ED: N/A User Role GT (where Response includes sensitive data and Device Type = Gas Smart Meter): Yes User Role <u>MDR</u> , OU (where Response includes sensitive data): Yes	None	N/A
DSPScheduledServiceReference	Reference of the Service Request to be Scheduled. Valid Set: see clause 0 , where DCC Scheduled column in table is set to "Yes"	sr:DSPScheduledServiceReference (Restriction of xs:string (Enumeration))	Yes	None	N/A
DSPScheduledServiceReferenceVariant	Reference Variant of the Service Request to be Scheduled. Valid Set: see clause 0 , where DCC Scheduled column in table is set to "Yes"	sr:DSPScheduledServiceReferenceVariant (Restriction of xs:string (Enumeration))	Yes	None	N/A
DeviceID	This is the Device ID to which the DCC Schedule is targeted.	sr:EUI (See clause Error! Reference source not found.)	Yes	None	N/A

Choice of Service Request XML Element to be Scheduled	Name and Request Data Items corresponding to DSPScheduledServiceReferenceVariant to be Scheduled, choice of:		Yes	None	N/A
	DSPRetrieveImportDailyReadLog DSPRetrieveExportDailyReadLog DSPReadActiveImportProfileData DSPReadReactiveImportProfileData DSPReadExportProfileData DSPReadNetworkData DSPReadPrepaymentDailyReadLog DSPRetrieveDailyConsumptionLog	sr:ReadLogPeriodOffset			
	<u>DSPReadInstantaneousImportRegisters</u> DSPReadMaximumDemandImportRegisters DSPReadMaximumDemandExportRegisters DSPReadLoadLimitData DSPReadActivePowerImport	sr:DSPReadData			
	DSPRecordNetworkDataGAS	sr:RecordNetworkDataGAS			

Table 157 : CreateSchedule (sr:DSPSchedule) data items

Each User shall set up separate Schedule IDs for each separate Request that they require to be scheduled by the DCC.

3.8.43.3 Specific Validation for this Request

See clauses [3.2.4](#) and [3.2.5](#) for general validation applied to all Requests (applicable to the Create Schedule and to the Scheduled Service Request) and clause 3.10.2 for Create Schedule Device ID existence validation.

Response Code	Response Code Description
E050101	The Schedule Start Date is not a future date
E050102	The Schedule End Date is mandatory for User Role “OU”
E050103	The Schedule End Date is earlier than the Schedule Start Date
E050105	The Service Request format does not match the Service Reference Variant in the DCC Schedule. The combination of DSPScheduledServiceReference and DSPScheduledServiceReferenceVariant is not valid
E050107	One of: User’s Role is Unknown Remote Party to the Device and the DCC Scheduled Service Response contains Sensitive data and Request does not include the User’s Key Agreement Public Security Credentials Or

	User's Role is Known Remote Party to the Device and / or the DCC Scheduled Service Response doesn't contain Sensitive data and Request includes the User's Key Agreement Public Security Credentials
E050108	Unable to create Schedule, because the User already owns 99 active DSP Schedules for the Device
E050109	The DSP Service Request format doesn't match the DSP Service Reference Variant in the Create Schedule message

3.8.43.4 *Specific Data Items in the Response*

The DCC shall return the following data items which are specific to this Service Request where a DCC Schedule is successfully created within the DCC Systems:

DSPScheduleID Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units
DSPScheduleID	Schedule ID generated by the DCC Systems Valid Set: > 0	sr:scheduleID	Yes	None	N/A

Table 158 : DSPScheduleID definition

Amend Section 3.8.44 as follows:

3.8.44 Read Schedule

3.8.44.1 *Service Description*

Service Request Name	ReadSchedule
Service Reference	5.2
Service Reference Variant	5.2
Eligible Users	Import Supplier (IS) Export Supplier (ES) Gas Supplier (GS) Electricity Distributor (ED) Gas Transporter (GT) <u>Meter Data Retriever (MDR)</u> Other User (OU)
Security Classification	Non Critical
BusinessTargetID - Device Type applicable to this request	DCC Access Control Broker
Can be future dated?	No

On Demand?	No	
Capable of being DCC Scheduled?	No	
Command Variants applicable to this Request - (Only one populated)	8 - DCC Only	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns Response to a Non-Device Service Request Also see Response Section below for details specific to this Request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	N/A	N/A
GBCS Use Case	N/A	N/A

3.8.44.2 Specific Data Items for this Request

ReadSchedule Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units
DSPScheduleID	Schedule ID generated by the DCC Systems when the schedule was created Valid Set: > 0	sr:scheduleID	No Either DSPScheduleID or DeviceID must be present	None	N/A
DeviceID	This is the Device ID for which schedules are to be read	sr:EUI (See clause 3.10.1.3)	No Either DSPScheduleID or DeviceID must be present	None	N/A

Table 159 : ReadSchedule (sr:ReadSchedule) data items

Service Request includes a choice so one of these two data items is mandatory

3.8.44.3 Specific Validation for this Request

See clause 3.2.5 for general validation applied to all Requests.

Response Code	Response Code Description
E050201	The DSPScheduleID does not exist or it is not owned by the User submitting the Service Request
E050202	The Device ID does not exist.

W050201	The User submitting the Service Request does not have any schedules created against the specified Device.

3.8.44.4 Specific Data Items in the Response

This Service Response is defined in the XSD ResponseMessage DSPSchedulesRead XML element, which can included between 1 and 99 DSP Schedules set up by the requesting User and for each DCC Schedule it contains the DSP Schedule ID and the DCC Schedule details.

DSPSchedulesRead Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units
DSPSchedules	Details of all the Schedules read	sr:DSPSchedules maxOccurs = 99	Yes	None	N/A

Table 160 : DSPSchedulesRead (sr:DSPSchedulesRead) data items

DSPSchedules Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units
DSPScheduleID	Schedule ID generated by the DCC Systems when the schedule was created Valid Set: > 0	sr:scheduleID	Yes	None	N/A
DSPScheduleDetails	Schedule details provided when the schedule was created	sr:DSPSchedule see 0	Yes	None	N/A

Table 161 : ReadSchedules (sr:ReadSchedules) data items

Amend Section 3.8.45 as follows:

3.8.45 Delete Schedule

3.8.45.1 Service Description

Service Request Name	DeleteSchedule
Service Reference	5.3
Service Reference Variant	5.3
Eligible Users	Import Supplier (IS) Export Supplier (ES) Gas Supplier (GS) Electricity Distributor (ED) Gas Transporter (GT) <u>Meter Data Retriever (MDR)</u> Other User (OU)
Security Classification	Non Critical

BusinessTargetID - Device Type applicable to this request	DCC Access Control Broker	
Can be future dated?	No	
On Demand?	No	
Capable of being DCC Scheduled?	No	
Command Variants applicable to this Request - (Only one populated)	8 - DCC Only	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns Acknowledgement Also see Response Section below for details specific to this Request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	N/A	N/A
GBCS Use Case	N/A	N/A

3.8.45.2 Specific Data Items for this Request

DeleteSchedule Definition

Data Item	Description / Valid Set	Type	Mandatory	Default	Units
DSPScheduleID	Schedule ID generated by the DCC System when the schedule was created Valid Set: > 0	sr:scheduleID	No Either DSPScheduleID or DeviceId must be present	None	N/A
DeviceID	This is the Device ID for which all schedules associated with the Request sender (User ID) are to be deleted	sr:EUI (See clause 3.10.1.3)	No Either DSPScheduleID or DeviceId must be present	None	N/A

Table 162 : DeleteSchedule (sr:DeleteSchedule) data items

Service Request includes a choice so one of these two data items is mandatory

3.8.45.3 Specific Validation for this Request

See clause 3.2.5 for general validation applied to all Requests.

Response Code	Response Code Description
E050301	The DSPScheduleID does not exist or it is not owned by the User submitting the Service Request
E050302	The Device ID does not exist.
W050301	The User does not have any schedules created against the specified Device.

3.8.45.4 *Specific Data Items in the response*

No additional specific data items returned in the Service Response on top of the data items defined in clause 3.5 Responses.

Amend Section 3.8.104 as follows:

3.8.104 Read Inventory

3.8.104.1 Service Description

Service Request Name	ReadInventory	
Service Reference	8.2	
Service Reference Variant	8.2	
Eligible Users	Import Supplier (IS) Export Supplier (ES) Gas Supplier (GS) Registered Supplier Agent (RSA) Electricity Distributor (ED) Gas Transporter (GT) <u>Meter Data Retriever (MDR)</u> Other User (OU)	
Security Classification	Non Critical	
BusinessTargetID - Device Type applicable to this request	DCC Access Control Broker	
Can be future dated?	No	
On Demand?	No	
Capable of being DCC Scheduled?	No	
Command Variants applicable to this Request (Only one populated)	8 – DCC Only	
Common Header Data Items	See clause 3.4.1.1	
Data Items Specific to this Service Request	See Specific Data Items Below	
Possible responses from this Service Request	These are the possible responses applicable to this Service Request. Please see clause 3.5 for more details on processing patterns Response to a Non-Device Service Request Also see Response Section below for details specific to this request	
Response Codes possible from this Service Request	See clause 3.5.10 for Common Response Codes	
GBCS Cross Reference	Electricity	Gas
GBCS MessageCode	N/A	N/A
GBCS Use Case	N/A	N/A

3.8.104.2 Specific Data Items for this Request

ReadInventory Definition

Data Item	Description / Values	Type	Mandatory	Default	Units
UPRN	Unique Property Reference Number	sr:UPRN (Restriction of	No	None	N/A

		xs:positiveInteger (totalDigits = 12))			
DeviceID	Device ID of a device in the premises	sr:EUI (See clause 3.10.1.3)	No	None	N/A
MPxN	MPAN or MPRN associated to a Device in the premises	sr:ImportMPxN (Restriction of xs:string (minLength = 1 maxLength = 13))	No	None	N/A
PropertyFilter	PostCode and Address identifier that uniquely identify an address	sr:PropertyFilter	No	None	N/A

Table 225 : ReadInventory (sr:ReadInventory) data items

PropertyFilter Definition

Data Item	Description / Values	Type	Mandatory	Default	Units
PostCode	Post Code of Metering Point This search criteria is case insensitive	sr:PostCode (Restriction of xs:string (minLength = 6 maxLength = 8))	Yes	None	N/A
AddressIdentifier	Address Identifier (house number or house name), that combined with the Post Code, allows the identification of the premises This search criteria is case insensitive	sr:AddressIdentifier (Restriction of xs:string (maxLength = 30))	Yes	None	N/A

Table 226 : PropertyFilter (sr:PropertyFilter) data items

3.8.104.3 Specific Validation for this Request

See clause 3.2.5 for general validation applied to all Requests and clause 3.10.2 for Device Existence validation.

For this Request, the general Authorisation Checks as defined below shall not be carried out.

- a Response Code of E4 as defined in clause 3.2.4 “Verify that the User, in the User Role defined in the Service Request is a Eligible User for the Device” or
- a Response Code of E5 as defined in clause 3.2.4 “Verify that the Service Request or Signed Pre-Command is applicable to the Device status”

Response Code	Response Code Description
E080201	The Request does not uniquely identify a Premises
E080202	The Premises do not contain any Devices

3.8.104.4 Specific Data Items in the Response

This Service Response is defined in the XSD ResponseMessage DSPInventory XML element, which contains the DSP Inventory details applicable to a single premises or Device.

The DCC shall return the following data items which are specific to this Service Response:

Data Item	Description / Values	Type	Mandatory	Default	Units
Device	Minimum 1 and maximum 17 Devices	sr:Device maxOccurs = 17	Yes	None	N/A
Per Device (complex type sr:Device) found at that Smart Metering System:					
DeviceID	Device ID of a Device in the Smart Metering System	sr:EUI (See clause 3.10.1.3)	Yes	None	N/A
DeviceType	The Type of device Valid set: • ESME • GSME • GPF • CHF • HCALCS • PPMID • IHD • CAD	sr:DeviceType (Restriction of xs:string (Enumeration))	Yes	None	N/A
DeviceStatus	An indicator giving the status of the device Valid set: • Pending • Whitelisted • InstalledNotCommissioned • Commissioned • Decommissioned • Withdrawn • Suspended • Recovery • Recovered Device Status is not applicable to Type 2 Devices, i.e. IHD and CAD	sr:DeviceStatus (Restriction of xs:string (Enumeration))	Device Type = Type 2(IHD, CAD): N/A Otherwise: Yes	None	N/A

Data Item	Description / Values	Type	Mandatory	Default	Units
DeviceManufacturer	The name of the Device's Manufacturer With the exception of IHD and CAD: - The Device Manufacturer is the <device_model_manufacturer_identifier> from the CPL and presented in the format XXXX where each X is one of the characters 0 to 9 or A to F - This data item matches the value on the CPL For IHD and CAD this data item is free text	sr:DeviceManufacturer (Restriction of xs:string (maxLength = 30))	Yes	None	N/A
DeviceModel	The specific model of the device, as used by the manufacturer. With the exception of IHD and CAD: - The Device Model is the concatenation of <device_model.model_identifier><device_model.hardware_version.version><device_model.hardware_version.revision> from the CPL and presented in the format XXXXXXXX where each X is one of the characters 0 to 9 or A to F Where: - the first 4 characters are the model identifier - the next 2 characters are the hardware version.version - the final 2 characters are the hardware version.revision - This data item matches the value on the CPL For IHD and CAD this data item is free text	sr:DeviceModel (Restriction of xs:string (maxLength = 30))	Yes	None	N/A

Data Item	Description / Values	Type	Mandatory	Default	Units
SMETSCHTSVersion	The version of SMETS or CHTS that the device complies with. This should align with the SMETS_CHTS version_number value contained on the CPL.	sr:SMETSCHYSVersion (Restriction of xs:string (minLength = 1, maxLength = 20))	Device Type = CAD: N/A Otherwise: Yes	None	N/A
DeviceFirmwareVersion	The operational version of Firmware of the Device The Firmware version as held in the CPL and presented in the format XXXXXXXX where each X is one of the characters 0 to 9 or A to F. This data item matches the value on the CPLA The binary value shall be four octets in length and shall correspond to the File Version field in the ZSE OTA Header structure.	Restriction of xs:string (minLength = 1, maxLength = 8)	Device includes Firmware: Yes Otherwise: N/A	None	N/A
DeviceFirmwareVersionStatus	The status of the Firmware Version Valid set: - Active - Cancelled - Expired - Withdrawn The status displayed in DeviceFirmwareVersionStatus maps to the status on the Central Products List as per the Data Item values to CPL values Mapping table below:	sr:FirmwareVersionStatus (Restriction of xs:string (Enumeration))	Device includes Firmware: Yes Otherwise: N/A	None	N/A
CPLStatus	The CPL Assurance Certificate Status Valid set: - Active - Cancelled - Expired - Withdrawn The status displayed in CPL Status maps to the status on the Central Products List as per the Data Item values to CPL values Mapping table below:	sr:CPLStatus (Restriction of xs:string (Enumeration))	Device includes Firmware: Yes Otherwise: N/A	None	N/A

Data Item	Description / Values	Type	Mandatory	Default	Units
DateCommissioned	Where applicable, the date when the Device was commissioned	xs:date	Device Type = IHD,CAD: N/A Device has been commissioned: Yes Otherwise: No	None	UTC Date
ImportMPxN	The reference number identifying an import electricity or a gas metering point	sr:ImportMPxN Restriction of xs:string (minLength = 1, maxLength = 13)	Device Type = ESME, GSME: No Otherwise: N/A	None	N/A
SecondaryImportMPAN	The reference number identifying a Twin Element Import electricity secondary metering point	sr:MPAN Restriction of xs:string (minLength = 13, maxLength = 13)	Device Type = ESME and ESME Variant = B: No Otherwise: N/A	None	N/A
ExportMPAN	The reference number identifying an export electricity metering point	sr:MPAN Restriction of xs:string (minLength = 13, maxLength = 13)	Device Type = ESME and includes Export capability: No Otherwise: N/A	None	N/A
ESMEVariant	See Table 229 for mapping and valid set. Values including F or G are not applicable to Devices prior to GBCS v4.0	sr:ESMEVariant Restriction of xs:string (Enumeration)	Device Type = ESME: Yes Otherwise: N/A	None	N/A
UPRN	Unique Property Reference Number	sr:URPN (Restriction of xs:positiveInteger (totalDigits = 12))	No	None	N/A

Data Item	Description / Values	Type	Mandatory	Default	Units
PropertyFilter	Post Code and Address Identifier that uniquely identifies an address	sr:PropertyFilter	No	None	N/A
CSPRegion	The CSP Region the Smart Meter System is associated with Valid set: - North - Central - South - Unknown	sr:CSPRegion (Restriction of xs:string (Enumeration))	No	None	N/A
DeviceGBCSVersion	The operational version of GBCS as recorded in the SMI for the Device. The version number format will align with the CPL. For example 1.0 or 2.0	xs:string	Device includes Firmware: Yes Otherwise: N/A	None	N/A
HANVariant	The Device's HAN Variant. Valid Set: - Single Band (2.4GHz only) - Dual Band (868MHz and 2.4GHz) - Unknown HAN Variant (The CPL CHF Device Manufacturer and Device Model define its HAN Variant and the DCC Systems hold this relationship. When a CH is pre-notified to the DCC, its CHF HAN Variant is set based on its Device Manufacturer and Device Model)	xs:string	DeviceType = CHF: Yes Otherwise: N/A	None	N/A

Table 227 : Device (sr:Device) data items

Data Item values to CPL values mapping.

Status value on the Central Products List (CPL)	DeviceFirmwareVersionStatus value	CPLStatus value
Current	Active	Active
Removed	Cancelled	Cancelled
No value defined	Expired (not currently used)	Expired (not currently used)
No value defined	Withdrawn (not currently used)	Withdrawn (not currently used)

Table 228 : Data Item values to CPL values Mapping

DUIS device type values to CPL values mapping.

Central Products List (CPL) device type	DUIS device type	DUIS ESMEVariant Valid set
Single Element Electricity Metering Equipment	ESME	• A. Single Element ESME • AD. Single Element ESME with ALCS • ADE. Single Element ESME with ALCS and Boost Function • ADF. Single Element ESME with ALCS and APC • ADEF. Single Element ESME with ALCS, Boost Function and APC • AEF. Single Element ESME with Boost Function and APC • AF. Single Element ESME with APC • AG. SAPC • AEG. SAPC with Boost Function • ADG. SAPC with ALCS • ADEG. SAPC with ALCS and Boost Function ¹
Twin Element Electricity Metering Equipment	ESME	• B. Twin Element ESME • BD. Twin Element ESME with ALCS • BDE. Twin Element ESME with ALCS and Boost Function • BF. Twin Element ESME with APC • BDF. Twin Element ESME with ALCS and APC • BDEF. Twin Element ESME with ALCS, Boost Function and APC • BEF. Twin Element ESME with Boost Function and APC
Polyphase Element Electricity Metering Equipment	ESME	• C. Polyphase ESME • CD. Polyphase ESME with ALCS • CDE. Polyphase ESME with ALCS and Boost Function • CDEF. Polyphase with ALCS, Boost Function and APC • CF. Polyphase with APC • CDF. Polyphase with ALCS and APC • CEF. Polyphase with Boost Function and APC
Gas Smart Meter	GSME	N/A
Prepayment Interface Device	PPMID	N/A
HAN Connected Auxiliary Load Control Switch	HCALCS	N/A

Table 229 : Device type to CPL values mapping

The embedded XML schema in Annex A will be updated in line with the proposed text updates at a later date

¹ 'SAPC is defined in SMETS2 Section 9 Part G1; an ALCS forming part of an SAPC is defined in SMETS2 Section 9 Part G2 and a Boost Function forming part of an SAPC is defined in SMETS2 Section 9 Part G3.

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MP162 ‘SEC changes required to deliver MHHS’

Annex D

First Refinement Consultation responses

About this document

This document contains the full **non-confidential** responses received to the MP162 Refinement Consultation.

Question 1: Do you agree that the solution put forward will effectively resolve the identified issue?

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	No	Whilst we support the intent of the modification we believe that there is still a lack of information and detail around the solution to be able to support it in its current state. We believe that the modification is missing any detail about the reporting and performance requirements, despite it stating 'MP162 proposes to introduce all the expected changes needed under the SEC and the DCC Systems for MHHS'. We don't feel that there is any recognition of the main MHHS Programme and the need to interact with that. This modification is all based off the TOM, however there is no provision or plan for what will happen if this TOM changes as the programme works through the design artefacts. There also appears to be no consideration or detail about potential cross code changes (see response to Q10, assumption 8).	The remaining areas of the solution, which will include reporting requirements, will be discussed and developed with the Working Group ahead of a further consultation. The DCC agrees that no requirements regarding reporting and performance were included in the Preliminary Assessment. These can be added to the business requirements for the Impact Assessment. The DCC and SECAS are in discussion with the main MHHS Programme, and is aligning requirements and solutions, recognising that there are time alignment issues that do create a noted risk. It is unlikely that the TOM itself will change at this stage of the programme. Additionally, the DCC and SECAS are represented on the relevant MHHS Programme decision groups, which will be responsible for agreeing MHHS processes and defining cross-Code change. We also understand

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
				the MHHS Programme will be responsible for ensuring all cross-Code aspects are covered off.
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Not in current form	MP162 comprises two key components: creation of the new Meter Data Retriever (MDR) role and DCC infrastructure upgrades to support HH data collection. We address both in turn below. <u>Meter Data Retriever (MDR) Role</u> Part of the identified issue is that independent organisations currently have no means of fulfilling the requirements of the MDR function within the Smart Data Service (SDS). Competition in this area has been highlighted as a key part of the MHHS TOM by Ofgem – the DCC and SEC have an obligation to ensure that not only is this implemented but also that it is effective. This has been jeopardised by the decision to progress this via the SEC Change route, in isolation of the wider MHHS Programme (MHHSP). In our view, this should be part of the MHHSP Design workstream with requirements being dictated by the Programme. To be successful, the solution needs to treat independent and supplier organisations equally – with equivalent access to data and prioritisation of requests. The solution as currently proposed fails to fully achieve this. Suppliers can access shorter TRTs through their IS role, with only	Please note the solution option to add an Attribute to the MHHS Service Requests has been dropped, incidentally removing the need for a mandatory change to the DUIS for existing Users. Please also see the response to EDF under question 2 below. Option 1 appears to restrict MHHS data collection to an MDR role only, where the requirements indicate a Supplier can either appoint an independent MDRA or retrieve their own data. Energy Suppliers have indicated they want the option to re-use their existing Supplier User IDs and not use a new MDR User Role. Option 2 has two options: use the existing Supplier TRTs and create increased demand peaks in current scheduling window; or ask Suppliers to reduce the ‘existing reads returned by 08:00’ behaviour and align all Users to existing

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			an “honesty box” as a control, and are at the front of the scheduling queue with the 00:00-06:00 read window. Not only is this ineffective competition but it also makes it more difficult for the DCC to efficiently manage demand and capacity. We outline below, in order of preference, three options to amend the solution to address this: 1. Consumption data can only be retrieved by via MDR with access to the existing TRTs 2. Proposed solution but with equivalent access to the existing TRTs for IS and MDR 3. Proposed solution but MDR can access a shorter on-demand TRT for SRV 4.8.1 Option 1 would ensure parity between supplier and independent organisations whilst also facilitating efficient capacity management at the DCC – all scheduled service requests for consumption data, regardless of purpose, would be subject to the same 24hr TRT. On-demand service requests with shorter TRTs would be available as required, with incentives to minimise their use, – satisfying both supplier and independent use-cases. Under this option, the distinction between MHHS and existing processes disappears – data is collected once by an MDR and used across multiple processes: billing, settlement and energy management.	24 hour scheduling TRTs. Each option creates issues for at least one party. Option 3 is possible but opens up risk, as previously discussed with the DCC, that meter data retrieval compounds an existing issue on unpredictable demand and the DCC has to increase capacity to support possibility risk. This would need a SEC obligation cover for ALL Users to use scheduling service for MHHS data collection purposes, something that was rejected by the Working Group. The DCC has provided information on current and predicted future demand. It has also made and shared assumptions on future demands and capacity associated with this modification as the basis for establishing the level of change required for the infrastructure and capacity to meet the projected additional demand. DCC funding has also been provided to cover the existing and future service as defined in the original solution designs and original contracted Submit Final Tender (ISFT). The solution to support the

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			Duplication would therefore be minimised as only the appointed MDR can collect consumption data. Customer procured OU services can sit alongside. The process for an existing DCC User (e.g. a Supplier) to become an MDR could be streamlined. The only impact to existing supplier processes would be that collection is conducted via MDR rather than IS, which could be the same organisation. Option 2 would also ensure parity between supplier and independent organisations but increases the potential for duplication as both supplier and MDR could set up schedules for consumption data. This would make it harder for DCC to manage capacity efficiently and potentially increase costs. As with Option 1, there would need to be clear and strong disincentives for sending unnecessary on-demand requests. Existing processes would not have to change at all. Option 3 does not achieve parity between supplier and independent organisations but allows the MDR to access a shorter on-demand TRT for 4.8.1, which is the most vital SRV under MHHS. As with Option 2, there would need to be incentives around the efficient use of on-demand requests; however, the focus would be on supplier users who would have access to shorter TRTs across a wider	proposed MHHS service was not part of those original definitions and is being added by this modification.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			range of SRVs. The potential for duplication is the same as Option 2 as is the impact to existing processes. In our view, Option 1 would achieve the greatest benefit overall. A similar approach was initially proposed for this Mod, which suggests it was the DCC's preferred option, but the majority of the workgroup disagreed. This is an example of why we believe this change should be progressed within the MHHS Programme and its governance structure to ensure a solution that is optimal for industry, whilst meeting the requirements of all, is pursued. <u>DCC Infrastructure and Capacity</u> Identifying the separate costs of each component in this Mod has been difficult due to a lack of transparency around existing DCC capacity. To properly assess whether the solution is effective, we would require further information around the following: • Current utilisation of DCC capacity and related headroom • Current % of connected meters where supplier is requesting HH data (either scheduled or on-demand) • Current % split between scheduled and on-demand requests for HH data	

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			- Current success rate of scheduled requests for HH data - Current success rate of on-demand requests for HH data This would allow us to identify the gaps between current and required capability/capacity and determine whether the proposed changes and level of investment are appropriate or sufficient. According to their Charging Statements, the DCC have already received ~£3b in funding from consumers. It is difficult to understand how this level of investment is not sufficient to facilitate the collection of HH data from meters on the network. The original IA for the SMIP identified ~£1b in benefits from load shifting, TOU tariffs etc. These benefits can only be fully realised through HH settlement – the effect on the system of the load shifting action is masked by a generic profile in settlement otherwise. Thus, the argument that this transition to HH settlement could not have been predicted is weak.	
Stark	Other SEC Party	Not in current form	The solution currently proposes a new user role for parties, other than Suppliers, who will want to provide the Meter Data Retrieval (MDR) service that will form part of Smart Data Service (SDS). Currently this proposal is aimed at independent operators wishing to participate in MHHS.	Please see the responses to the AIMDA above.

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			It was clear that the MHHS TOM solution allowed for competitiveness in the role of MDRA, as highlighted by discussions & consultations over the future of Supplier agent roles. The Ofgem MHHS SCR was agreed by industry consultation making it difficult to accept that DCC would not have been able to comment. We acknowledge the desire to not affect the current system uses by Suppliers who already have this access, i.e., for certain billing activities, & therefore already able to schedule for consumption to be provided to Settlement. We do not think, however, that the MHHS flag in an “honesty” system is a suitable or robust approach to mitigating impacts to existing processes or managing unpredictable user behaviour because it creates an uneven playing field between supplier and independent organisations. Suppliers could utilise significantly shorter TRTs to retrieve consumption data that they could then use in the settlement process. Creating the MHHS flag could be an unnecessary cost when the same effect can be achieved through an alternative solution. In our view, the best approach would be to require all consumption data retrieval, regardless of purpose, to be via an MDR and using the existing set of TRTs. This would ensure parity between independent and supplier organisations whilst also facilitating efficient capacity	

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			management at the DCC. All scheduled requests for consumption data would be subject to a 24hr TRT and on-demand requests with a shorter TRT, with appropriate incentives to minimise usage, available as required – satisfying both supplier and independent use cases. The potential for duplication is also significantly reduced as only the appointed MDR can retrieve the data. Similarly, the potential for re-use is increased as the data collected by the MDR can then be used in multiple other processes. Existing processes would only be minimally impacted – simply a switch of existing schedules from IS role to MDR role. The process for an existing DCC User to become an MDR would not necessarily be onerous. Additionally, MDRA role should be allowed to access additional data where permissions provided i.e., specifically appointed by Supplier or Customer for all collection activities. If this approach is not viable then the alternative is to amend the proposed solution so that the MDR can have the same access to shorter on-demand TRTs as the Supplier. Following the principle that scheduled requests are preferable and on-demand requests should be minimised (potentially through incentives) then the need for separate MHHS specific TRTs is unnecessary because the majority of requests will be scheduled and so subject to a 24hr TRT anyway. This is true regardless of	

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			whether the requester is a Supplier or Independent organisation.	
Electricity North West Limited	Network Party	No	Whilst the proposal will provide a mechanism for accessing Half Hour consumption data for Suppliers and Meter Data Retrieval Agents (MDRA) it does not adequately consider the whole system impact across DCC, DSP and CSP services of multiple parties attempting to retrieve consumption data from a consumers smart meter. Specifically, the modification report do not reference how this proposal would address Network Operator requirements or known system/capacity constraints present in the Communication Service Provider-North Radio Access Network. As such we have to assume these areas have not been given due consideration as part of the preliminary assessment or in developing a solution. As the proposal is currently drafted the exact same data could end up being retrieved from a smart meter two, three or even more times with no perceivable benefit in a capacity constrained network. Electricity North West considers that the most cost-effective model for accessing Half Hour consumption data would be to ensure that it needed to be read from a consumers meter once and once only. After the data has been retrieved it would then be stored in a secure data	It should be noted that the scope of this modification is to provide data for the settlement process, not for other Users or DNO use. The DCC has included the data cache option for SMETS1 in the current proposal as it performs a valuable function in saving SMETS1 requests and overhead and is already in place for one SMETS1 cohort. A cache solution for SMETS2 Devices was considered in early days but not included in the proposal due to the wider impact on the end-to-end security model. The DNO use case is addressed by existing ISFT planned capacity upgrades. The DCC and Elexon have been directed by Ofgem to implement the MHHS solution.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			repository for retrieval by any authorised user as needed. This would include Suppliers, Network Operators and Other Parties e.g. energy switching service providers. It has been acknowledged by the DCC, BEIS and Ofgem that there are under performance issues with the provision of the CSP North service when attempting to retrieve large payloads of data. Unless whole system requirements are considered as part of developing the solution for this proposal there is a high risk that contention for data and CSP network resources will result in further degradation of CSP North network performance. The optimal model would be to allow DCC (or other nominated parties) to schedule retrieval of all half hour consumption from meters, store this data securely, and then provide services to allow all parties to access the data without the need to actually contact the smart meter itself. This would have the significant advantage of reducing CSP network congestion in all regions and improve data retrieval success rates. The modification report acknowledges some of these questions have already been raised by Working Groups members and solutions are not currently possible given existing SEC constraints. The DCC itself notes that is has only assessed increased capacity needed for MP162 but	

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			notes that there are other use cases (existing and future) which will need to access the same data. The SECMP162 should not be implemented without DCC first engaging Ofgem in a wider holistic review of requirements for access to Half Hour consumption data.	
MHHS Programme	N/A	Yes	We believe the proposed solution broadly meets the requirements of the Market-wide Half-Hourly Settlement (MHHS) Target Operating Model (TOM). The proposed list of Service Requests match those identified by the Design Working Group in development of the TOM. The Detailed Design Team (DDT) of the MHHS Programme (MHHS) would like to better understand the implications of different scheduling options for Service Requests from the Electricity Smart Meter (ESME). The DDT are also keen to discuss the mechanism for identification of the MDR Service by the DCC Data Service Provider (DSP). The current proposal is that the DSP is notified from Registration Services via the Central Switching Service (CSS) using a 'repurposed' data flow. We have identified the need for each MDR Service to have a Market Participant ID (MPID) registered within Industry Standing Data (ISD) and may also require a Market Role Code depending on the solution agreed. If SMRS needs to validate that the MPID of the MDRA is a valid participant, it will use MDD for that. To maintain a list	We will be happy to present the planning scheduling solution to the MHHS Programme. The DCC has provided feedback on the use of the DIP or CSS route. For the purposes of this modification, there is no difference to the solution, but the DCC will consult with the MHHS Programme and Ofgem as to the 'best' possible solution.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			of valid MDRA MPIDs, they will need to be held against a market role code to be uniquely identifiable. The DCC itself may not need this market role code but we believe it will because otherwise some different process will be needed to provide the validation in SMRS. There appears to be an outstanding question as to whether the Supplier MPID needs to be populated in SMRS where the Supplier is undertaking the MDRA Role. Furthermore, the MHHSP will be implementing a new Data Integration Platform (DIP) for MHHS and think the option of using the new platform to notify the DSP of the MDR User and its Effective Dates should be explored. On the proposed Target Response Times (TRTs) we agree with both the scheduling approach and 24 Hour TRTs, which will suffice for Settlement Purposes. We also agree that Supplier provided MDR Services should not have shorter TRTs than are offered to independent MDR Services where data is being collected for Settlement Purposes. We think a mechanism for identifying MHHS Service requests may be required to ensure a level playing field for independent MDR Services. It should also be noted that processed HH consumption and export data will be available via the DIP for Market Participants that have valid reasons to access the data e.g. Suppliers, Distribution Businesses and the ESO.	

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			These options should also be considered in DCC Capacity Modelling scenarios, since they could reduce the burden on the DCC Systems and Services.	
Utilita Energy Limited	Large Supplier	Yes	We agree with the proposed solution will deliver the required changes to support MHHS.	
EDF	Large Supplier	No	It is not evident that the proposed solution is the most appropriate way of addressing the identified issue, especially as the detailed design for the MHHS arrangements is ongoing and will not be complete until April 2022. Insufficient information is available at this stage to be able to determine whether the DCC's proposed solution is the optimum one for SEC Parties, the MHHS arrangements, or consumers. With the go live of MHHS over three years away and the turbulent market conditions that we as an industry find ourselves in, coupled with the ever changing energy market, it seems highly inappropriate to request that energy suppliers are asked to provide binding and guiding viewpoints on such a granular use of the DCC service requests to support the DCC's technical design at this point. It is understood that the DCC has to make technical changes and investment and is keen to ensure they are ready for the successful and timely introduction of MHHS, but driving the technical design decisions on a set of assumptions that suppliers will make without full	The timeline is constrained by SEC governance steps, Ofgem and the MHHS Programme but can be supported by adopting a flexible solution. The DCC notes that the high-level plan is designed to allow Parties to change their systems as required, and for testing with the MHHS Programme to be completed. Due to the timing of the MHHS programme, it is not possible to wait until the new DSP is in place to implement the required changes for MHHS. Therefore, a solution must be developed and implemented within the existing DSP and form a business-as-usual requirement for the DSP Re-procurement programme. It should be noted that the core DSP component cost, while significant, is not

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			knowledge of future facts is likely to result in a sub-optimal technical outcome for both the DCC and the industry as a whole. An alternative suggestion to requesting assumptions from suppliers to base a design on is for the DCC to take advantage of new technology available where the throughput and infrastructure needs of particular processes can be automatically scaled up and down based on their usage and demand. This could offer the DCC and the industry the opportunity to only purchase and use a base set of capabilities, with this growing as adoption and supplier needs and desires to use these services grow as the market develops. Additionally, this approach could protect the DCC and the industry from incorrect assumptions made by suppliers at this point, or changes to these assumptions that could overwhelm the DCC and ultimately have a detrimental impact on end consumers. It is also not clear what impact the re-procurement of the DSP, which has similar implementation timescales to this change, will have on how and when this Modification will be implemented. What we are really keen to avoid here is suppliers having to fund the cost of change to both the current DSP's systems, and the new incoming DSP's systems.	the largest contributor to the programme cost by some distance.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
Callisto/ Morrison Data Services	Other SEC Party	Yes (with some amend- ments)	The proposed solution broadly resolves the identified issue. The Ofgem approved TOM for MHHS requires the Smart Data Service (SDS), which includes the MDR, which under the TOM is competitive service. We believe that MDRA should be used in all case to collect data for settlement. Whether the MDRA is a supplier or an independent SDS all data for settlement should come through this new approved role under MHHS. This would mean all requests had the same TRTs and the entire load could be managed more effectively by the DCC. We recognise that Suppliers have other user case that require the collection of the same data. We also believe that data should only be collected from the meter once (and used by all who need it) so where data has been collected by the SDS it should be made available for other purposes as well. We believe a 24 hour TRT for all users including MDR should be implemented at go live of MHHS, due to the volume (30 million) of profile data being retrieved/collected.	Please see the responses to the AIMDA above.
OVO (<i>late response</i>)	Large Supplier	No	There is not enough detail in the modification to be able to understand how the Supplier functions in relation to the MDR / MwHHS functions will align and work together. There are opposing drivers in the requirements and not a	SECAS and the DCC are both involved in the MHHS Programme workgroups and will be reiterating these points in these discussions.

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			fully formed understanding of how the Smart Implementation Programme works. Suppliers, and other DCC Users, do not differentiate settlements from billing. The Smart meters, and the overall way we operate, is not driven by splitting out different data elements and functions. The tariff configurations and the way we use data obtained from the smart meters is not set up for the profile data to be split out and used for settlement only and then require the same data to be used for what it is today outside a MWHHS arena. Suppliers still need to operate all elements of the solution, not just pulling out a singular data set for settlements, and will still be doing so going forward. Until the end point solution, including the changes actually required, have been agreed, it is nearly impossible to state that the solution put forward will effectively resolve the identified issue. It is fair to say the issue has not fully been identified, especially when the matter to establish all that has not yet been done and the costs applicable are so large. Although we fully support the need to get profile data into settlements, we currently use this data for numerous functions and processes, including on demand and scheduled purposes. We've already paid for the systems to leverage those processes and would like to understand how the costing for this will be borne, and shared, by others outside the SEC Change process. Especially when	At this time, no changes to the charging methodology are proposed under MP162. This would be a significant change beyond the scope of this modification and would likely delay the progression of the MHHS changes. We would be happy to consider this with Parties more widely separately to MP162.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			matters of DCC costs, including getting Impact assessments on not fully finalised solutions and undecided outcomes, will be levied upon their Users, some of which are not involved in any way with MWHHS in any way. The DCC costing / charging model does not factor this and it would be good to understand how this will be achieved. As has been discussed in the working groups, the way Smart is designed and works is the Supplier controls the overall management of the metering and communications and none of the changes in this Mod will be changing that. The Supplier is still responsible for the meter, the management of the DCC provided CH and the issues around WAN. This also includes tackling the need for replacement of devices and maintenance. If changes are needed to any of that, they will impact the SEC, and the way Users interact with the DCC, and will need either changes to this Mod or new Mod (s) to tackle this.	

Question 2: Do you agree with the proposed implementation approach?

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Yes	Whilst we agree that the SEC Modification needs to be implemented ahead of the programme go live date, we are concerned that timescales are tight and therefore solutions and refinement might be rushed through in order to meet the deadlines without necessarily being given appropriate consideration.	The existing timeline has been developed and agreed between Ofgem, SECAS and the DCC to ensure there is adequate time for consultation on the solution design, and the subsequent development, testing, and implementation of the solution. The timeline also allows for all Parties to plan and develop their changes relating to MHHS.
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	No	The proposed implementation approach in the modification report is lacking in detail and only provides a final date – November 2023. There will be several stages to implementation that need to align with milestones in Ofgem's MHHS Implementation Timetable. First, the test scenarios and full requirements for the MDR UEPT process (incl. security & privacy) need to be defined and form part of the Design baseline in April 2022 (M5). Secondly, a form of the solution needs to be ready for System Integration Testing (TE2) in August 2023 to allow potential MDRs to test the functionality with their systems. Similarly, the solution needs to be implemented in time for the Qualification phase (MT6b) in January 2024.	The existing timeline has been developed and agreed between Ofgem, SECAS and the DCC to ensure there is adequate time for consultation on the solution design, and the subsequent development, testing, and implementation of the solution. The timeline also allows for all Parties to plan and develop their changes relating to MHHS. A full timeline including deliverables and testing plans will be delivered as part of the Impact Assessment.

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			Participants need as much time as possible to design, build and test their SDS system, which could include an MDR function, before the qualification period ends and the migration begins. If implementation of MP162 is going to be delayed, the Programme needs early visibility of this so evidence can be presented to Ofgem to shift any relevant Milestones back.	
Stark	Other SEC Party	No	The proposed approach is lacking in detail and only provides final date – November 2023. There are several activities in the implementation process that need to be aligned with milestones in Ofgem’s MHHS timeline. First, the test scenarios and UEPT requirements need to form part of the Design Baseline in April 2022. Secondly, a form of the solution needs to be available for System Integration Testing in August 2023. Finally, the solution needs to be implemented in time for the Qualification phase in January 2024. Early visibility of any delays to implementation is important so that impacts to Programme milestones can be assessed.	The existing timeline has been developed and agreed between Ofgem, SECAS and the DCC to ensure there is adequate time for consultation on the solution design, and the subsequent development, testing, and implementation of the solution. The timeline also allows for all Parties to plan and develop their changes relating to MHHS. A full timeline including deliverables and testing plans will be delivered as part of the Impact Assessment.
Electricity North West Limited	Network Party	No	As noted in the response to Question1. The proposed approach does not adequately consider the whole system impact across DCC, DSP and CSP services of multiple parties attempting to retrieve consumption data from a consumers smart meter – such as Network Operator	Please see the response to Electricity North West Limited under question 1 above.

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			requirements or recognised system/capacity constraints present in the CSP-North service.	
MHHS Programme	N/A	Yes	We note the proposed implementation date of November 2023 is out-with the Ofgem Published MHHS Timetable which envisages DCC User Interface Testing to commence in April 2023. However, it is acknowledged that there will be a re-base-lining activity after the design phase which will take into account the latest view of the MHHS Programme plan.	Testing of the DCC components will be completed ahead of this time; if required, the DCC will create test stubs to the MHHS solution. The timetable for developing the interface will be developed with the MHHS Programme.
Utilita Energy Limited	Large Supplier	Yes	Yes, DCC system changes must be completed prior to MHHS implementation. November 2023 SEC release provides the DCC with the most time possible to implement and test changes to its system.	
EDF	Large Supplier	No	The implementation approach for these changes is not clear from the Modification report. This only sets out the proposed implementation date, not how the changes would be delivered; specifically, it is not clear what changes would be required to SEC technical products like the DUIS, and whether parties (and specifically suppliers) would be required to upgrade to a new version of the DUIS as a result of these changes. These questions have a significant impact on how and when these changes are implemented. There has always been an assumption made that parties would not be 'forced' to upgrade to any new version of the	As noted in the response to the AIMDA under question 1, in response to the Design reviews, the DCC has now removed the proposed 'MHHS' Attribute on the MHHS Service Requests from the solution. As a result, the changes to the DUIS to support the solution will not require existing Users to uplift to this new version to be able to operate MHHS. However, any Users who wish to operate under the new MDR User Role would need

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Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			DUIS at the point it was implemented, and that the DCC would always maintain at least two 'live' versions of the DUIS to enable a staggered upgrade approach. From the information provided in the Modification Report it appears that there isn't a 'no change' approach in this instance; even if suppliers were to choose to continue to retrieve data themselves for use in settlement, they would need to make changes to flag the requests as being for MHHS purposes or not. The implications of these changes for versions of the DUIS, and what that would then mean for DCC Users, is really not clear from the information in the Modification Report. It is therefore impossible to determine whether the proposed implementation approach is appropriate at this stage. As noted above, it is also not clear what impact the re-procurement of the DSP, which has quite similar implementation timescales to this change, will have on how and when this Modification will be implemented. This is not mentioned in any of the documentation. What we are keen to avoid here is suppliers having to fund the cost of change to both the current DSP's systems, and the new incoming DSP's systems.	to be operating on the new version introduced by MP162. The re-procurement of the DSP will have no impact on this solution, as the re-procurement will only occur after the implementation of MP162. Any changes made to the DSP for MP162 would be included in the reprocured DSP.

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
Callisto/ Morrison Data Services	Other SEC Party	No	The current implementation approach only considers the final implementation into a production system. The implementation plan needs to allow time for the creation of the test environments and tools for the qualification process ahead of production go live in April 2024.	A full timeline including deliverables and testing plans will be delivered as part of the Impact Assessment.
OVO (<i>late response</i>)	Large Supplier	No	Although we agree with the approach dates we must call out that we have serious concerns with actually being able to meet those dates – additionally, the Modification report does not detail how this will be implemented, just the time scales needing to be met. There are still several design impacting decisions needing to be made, that have far reaching impacts, and costs, to DCC Users and SEC Parties, that are outstanding. It does not seem likely they will all be ratified and in place by May 2022, allowing for all the elements on the SEC Change process to happen. This seems very ambitious when there are so many bits still being looked at in the Level 4 working groups that rely on DCC changes to happen.	A full timeline including deliverables and testing plans will be delivered as part of the Impact Assessment. We acknowledge that the wider end-to-end MHHS solution is still under development. While the DCC's technical solution shouldn't need further change, we acknowledge further modifications may be needed to adapt the MP162 solution in response to the wider programme.

Question 3: Will there be any impact on your organisation to implement MP162?

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	No	There should not be any impact, although we are keen to understand some of the finer details to ensure that this is the case. We are also of the understanding that this modification will have <u>no</u> impact to existing smart metering services.	We note that the DCC's design principles specifically state there should be no impact on the existing Smart Metering System.
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Yes	AIMDA members wishing to provide an MDR service will be required to; • Accede to SEC under "MDR User" category • Build or procure DCC adapter • Undergo UEPT for the MDR role • Conduct security and privacy audits • Internal development for Smart segment MPANs A potential negative impact is that if the solution is not fair, then we will not be able to service Smart meters in an equivalent manner to AMR, which could have further impacts on settlement and customer experience.	The scope and requirements have led the DCC to design a solution that allows the MDR to retrieve data, but which envisages leaving the maintenance and running of the meters to the installing Supplier.
Stark	Other SEC Party	Yes	As an Other SEC party, the appropriate User Entry Process Testing (UEPT) for the MDR role will be required. This will, however, be incorporated into development requirements for MHHS programme in its entirety.	

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
Electricity North West Limited	Network Party	No	As drafted the solution does not impact Network Operators.	
MHHS Programme	N/A	Yes	The MHHS will need to be fully involved with the implementation of MP162 to ensure it aligns with other MHHS integration activity.	We agree, and SECAS and the DCC will be working closely with the MHHS Programme through this modification's development and implementation.
Utilita Energy Limited	Large Supplier	Yes	This modification supports a wider change that impacts all Suppliers and how they operate and settle electricity on a day-to-day basis. Our response is provided within the scope of <i>only</i> MP162 and does not cover the total impacts of implementing MHHS. The primary impact will be changes to our systems which interact with the CSS, to deregister appointed MDRAs, as well as any changes associating SRs being sent for MHHS purposes.	
EDF	Large Supplier	Yes	We have to assume that we will be impacted by any changes made as a result of this change. However, in line with the comments in our response to question 2, it is almost impossible at this stage to determine what those impacts would be without a clearer idea of the changes that will be made to the technical specifications, and especially the DUIS. It is not clear whether, as a supplier, we would be required to make changes and implement a	As noted under question 2, the DCC does not envision any mandatory DUIS changes being needed to deliver MP162 that would require existing Users to have to uplift to deliver MHHS.

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
			new version of the DUIS even if we intended to retrieve the data ourselves using the existing SRVs.	
Callisto/ Morrison Data Services	Other SEC Party	Yes	We will need to Accede to the SEC as an MDR user. Create processes to generate DCC requests and process responses. Undergo UEPT for the MDR role. Conduct security and privacy audits.	
OVO (<i>late response</i>)	Large Supplier	Yes	Being that assumptions on how this will work, and changes to the way Suppliers will operate under MWHHS, we will be directly impacted across many areas of both our day to day operations and how we interact with our devices via the DCC. As it stands today, those changes have not been fully baselined and still need to be discussed. Until we discover how we will operate in this market, using a Smart meter via the DCC, it is impossible for us to define the impacts. Anything that changes our interaction with the DCC beings impacts to us and our solutions.	

Question 4: Will your organisation incur any costs in implementing MP162?

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	No costs	-	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	More than £1m	Combined costs of all our member organisations to become MDRAs will be > £1m. This is just one part of a much larger bill for implementing MHHS.	
Stark	Other SEC Party	Yes (estimate not stated)	Costs will be required to conduct UEPT and to provide access to the DUIS; this will also be incorporated into the development costs for participation in the MHHS programme in its entirety.	
Electricity North West Limited	Network Party	Yes (estimate not stated)	MP162 as drafted does not impact Network Operators but will have the effect of further increasing our contribution towards the DCCs charges in order to implement a solution for which it is not clear the CSP infrastructure can support. Whilst we are asked that respondents exclude their share of the central costs from their responses, the proposed cost of this solution is unprecedented in SEC modification history and stands at £30-60 million and as such we must refer too it in our rationale.	
MHHS Programme	N/A	-	N/A	

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
Utilita Energy Limited	Large Supplier	Up to £100k	Most of the costs associated with the total MHHS programme will arise as DCDA and wholesale costs. We have excluded these, as well our share of the total cost of this modification, from our response to this question. The specific costs with implementing MP162 will be on development and DBT costs associated with our CSS systems. We expect these changes to take around 3 months of DBT time, at a cost of ~75k. We have also not included our ongoing costs of running MHHS processes. We could provide the total programme costs if requested.	
EDF	Large Supplier	More than £1m	In line with our responses to previous questions it is impossible at this stage to be able to estimate the likely costs that we would incur as a result of MP162 given the lack of detail regarding the technical design and the implications for the DUIS. We have to assume the worst case and that we will be required to implement a new version of the DUIS and the back-end changes that would support that new version, in which case the costs are likely to be significant.	As noted under question 2, the DCC does not envision any mandatory DUIS changes being needed to deliver MP162 that would require existing Users to have to uplift to deliver MHHS.
Callisto/ Morrison Data Services	Other SEC Party	Unknown at this time	Further detail is required about MDRA processes under the MHHS programme.	

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
OVO (<i>late response</i>)	Large Supplier	£500k-£1m	This is a guess based on the initial costs that have arisen through the preliminary work on this Mod and costs we've faced in previous changes when it comes to the DCC and the SEC itself. But, without a full understanding of the solution and the changes themselves, this figure could decrease dramatically (noting we can already obtain the data needed for settlement without this Mod) or increase (being that requirements on how it works seem to be arising without consideration on the impact or how it works. A full appreciation of how Smart works must be factored when deciding how to implement MwHHS.) – we will only know this once it's being decided. Ultimately the costs for the SEC changes under the Mod will be borne by SEC Parties so any changes will come our way.	

Question 5: How long from the point of approval would your organisation need to implement MP162?

Question 5				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	N/A	-	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Unknown	The length of time from approval will depend on the DCC's own rate of implementation. There is much we cannot do until something has been built for us to test with and against. Similarly, we cannot provide an answer to this question without knowing the full list of UEPT requirements on MDRs.	
Stark	Other SEC Party	Unable to evaluate currently	This would depend on testing availability etc. at the DCC	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	-	N/A	
Utilita Energy Limited	Large Supplier	N/A	Approval for November 2023 SEC release provides enough time for Utilita to make any required changes to support implementation of this modification.	

Question 5				
Respondent	Category	Response	Rationale	SECAS Response
EDF	Large Supplier	Over 12 months	Again, it is impossible to provide an accurate estimate, but assuming the worst-case scenario that we would be required to implement a new version of the DUIS as a result of MP162 we would need at least 12 months' notice to be able to implement these changes. Not only do we need third party service providers to make changes to their products, but we would need to design, build and test changes to our internal systems to interface with the new version of DUIS.	As noted under question 2, the DCC does not envision any mandatory DUIS changes being needed to deliver MP162 that would require existing Users to have to uplift to deliver MHHS.
Callisto/ Morrison Data Services	Other SEC Party	Unknown	Further detail is required about MDRA processes under the MHHS programme.	
OVO (late response)	Large Supplier	8-12 months*	<i>* As long as the approval includes full details of the changes we would need to make and the changes DCC will making, it should be in the region of 8 to 12 months.</i> We are explicitly linked in being able to implement any of the changes to the way we interact with the DCC and how we need to change the way we operate the end to end processes with the SMiP. Some of which is very quick to change, others, factoring all the other coincidental changes taking place in a similar time, affect our ability to manage the changes. Noting we do not know, at this time, the amount of changes needed.	

Question 6: Do you believe that MP162 would better facilitate the General SEC Objectives?

Question 6				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Yes	We agree that this modification would better facilitate SEC Objective (b).	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Not in current form	Not fully in its current form, incorporating one of the proposed amendments in Q1 would better facilitate the objectives. Furthermore, it is surprising that no view has been given against SEC Objectives (a), (d) and (e). An effective solution would better facilitate these specific objectives, especially considering they relate to key benefit areas in Ofgem's business case for MHHS (consumers, competition and networks). We provide our own assessment below: (a) the proposal will facilitate the efficient operation of Smart Metering by maximising benefits realisation through extraction of HH data. The current solution does better facilitate this objective. (d) a successful solution will facilitate and promote effective competition between supplier and independent organisations. The current solution does not better facilitate this objective because there is not parity. (e) through the Dynamic Dispatch Model, Ofgem identifies between £100m and £1b in Network benefits from	We acknowledge these additional views and will highlight them in the Modification Report. The DCC notes that the specific function for network design is not included in the scope of this modification.

Question 6				
Respondent	Category	Response	Rationale	SECAS Response
			MHHS ¹ . Therefore, a successful solution should facilitate innovation in the design of networks through access to HH data. The current solution does not better facilitate this objective because it has not been considered.	
Stark	Other SEC Party	Not in current form	We believe that MP162 could also better facilitate SEC objectives (a), (d) & (e) if the suggested caveats of Q1 are applied. These objectives are aligned with key benefits areas in Ofgem's business case for MHHS (consumers, competition and networks) so it is important for this solution to facilitate them.	We acknowledge these additional views and will highlight them in the Modification Report.
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Yes	We agree with the Proposers assessment against the General SEC objectives.	
Utilita Energy Limited	Large Supplier	Yes	B – allows for appropriate changes to be made DCC systems to support its MHHS licence conditions. C – allows for en masse collection of MHHS data to provide accurate and appropriate information to customers with regard to their product offering. G – SEC changes are required to support the wider MHHS programme, this modification achieves this, therefore efficient implementation of this Code.	

¹ Ofgem, MHHS: Final Impact Assessment, Table 20, p91, difference between “baseline” and “including distribution network benefits” across low and high load shifting scenarios

Question 6				
Respondent	Category	Response	Rationale	SECAS Response
EDF	Large Supplier	No	While we agree that making changes to the DCC systems to ensure that MHHS and the associated benefits that it brings would benefit the General SEC Objectives (and specifically SEC Objective b as noted in the report), we are not able to agree that the current proposed solution is appropriate and would better facilitate the General SEC Objectives.	
Callisto/ Morrison Data Services	Other SEC Party	-	-	
OVO (<i>late response</i>)	Large Supplier	Yes	We agree, in principle, that this will better facilitate the SEC Objectives identified in the Mod report although we still have concerns on what MP162 is going to deliver and how. It may be fairer to state we believe the 'intent' of the Mod will better facilitate the General SEC Objectives, once the solution(s) are finalised.	

Question 7: Do you believe there will be any impacts on or benefits to consumers if MP162 is implemented?

Question 7				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Yes	Based on Ofgem's prediction, consumers would benefit.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Yes	Non-domestic consumers with Smart meters installed will be able to appoint independent meter and data agents, like they can for AMR. This will allow them to enjoy the benefits of competition around cost, innovation and service quality.	Non-domestic customers are out of scope. However, the DCC is engaging with the MHHS programme on this as it might impact Suppliers and this modification.
Stark	Other SEC Party	Yes	There will be benefit to consumers if the MDRA role demonstrates fair competitiveness, to better facilitate the consumer's right of choice rather than being restricted by the Supplier role. i.e. non-domestic consumers, with Smart meters should be able to appoint preferred agents as is currently possible with AMR.	We note this comment but do not believe the MP162 solution would prevent this.
Electricity North West Limited	Network Party	No	Access to a consumers consumption history will be a key requirement for future provision of switching services. It is not clear that SECMP162 considers this future use case and as such it is likely that further costs will be incurred as a result in future.	MP162 has focused on delivering the requirements for MHHS as set out under the TOM. Other future use cases have not been considered as these are out of scope.

Question 7				
Respondent	Category	Response	Rationale	SECAS Response
MHHS Programme	N/A	Yes	We believe MP162 will help achieve the consumer benefits as set out in Ofgem's Full Business Case for Settlement Reform.	
Utilita Energy Limited	Large Supplier	No	There will be no specific benefits to consumers because of this modification. The MHHS programme may see more TOU tariffs offered.	
EDF	Large Supplier	Yes	In line with our previous comments, while we agree that making changes to the DCC systems to ensure that MHHS and the associated benefits that it brings would benefit consumers, in line with Ofgem's business case for MHHS, we are not able to agree that the current proposed solution is appropriate and would deliver those benefits in the most appropriate or efficient manner.	
Callisto/ Morrison Data Services	Other SEC Party	-	-	
OVO (late response)	Large Supplier	Yes	Although we can, as Active Import and Export Suppliers using the DCC already, fully believe we can perform all that is currently required of us to achieve the benefits set out by the MWHHS, we appreciate the costs of the changes, and all the unknown changes working their way through, will impact our consumers. The benefits are unclear as the Smart solution, as it is, allows for all	

Question 7				
Respondent	Category	Response	Rationale	SECAS Response
			required but the changes DCC needs to make will, eventually, be borne but customers somehow.	

Question 8: Noting the costs and benefits of this modification, do you believe MP162 should be approved?

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	No	We don't believe that this modification is in a suitable position to be approved. The range of DCC costs is significant and there is a lot more detail required around the solution design. We also note that there has been no legal text provided for approval and without legal text showing the changes to the SEC, this is not a complete modification. That being said we support the intent on this modification.	The responses to questions 9-15 of this consultation will help the DCC to provide a more accurate cost for delivery. The remaining areas of the solution and the legal text will be developed with the Working Group and issued for a further consultation before the end of the Refinement Process.
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Not in current form	We believe that MP162 should be approved; however, only if it facilitates effective competition between supplier and independent organisations. This can be achieved through any of the proposed amendments to the solution outlined in Q1. Considering the overall benefits of MHHS, the assessment of "consumer areas" should be more positive. See below for our own assessment: Improved safety and reliability – more frequent collection of consumption data will allow faults to be identified and rectified faster	We acknowledge these additional views and will highlight them in the Modification Report.

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
			Reduced environmental damage – MHHS is a key enabler of flexibility, which will help reduce reliance on carbon and fossil fuel generation, which damages the environment Improved quality of service – increased innovation through HH enabled propositions that will benefit consumers and quality of service Benefits for society as a whole – MHHS will unlock further innovation that will be required to transition to Net Zero efficiently	
Stark	Other SEC Party	Not in current form	We do believe that MP162 should be approved, however; only if it facilitates effective competition between supplier and independent organisations. This can be achieved through any of the proposed amendments to the solution outlined in Q1. The assessment doesn't fully capture the benefits of an effective solution and MHHS more broadly. The view should be positive against every consumer area as the correct solution for MHHS will foster innovation, improvements to service quality and enable an efficient transition to Net Zero through effective competition.	Please see the response to the AIMDA under question 1 above.
Electricity North West Limited	Network Party	No	As per our responses to Questions 1 and 4	

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
MHHS Programme	N/A	Yes	The MHHS Programme will need this modification to be approved in order to implement MHHS.	
Utilita Energy Limited	Large Supplier	Yes	These changes are required to support the mandatory MHHS programme - please refer to our response to Q16 with specific regard to cost. We would not be supportive of any SEC performance assurance related reporting if they were to arise as a result of this modification.	MP162 is not proposing to introduce any performance assurance monitoring.
EDF	Large Supplier	No	Based on the limited amount of information available and our concerns about the way the solution is being progressed, it is not possible to agree that MP162 should be approved at this stage.	
Callisto/ Morrison Data Services	Other SEC Party	Yes	Without MP162 the MHHS TOM can not be implemented. But please see comments in question 1.	
OVO (late response)	Large Supplier	No	Not without a fuller and more in depth understanding of all the changes required and how those changes will impact both us as a SEC Party / DCC User and our ability to operate a Smart meters via the DCC Service. As the SEC defines that behaviour and interaction, all the functions applicable need to be included in the Mod. They are not and some are requiring clear guidance to be established. As such we do not feel the Mod is at a stage where it can be approved. It may require this Mod to be refined into	

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
			different elements and deliverable to allow DCC to get on with some work and inform SEC Parties of changes, but there are core fundamental items still unclear that preclude that.	

Question 9: Please provide any comments or feedback you may have on the DCC's design principles

Question 9			
Respondent	Category	Comments	SECAS Response
Western Power Distribution	Network Party	We strongly agree with DP-1, however we are slightly concerned by the sentence in the modification report under Section 4 that states: 'Other Party Categories are not expected to be directly impacted by MP162 but may be indirectly impacted by the increased volume of traffic that the MHHS solution is expected to generate.' This potentially contradicts this design principle of not negatively impacting the wider existing smart metering arrangements. We agree with DP-5, however, having read the modification report we are unsure how strictly this will be adhered to. Section 7 states: 'SECAS will strive to meet Ofgem's overall timetable; however, this should not come at the expense of making sure the smart metering arrangements are not compromised.' And 'A Working Group member queried if the whole system needs to be reviewed and redesigned to meet future needs, before it reaches a point where it cannot cope with the demand, though conceded this would likely be outside the scope of MP162. They asked whether the DCC had a view on when a full review of the current model would be needed, due to the pipeline of expected changes that will impact on demand. The DCC confirmed wider work is taking place on this. TABASC members also queried whether there is value in reconsidering the end-to-end architecture in light of future capacity expectations.'	We acknowledge the point around DP-1. The validation of the DCC's assumptions will be key to ensuring there is sufficient capacity to avoid any impact on existing traffic. On DP-5, due to the wider MHHS timelines, MP162 is focused on ensuring sufficient capacity is in place to deliver MHHS. The wider work on capacity will take longer to complete; if carried out under MP162 it would mean the DCC changes would not be in place ahead of MHHS go-live.

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Question 9			
Respondent	Category	Comments	SECAS Response
		As a result we don't believe that this design principle will be fully considered to the extent that it perhaps might have been without a strict timescale. To fully include this design principle we believe that more detailed consideration regarding the DCC retrieving and storing this data to be accessed by numerous parties would be required.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	There should be a design principle explicitly around supporting implementation of the MHHS TOM. Similarly, a design principle should be that the solution does not disadvantage one user over another.	The DCC believes the MHHS TOM is not part of the solution design for this modification. The solution design does include the interface to the Elexon system. Regarding the 'no disadvantage' principle, there is one principle indicating no degradation or change of the existing service. The perceived 'unfairness' of limiting the Service Requests available to the MDR User is part of the requirements that the solution is designed to meet.
Stark	Other SEC Party	A central design principle should be that the solution does not disadvantage one party over another. We propose that this should be added. Similarly, there should be an explicit principle around supporting the implementation of the MHHS TOM.	Please see the response to the AIMDA above.
Electricity North West Limited	Network Party	-	
MHHS Programme	N/A	We agree with the design principle.	

Question 9			
Respondent	Category	Comments	SECAS Response
Utilita Energy Limited	Large Supplier	We agree with the DCC design principles. DP-1 is a fundamental principle, MHHS must be implemented in a manner that does not cause any detriment to performance across the DCC System. DCC must adequately test, and report on its testing activities to assure Users there are no wider impacts that affect performance across the DCC System prior to go live. We request specific focus on ensuring DCC capacity is not negatively impacted, primarily through management of traffic arising from MHHS. We are supportive of the principles that re-use current solutions and that wider changes are kept to an absolute minimum.	
EDF	Large Supplier	We agree that the DCC's design principles overall appear reasonable. However, we would reiterate our desire for the DCC to take advantage of new technology available where the throughput and infrastructure needs of particular processes can be automatically scaled up and based on their usage and demand. This could offer the DCC and the industry the opportunity to only purchase and use a base set of capabilities with this growing as adoption and supplier needs and desires to use these services grow as the market develops.	The solution is constrained by the current technology platforms and the required implementation in November 2023.
Callisto/ Morrison Data Services	Other SEC Party	There should be a design principle explicitly around supporting implementation of MHHS TOM.	The DCC believes the MHHS TOM is not part of the solution design for this modification. The solution design does include the interface to the Elexon system.
OVO (late response)	Large Supplier	We agree with the DCC Design Principles as set out in Annex C.	

Question 10: Please provide any comments or feedback you may have on the DCC's scope and service assumptions

Question 10			
Respondent	Category	Comments	SECAS Response
Western Power Distribution	Network Party	We understand the intent of A8, however we believe that there needs to be further details around this. This is an assumption of an approved consequential change that sits outside the SEC. We wish to see the reference to the other code change that will mean that this assumption is valid. Is this a DTN flow? A CSS message? Who is obligated to send it to who etc. It has also been assumed that an ETD will be populated due to impact on the DSP if it is not but there is no detail or information about the potential impact to other systems and wider industry. With regards to A10, is the intent to put this detail within the SEC or does it fall under another code for the obligation on Suppliers/MDR Users? If this falls outside the SEC, where will it sit? If it is outside the SEC we seek confirmation of the consequential code change details so that we can monitor it's progression.	Further details around A8 will be provided in the Impact Assessment. For A10, we will confirm with the MHHS Programme to agree the appropriate Code for these obligations to sit under.
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	A10 doesn't outline the range of impacts on DCC scope from varying levels of opt-out. It would be helpful to understand assumptions around this.	A10 reflects the DCC's current understanding. The opt-out rate is one of the factors relating to the amount of new traffic introduced by this modification.
Stark	Other SEC Party	No comments	

Question 10			
Respondent	Category	Comments	SECAS Response
Electricity North West Limited	Network Party	-	
MHHS Programme	N/A	Assumption A8 may need discussion as set out in our response to Question 1 where we believe there may be optionality in the way the DSP receives the MDR MPID and EFDs for each MPAN. Additionally, the current design has the Supplier appointing the Smart Data Service (SDS) and the SDS setting the MDR MPID and EFDs within the Registration Services.	This is the DCC's current understanding of the process. If a new interface is introduced, that will be a change to this modification. The DCC considers that the CSS interface would be less risky, easier to implement, and more cost effective than defining a new interface to a new system.
Utilita Energy Limited	Large Supplier	No specific comments to make on any DCC assumptions.	
EDF	Large Supplier	We agree with the assumption noted, with the following exceptions: A1 – it is not clear that the November 2023 SEC Release is the most appropriate release for this to be included in. Not only is this well before the transition to MHHS for smart meters is due to occur, but it limits the time available to fully develop an appropriate solution. This means that the solution is being driven by the timescales rather than the other way around. Progressing this change so early, and before the MHHS end to end design has been baselined, is highly likely to lead to the implementation of a sub-optimal solution that will not deliver the right outcomes in the most effective manner. A10 – it is worth noting that these opt out/in conditions will only apply to consumers where the supplier has been able to move them to the new data access framework (i.e. they are a 'new system' customers in	The timelines have been developed to meet the overall MHHS timetable. MP162 was raised early due to the anticipated DCC lead time to deliver the changes – if the DCC solution was developed after the wider end-to-end design was completed, it is likely the DCC changes would not be delivered in time, jeopardising the overall go-live date. We will reiterate this risk to the MHHS Programme. The November 2023 SEC Release is the last scheduled SEC Systems Release before the expected full MHHS go-live

Question 10			
Respondent	Category	Comments	SECAS Response
		Ofgem's terminology). Where this is not the case the current data access rules would continue to apply and would require domestic customers to opt in to enable their HH data to be retrieved.	date in April 2024. We also note that qualification is due to begin in January 2024 and the SEC changes are needed ahead of this time. However, subject to industry support, we can explore alternative dates such as the February 2024 SEC Release (if converted to a Systems Release) or an ad-hoc SEC Systems Release. The SEC changes will need to be implemented sufficiently in advance of the full MHHS go-live to allow for MDR Parties to undergo accession to the SEC and complete the appropriate UEPT ahead of time.
Callisto/ Morrison Data Services	Other SEC Party	-	
OVO (<i>late response</i>)	Large Supplier	We agree with the scope and service assumptions as set out. We have concerns over the dates and how other large items DCC is required to deliver will all be done in a similar set of releases, noting we do not yet know how big this change is and the impacts.	

Question 11: Please state whether you agree or disagree with the DCC's solution design assumptions

Question 11.1 – design assumption NFR-1				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	We believe that this is better addressed by Suppliers.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Disagree	Assumption lacks evidence. Could be other way round.	The nature of the assumption is that the DCC is assuming this value. Until specific information on the number of Suppliers likely to appoint an independent MDRA is better known, this assumption is based on the DCC's perception of the market.
Stark	Other SEC Party	Disagree	This assumption lacks evidence. The proportion of MDR to Supplier collected data could be the other way round, or it could all be MDR.	The nature of the assumption is that the DCC is assuming this value. Until specific information on the number of Suppliers likely to appoint an independent MDRA is better known, this assumption is based on the DCC's perception of the market.
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	We agree the 75/25 split is a reasonable design assumption	

Question 11.1 – design assumption NFR-1				
Respondent	Category	Response	Rationale	SECAS Response
Utilita Energy Limited	Large Supplier	Agree	Response to this consultation should hopefully inform the accuracy of this NFR. We can confirm that we intend to gather MHHS in our Registered Energy Supplier User Role.	
EDF	Large Supplier	Disagree	There is no clear basis for this assumption, it is not clear how many (if any) Meter Data Retrieval Users will exist and how much of the data retrieval for MHHS they will undertake.	This is the nature of the assumption. The DCC has asked for further details from Suppliers.
Callisto/ Morrison Data Services	Other SEC Party	Disagree	This is unknown at present, could easily be the inverse of this.	The nature of the assumption is that the DCC is assuming this value. Until specific information on the number of Suppliers likely to appoint an independent MDRA is better known, this assumption is based on the DCC's perception of the market.
OVO (late response)	Large Supplier	-	We neither agree nor disagree as this is clearly an known unknown. What of the other User Roles that use the SRVs in question and their demand? This assumes ONLY Supplier and MDR are applicable.	

Question 11.2 – design assumption NFR-2				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	Not applicable to Network Operators.	

Question 11.2 – design assumption NFR-2				
Respondent	Category	Response	Rationale	SECAS Response
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Agree	This assumption should also apply where requested by an MDR	The DCC will extend the assumption to include MDR activities.
Stark	Other SEC Party	Agree	This assumption should also apply where data is requested by an MDR	The DCC will extend the assumption to include MDR activities.
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	Ideally the data will only need to be collected once	
Utilita Energy Limited	Large Supplier	Agree	Large data sets which will significantly increase traffic across DCC network should only be collected once.	
EDF	Large Supplier	Agree	It is logical to assume that a Supplier will only retrieve a set of data from a smart meter once and will share that data within their systems where it is to be used for multiple business purposes.	
Callisto/ Morrison Data Services	Other SEC Party	Agree	A similar NFR should exist for all MHHS data collected by either supplier or MDR	The DCC will extend the assumption to include MDR activities.
OVO (late response)	Large Supplier	Agree	The assumption is that we, as a Supplier, will be requesting this for MWHHS purposes ONLY. The 'assumption' should actually be that we will request it for all the purposes we currently do today, including MWHHS	

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Question 11.2 – design assumption NFR-2

Respondent	Category	Response	Rationale	SECAS Response
			in future. We will not only be pulling this data for MWHHS and then using it for other things too. This may need to be governed by some form of 'acceptable use' or measures as there is nothing stopping a Supplier doing the exact opposite, defeating the NFR and causing demand issues on the overall solution.	

Question 11.3 – design assumption NFR-3

Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	Not applicable to Network Operators.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Disagree	See above. MDR collection could replace supplier collection, rather than being in addition to it.	The DCC assumes that existing data retrieval will be maintained and would be additional to collecting MDR data. This will maintain the existing service levels. If MDR retrieval replaces Suppliers' business-as-usual activities, then capacity requirements will decrease (slightly).
Stark	Other SEC Party	Disagree	See above (NFR-2). MDR collection could replace supplier collection rather than being in addition to it.	Please see the response to the AIMDA above.
Electricity North West Limited	Network Party	-	-	

Question 11.3 – design assumption NFR-3				
Respondent	Category	Response	Rationale	SECAS Response
MHHS Programme	N/A	Agree	Suppliers will need to schedule SRVs for use cases that require shorter TRTs.	
Utilita Energy Limited	Large Supplier	Agree	We expect this assumption to be correct, However, we note that some Suppliers may elect to use the data pulled by the MDR for all purposes.	Please see the response to the AIMDA above.
EDF	Large Supplier	Disagree	It wouldn't seem to make a lot of sense for a supplier to pay an MDR to retrieve data from their customers' meters and retrieve the same data themselves, we assume that suppliers will either retrieve all data themselves or outsource the whole activity. What is not clear yet is whether customers (mainly non-domestic customers) would be able to contract directly with an MDR/SDS for the provision of those services; in those circumstances the supplier may need to retrieve data from the meter themselves as they would not have a direct contractual relationship with the MDR, whose contract would be with the customer.	Please see the response to the AIMDA above.
Callisto/ Morrison Data Services	Other SEC Party	Disagree	See above. MDR collection could replace supplier collection, rather than being in addition to it.	Please see the response to the AIMDA above.
OVO (late response)	Large Supplier	Agree	Suppliers will still pull this data and MDRs will be on top of that.	

Question 11.4 – design assumption NFR-4				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	We believe that this is better addressed by Suppliers.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Disagree	Whilst daily collection can be the preference, Users should be free to offer different service levels and collection approaches.	The daily requirement has been taken as the worst-case scenario but Users would be free to collect data at alternative frequencies.
Stark	Other SEC Party	Disagree	Whilst daily collection should be the preference, Users should be free to offer different service levels and collection approaches.	The daily requirement has been taken as the worst-case scenario but Users would be free to collect data at alternative frequencies.
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	We agree that MDRs will collect the HH data and a Register Read on a daily basis. The collection of that daily Register Reads will allow for estimation processes where the HH Data is unavailable.	
Utilita Energy Limited	Large Supplier	Agree	We will collect register reads and profile data daily.	
EDF	Large Supplier	Agree	This appears to be a reasonable assumption at this point in time but may change as a result of the progression of the end to end design for MHHS.	

Question 11.4 – design assumption NFR-4				
Respondent	Category	Response	Rationale	SECAS Response
Callisto/ Morrison Data Services	Other SEC Party	Disagree	Whilst daily collection can be the preference, Users should be free to offer different service levels and collection approaches.	The daily requirement has been taken as the worst-case scenario but Users would be free to collect data at alternative frequencies.
OVO (<i>late response</i>)	Large Supplier	Agree	This makes sense as an assumption to make. It will vary from Supplier to Supplier in how they behave as there are no restrictions, neither are there upon any others that can retrieve this data that may need to be factored.	

Question 11.5 – design assumption NFR-5				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	We believe that this is better addressed by Suppliers.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Agree	Based on this assumption, the MDR should have the same access to shorter on-demand TRTs as Supplier. The number of on-demand requests should be low for both parties if scheduled requests are reliable. Incentives should be created to minimise on-demand requests and DCC performance measures implemented to monitor success rate of scheduled requests.	Introducing transaction-based charging would be beyond the scope of MP162 but could be considered separately to this if there was support from Parties to do so. The DCC notes that the response implies that a scheduled approach is agreeable.
Stark	Other SEC Party	Agree	Based on this assumption, the MDR should have the same access to shorter on-demand TRTs as the Supplier. The number of on-demand SRVs should be low for both	

Question 11.5 – design assumption NFR-5				
Respondent	Category	Response	Rationale	SECAS Response
			parties if scheduled requests are reliable. Incentives should be created to minimise on-demand requests and DCC performance measures implemented to monitor the success rate of scheduled requests.	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	We agree that the SRVs should be scheduled wherever possible. It should be noted that where the first scheduled attempt by the MDR fails to collect data the MDR may need to make an on-demand request to fulfil its Settlement obligations.	
Utilita Energy Limited	Large Supplier	Agree	Scheduling will allow DCC to make best use of its system and reduce the costs of implementing this modification.	
EDF	Large Supplier	Agree	This appears to be a reasonable assumption at this point in time but may change as a result of the progression of the end to end design for MHHS.	
Callisto/ Morrison Data Services	Other SEC Party	Agree	-	
OVO (late response)	Large Supplier	Agree	It does not make sense to do this any other way, unless by exception and for a valid reason. Not as the norm.	

Question 11.6 – design assumption NFR-6				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	We believe that this is better addressed by Suppliers.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Agree	Scheduled requests are efficient both for the requesting party and the DCC, they should be the preference. Ability for on-demand requests is important as a back-up.	
Stark	Other SEC Party	Agree	Scheduled requests are efficient both for the requesting party and the DCC, they should be the preference. Ability for on-demand requests is important as a back-up.	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	We agree that a backstop on demand request may be made by Eligible Users where scheduled requests have failed to return data where such data is required for MHHS	
Utilita Energy Limited	Large Supplier	Agree	If Schedule readings do not return a response, on-demand requests will be issued to obtain the data.	
EDF	Large Supplier	Agree	This appears to be a reasonable assumption at this point in time but may change as a result of the progression of the end to end design for MHHS.	
Callisto/ Morrison Data Services	Other SEC Party	Agree	-	

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Question 11.6 – design assumption NFR-6

Respondent	Category	Response	Rationale	SECAS Response
OVO (<i>late response</i>)	Large Supplier	Agree	-	

Question 11.7 – design assumption NFR-7

Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Agree	-	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Disagree	Ideally, there should not be a separate list of TRTs for MHHS. Supplier and MDR users should both get 24 hr scheduled TRT and shorter on-demand TRT, dependent on SRV. If not possible then the MDR at least needs the option to send a 4.8.1 with a shorter on-demand TRT. Various options for this are outlined in Q1.	Understood, although the requirements currently state this.
Stark	Other SEC Party	Disagree	Ideally, there should not be a separate list of TRTs for MHHS. Supplier and MDR users should both get access to the existing TRTs. If not possible then the MDR at least needs the option to send a 4.8.1 with a shorter on-demand TRT.	
Electricity North West Limited	Network Party	-	-	

Question 11.7 – design assumption NFR-7				
Respondent	Category	Response	Rationale	SECAS Response
MHHS Programme	N/A	Agree	We agree with the scheduling approach with 24 Hour TRTs with on demand options noting the on-demand request may still have a 24 Hour TRT.	
Utilita Energy Limited	Large Supplier	Agree	There should be no change to TRT for MHHS data retrieval.	
EDF	Large Supplier	Agree	This appears to be a reasonable assumption at this point in time but may change as a result of the progression of the end to end design for MHHS.	
Callisto/ Morrison Data Services	Other SEC Party	Disagree	Ideally, there should not be a separate list of TRTs for MHHS. Supplier and MDR users should both get 24 hr scheduled TRT and 16-30sec on-demand TRT, dependent on SRV. If not possible then the MDR at least needs the option to send a 4.8.1 with a 30sec on-demand TRT. This is to support accurate allocation of settlement volumes during a meter exchange.	
OVO (late response)	Large Supplier	Agree	-	

Question 11.8 – design assumption NFR-8				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Disagree	We are not sure that it should state that it will be outside the read window. Whilst we would expect the DCC to schedule the requests so as to not impact the existing	

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Question 11.8 – design assumption NFR-8				
Respondent	Category	Response	Rationale	SECAS Response
			services, making this statement means that they would not be able to utilise this time, even if appropriate and able to do so.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Disagree	Not using the existing 00:00 – 06:00 read window for MHHS service requests could be inefficient – it would mean losing 6 hours of the 24 hour TRT. It also gives suppliers an undocumented preference within the TRT.	
Stark	Other SEC Party	Disagree	Not using the existing 00:00 – 06:00 read window for MHHS SRVs could be inefficient – it would mean losing 6 hours of the 24 hour TRT. It also gives suppliers an undocumented preference within the TRT.	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	We agree with the smoothing approach but note that without being able to identify MHHS Service requests some Supplier Use Cases could be compromised if the existing read window is extended.	
Utilita Energy Limited	Large Supplier	Agree	This should help reduce costs of implementing this modification.	
EDF	Large Supplier	Disagree	It is not clear what impact spreading the demand for MHHS SRVs across the day could have on other critical activities that occur outside of the current reading window	

Question 11.8 – design assumption NFR-8				
Respondent	Category	Response	Rationale	SECAS Response
			– specifically installation and commissioning which is a higher priority than MHHS data retrieval.	
Callisto/ Morrison Data Services	Other SEC Party	Disagree	Schedule MHHS SRV should be spread across the full 24 hours.	
OVO (<i>late response</i>)	Large Supplier	Disagree	Changing the spread of demand for SRVs throughout the day needs to be tested and worked through to ensure there is no detriment, as already been experienced with other functions, to key BAU operations using the Service. If it is proven to not impact other functions then this should be a NFR, otherwise we do not support it.	

Question 11.9 – design assumption NFR-9				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Agree	-	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Agree	So long as any defined MHHS Scheduling windows apply equally to both categories of User	
Stark	Other SEC Party	Agree	So long as any defined MHHS Scheduling windows apply equally to both categories of User	

Question 11.9 – design assumption NFR-9				
Respondent	Category	Response	Rationale	SECAS Response
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	We agree the DCC (DSP) is best placed to set the schedules for each Communications Service Provider (CSP) and SMETS1 Service Provider (S1SP) to maximise capacity efficiencies.	
Utilita Energy Limited	Large Supplier	Agree	As long as responses are received within the 24hr TRT requirement.	
EDF	Large Supplier	Disagree	As above the “scheduling time periods” that can be used by the MHHS solution could have a significant on other time critical activities that occur outside of the current window – specifically installation and commissioning which is a higher priority than MHHS data retrieval.	The ability to prioritise specific Service Requests is not in scope of this modification. It was part of SECMP0067 ‘Service Request Traffic Management’ , which was rejected.
Callisto/ Morrison Data Services	Other SEC Party	Agree	So long as any defined MHHS Scheduling windows apply equally to both categories of User	
OVO (late response)	Large Supplier	Agree	It is our understanding that the DCC cannot schedule specific time periods to prioritise any SRVs and is required to manage demand to both meet the set out TRTs and also not collapse the network. MwHHS should be included in that, as long as no operational activities are impacted as noted in NFR-8.	

Question 11.10 – design assumption NFR-10				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Disagree	Should this state ‘all MHHS scheduled reads from Suppliers and all MDR SRVs?’	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Disagree	See NFR-8	
Stark	Other SEC Party	Disagree	See NFR-8	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	The DCC Scheduling should not impact Supplier BAU processes.	
Utilita Energy Limited	Large Supplier	Agree	On basis there is a distinction between data collection for MHHS purpose and non-MHHS purposes.	
EDF	Large Supplier	Disagree	As above the “scheduling time periods” that can be used by the MHHS solution could have a significant impact on other time critical activities that occur outside of the current window – specifically installation and commissioning which is a higher priority than MHHS data retrieval.	The DCC believes there is capacity outside the current window for the extra demand from MHHS. It will be working with its Service Providers to ensure that the system does not exceed capacity at any part of the day, based on Design Principle 1 (DP-1).

Question 11.10 – design assumption NFR-10

Respondent	Category	Response	Rationale	SECAS Response
Callisto/ Morrison Data Services	Other SEC Party	Disagree	See NFR-8	
OVO (<i>late response</i>)	Large Supplier	Agree	Agree as long as the items noted in NFR-8 are factored. Scheduling of MWHHS demand should not impact or impede other functions.	

Question 11.11 – design assumption NFR-11

Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	We seek clarification from the MHHS Programme that ‘ ‘This allows an implementation window where the volumes of MPANs using the MHHS services will steadily increase and means that all of the new MHHS User demand will not occur from the point of the DCCs implementation of the MHHS solution associated with MP162.’ is a valid statement. The DCC made a similar statement with regards to another programme which was incorrect as that programme was a ‘big bang’ approach and not a scaling up approach.	The changes to the DCC solution are expected to be implemented in November 2023. The larger programme is expected to go live in April 2024, and there have been statements from that programme that the implementation will be ramped up across Suppliers.
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Agree	Appears to be a sensible approach	

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Question 11.11 – design assumption NFR-11				
Respondent	Category	Response	Rationale	SECAS Response
Stark	Other SEC Party	Agree	Appears to be a sensible approach	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	We agree with the risk based approach. We believe that once the Data Integration Platform is in place capacity issues will be mitigated by access to data via the Data Services. Hence, the DCC should take a cautious approach to the implementation of any additional infrastructure to deliver increased SRV processing capacity associated with MHHS service changes.	
Utilita Energy Limited	Large Supplier	Agree	We hope that enough responses are received to this modification that allows the DCC to make the best-informed decision on how much capacity it needs to procure, noting that User data collection preference may change. Therefore, the risk-based approach seems to be the best way of moving forward.	
EDF	Large Supplier	Disagree	An alternative suggestion to requesting assumptions from suppliers to build from is for the DCC to take advantage of new technology available where the throughput and infrastructure needs of particular processes can be automatically scaled up and based on their usage and demand. This could offer the DCC and the industry the opportunity to only purchase and use a base set of	See the response to Question 9 above. It should be noted that even with a new technology approach, the DCC would still need to define the non-functional requirements for the system and build against those, so that an efficient and effective design could be realised, rather

Question 11.11 – design assumption NFR-11				
Respondent	Category	Response	Rationale	SECAS Response
			capabilities with this growing as adoption and supplier needs and desires to use these services grow as the market develops. Additionally, this approach could protect the DCC and the industry from incorrect assumptions made by suppliers at this point or changes to these assumptions that could overwhelm the DCC and ultimately have a detrimental impact on end consumers.	than over- or under-providing capacity in any solution. This risk-based approach allows the system to be set up in a safe and secure way, rather buying capacity that may never be used, or under provisioning the capacity which could put the system at risk and have a detrimental impact on Users.
Callisto/ Morrison Data Services	Other SEC Party	Agree	-	
OVO (<i>late response</i>)	Large Supplier	Agree	Agree although, at this stage and will the amount of fundamental decisions still not being defined, it may be prudent to take a less than conservative view and increase the risk metric as some items could require considerable change, or none at all. We just do not know.	

Question 12: Please state whether you agree or disagree with the DCC's proposed requirement clarifications

Question 12.1 – requirement clarification REQ-1				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	We believe that this is better addressed by Suppliers.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Agree	In line A3, the solution should not require changes to GBCS.	
Stark	Other SEC Party	Agree	In line with A3, the solution should not require changes to GBCS.	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	Provided the MDR user can place an on demand request for Register Reads from a SMETs 2 Meter and get the data within 24 Hours the 4.1.1 is not essential.	
Utilita Energy Limited	Large Supplier	Agree	We are keen to avoid any GBCS changes as a result of this modification. The daily read can also still be obtained by the MDR User which should suffice.	
EDF	Large Supplier	Agree	We agree with this clarification as it is in line with the principle that no changes will be required to devices (meters) in order to deliver MHHS.	

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Question 12.1 – requirement clarification REQ-1				
Respondent	Category	Response	Rationale	SECAS Response
			However, clarification will be required as to how MDR Users will be able to ensure that they are able to obtain all of the data they are required to for settlement purposes if they will not have access to SRV 4.1.1 for SMETS2 meters. The reinforces the need to have a full end to end design baselined before these changes are progressed so that there is a fully agreed understanding of what data is retrieved from smart meters and how that then feeds into the new MHHS services. It is not sufficient to just refer to HH and daily data or to register reads – there needs to be absolute clarity on exactly what data will need to be shared (including formats), how that data will be shared, and with whom.	
Callisto/ Morrison Data Services	Other SEC Party	Agree	-	
OVO (late response)	Large Supplier	Agree	Agree, we do not wish for GBCS changes and, if they can be at all avoided, then we should encourage this. Otherwise we will need to link both a TSAT and device roll out to be able to achieve MWHHS, and all the costs being upon Suppliers to do so. It does highlight that the MDR will have to treat different meter version differently and it is unclear how they will manage that. It also highlights that it is unclear how MDRs will manage meters, CH's, the	

Question 12.1 – requirement clarification REQ-1				
Respondent	Category	Response	Rationale	SECAS Response
			WAN and HAN at all. Being that only the Supplier can do so.	

Question 12.2 – requirement clarification REQ-2				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Agree	-	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Agree	SRV 4.2 is currently only available as an on-demand request, making this a scheduled request for both generation of SMETS will support efficient MDR operation.	
Stark	Other SEC Party	Agree	SRV 4.2 is currently only available as an on-demand request, making this a scheduled request for both generation of SMETS will support efficient MDR operation.	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	Service Request for SRV 4.2 should be capable of being scheduled.	
Utilita Energy Limited	Large Supplier	Agree	This falls in line with the overall solution and allowing DCC to better manage traffic across the network.	

Question 12.2 – requirement clarification REQ-2				
Respondent	Category	Response	Rationale	SECAS Response
EDF	Large Supplier	Agree	We agree with this clarification, it is reasonable that SRV 4.2 'Read Instantaneous Export Register Values' is able to be scheduled rather than only being operated 'on demand'.	
Callisto/ Morrison Data Services	Other SEC Party	Agree	-	
OVO (late response)	Large Supplier	Agree	We see no reason why this is not already a SRV that can be scheduled and welcome it's inclusion.	

Question 12.3 – requirement clarification REQ-3				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Agree	Whilst we agree with this new requirement we seek further details about the proposed solution and how this would work. We also need to ensure that this notification does not prevent an on demand SRV being sent in order to meet NFR-6	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Agree	This will help the DCC in managing capacity and demand efficiently	

Question 12.3 – requirement clarification REQ-3				
Respondent	Category	Response	Rationale	SECAS Response
Stark	Other SEC Party	Agree	This will help the DCC in managing capacity and demand efficiently	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	Agree	Further to our response to question 1 and NFRs above we believe it is necessary to identify which SRVs are for MHHS purposes as opposed to BAU.	
Utilita Energy Limited	Large Supplier	Agree	Differentiation for MHHS data collection will allow DCC to make best use of its network and in turn, reduce the overall costs of this modification.	
EDF	Large Supplier	Disagree	As noted above the implications of this requirement clarification need to be made clearer. If a User is required to inform the DCC of the intended reason for sending the Service Request to the DCC then this would require a change to the format of the SRV in order to provide that information. If that is mandatory, then that would infer that a User would be mandated to upgrade to a new version of the DUIS, in which case it is not clear what would happen where a supplier was not to do that upgrade and be able to provide that 'flag'. Would they still be able to retrieve data on the basis they do today, and if not, what would the impacts be?	As noted under question 2, the DCC does not envision any mandatory DUIS changes being needed to deliver MP162 that would require existing Users to have to uplift to deliver MHHS.

Question 12.3 – requirement clarification REQ-3				
Respondent	Category	Response	Rationale	SECAS Response
Callisto/ Morrison Data Services	Other SEC Party	Agree	-	
OVO (<i>late response</i>)	Large Supplier	Disagree	This requirement is calling out a change to the SRV? Needing DUIS and MMC changes and changes to the Schema? There seems to be mixed messages on the need for a new version of DUIS but the addition of a new User Role WILL be a change to DUIS as it lists the Users that can send the SRVs. This is a further change. Will this be a major uplift so going up to DUIS 6? (or 7?) or would it be a minor so would be DUIS5.x? Would this be a big bang approach needing ALL Users to uplift or would this be as DUIS releases are managed today where Users only uplift once they are ready? If it is Big Bang this is a dramatic change needing management not detailed in any way in the Modification. Some understanding of the need to uplift DUIS, as there is no way there will not be a DUIS change for MWHHS, is needed.	We have now clarified that there will be a new DUIS version required for MP162, but existing Users will not need to uplift to this to be able to deliver MHHS. Please see the response to EDF under question 2 for further details. Clarification on the implementation approach for the DUIS will be provided in the DCC Impact Assessment.

Question 13 (this question is for Suppliers): What are your anticipated User behaviours regarding the use of MDRAs following MHHS go-live?

Question 13			
Respondent	Category	Response and rationale	SECAS Response
Western Power Distribution	Network Party	We believe that this is better addressed by Suppliers.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	This question is difficult for Suppliers to answer when there is not yet a full picture of the design.	
Stark	Other SEC Party	N/A	
Electricity North West Limited	Network Party	-	
MHHS Programme	N/A	N/A	
Utilita Energy Limited	Large Supplier	We intend for Utilita to utilise existing User IDs and operate as its own MDRA for all MPANs within its portfolio with regard to MHHS data retrieval. We also intend to use the DCC scheduling services for the collection of this data. We anticipate the need to deregister MDRAs from supply points which we gain through Change of Supplier.	

Question 13			
Respondent	Category	Response and rationale	SECAS Response
		We must caveat that this could change, but this is Utilita's intended use as of the date this response is submitted.	
EDF	Large Supplier	<i>[Confidential information provided]</i> The end to end design of the new MHHS arrangements is yet to be finalised which will be critical in making these decisions, without that information it is difficult to understand what the optimal solution is likely to be. It is also not yet clear what services are likely to be made available in the market to deliver MHHS and what the costs of these services will be. Again, this information will be critical in making these strategic implementation decisions. As noted previously, it is also not clear whether customers will be able to agree direct contracts for the provision of the MHHS services as they do for some services today. Even if a supplier were to decide to obtain the data themselves, their customers might choose to have direct contracts with providers of SDS/MDR services which would mean that a supplier would be required to implement a 'dual approach'.	Please see the response to Question 1 above. As the commercial proposition is not in place, the DCC cannot comment on the nature of these services.
Callisto/ Morrison Data Services	Other SEC Party	-	
OVO (late response)	Large Supplier	<i>[Confidential response provided]</i>	

Question 14: Would you expect an MDRA operating on behalf of a Supplier to be able to request the retrieval of import consumption data or export generation data sets in support of other non-MHHS purposes?

Question 14				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	We believe that this is better addressed by Suppliers.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Yes	This is how unnecessary duplication can be avoided. The MDRA can collect the data once and distribute it to multiple parties simultaneously as required i.e. to supplier for billing, Data Service for processing and onward transmission to settlement, Distributor for Network charging and the end customer for energy management (with consent). All of these processes can run to the D+1/+2 timescale of a 24-hour TRT. Settlement will always be the primary use for an MDR but the opportunity to re-use data in other processes should not be restricted. It is difficult to limit data use once it has been collected.	We believe this is contrary to the requirements and scope of the modification. As defined the modification relates to settlement data only, and does not force a Supplier to use an MDRA for other activities with that data, nor does it require the MDRA to distribute the settlement data.
Stark	Other SEC Party	Yes	As MDRA collected data will be provided to Settlement, it could be used for more accurate post-settlement activities on behalf of Supplier to restrict duplication of data requests. e.g., billing, energy management for the end user. The post settlement activities can occur after the 24	Please see the response to the AIMDA above.

Question 14				
Respondent	Category	Response	Rationale	SECAS Response
			hour TRT, so re-using the data used in settlement for other processes would be efficient.	
Electricity North West Limited	Network Party	-	-	
MHHS Programme	N/A	No	Companies wishing to use the data for other purposes should set themselves up as an 'Other User' if wishing to use the data for non-settlement purposes. However, it is noted this may restrict the available SRVs.	
Utilita Energy Limited	Large Supplier	N/A	We intend to gather data ourselves. We expect some organisations may defer all data retrieval (i.e. for billing purposes) to MDRA agents - we would not object to this. If it is on behalf of the registered Supplier, then an appointed MDRA should be able to act as directed by said Supplier (subject to privacy, GDPR, security etc)	
EDF	Large Supplier	Yes	As noted previously it seems logical that a supplier would either choose to retrieve all consumption/export data from meters itself or to outsource that activity to a third party - it is unclear what would lead a supplier to actively pursue a dual approach other than direct customer contracts (as noted above). In that case the MDR would logically need to be able to have access to data that suppliers might require for non-settlement purposes. It is not clear what the value of the MDR role is if that is not the case.	

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Question 14				
Respondent	Category	Response	Rationale	SECAS Response
			Having two routes to obtain data from smart meters would incur two sets of overheads and likely to increased costs – it is hard to see why a supplier would actively choose to use an MDR in those circumstances. In which case there is a risk that the changes will be made to deliver an MDR service that no-one uses, unless the MDR/SDS has a direct contract with the customer and the supplier is required to use them as a result.	
Callisto/ Morrison Data Services	Other SEC Party	Yes	The principle we support is collect the data only once.	Please see the response to the AIMDA above.
OVO (<i>late response</i>)	Large Supplier	No	The MDRA is a Role set up for the purpose of obtaining data to be used for MWHHS purposes. Why would we expect them to obtain data for no settlement purposes unless that is in addition to the Role and subject to either Elective Services or them acting in the capacity of an Other User?	

Question 15: Would you expect an MDRA operating on behalf of a Supplier to perform any additional activities not listed in the business requirements that would involve any additional data being retrieved from the DCC?

Question 15				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	-	We believe that this is better addressed by Suppliers.	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Potentially	Whilst we do not expect additional activities involving additional data being retrieved from the DCC, we do not wish to rule this out. The MDR may play a role in fault rectification with the MOP and Supplier but this should not require additional data being retrieved from the DCC. If it is deemed a requirement later, a Modification could be raised to make the MDR eligible for more SRVs. There is no mention of the MDR's access to DCC Services e.g. Self-Service Interface (SSI). It would be helpful to understand what service the DCC is offering around the MDR role to MDRAs? MDRAs will be a customer of the DCC.	The MDR will need to enrol as a new User. As a new User, the MDR would have access to DCC services such as the SMI.
Stark	Other SEC Party	Yes	Difficult to list currently as requirements may change however at this stage there should be flexibility to allow for the possibility of additional activities.	
Electricity North West Limited	Network Party	-	-	

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Question 15				
Respondent	Category	Response	Rationale	SECAS Response
MHHS Programme	N/A	No	It should be the responsibility of the Supplier to notify the Smart Data Services of any appropriate Alerts or other issues relating to the ESME.	
Utilita Energy Limited	Large Supplier	No	We would not expect the MDR role to perform any additional activities which are not listed in the current business requirements. This suggestion also feels outside the scope of this modification which is to implement SEC changes required to deliver MHHS. This is expanding into areas outside MHHS and suggestive changes should not be progressed under this modification.	
EDF	Large Supplier	Yes	In line with our previous comments it seems logical that a supplier would either choose to retrieve all data from meters itself or to outsource that activity to a third party - it is unclear what would lead a supplier to actively pursue a dual approach other than direct customer contracts (as noted above). In that case the MDR would logically need to be able to have access to additional data/services. It is not clear what the value of the MDR role is if that is not the case. Having two routes to obtain data from smart meters would incur two sets of overheads and likely to increased costs – it is hard to see why a supplier would actively choose to use an MDR in those circumstances, in which case there is a risk that the changes will be made to deliver an MDR service that no-one uses, unless the MDR/SDS has a	The MDR User Role has been developed to meet the MHHS requirements, and so only those SRVs required for this have been considered. If Parties believe there is benefit in expanding the SRVs that an MDR could access, we can consider this.

Question 15				
Respondent	Category	Response	Rationale	SECAS Response
			direct contract with the customer and the supplier is required to use them as a result.	
Callisto/ Morrison Data Services	Other SEC Party	No	-	
OVO (<i>late response</i>)	Large Supplier	No	To do so will require considerable changes outside the current scope of this SEC Mod but does raised the question of how a MDR can effectively manage the overall collection of the Profile data if they cannot understand the scenarios where it is unavailable. As it stands today, and without the full design being worked through, the Supplier is the only party that can manage those and is responsible for ensuring the CH, and meters, operate effectively. This needs further discussion and may require changes as yet not defined.	

Question 16: Please provide any further comments you may have

Question 16			
Respondent	Category	Comments	SECAS Response
Western Power Distribution	Network Party	-	
Association of Independent Meter and Data Agents (AIMDA)	Other SEC Party	Some further questions we have: - What level of performance can we expect from the DCC? - What happens if they don't deliver? - How will DCC performance be monitored and managed under MHHS? - How will the DCC charging methodology change with MHHS? - How will MDRAs contribute to the cost of maintaining DCC under MHHS?	The DCC's performance and delivery is regulated by the SEC. At this time, no changes to the charging methodology are proposed under MP162 – please also see the response to Question 11.5 above.
Stark	Other SEC Party	Some further questions we have: - What level of performance can we expect from the DCC? - What happens if they don't deliver? - How will DCC performance be monitored and managed under MHHS? - How will the DCC charging methodology change with MHHS? - How will MDRAs contribute to the cost of maintaining DCC under MHHS?	Please see the response to the AIMDA above.

Question 16			
Respondent	Category	Comments	SECAS Response
Electricity North West Limited	Network Party	-	
MHHS Programme	N/A	-	
Utilita Energy Limited	Large Supplier	We are keen to minimise the impact which MHHS has on overall traffic. We note that there have been discussions in the working group about caching of data and general re-use which, where possible, could reduce the costs of this modification. We are supportive of continuing these discussions to drive efficient and cost-efficient use of the DCC system.	
EDF	Large Supplier	-	
Callisto/ Morrison Data Services	Other SEC Party	-	
OVO (late response)	Large Supplier	There still does not seem to be a full end to end view of how smart meters operate and the changes needed to that model to allow for MwHHS to be effective and achieve the benefits set out in the TOM. This is especially the case where the matter of how Billing, and all the other functions a Supplier still must carry out using the DCC Service, and the obligations set out in the SEC, remain but are not considered. Hopefully this will all be covered in the detail design workshops and required changes cascaded into the SEC Change process to be picked up.	SECAS and the DCC are both involved in the relevant detailed design workshops and will continue to monitor and contribute to these discussions.

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MP162 ‘SEC changes required to deliver MHHS’

Annex E

Second Refinement Consultation responses

About this document

This document contains the full collated responses received to the second MP162 Refinement Consultation.

Question 1: Do you agree that the solution put forward will effectively resolve the identified issue?

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
Smart DCC	DCC	Yes	Following extensive discussion within the MP162 workgroups, the proposed solution addresses the requirements that will allow both Suppliers and MDR parties to access half hourly data needed for MHHS. The timing will also allow the industry to move to a shorter settlement period if this is implemented at a later date. We note that the requirements of this modification depend upon alignment and engagement with the wider MHHS implementation programme design work, which is still ongoing.	
Electricity North West Limited	Network Party	No	We do not agree with the solution put forward for the following reasons: 1. Whilst the proposal will provide a mechanism for accessing Half Hour consumption data for Suppliers and Meter Data Retrieval Agents (MDRA) it does not adequately consider the whole system impact across DCC, DSP and CSP services of multiple parties attempting to retrieve consumption data from a consumers smart meter. Specifically, the modification report do not reference how this proposal would address	We note the points around whole system capacity. MP162 was raised to implement the changes needed for market-wide half-hourly settlement (MHHS), and as part of this the DCC has considered the additional capacity that would be needed to account for the extra traffic this will generate. We appreciate the concerns raised around the performance in the North region and agree that this needs to be resolved. However, investigating and developing

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			Network Operator requirements or known system/capacity constraints present in the Communication Service Provider-North Radio Access Network. As such we have to assume these areas have not been given due consideration as part of the preliminary assessment or in developing a solution. It has been acknowledged by the DCC, BEIS and Ofgem that there are under performance issues with the provision of the CSP North service when attempting to retrieve large payloads of data. Unless whole system requirements are considered as part of developing the solution for this proposal there is a high risk that contention for data and CSP network resources will result in further degradation of CSP North network performance. We raised these concerns in our response to the first consultation and we do not believe they have been adequately addressed in the latest modification report accompanying this consultation. 2. The scale of the DCC costs £29m to £59m for this modification proposal (which is unprecedented for SEC change control) requires a much greater level of scrutiny than a standard SEC modification	such a solution would be beyond the scope of this modification and should be resolved through a wider, more holistic approach. We will work with the DCC to provide further justification of its costs through the Impact Assessment and subsequent discussions. We will liaise with the DCC regarding the request to discuss this modification further with the Electricity Network Association Commercial Operations Group.

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			proposal. The solution is being developed at rapid speed but is lacking a detailed justification of the costs by the DCC to enable us to make an informed decision. 3. The consultation period was not sufficient to enable SEC parties to undergo due diligence in absence of a detailed justification of the costs. We request the DCC and SECAS work with the Electricity Network Association Commercial Operations Group to ensure the DCC are undertaking effective stakeholder engagement with its Network Party customers and for the DCC to explain their proposed solution and the rationale for the costs.	
British Gas	Large Supplier	Yes	We agree with the introduction of the User Role for Parties (other than Suppliers) who will be carrying out the Meter Data Retrieval (MDR) service. We are concerned about the impact on DCC capacity and function for the new SEC Parties in the new MDR User Role. We are also concerned about the cost of implementation if the MDR SEC parties are given 'real-time' access to data, i.e. the same TRTs as Suppliers.	There is no requirement from the MHHS Programme for a Target Response Time (TRT) of less than 24 hours to retrieve settlement data. MP162 is not introducing this requirement. If there is a need to change the TRT for Meter Data Retrievers (MDRs) this will need to be considered on its own merits as a separate modification.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
OVO	Large Supplier	No	The 'issue' itself is not clearly articulated anywhere, other than a request from Ofgem to DCC to raise a SEC Mod to ensure MHHS is progressed. There does not seem to be any statement(s) defined anywhere that details the issue the Mod is attempting to address. This should be clearly articulated. It seems that the requirements are listed in the solution but not the problem / issue itself. Is the 'Issue' that there needs to be another Role able to pull HH Profile Data as well as the Role afforded by Suppliers and Network Operators? Does this also need to include that the DCC Demand ability was never set up to include handling an undefined amount of requests for GBT sized message responses? There are Business Requirements and Design Principles. Are these the 'Identified Issues' as set out?	We acknowledge the points made about the issue and will clarify this within the Modification Report.
Northern Powergrid	Network Party	No	We are concerned that the proposal to increase the capacity of the DCC's system does not take into account, or indeed make any reference to, the current capacity issues in the CSP N region. We believe that consideration of the capacity needed to support MHHS must take account of the current constraints already being experienced by users. The opportunity should be taken therefore, to ensure that any changes to the CSP N system will cater for the future demand requirements of Network Parties and Suppliers as well as those of the proposed new Meter Data Retrieval service users. Given	Please see the response to Electricity North West Limited above.

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			the very significant estimated implementation costs, which will ultimately be borne by consumers, we think that it is essential that a holistic view is taken when deciding whether to / how to increase DCC capacity. Furthermore we are also concerned that the ROM costs quoted by the DCC for this change are both very significant and differ greatly between the lower and upper ROMs (in terms of both absolute size (£) and relative size (%)). Consequently it is very difficult to agree with a solution where we have not had the opportunity to thoroughly scrutinise the basis on which these ROM cost estimates have been developed. It is particularly important that these costs are carefully scrutinised because the cost of this change will be borne by GB energy customers through DCC fixed charges being included in customers' energy bills. Given the significant inflationary pressures in the wider UK economy at the present time, and the extremely significant increases to customer energy bills, we have a duty to ensure that the cost of this change is minimised and that GB energy customers receive the best value for money possible.	
Western Power Distribution	Network Party	No	Whilst we support the intent of the modification we believe that there is still a lack of information and detail around the solution to be able to support it in its current state.	We do not expect the Target Operating model (TOM) to change at this stage of the programme and understand the underlying

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			We don't feel that there is enough recognition of the main MHHS Programme and the need to interact with that. This modification is all based off the TOM, however there is no provision or plan for what will happen if this TOM changes as the programme works through the design artefacts. Requirement 1 states 'This new mapping of MDR Party to MPAN Registration data is expected to be passed to the DCC to use via the new Central Switching Service (CSS) and Enduring Change of Supplier (ECoS) Interfaces. Relevant data extensions will be added to these interfaces. The expectation is that changes to the registration data needed for MHHS will be delivered through the MHHS programme.' There is not enough detail to understand how this will actually work, is it coming from RDP data, or where specifically is this being addressed? This also links to A8. We understand the intent of A8, however we believe that there needs to be further details around this. This is an assumption of an approved consequential change that sits outside the SEC. We wish to see the reference to the other code change that will mean that this assumption is valid. Is this a DTN flow? A CSS message? Who is obligated to send it to who etc. It has also been assumed that an ETD will be populated due to impact on the DSP if it is not but there is	requirements relating to the DCC's technical solution under MP162 are firm. We and the DCC are expecting all registration data for MHHS to come through the Central Switching Service (CSS), and this has been highlighted to the wider programme as the expectation. The changes to the other Codes are being developed through the Cross-Code Advisory Group (CCAG), and we will be working closely with the Codes whose changes relate to the SEC solution. The line in Requirement 4 is erroneous and should have been deleted following the discussions at the December 2021 Working Group meeting. We will correct this in the business requirements document. Section 2.6.5 of the business requirements document confirms there is no expectation on the DCC to validate the User is requesting the correct level of granularity. Consumer consent and the tracking of this does not fall under the SEC. Requirement 5 sets out the different levels of granularity

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			no detail or information about the potential impact to other systems and wider industry. Requirement 4 states 'Users shall inform the DCC where the Service Requests in Section 2.4 are sent for the purposes of retrieving data for MHHS purposes. Where this is identified, extended TRTs shall be operated to enable the DCC to manage the additional Service Request volumes arising from the introduction of the MHHS service.' Where is it detailed how the DCC will be notified that the request is for MHHS purposes? Requirement 5 states 'This will depend on the level of granularity the customer has consented to. It is assumed the level of granularity specified by the customer is the lowest level of granularity that can then be collected by the Import Supplier, Export Supplier or MDR User.' There are no details about how consumer consent is going to be obtained and this information shared, or if/how the DCC will be advised and monitor that the granularity level is correct. Whilst we understand that the PIA currently looks at MHHS completely independently of the Smart Metering infrastructure, we don't believe that it has clearly addressed the known issues around the CSP N issues.	that may be requested, to allow the DCC and Users to develop their solutions accordingly. Please see the response to Electricity North West Limited above.
Utilita Energy Limited	Large Supplier	-	Creation of a new MDR user role is required for the SEC to facilitate changes required for MHHS.	

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
Stark	Other SEC Party	Yes	However, we note the comments made in our response to the first refinement consultation around the requirement for a level-playing field between suppliers and independent MDRs. The MHHS Programme has adopted this as a design principle and thus the misalignment of TRTs between supplier and MDR is a competition issue that needs to be addressed. We understand that this is being resolved separately to MP162.	We note the adoption of the design principle under the programme. Please see the response to British Gas above.
Callisto	Other SEC Party	-	-	
EDF	Large Supplier	No	It is not actually clear from the documentation provided what the scope of the issue and the change is, and therefore whether the solution is appropriate. The 'issue' as set out in the Modification Report is that a new MDRA role needs to be created in order to deliver the Target Operating Model (TOM) that has been approved by Ofgem as the basis for the MHHS Programme. This is reflected in the 'proposed solution' section on page 5 of the Modification Report, which only refers to the creation of the MDRA role as being required. All the changes to the legal text also relate specifically to the introduction of the MDRA role. However, the Modification Report states that the "variable costs are influenced by the MHHS requirements that increase or decrease Service Request volumes sent from	We acknowledge the points made about the issue and will clarify this within the Modification Report. We note your concerns over the DCC's inclusion of the additional capacity required for the anticipated traffic that MHHS will generate. We will request additional information around this from the DCC for inclusion in the modification. We also note your comments about the charging of these costs; this was discussed at the Working Group with the conclusion being that changing the charging methodology around who incurs the costs for change would be a significant

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			Users to the DCC". Those changes in volumes are not related to the introduction of the MDR role, or to any of the changes to the legal text. Those increases in volumes are occurring directly as a result of obligations that will be placed in the supply licences (and most likely in the BSC) to retrieve data from smart meters for the purposes of settlement – and would occur whether the MDR role was created or not. In fact, that increase in data volumes could potentially occur now without any regulatory changes being made; for example, suppliers could choose to settle large volumes of customers on an elective HH basis. This would result in a similar increase in data volumes that would need to be handled by the DCC, but without any changes being made to the SEC to prompt that. It is not clear why the solution for dealing with additional volumes of data (and the associated costs) is being included in this Modification. They are not directly related to the MDRA role, which is the real subject of the Modification, and could be incurred without the need for a Modification if supplier or customer behaviour were to change significantly. Our concern is that this Modification is being used as an incorrect mechanism for DCC to incur the costs associated with the MHHS Programme, by conflating the	piece of work that would be outside of the scope of MP162.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			MDRA role changes and the volume increases, and seeking to recover costs via the Modification route. This is not the appropriate mechanism. The development and implementation of the solution to enable MDRAs to be able to access data via the DCC should be separated out (and borne by the MDRAs that will use it), with separate consideration given to the costs associated with any increased volume of data, how they should be recovered (and who from) and what impact this might have on the charging methodology being dealt with separately.	
EON Energy Services	Large Supplier	No	There is a statement on Page 7 of the modification report that 'The DCC will be free to schedule tasks within the subsequent 24-hour period' for any tasks that are scheduled, whether by the Supplier user role or the new MDR role. In practice, the window to collect read data and deliver it to Suppliers is much smaller than 24 hours to avoid impacting in day processes such as Install & Commission. Has this been taken in account in estimating the throughput/costs of the solution, or is it assumed that the entire 24-hour window can be used? This question was asked in working group but hasn't been adequately addressed in the updated solution	Further information on the DCC's proposed revisions to scheduling windows will be provided in the DCC Impact Assessment. We will confirm with the DCC that this point has been considered.

Question 2: Do you agree that the legal text will deliver MP162?

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
Smart DCC	DCC	Yes, with caveats	The legal text for MP162 will largely deliver the modification, however the following points will need to be further discussed/addressed in future iterations of this legal text. 1. For the purposes of retrieving settlement data, the requirement for MDRs to use a Scheduled Service in the first instance should also extend to suppliers (for MHHS only, not other uses of HH data). This will support a more efficient use of the system. 2. The assumption is that changes to registration requirements, i.e. the introduction of a new MDR party, will be delivered via MP200 rather than this modification's legal text. 3. The legal text for MP162 will need to align to the wider code drafting of the MHHS programme. This has been raised to the programme forum CCAG.	We will clarify the proposed clause around requiring all Users to schedule Service Requests for MHHS. We note your other assumptions and are monitoring the related changes.
Electricity North West Limited	Network Party	No	See our response to Q1.	Please see the response to Electricity North West Limited in question 1.
British Gas	Large Supplier	Yes	Legal text looks ok	

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
OVO	Large Supplier	Yes	The Legal text is as we'd expect for a new Role to act in the capacity and function as set out in the discussions and aligning to the Modification itself. We would like to understand how the MHHSP Design Principles, that directly reference the SEC Legal Text, should be driven by that group. Leading to the wording being updated to meet the requirements set out by the Programme. There are elements being covered elsewhere that are stating the SEC legal updates need changing to meet requirements that, as things stand today, have no associated business case. Which seems to imply our agreement with the legal text may not be the deciding factor in what changes happen. We would like to understand more on the impacts to the SEC and the items being agreed via the SEC Mod Working Group.	Should the programme need to make further changes to the SEC to deliver MHHS then the provisions in Section C7.13 would apply.
Northern Powergrid	Network Party	-	We have no comment at this stage.	
Western Power Distribution	Network Party	No	As mentioned in our response, in relation to Q1, H1.6(f), we wish to understand if the identification in Registration Data is meant to be coming from the DNOs to the DCC? There has been conflicting messages as this modification suggests that it will be provide by the CSS, however we have also heard that the MHHS programme isn't meant to be impacting the CSS and this will need to be provided by	We are not expecting the registration data for MHHS to come via Electricity Network Parties or Registered Data Providers (RDPs), but to come through the CSS. We will clarify the proposed clause around requiring all Users to schedule Service Requests for MHHS.

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			the RDPs. Clarification of this process or the consequential code change to implement it is required. We believe that the intent is that all SRVs sent for the purposes of MHHS need to use the same TRTs, however we do not believe that it is clearly defined or explained within the legal text. We believe that H3.13A is not explicit enough to ensure this behaviour. We believe that Appendix AD 3.8.28.1 should explicitly state 'new MDR' and 'old MDR' the same as we have for the supplier rather than just add 'MDR'.	We will add in the clarification around 'old' and 'new' MDRs.
Utilita Energy Limited	Large Supplier	Yes	The legal text allows MDR Users to provide an MDR service.	
Stark	Other SEC Party	No	Section H2A.3 This paragraph unnecessarily restricts the usage of data collected by the MDR and will result in avoidable duplication. It fails to recognise that the MDR could also be acting on behalf of the consumer, typically in the non-domestic sector, as well as the supplier. The MDR is obliged to retrieve data for billing and settlement for both but could have an additional obligation to the consumer, which is not contained in the supplier's licence, to make that data available to them for energy management or even to third parties for other purposes. As currently written, the MDR would have to collect the same data	The intention of the MDR User Role under MP162 is to allow relevant Supplier Agents to be able to collect data for use under MHHS. Further uses of this data are not in scope of this modification. Under the smart metering security framework, all Users with access to consumer data need to undergo the relevant assessments. This will apply equally to the new MDR User Role, who will be able to access consumers' consumption data.

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			once to satisfy the billing and settlement requirement and then a second time as OU to satisfy the other requirements. This is extremely inefficient, resulting in additional costs. It also makes it harder for consumers to access their consumption data and energy management products, which is not compatible with Net Zero nor open data commitments. This in turn will make it harder for the full benefits of MHHS to be realised. The legal text needs to be amended to recognise that data retrieved by the MDR could be required for other purposes. Section I2 We are not convinced of the requirement for MDRs to be subject to the same privacy assessment framework as OUs. Either the supplier or the consumer has nominated the MDRA, who then has an obligation to retrieve data. Consent granularity preferences will be available to the MDR and so they will know whether to collect HH data or register reads. Different approaches will probably be required for domestic and non-domestic to reflect the different opt-out policy approaches. Appendix E DUIS The new set of TRTs for the MDR party results in an uneven playing field, which contradicts agreed MHHS design principles. We understand this is being addressed outside of MP162.	We acknowledge the design principle but note that this has not yet been translated into specific requirements. We continue to engage closely with the programme on this area.

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
Callisto	Other SEC Party	No	We largely agree that the legal text can deliver MP162, however we have the following comments (all from Annex C): Page 2: Meter Data Retrieval Agent: We don't believe this term is currently proposed within the MHHS programmes design documents – we believe the term is Meter Data Retriever. We believe there has already been some confusion between the MHHS programme MDR and the DCC user role of MDR, do they need to be different to avoid this confusion? page 6 H1.6(f): we are not sure at the time this would happen the MDR would be appointed to any mpans. Although we are not clear on the exact meaning the text in this area we believe a party wishing to become a DCC MDR user would need to prove they could use DCC services before they would be able, in practice, to be appointed as an MDR to any mpan in Registration system. It appears (f) would require them to be appointed first. We also question if the and's in H1.6 should be or's? Page 7 H2 A.2: for clarity we expect the MDR to be appointed by the SDS (who is appointed by the Supplier) rather being appointed directly by the supplier. Page 10 H3.13A – although we may have missed it we do not see a similar requirement for a supplier to use	We will work with the CCAG to clarify the expected terminology that will be introduced under other Codes but will review the use of the 'Meter Data Retrieval Agent' term and see if we can reword the relevant legal text. For Section H1.6(f), we originally mirrored existing wording, but we will review your suggestion for this and amend as needed. For H2A.2, we will review the wording. For H3.13A, the intention was that this would apply to all Users and will review the wording to make this clear. We will review Section I1.2 for your comments and will make changes to this accordingly.

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Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			scheduled services where they are collect consumption data for MHHS proposes only. Page 11 I: we believe I1.2 also needs updating. We believe the MDR will not be required to have direct consent from the Energy Consumer. This consent will be collected by the Energy Supplier who will request the MDR (via the SDS) to only collect consumption data in line with this consent.	
EDF	Large Supplier	No	We have noted the following issues with the legal text: - There is no mention in the legal text of changes to the charging methodology so it is not clear how MDRA's will be charged for the use of DCC services once they are included in the SEC. It is not acceptable to progress the changes to create the MDRA role without having clarity on how charges will be allocated to that role for the use of DCC services. - H1.6 (f) –this clause appears to mean that an MDRA would need to be appointed before they could apply for a DCC User ID – in which case there will be delay between an MDRA first being appointed, and being able to access data via the DCC. This is not necessary and will lead to delays in data being obtained, it should be enough that they are shown in MDD as a qualified	We reviewed the Charging Methodology when preparing the legal text and considered no changes were needed, as this would align with existing non-Supplier, non-Network Party obligations in this section. As per our response to EDF in question 1, wider charging changes would be beyond the scope of this modification. For H1.6(f) we will review this wording and amend as needed. We will look into the final point and provide further clarity around this.

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			MDRA, rather than needing to be appointed to actual MPANs in order to obtain a DCC User ID. Service Requests and TRTs – it is not clear how a reading obtained by an MDRA using SRVs 4.1.1 and 4.2 could be regarded as being ‘instantaneous’ when it has a 24 hr TRT as noted in the table on page 7 of the Modification Report. When would the ‘instantaneous’ reading be taken on the meter in these circumstances? All the other SRVs noted are reading data that is stored on the meter, so it matters less when the data is retrieved than when it was captured and stored – these SRVs (4.1.1 and 4.2) are taking a reading ‘now’, so there needs to be more certainty on when ‘now’ actually is.	
EON Energy Services	Large Supplier	Yes	The legal text properly defines the new user role of Meter Data Retriever (MDR), the entry processes applicable to role and the rights and obligations of an MDR	

Question 3: Do you agree with the proposed implementation approach?

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
Smart DCC	DCC	Yes	-	
Electricity North West Limited	Network Party	No	See our response to Q1. The proposed approach does not adequately consider the whole system impact across DCC, DSP and CSP services of multiple parties attempting to retrieve consumption data from a consumers smart meter – such as Network Operator requirements or recognised system/capacity constraints present in the CSP-North service.	Please see the response to Electricity North West Limited in question 1.
British Gas	Large Supplier	Yes	The implementation approach has been simplified since the First Refinement Consultation and seems sensible. However, as stated in our answer to Question 1, we are concerned on the impact on DCC . We are also concerned about the cost of implementation if the MDR SEC parties are given ‘real-time’ access to data, i.e. the same TRTs as Suppliers.	Please see the response to British Gas in question 1. Any changes to the TRTs for MDRs will be managed as a separate modification.
OVO	Large Supplier	Yes	We agree with the implementation approach but have huge, and material, concerns with the costs presented in doing so, especially for the SMETS1 solution as set out. What is missing in the approach is if ALL DCC Users will be required to uplift to the new version of DUIS at the same time or if this will be up to each User to decide. That then brings forth the issue of different Users being on	Only Users who wish to register in the ‘MDR’ User Role and/or make use of the Service Requests being made schedulable will need to uplift to the relevant version as part of MP162’s implementation. Otherwise, existing Users will not be mandated to uplift to the latest DUIS

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
			different versions and how that will be managed. There has never been a requirement for all to uplift at the same time and may set a complex and challenging precedent. If Users can choose, then consider how different Users will manage churn and gaining these. None of which seems to be covered anywhere. Noting that Suppliers not looking to engage a MDR may not wish to uplift unless DCC is planning to put functionality only accessible for MHHS in that version of DUIS? As has been done for the likes of DBCHs and other SEC Mods? This needs to be drawn out and documented, including an envisioned transition approach.	version for MHHS, and can uplift at a later date. Suppliers do not need to register in the 'MDR' User Role if collecting MHHS data in-house.
Northern Powergrid	Network Party	No	The approach does not seem to take a holistic approach of providing DCC system capacity required by DCC Users.	Please see the response to Electricity North West Limited in question 1.
Western Power Distribution	Network Party	No	Whilst we understand that the SEC Modification needs to be implemented ahead of the programme go live date, we are concerned that timescales are tight and therefore solutions and refinement might be rushed through in order to meet the deadlines without necessarily being given appropriate consideration. We are also concerned that this modification is progressing quicker than the main programme and the design detail has yet to be published.	We acknowledge the concerns over the timescales, but are working to deliver MP162 in line with the wider MHHS timetable. We are in close contact with the programme over the wider design, and we understand the requirements relating to the MP162 technical solution are not expected to change at this stage.

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
Utilita Energy Limited	Large Supplier	Yes	We agree with the timescale - a solution to allow MDR Users to offer an MDR service will need to be in place prior to MHHS go-live.	
Stark	Other SEC Party	Yes	We are concerned that there is not sufficient time between implementation (November 2023) and the start of the MHHS Programme Qualification phase (January 2024) for organisations to build MDR capability and then qualify in time for the start of the Migration phase (October/November 2024).	We note your concern, but highlight that November 2023 is the earliest SEC Release this modification can be included in.
Callisto	Other SEC Party	-	-	
EDF	Large Supplier	No	Putting a deadline of June 2022 on the approval of this Modification is concerning when it is unlikely that the MHHS Programme will have issued a baselined end to end design by this point, and it is highly unlikely that parties will have had a chance to impact assess it. This creates a significant risk that the solution for MP162 will need to be re-worked as a result, adding additional cost to what are already very significant costs to industry parties. The baselining of the MHHS design will also lead to the MHHS Programme undertaking a re-plan for the rest of the programme, which could call into question the need to have these changes in place for April 2024 as originally required.	Please see the response to Western Power Distribution above. Should the implementation date need to change, the Change Sub-committee (CSC) can apply to the Authority in accordance with SEC Section D10.5. However, we understand that a delay to the wider programme would not affect the development costs for the DCC's technical solution.

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
			Should this Modification be approved it must be ensured that the implementation date can be moved, especially if that will result in more time to develop and test the solution, lower risk and lower overall cost.	
EON Energy Services	Large Supplier	Yes	The implementation dates are in line with the wider MHHS Programme delivery timescales	

Question 4: Will there be any impact on your organisation to implement MP162?

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
Smart DCC	DCC	Yes	DCC will work with its service providers to implement the required changes for MP162.	
Electricity North West Limited	Network Party	-	Unable to respond in the absence of a review on the wider impact to Network Parties See our response to Q1	
British Gas	Large Supplier	Yes	There will be impacts on our organisation to implement MP162, however we are not yet at a stage to estimate these. We are in the early stages of setting up our MHH team, and we have not made decisions on our approach and strategy towards the new MDR opportunities – i.e. is this role (and the associated infrastructure) something we would build in house, or outsource, or a combination of the two.	
OVO	Large Supplier	Yes	Technically, there is no impact as there are no changes we would need to make, other than uplifting to a new version of DUIS, MMC and the Schema. The main impact would be in paying the huge costs to enable a new Role to be implemented into the DCC and allow for the uncertainty defined in the Mod Report to allow DCC to manage the unknown demand requirements. Any and all	

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
			costs will, eventually, be passed down to our end consumers and it is unclear how this is justified when Suppliers can perform these functions today. The way this is charged does not factor this.	
Northern Powergrid	Network Party	No	No impact is envisaged at this juncture.	
Western Power Distribution	Network Party	Unknown	We are currently unable to answer this due to the points raised under Q1.	
Utilita Energy Limited	Large Supplier	Yes	This modification supports a wider change that impacts all Supplier and how they operate and settle electricity on a day-to-day basis. Our response is provided within the scope of <i>only</i> MP162 and does not cover the total impacts of implementing MHHS.	
Stark	Other SEC Party	Yes	We will seek to become an MDR. If the solution does not allow us to operate independently of the supplier, on the consumers behalf, then this will impact our ability to provide an optimal service for the Smart segment under MHHS.	
Callisto	Other SEC Party	-	-	
EDF	Large Supplier	Yes	We assume that we will be impacted by MP162, however It is difficult to understand the impacts because, as noted	

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
			previously, it is not actually clear what the scope of MP162 is. As we have already noted, the key reason for MP162 being created, as set out in the Modification Report, is to create the MDRA role within SEC governance and the DCC systems. As a supplier, whether this will impact us will depend on whether we (or our customers) choose to use an MDRA for data retrieval or not. It is too early to be able to make this determination as there is not a baselined design for MHHS which we can use to make any assessment. We will be impacted by the obligation that will be set out in the supply licence to obtain HH data (subject to consumer consent) from all our smart meters for the purposes of settlement. This will have a significant impact on our systems and processes. However, it is not clear if these impacts are to be included in the scope of the changes resulting from MP162, as we would need to collect that additional data via the DCC whether MP162 was implemented or not, as that change in behaviour will be driven by the licence changes, not the changes to the SEC.	
EON Energy Services	Large Supplier	Yes	The precise impact is unknown at this stage as it has not been determined if EONs existing Supplier role will be used to collect HH data, or if an MDR agent will be	

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
			appointed for that purpose. That decision will determine the changes that EON will be required to deliver to support the MHHS implementation.	

Question 5: Will your organisation incur any costs in implementing MP162?

Question 5				
Respondent	Category	Response	Rationale	SECAS Response
Smart DCC	DCC	Yes	DCC costs to the industry for implementing MP162 will be further refined within the upcoming Final Impact Assessment.	
Electricity North West Limited	Network Party	Yes	MP162 as drafted does not impact Network Operators but will have the effect of further and significantly increasing our contribution towards the DCCs fixed charges in order to implement a solution for which it is not clear the CSP infrastructure can support. Whilst we are asked that respondents exclude their share of the central costs from their responses, the proposed cost of this solution is unprecedented in SEC modification history and stands at £30-60 million and as such we must refer too it in our rationale.	
British Gas	Large Supplier	-	We will incur significant costs in implementing MP162, but we are not able to estimate these yet, as we have not yet decided our approach and strategy towards the new MDR opportunities. (See above answer to Question 4)	
OVO	Large Supplier	More than £1m	See Question 4 – the values chosen are based on worst case in the Modification and the potential for the costs to be far higher being they do not include all elements up to implementation. We would also like to understand any work being done to address the often repeated challenge	

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Question 5				
Respondent	Category	Response	Rationale	SECAS Response
			of allocating costs to defining their requirements. The way SEC Mod costs are split are not reflective of who is asking for the changes, the business case for the change and the parties benefiting. The costs associated for this, that are not split out but need to be, are huge and totally unacceptable for a Role that Suppliers can carry out today. The costs for enabling DCC to handle the demand and the amount of data needed must be drawn out separately so that we can analyse which bits MUST happen to those to enable a function that others will have to pay for, being that the DCC was never designed, and neither was the SEC, via the SMiP, to allow any other Role that the Supplier to do many of the things included in the requirements. The overall demand model and scaling used by the DCC is a matter of many discussions over the years and never considered how MHHS will operate. It seems that is still very unclear and could change while the MHHS Design is still being debated and is, as yet, undecided. Due to that, the costs include variances and uncertainty percentages that push the amounts up to a level when the business case for change is defeated.	
Northern Powergrid	Network Party	No costs	Whilst DNOs will incur no direct costs, our apportioned DCC costs will increase.	

Question 5				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Unknown	Due to the fact that we are still missing details we are unable to confirm exactly what if any costs we will incur. Also we feel we have to highlight the fact that the PIA costs are estimated at £29.1m to £59m as this cost is so significant and will have an impact on all users.	
Utilita Energy Limited	Large Supplier	Up to £100k	Most of the costs associated with the total MHHS programme will arise as DCDA and wholesale costs. We have excluded these, as well as our share of the total cost of this modification from our response to this question. The specific costs with implementing MP162 will be on development and DBT costs associated with our CSS systems. We expect these changes to take around 3 months of DBT time, at a cost of ~75k.	
Stark	Other SEC Party	£500k-£750k	DCC Adapter design, build and test costs. UEPT, security and privacy assessments (if required) etc.	
Callisto	Other SEC Party	-	-	
EDF	Large Supplier	More than £1m	We assume that we will incur costs as a result of MP162, however it is difficult if not impossible to estimate these costs because, as noted in our response to question 4, it is not actually clear what the scope of MP162 is. As with the DCC, the majority of suppliers' costs are likely to be associated with the overheads for retrieving and	

Question 5				
Respondent	Category	Response	Rationale	SECAS Response
			processing additional volumes of HH data, however we do not regard these costs (for supplier or, more importantly, for the DCC) as actually being associated with MP162.	
EON Energy Services	Large Supplier	£500k-£1m	EON will incur costs to implement MP162, however they are impossible to estimate at this stage as a decision has not been made about whether to collect MHH data using our existing Supplier role, or to appoint an MDR agent. This decision could significantly impact implementation and ongoing costs	

Question 6: How long from the point of approval would your organisation need to implement MP162?

Question 6				
Respondent	Category	Response	Rationale	SECAS Response
Smart DCC	DCC	-	N/A – DCC will deliver the modification in line with the approved timeline.	
Electricity North West Limited	Network Party	-	-	
British Gas	Large Supplier	-	Not yet known	
OVO	Large Supplier	As soon as approved	Unless there are any changes to what is set out in the Modification Report, we would not need any time to implement MP162, other than having to uplift to a new version of DUIS, which is not something included in the Modification for us to analyse. Functionally, that uplift could happen as soon as we're ready to uplift and should not inhibit our ability to engage in using DCC Services for MHHS, as we can schedule the data today using our existing Roles. The outstanding question lies with there being anything specific to MHHS that the DCC may implement in DUIS or MMC that we'd need.	
Northern Powergrid	Network Party	-	Not applicable since no impact to Northern Powergrid is envisaged.	

Question 6				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Unknown	Please refer to Q4.	
Utilita Energy Limited	Large Supplier	-	November 2023 SEC would provide enough time for Utilita to make any required changes resulting from this modification.	
Stark	Other SEC Party	6-8 months	This depends how long it takes to complete the relevant DCC User entry processes for the MDR role.	
Callisto	Other SEC Party	-	-	
EDF	Large Supplier	18 months	As with the previous two questions the amount of lead time required will depend on what we are required to deliver specifically as a result of the implementation of MP162, rather than to deliver our licence obligations and the MHHS arrangements more generally.	
EON Energy Services	Large Supplier	-	Implementation timescales are unknown at this point, it depends entirely on the route EON chooses to collect the MHH data	

Question 7: Do you believe that MP162 would better facilitate the General SEC Objectives?

Question 7				
Respondent	Category	Response	Rationale	SECAS Response
Smart DCC	DCC	Yes	Modification 162 will better deliver the following SEC Objectives as noted within the modification report: - Objective (b), as implementing the changes needed to deliver MHHS will allow the DCC to comply with the requirement introduced into the DCC Licence to facilitate the implementation of MHHS. - Objective (c), as the delivery of MHHS will enable consumers to benefit from more accurate allocation of their consumption within settlement. - Objective (g), as delivering the SEC and DCC changes for MHHS will enable the wider programme to be delivered as planned.	
Electricity North West Limited	Network Party	-	-	
British Gas	Large Supplier	Yes	We agree with the Proposer's views that this will better facilitate Objectives (b), (c) and (g).	
OVO	Large Supplier	Partially	We believe MP162 better facilitates SEC Objective (b). We do not believe it better facilitates SEC Objective (c) as nothing being implemented by this Mod affects the ability of an Energy Supplier to obtain HH Profile data today and	

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Question 7				
Respondent	Category	Response	Rationale	SECAS Response
			allocate it for Settlement, be that HH or NHH. The Mod is not changing that. We are unsure how the Modification itself facilitates the efficient and transparent administration and implementation of the SEC though?	
Northern Powergrid	Network Party	No	We are not convinced, as the proposal does not consider increasing DCC capacity holistically, which is the most efficient solution.	
Western Power Distribution	Network Party	Yes	We believe that the intent of this modification would better facilitate the General SEC Objectives.	
Utilita Energy Limited	Large Supplier	Yes	B – allows for appropriate changes to be made to DCC systems to support its MHHS licence conditions.	
Stark	Other SEC Party	Yes	We have provided rationale in the previous consultation, which was subject to caveats around fair competition.	
Callisto	Other SEC Party	-	-	
EDF	Large Supplier	No	To be clear, we are supportive of the MHHS Programme, and of the creation of the MDRA role where suppliers want to choose that route to retrieve data from smart meters for settlement purposes. However, there are too many outstanding questions regarding MP162, including the scope of the change, what DCC costs should be associated with MP162 specifically, how those costs will be recovered and who	

Question 7				
Respondent	Category	Response	Rationale	SECAS Response
			from, to be able to understand whether the implementation of the proposed solution would better facilitate the General SEC Objectives.	
EON Energy Services	Large Supplier	Yes	We believe that the changes will better facilitate SEC Objectives (b) and (c) as they will allow the DCC to support the wider MHHS implementation, and therefore enable better management of energy use because of more accurate consumption data	

Question 8: Do you believe there will be any impacts on or benefits to consumers if MP162 is implemented?

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
Smart DCC	DCC	Yes	The business case provided by Ofgem suggests an overall consumer benefit of up to £4.6b up to 2045 if MHHS is successfully implemented. MP162 is a part of that implementation. This is in addition to supporting future change that will allow wider optimised use of low carbon generation within GB.	
Electricity North West Limited	Network Party	No	Access to a consumers consumption history will be a key requirement for future provision of switching services. It is not clear that SECMP162 considers this future use case and as such it is likely that further costs will be incurred as a result in future.	
British Gas	Large Supplier	Yes	The MHHS programme is expected to bring considerable benefits to consumers, and MP162 is a key component of implementing that programme. We are not sure of the benefit to consumers of the introduction of TRTs for MDR users at the same level as those for Suppliers. The extra costs expected to be incurred to deliver these will be passed through to consumers through Supplier bills, and we are not convinced that these will be cost-beneficial for consumers. (i.e., is the value to consumers of MDRs	

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Question 8				
Respondent	Category	Response	Rationale	SECAS Response
			having near real-time data sufficiently high to justify the costs to deliver this)	
OVO	Large Supplier	Yes	As noted, the cascade of costs will have a material impact on consumers. Any and all central costs, especially of this magnitude, affect consumers in some way. The benefits are linked to the DCC being able to manage the demands required of them that MHHS requires although we do not see any benefits in the addition of a new Role to our consumers. Obtaining more granular data and processing that into settlements is the way we want to go and benefit from that. This Mod covers some of the items needed, such as the DCC being able to handle the volume of data needed, but not others. None of which stops us being able to do this today if a Supplier chose to electively.	
Northern Powergrid	Network Party	-	Please see our response to question 1.	
Western Power Distribution	Network Party	-	We disagree with the comment in the modification report 'More frequent collection of consumption data could allow faults on the networks to be identified and rectified faster.' as this modification will not have any impact on the DNOs ability to monitor and repair faults on the network.	

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
Utilita Energy Limited	Large Supplier	No	There will be no specific benefits to consumers because of this modification. The MHHS programme may see more TOU tariffs offered.	
Stark	Other SEC Party	Yes	We have provided rationale in the previous consultation which remains relevant. However, this is contingent upon the MDR being able to operate independently of the supplier and to not be restricted in how the data they collect is used.	
Callisto	Other SEC Party	-	-	
EDF	Large Supplier	No	The MHHS Programme itself is likely to deliver significant benefits to consumers and we support the MHHS Programme on that basis. What is not clear is the extent to which MP162 is required to deliver those benefits. We can understand how the MDRA role could be used by suppliers to retrieve data more efficiently and therefore reduce the costs that are ultimately passed on to consumers through their bills. However, who retrieves data for settlement and how is otherwise likely to be entirely transparent to consumers.	
EON Energy Services	Large Supplier	Yes	There is medium to long term potential for consumers to benefit from these changes through lower energy costs, assuming that MHHS is widely adopted. EON believes	

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
			that the changes will also support innovation in terms of the propositions offered to consumers.	

Question 9: Noting the costs and benefits of this modification, do you believe MP162 should be approved?

Question 9				
Respondent	Category	Response	Rationale	SECAS Response
Smart DCC	DCC	Yes	Consumer benefit as noted in response to question 8, plus wider obligations on all MHHS Parties to implement this Ofgem sponsored programme.	
Electricity North West Limited	Network Party	No	See our response to Q1	
British Gas	Large Supplier	-	N/A – waiting for the IA We are concerned about the costs of this modification (especially if the MDR user role TRTs are set as the same as those for Suppliers). We have not yet seen the impact assessment (which is due to be published Monday 7th March, after this consultation's closing date of Friday 4th March), but the rumoured estimates are extremely concerning. We are not yet able to respond on the costs and benefits.	
OVO	Large Supplier	No	We do not believe the costs justify the requirements as set out and provide any benefits to outweigh the values set out. We would like the costs split out to factor what these costs look like without the MDR Role changes and only the Demand and capacity costs. We would also like to highlight again that this Mod does not cover off all the	

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Question 9				
Respondent	Category	Response	Rationale	SECAS Response
			changes required of both the DCC and the SEC in being able to manage the requirements, as yet undecided, of the MHHS Programme.	
Northern Powergrid	Network Party	No	Please see our response to question 1 and 7.	
Western Power Distribution	Network Party	No	Whist we support the intent of the modification we believe that there is still a lack of information and detail around the solution to be able to support it in its current state. Also the costs, not only of this modification but Users too, is significant and needs to be justified.	
Utilita Energy Limited	Large Supplier	-	Insufficient cost information to make a decision We accept DCC system changes that are required to allow MDR Users to operate and provide a service to Parties. Utilita would however further welcome discussion on costs related to capacity enhancements. Our foremost concern is that by approving this modification in its entirety at this stage we are accepting all costs associated with capacity improvements. We would welcome further clarity on how much capacity is required for the solution, associated cost for that capacity, and discussion around how that capacity should be paid for.	

Question 9				
Respondent	Category	Response	Rationale	SECAS Response
			Bundling capacity costs and creation of a new user role into the same modification makes acceptance of this modification difficult; we wish to see DCC system changes made to allow MDRs to provide a service, but also wish to see further scrutiny applied to costs and cost apportionment associated with capacity.	
Stark	Other SEC Party	Yes	It is required but needs amending – TRT issue etc.	
Callisto	Other SEC Party	-	-	
EDF	Large Supplier	No	As noted in our responses above there are just too many outstanding questions, especially in regards to the level of DCC costs, whether they should actually be associated with this Modification, who they will be recovered from and how, to be able to support this change at this time.	
EON Energy Services	Large Supplier	No	It's unclear how the cost of this change is going to be finalised given the current uncertainty around Suppliers' approach to collecting it. The maximum exposure is £59m IF the modelling done to date is valid but could be higher depending on actual behaviours. Is there an option to approve fixed costs at this point and return for final approval of variable costs when Supplier intentions are better understood?	

Question 9				
Respondent	Category	Response	Rationale	SECAS Response
			If not and the Modification is approved as currently presented, how will final costs be tracked and what Governance will be in place to approve spending beyond £59m?	

Question 10: Please provide any further comments you may have

Question 10			
Respondent	Category	Comments	SECAS Response
Smart DCC	DCC	The draft legal text has been provided earlier than expected for this modification, however we are happy to provide input.	
Electricity North West Limited	Network Party	Electricity North West remains of the opinion that the most cost-effective model for accessing Half Hour consumption data would be to ensure that it needed to be read from a consumers meter once and once only. After the data has been retrieved it would then be stored in a secure data repository for retrieval by any authorised user as needed. This would include Suppliers, Network Operators and Other Parties e.g. energy switching service providers.	A caching solution for SMETS1 Devices has been included in the DCC's solution. The SEC security framework means a similar approach is not permissible for Smart Metering Equipment Technical Specifications (SMETS) 2+ Devices, and so this option was not pursued under MP162.
British Gas	Large Supplier	-	
OVO	Large Supplier	We have concerns about changes that will arise from the MHHS Design Workshops that are not included in this Mod at this stage. There has already been mention of Suppliers needing to reconcile the Profile Data against the Billed Register Data. As set out in the Modification report, the overall wider end to end processes have not been looked at and the changes required to Users to enable MHHS are not agreed. The MHHS Programme has stated SEC and DCC will agree these. They are not in this Mod so we'd like to know when and where these will be covered and how any changes that stem from them, and the MHHS Programme, will be picked up and tackled. The behaviour of the new Role needs to factor into the solution already	We originally anticipated that MP162 would pick up all the changes required under the SEC for MHHS. However, due to delays with the wider programme since MP162 was raised, the full design will not now be baselined before MP162 needs to progress to decision to meet the final MHHS end-dates. We now believe a further SEC modification will be required to pick up any further consequential SEC documentation changes, but these are not

Question 10			
Respondent	Category	Comments	SECAS Response
		implemented under the SMiP otherwise change is needed. Change that will need a Modification and to be paid for by SEC Party's, unless it can be done via the Elective Communications Services offering by the DCC, although that cannot apply to Core Services. We'd also like to understand when the testing requirements will be defined and how they will be developed and paid for. Noting that the DCC does not have the ability to test increased demand of its services that this Mod is proposing to implement. How will the increase in demand needed for MHHS be tested and who will be paying for that? In what environments will this be done? At a time of energy costs increasing and the price hikes being experienced by all, especially end consumers, the costs for this Modification are alarming and need addressing to achieve the benefits MHHS can provide. The potential for half a £Billion being needed to achieve the changes do not stack up at this stage, and that is without any changes to TRTs or enabling a new Role to have the same abilities a Supplier has.	expected to require DCC System changes. We will update the Modification Report to reflect this. Further information on the DCC's proposed testing approach will be provided in the DCC Impact Assessment. We will follow up on this point with the DCC. We acknowledge the point around the costs. This modification will be issued to the Authority for final determination, and the Authority will be able to consider this modification as part of the wider costs and benefits case for MHHS.
Northern Powergrid	Network Party	-	
Western Power Distribution	Network Party	-	
Utilita Energy Limited	Large Supplier	-	

Question 10			
Respondent	Category	Comments	SECAS Response
Stark	Other SEC Party	-	
Callisto	Other SEC Party	-	
EDF	Large Supplier	-	
EON Energy Services	Large Supplier	To what extent will Supplier behaviours be considered in determining the charging model for this change, if at all? Is the intention to smear the costs irrespective of whether Suppliers choose to collect the data once for all purposes, or collect it separately for HH settlement and other purposes? If so, this may be a disincentive to use the new capabilities as intended/preferred by the DCC. There is reference to Export supplies in the updated modification report. EON and EON Next is not currently a DCC Export User – to what extent is HH settlement mandated from an export point of view?	No changes are proposed to charging under MP162, and the costs will be allocated across Users as they currently are. We will investigate the question around Export Suppliers and provide further clarity.

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MP162 ‘SEC changes required to deliver MHHS’

Annex F

Third Refinement Consultation responses

About this document

This document contains the full non-confidential collated responses received to the third MP162 Refinement Consultation.

Question 1: Do you agree that the solution put forward will effectively resolve the identified issue?

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	Yes	Whilst we agree with the solution and support the intent of the modification, we believe that there is still a lack of consideration on the total impact of the DCC and CSP infrastructure related to the increase in traffic across the network brought in by the implementation of this modification. We agree that the proposal will provide a mechanism for accessing Half Hour consumption data for Suppliers and Meter Data Retrieval Agents, however it does not adequately review the whole system impact across DCC, DSP and CSP services of multiple SEC parties attempting to retrieve Half Hour consumption data. We also believe that without understanding the total system capacity impacts, it will result in further restraints against the known issues regarding the current/future CSP North network performance. Although we understand the scope of this modification, we would support any impact analysis alongside the proposed solution. We believe the opportunity should be taken to ensure that any changes to the total smart meter system will cater for the future demand requirements of all	We note the points around whole system capacity. MP162 was raised to implement changes needed for market-wide half-hourly settlement (MHHS), and as part of this the DCC has considered the additional capacity that would be needed to account for the extra traffic this will generate. The DCC's SEC Modification Design team has carried out analysis in conjunction with the DCC Demand Management team, other DCC programmes, and the Service Providers on the current and projected impacts of MHHS on the DCC Total System, including both Smart Metering Equipment Technical Specifications (SMETS) 1 and SMETS2. Other DCC programmes include the Network Optimisation work planned for the Communications Service Provider (CSP) North. This has allowed the DCC to forecast the impact of MHHS on the DCC

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			SEC parties alongside the proposed new Meter Data Retrieval service users.	Total System and include any associated costs in this modification. There are other programmes tasked with reviewing the CSP North network, and the DCC Demand Management team is responsible for current and future network performance overall. The DCC SEC Modification Design Team has been proactive in the capacity planning working with other programmes within the DCC and the Demand Management team to ensure there is no duplication of work or costs.
OVO Energy	Large Supplier	No	The issue, reworded since the last Consultation, is now to implement the OFGEM TOM in full. This Mod is only looking to deliver some of the changes required to the SEC and DCC for MHHS to be enabled. This means there are other elements, as yet undecided and raised, that will be raised under separate Mods. As such it is not delivering the changes required for implement the full TOM.	We agree that there may be further consequential changes required to the SEC, for example where industry terms change. These will be identified and addressed within the Cross-Code Advisory Group (CCAG) governance group.
Smart DCC	DCC	Yes	Following extensive discussion within the MP162 workgroups, the proposed solution addresses the requirements that will allow both Suppliers and MDR parties to access half hourly data needed for MHHS. The	

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			timing will also allow the industry to move to a shorter settlement period if this is implemented at a later date. We note that the requirements of this modification depend upon alignment and engagement with the wider MHHS implementation programme design work, which is still ongoing, of particular note is REC modification R0044.	
Electricity North West Limited	Network Party	Yes	We agree the solution will resolve the identified narrow scope of this proposal in terms of providing a mechanism for allowing third party 'Meter Data Retrieval Agents (MDRAs)' – a new role created through the Market Wide Half Hourly Settlement (MHHS) design to be able to access smart meters and collect half hourly consumption data for settlement purposes. However, as per our previous responses to the first and second consultations for this modification proposal, this solution does not consider the whole system impact multiple SEC Users attempting to retrieve Half Hour consumption data from smart meters. The MP162 Modification Report accompanying this consultation acknowledges that the DCC expects a significant increase in the amount of traffic on the DCC Systems because of the MHHS solution¹. Our concern remains that this increased volume of traffic will cause further service	Please see the response to SSEN above.

¹ MP162 Modification Report, Version 0.6, dated 3 May 2022 - page 8, second paragraph

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			degradation in Communication Service Provider (CSP) service performance for SEC Users. We note that the latest Modification Report states that the DCC acknowledged that there are wider use cases that will impact on capacity but highlighted that these are outside the scope of MP162, and it only assessed the capacity needs for MHHS under this modification. The report also states that the DCC has commenced a wider piece of work looking at holistic capacity needs. We will continue to support industry wide collaboration with the DCC and BEIS regarding any wider piece of work. We would recommend that the DCC team working on whole system capacity issues liaise closely with the DCC team working on this modification and any other SEC changes required to deliver the MHHS solution.	
Utilita Energy Limited	Large Supplier	-	In our previous consultation response, we highlighted concerns around combining the creation of the MDR User role with the provision of changes to address capacity concerns. These concerns have not been addressed. However, we recognise the solution has been altered to make better use of existing capacity through the introduction of peak/off-peak windows. Whilst positive, this does not address the fundamental concern. We are still concerned with the cost recovery of the modification. This User role will likely not be required by	Based on the assumptions and designs in the DCC's full Impact Assessment, and based on the capacity analysis carried out, the DCC believes that the capacity increases from MP162 will cover the increased loads associated with the MHHS changes. The SEC Charging Methodology is not within the scope of this modification. To introduce this now would disrupt the

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Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			all Suppliers and does not facilitate MHHS regardless of Ofgem TOM. However, all Parties will be charged regardless of how they choose to collect MHHS data.	timeline. We are looking more widely at the Charging Methodology, and initial work has been carried out around whether other User roles should be charged – a modification to look at this further is expected to be raised soon.
IMServ Europe Ltd	Other SEC Party	No	This current proposal, adding in peak and off-peak windows, does not adequately solve the need for fair and equal access to smart meters for the purposes of MHHS. It significantly disadvantages independent MDR agents and is therefore not fit for purpose.	We note that this question is being considered by the Design Advisory Group (DAG) under the MHHS programme. In the interim, the MHHS Programme provided the steer in December 2021 to continue with the solution as currently set out under MP162. If the programme concludes that further changes are needed in response to this concern, we would be happy to support a further modification to address this. We continue to engage very closely with the MHHS Programme to ensure MP162 is aligned with the wider MHHS solution. We are unclear whether there would any material disadvantage to independent MDRs in the data collection timings as the data could still be collected and submitted

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
				into settlement well in advance of the deadline.
Association of Independent Meter and Data Agents (AIMDA)²	Other SEC Party	No	The solution put forward is not effective because it advantages the supplier over the MDR. An effective solution would ensure equivalent and equitable access to consumption data for any party collecting it for settlement, MDR or Supplier. The MHHSP has adopted the idea of a level-playing field as a design principle but this appears to have had little influence on the SEC/DCC design. Under the solution as it stands, MDRs will start to receive scheduled data 10 hours later than the supplier and on-demand data 24 hours later. This is very far away from a level-playing field.	Please see the response to IMServ above.
Western Power Distribution	Network Party	No	Whist we support the intent of the modification we believe that there is still a lack of information and detail around the solution to be able to support it in its current state. We still feel that there is a misalignment to the main programme. The main programme is still discussing design, and in particular the level playing field principle, specifically in relation to TRTs. At the moment, this proposed solution does not support this principle as the Suppliers can gather this information with a 30s TRT and an MDR cannot. This is as per H3.13A in the main legal	Please see the response to IMServ above. DCC Operations, and in particular DCC Demand Management, will be tasked with business-as-usual monitoring of the DCC Total System and any associated remedial work.

² The AIMDA response was submitted as a collective response on behalf of seven Other SEC Parties (Energy Assets, IMServ, Siemens, SMS Plc, Stark, TMA Data Management and WPD Smart Metering)

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			text and section 20 in Appendix AB. This view is also supported by the TABASC comment that the MDRA role was planned to be competitive. We note the comment that a new modification would have to be raised if the TRT requirement was to be changed and this would not result in an increased cost, however this does not allow us to consider a full MHHS solution from a cost benefit perspective at this time. Section 2.6.6 in the Business Requirements states that the DCC will monitor User behaviour with regards to the proportion of On-Demand vs. Scheduled Service Requests. We don't believe that there is enough detail around exactly what this means and how it will be undertaken, as the FIA explicitly states that there are no specific requirements to reporting and no changes to the DCC TOC Reporting solution.	
British Gas	Large Supplier	Yes	We agree with the introduction of the User Role for Parties (other than Suppliers) who will be carrying out the Meter Data Retrieval (MDR) service. We agree with the principle of the proposed 'peak' and 'off-peak' scheduling windows, and this should help with the previous concerns of the impact on DCC capacity, but – depending on the actual volume (which is difficult to forecast, for these very new services), it may still not completely remove the risk of impact on DCC's capacity	The DCC acknowledges there is a risk around forecasting usage, as shared with the Working Group. DCC Operations, and in particular DCC Demand Management, will be tasked with business-as-usual monitoring of the DCC Total System and any associated remedial work.

Question 1				
Respondent	Category	Response	Rationale	SECAS Response
			and wider function. We are still concerned on this (as raised in our response to the second refinement consultation). We are concerned about the costs, and the timing of the investment versus the re-tendering of the DSP role, which we think could lead to an unnecessary overspend of £10m.	Customers will not be "double-charged" for this modification as changes implemented by the MHHS programme will be included in the re-procured Data Service Provider (DSP) without any further charge. The DCC also highlights that the DSP costs only makes up around 20% of the total DCC cost of the MHHS programme.

Question 2: Do you agree with the DCC's proposed 'peak' and 'off-peak' scheduling windows and its approach to allocating and managing scheduled Service Requests across these periods

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	Yes	We note that 'peak' and 'off-peak' will only be successful if all parties collecting half hourly consumption data for the purposes of MHHS are subject to these scheduling windows. It is our understanding that only the "MDR" role will be, therefore if a supplier role decides to collect themselves, they can do so outside of the scheduling windows	The new Section H3.13A will apply equally to all users regarding accessing data for settlement purposes on a scheduled basis. Suppliers retain a shorter TRT for on-demand requests as this is additionally used for non-settlement purposes.
OVO Energy	Large Supplier	Yes	This makes sense to spread the load although we would question why the Export Supplier is being treated the same as the MDR with it's requests. Although we note the principle of the Level Playing Field, this is not really applicable to an Export Supplier who will be doing other things with the Profile Data, most likely using the same systems as an Import Supplier to do so, and so impacted in the same way. We were informed the Windows were only applicable to MDRs. Can we understand why this have been decided as we'd expect that to be clearly drawn out in the Mod Report and it isn't. It must also be noted that, although there is a need for DCC to manage demand, there are no obligations upon	

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			Users to manage TSPs. This has recently caused Users issues and, without any obligations, there is very little to stop any future issues being faced.	
Smart DCC	DCC	Yes	Creating a new scheduling window will shift SRV volumes away from the existing scheduling window. This will allow flexible configuration mapping of the user role/window, avoiding capacity issues and the need to change DUIS.	
Electricity North West Limited	Network Party	Yes	We note that 'peak' and 'off-peak' will only be successful if all parties collecting half hourly consumption data for the purposes of MHHS are subject to these scheduling windows. It is our understanding that only the "MDR" role will be, therefore if a supplier or network party decides to collect themselves, they can do so outside of the scheduling windows	Please see the response to SSEN above.
Utilita Energy Limited	Large Supplier	-	As a principle, Utilita generally approve change that delivers cost-efficiencies and makes best use of the DCC network. Notwithstanding the above, we are concerned about the potential implications that could arise from this modification regarding DCC capacity and ability to deal with large volumes of traffic, particularly prepayment top ups.	As noted above, the DCC Demand Management team will be tasked with monitoring, and if needed, modifying, the DCC Total System in response to changing traffic volumes and profiles. No previous requirements for collecting data from meters were included in the DCC Total System until this modification.

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			Whilst we note the inclusion of Northbound Prioritisation, it does not go far enough to allay concerns about the DCC's ability to deal with the large volumes of traffic. <i>Additional confidential information provided.</i> We are disappointed that the original system spec did not account for Users collecting available data from their meters.	
IMServ Europe Ltd	Other SEC Party	No	The concept of peak and off-peak windows clearly provides a better level of service to in-house agents of suppliers who choose to collect MHHS data versus independent agents using the MDR role (and therefore those customers of independent agents). The two-tier system created is anti-competitive and contravenes the agreed MHHS Programme Design Principle of a level playing field for all participants. The DCC must provide the same service to all participants irrespective of their role to prevent market distortions.	Please see the response to question 1 above.
Association of Independent Meter and Data Agents (AIMDA)²	Other SEC Party	No	This directly contravenes the MHHS level-playing field design principle. MDR users will start to obtain settlement data for processing 10 hours after suppliers using in house capability. This is a significant head start with the first settlement run being expected after a few working days and performance targets to be placed around it. It also confers the supplier using an internal agent a significant advantage for the other uses of that settlement	Please see the response to IMServ on question 1 above. Design assumptions and principles were approved by the Working Group, and were used for the DCC's Impact Assessment. Delivering the entire MHHS capacity during the peak window would significantly

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Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			data. For example, a supplier performing retrieval internally will have data available for forecasting much earlier than a supplier who has chosen to use an external MDR. The competitive advantage flows through to the supplier who has been able to get the data faster. A different approach for managing Transactions Per Second (TPS) that does not disadvantage a particular party should be explored. A randomisation approach where responses to both IS and MDR are spread evenly across the day would achieve this. Alternatively, the DCC should procure sufficient capacity to deliver the entire MHHS volume during the Peak window.	impact the DCC Total System, and leave large amounts of purchased infrastructure unused during the rest of the day.
Western Power Distribution	Network Party	-	We agree that any change to the scheduling windows should be explicitly for MHHS SRVs and should not impact other DCC Users. We are also concerned that the DCC are potentially still not fully considering the wider capacity needs and increased traffic, especially with Network Parties due to increase the volume of traffic significantly over the coming months. We are also concerned that there has not been enough consideration about the known network issues. How can the DCC confidently say MHHS traffic will not impact smart metering traffic? How can the DCC confidently say that this proposed solution will effectively enable MHHS?	Please see the response to SSEN on question 1 above. The DCC requested input for the scenario modelling from SEC Parties through the Working Group and the Technical Architecture and Business Architecture Sub-Committee (TABASC). It has shared and requested approval for the design assumptions and principles and the system design with the Working Group. If there are changes to the requirements before Go Live, it may be necessary to raise a Change Request against the

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			We are also very interested to understand the impact and potential costs that this specific proposal will have on those Parties it directly impacts.	system design. If the assumptions are changed, then there could be an impact on the design, and post-implementation, the DCC Demand Management team will be responsible for managing the Total System
British Gas	Large Supplier	Yes	We agree with the principle of the proposed 'peak' and 'off-peak' scheduling windows. In principle should help with the previous concerns of protecting the DCC performance across all its activities. However, depending on the actual volume (which is difficult to forecast, for these very new services), it may still not completely remove the risk of impact on DCC's capacity and wider function. We are concerned as to what happens if actual data traffic (particularly in the 'off-peak' window) is higher than those that have been forecast. If the required traffic can't be managed during the 'off-peak' time, what is planned? Will daily reports (which will be needed to support various tariff or other customer offerings) risk being delayed 24 hours until the next 'off-peak' slot. And then a few weeks later, if the backlog still can't be cleared, will that delay be 48 hours? We agree that DSP will need to balance scheduled messages with on-demand during expected peak / off peak times, but don't quite understand how this is	As noted above the DCC Total System will be monitored as part of business-as-usual activities, and if the system is being impacted, the DCC Demand management team will be responsible for managing the situation. The functionality to prioritise on-demand requests over scheduled requests during the off-peak window is a result of the Northbound Processing change. The peak and off-peak times will be same at weekends and bank holidays but will be managed if required. The DCC Demand Management team will manage any changes to the windows; and will report regularly to the Operations Group (OPSG). The CSP North was asked to provide optimal window times, and has responded.

Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			proposed to happen. Page 8 of the Modification report says: “The DCC will also ensure that on-demand Service Requests sent during the off-peak scheduling window are prioritised over scheduled Service Requests.” However we didn’t think this was possible for DCC/DSP to do this. We are concerned in general at the uncertainty on data traffic forecasting as referred to in the DCC IA. It is recognised that MHHS and the MDR role in particular will open up new market opportunities for both Suppliers and others in the industry. However, it is really difficult to forecast what that will mean in data volumes, yet the DCC build is being constructed to deliver a set forecast volume. Qn - Will the peak and off peak times be the same at weekends and Bank Holidays? (Or will these be used for maintenance – eg DCC technical refreshes are currently over the weekend) Qn – What will be the governance process if the peak and off-peak windows need adjustment in the future? Qn – Why is the CSP North peak window until 08.00, rather than 07.00? In summary, we agree with the proposed ‘peak’ and ‘off peak’ scheduling, but we are concerned about the cost and operational impacts of the DCC turning out to have insufficient overall capacity, if the underlying forecasts for demand quickly turn out to be too low.	The DCC carried out ‘scenario modelling’ in the Preliminary Assessment, based on the requirements and Service Request Variants required for MHHS as provided by Ofgem. Other inputs to the model were shared and agreed with the Working Group and published in the Preliminary Assessment (section 5.4 onwards). The assumptions and issues for the volumetric modelling were included as a file attachment. The results of the modelling in terms of additional load over the network and rough order of magnitude costs to support the different scenarios were shown in the Preliminary Assessment. The Working Group approved using the parameters based on the ‘low’ scenario. The Preliminary Assessment figures are a good indicator of what the DCC forecasts will happen as traffic increases. The DCC Demand Management team will be responsible for monitoring and updating the configuration. The Demand Management team regularly share capacity review updates in OPSG meetings.

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Question 2				
Respondent	Category	Response	Rationale	SECAS Response
			In order to approve the Modification proposal, we think that there is more information required: 1. More detailed technical figures on how the current conclusions on volumes were reached, if possible 2. What are the maximum volumes that can be handled by the currently proposed solution, as costed in the DCC IA, and what are the factors that drive this? 3. What are the costs for the next increment (and what is that increment, is it known?) in volumetric capability and at which point (ie how much lead time) would they need to be implemented. How far in advance of reaching maximum capacity would we need to commit to further costs? 4. How will we monitor where we are along that line of reaching maximum capacity (or not) – not just in terms of actual volumes, but companies' plans for eg new tariffs, and how will this balance between capacity and potentially commercially sensitive plans be managed? 5. What time/resource assumptions have been made for recovery from unplanned significant outages (as well as the normal maintenance etc windows mentioned)	

Question 3: Do you agree that the legal text will deliver MP162?

Question 3				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	Yes	Yes, noting the limitations of scheduling to the MDR role only.	
OVO Energy	Large Supplier	Yes	-	
Smart DCC	DCC	Yes	We are supportive of the revised legal text including the revision of H3.13A, which now applies to all users that may request data for use in electricity settlements.	
Electricity North West Limited	Network Party	Yes	See our response to Q2	
Utilita Energy Limited	Large Supplier	-	No comment	
IMServ Europe Ltd	Other SEC Party	No	On the same basis, that the MDR role is treated unfairly.	
Association of Independent Meter and Data Agents (AIMDA) ²	Other SEC Party	No	Given our responses above, we cannot agree with the legal text.	
Western Power Distribution	Network Party	Yes	We believe that the legal text will deliver the proposed solution.	The passing of MDR data to the CSS is outside the scope of the SEC solution.

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Question 3				
Respondent	Category	Response	Rationale	SECAS Response
			However, we still seek clarification with regards to Business Requirement 2.2, legal text section H1.6(f). Whilst we are grateful for the additional detail, stating that this information will be passed to the DCC from the CSS, it is still unclear where this information is being generated, i.e. how is the CSS being advised of the MDR? There is no mention of this within the solution nor of any consequential change that would be required to ensure that the implementation of this modification is successful.	This part will be considered by the wider MHHS programme and changes have been raised under REC Change Proposal R0044.
British Gas	Large Supplier	Yes	No issues identified with the legal text.	

Question 4: Do you agree with the proposed implementation approach?

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	-	-	
OVO Energy	Large Supplier	Yes	We agree although we feel the time scales noted are ambitious and, noting this is not the implementation of all the changes needed, there are items still under heavy discussion with the MHHS Programme that need addressing. That means it's likely other items will need implementing too.	We acknowledge that further changes to the SEC will be needed to pick up the remaining changes. We will be working with the MHHS Programme to develop these changes in line with the wider programme timetable.
Smart DCC	DCC	Yes	-	
Electricity North West Limited	Network Party	-	Unable to comment. The implementation date is driven by the MHHS programme plan.	
Utilita Energy Limited	Large Supplier	-	We note that MHHS migration begins relatively soon after the modification release date. These timescales leave little room for any delays; implementation must ensure it provides appropriate time and opportunity for Users to test the E2E solution.	The DCC has planned the release with its Service Providers based on their implementation requirements and believes the timescales are appropriate.

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
IMServ Europe Ltd	Other SEC Party	Yes	Subject to the resolution of the above competition issues and the outcome of the MHHS programme replanning activities.	
Association of Independent Meter and Data Agents (AIMDA)²	Other SEC Party	No	Given the competition issues we have raised, we believe that implementation should be delayed to address the design defects.	
Western Power Distribution	Network Party	-	Whilst we understand that the SEC Modification needs to be implemented ahead of the programme go live date, we are concerned that timescales are tight and therefore solutions and refinement might be rushed through in order to meet the deadlines without necessarily being given appropriate consideration. We are also concerned that this modification is progressing quicker than the main programme and the design detail has yet to be published.	We acknowledge that MP162 is progressing ahead of the wider solution design and have been actively working with the MHHS Programme throughout this modification to mitigate any risks arising from this. There is a dependency on the wider MHHS programme to deliver the interface specification and implementation, and this is part of the DCC's engagement in other programmes and design groups. The DCC has planned the release with its Service Providers based on their implementation requirements.
British Gas	Large Supplier	Yes	The implementation approach has been simplified since the First Refinement Consultation and seems sensible.	Please see the responses to questions 1 and 2 above.

Question 4				
Respondent	Category	Response	Rationale	SECAS Response
			However, we are concerned over the implementation timeframe, when compared to the timeframe for DCC re-tender for the DSP services. We will need both the old DSP and the new DSP to design, implement and test this complex build, but the old DSP will only operate this for 6 months, before the new DSP takes role. We estimate this will result in over £10m of extra costs, that will add to consumer bills. (£9.3m duplicate build, plus extra time for industry entities to test and integrate.) Please also see our response to Question 2 above on volume/capacity.	

Question 5: Will there be any impact on your organisation to implement MP162?

Question 5				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	Yes	Through this modification directly – no, however without understanding the indirect impacts, such as whole system performance due to increased traffic from the collection of MHHS consumption data, it is difficult to determine the impact, therefore it is difficult to determine if this modification better facilitates the SEC objectives.	The DCC has discussed this with its Service Providers and consider that the MHHS impact will be covered, based on the current MHHS assumptions.
OVO Energy	Large Supplier	Yes	The costs' which have reduced considerably are still not insubstantial and will have an impact to us. Noting that it is still very unclear how visible these costs will be to us and that the DCC has not yet included them in any of their Cost consultations for DCC Charges. We will be impacted as an Export Supplier as the scheduling windows have changed those which we'd not seen any reason for doing.	
Smart DCC	DCC	Yes	DCC will work with its service providers to implement the required changes for MP162.	
Electricity North West Limited	Network Party	Yes	MP162 as drafted does not directly impact Network Operators but will have a whole system impact across DCC, DSP and CSP services of multiple parties attempting to retrieve consumption data from a consumer's smart meter – Our concern remains that this increased volume of traffic will cause further service degradation in CSP service performance for SEC Users.	The implementation of the Northbound Prioritisation approach should mitigate the risk of increased Install & Commission (I&C) times.

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Question 5				
Respondent	Category	Response	Rationale	SECAS Response
Utilita Energy Limited	Large Supplier	Yes	If there are large traffic spikes which are not managed, our BAU activities would be negatively impacted. Contact to our call centres would increase and need to be managed. It could also lead to increased I&C times if there were delays to processing traffic. Our response is only considering MP162, it does not consider the wider impacts of MHHS.	
IMServ Europe Ltd	Other SEC Party	Yes	IMServ intends to become an independent MDR	
Association of Independent Meter and Data Agents (AIMDA) ²	Other SEC Party	Yes	We will all seek to become MDRs.	
Western Power Distribution	Network Party	No	We don't believe that there will be any direct impact as a result of MP162, however there could be an indirect impact as a result of a potential consequential change as mentioned under Q3, as well as potential performance issues.	
British Gas	Large Supplier	Yes	There will be impacts on our organisation to implement MP162, however we are not yet at a stage to estimate these. We are in the early stages of setting up our MHH team, and we have not made decisions on our approach and strategy towards the new MHHS and MDR opportunities –	

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Question 5				
Respondent	Category	Response	Rationale	SECAS Response
			i.e. is this role (and the associated infrastructure) something we would build in house, or outsource, or a combination of the two.	

Question 6: Will your organisation incur any costs in implementing MP162?

Question 6				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	-	-	
OVO Energy	Large Supplier	Yes	As already detailed, no savings will be made in the implementation of this Mod as all the costs are borne by us. We will be paying for another Role to carry out the duties we can do already and then to improve the ability of the DCC to handle data for them and us, even though we could do this today and DCC would need to handle it anyway.	
Smart DCC	DCC	More than £1m	DCC revised MP162 costs are detailed with in Annex B, which will be implemented through the fixed charging element of SEC Section K.	
Electricity North West Limited	Network Party	Yes	It is difficult to see how this proposal will not eventually result in costs for DNOs and their customers by having to modify their DCC interface and data handling systems in response to traffic management constraints.	
Utilita Energy Limited	Large Supplier	More than £1m	Most of the costs associated with the total MHHS programme will arise as DCDA and wholesale costs. We have included these in this iteration of our response, as	

Question 6				
Respondent	Category	Response	Rationale	SECAS Response
			well as our central costs for this modification. We will also incur DBT costs associated with our CSS systems to facilitate MHHS.	
IMServ Europe Ltd	Other SEC Party	£100k-£250k	This is an estimate the cost of connecting to the DCC, going through testing, etc to become an MDR. Ongoing operating costs are unknown at this stage.	
Association of Independent Meter and Data Agents (AIMDA)²	Other SEC Party	£250k-£500k	This will vary between organisations represented in this response; however, costs would include DCC Adapter development (if required), Security assessments, user entry process testing, qualification management etc.	
Western Power Distribution	Network Party	No costs	We don't believe that there will be any costs as a result of MP162, however there could be an indirect cost as a result of a potential consequential change as mentioned under Q3.	
British Gas	Large Supplier	-	We will incur significant costs in implementing MP162, but we are not able to estimate these yet, as we have not yet decided our approach and strategy towards the new MHHS and MDR opportunities. (See above answer to Question 5)	

Question 7: How long from the point of approval would your organisation need to implement MP162?

Question 7				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	-	-	
OVO Energy	Large Supplier	Not long	It is as yet undecided if we will need to schedule SRV4.2 that would require a DUIS uplift, but, without that, it is understanding the impact of having to schedule the Export element. We'd need to understand more how this will work, and why, to work out how long it will take to achieve. We don not envision this to be a long development window though. We are conscious of any other changes that come along and the unknown impact of them. It's clear there is still a considerable disjoint in how the MHHS Programme understand how Smart works and would like settlement to operate. This is creating confusion as there are many assumptions in the design that need working out.	
Smart DCC	DCC	-	DCC will deliver the modification in line with the approved timeline.	

Question 7				
Respondent	Category	Response	Rationale	SECAS Response
Electricity North West Limited	Network Party	-	See our response to Q4	
Utilita Energy Limited	Large Supplier	-	February 2024 SEC Release provides enough time for Utilita to make any require changes.	
IMServ Europe Ltd	Other SEC Party	6 months	Based on previous experience from being an RSA and OU role user	
Association of Independent Meter and Data Agents (AIMDA) ²	Other SEC Party	6-8 months	This will depend on how long it takes to complete UEPT as an MDR.	
Western Power Distribution	Network Party	-	We don't believe that there will be any lead time required, unless there is a consequential change as referred to in Q3 which may require a 12 month lead time from the point of approval of that specific modification/change proposal.	
British Gas	Large Supplier	-	Not yet known.	

Question 8: Do you believe that MP162 would better facilitate the General SEC Objectives?

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	Yes	On balance yes, we do believe it will better facilitate the SEC objectives, noting our comments on Q5 that we don't know the whole system impacts and if this adversely impacts the performance and service DCC Users currently enjoy.	
OVO Energy	Large Supplier	Partially	We believe MP162 facilitates SEC Objective's (b) and (g). SEC objective (c) can be achieve today without this Mod. The ability for a Supplier to obtain HH profile data and submit it into settlements can take place already. This Mod is not changing that for us at all.	
Smart DCC	DCC	Yes	Modification 162 will better deliver the following SEC Objectives as noted within the modification report: - Objective (b), as implementing the changes needed to deliver MHHS will allow the DCC to comply with the requirement introduced into the DCC Licence to facilitate the implementation of MHHS. - Objective (c), as the delivery of MHHS will enable consumers to benefit from more accurate allocation of their consumption within settlement.	

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
			Objective (g), as delivering the SEC and DCC changes for MHHS will enable the wider programme to be delivered as planned.	
Electricity North West Limited	Network Party	Yes	For the very narrow scope of this modification. See our responses to Q1 and Q6	
Utilita Energy Limited	Large Supplier	-	-	
IMServ Europe Ltd	Other SEC Party	No	The solution as proposed fails to facilitate effective competition between persons engaged in, or in commercial activities connected with, the supply of energy, objective (d). It would distort the market in favour of those energy suppliers who collect HH data in house using the peak window vs those suppliers who engage with MHHS data using independent MDRs. It also goes against the objective of the SEC Panel: “the SEC Panel is responsible for managing the Smart Energy Code (SEC). Its prime objectives are to ensure that the SEC is managed in a way that is efficient, fair, and does not discriminate between Parties or classes of Parties.”	Please see the response to question 1 above.
Association of Independent Meter and Data Agents (AIMDA)²	Other SEC Party	Yes	We have provided a response to this question in the previous consultation, which was contingent upon the competition issues identified being addressed.	

Question 8				
Respondent	Category	Response	Rationale	SECAS Response
Western Power Distribution	Network Party	Yes	We agree that this modification would better facilitate SEC Objective (b).	
British Gas	Large Supplier	Yes	We agree with the Proposer's views that this will better facilitate Objectives (b), (c) and (g).	

Question 9: Do you believe there will be any impacts on or benefits to consumers if MP162 is implemented?

Question 9				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	-	-	
OVO Energy	Large Supplier	Yes	As responded to previously, the costs of this change, noting there is very little in this Mod that will benefit a Supplier User using the DCC Services, will impact us and our end customers. Who should be the key focus in all this but are not mentioned at all. As such there is no benefit to consumers other than a likely increase in bills to recover the increased DCC costs for this. They can be settled today on a HH basis and will still be billed the same with or without HHS.	
Smart DCC	DCC	Yes	The business case provided by Ofgem suggests an overall consumer benefit of up to £4.6b up to 2045 if MHHS is successfully implemented. MP162 is a part of that implementation. This is in addition to supporting future change that will allow wider optimised use of low carbon generation within GB.	

Question 9				
Respondent	Category	Response	Rationale	SECAS Response
Electricity North West Limited	Network Party	Yes	Yes (in terms of impacts) See our response to Q6.	
Utilita Energy Limited	Large Supplier	No	There will be no specific benefit to consumers from this modification.	
IMServ Europe Ltd	Other SEC Party	Yes	MHHS is a benefit to consumers overall as it facilitate a more flexible energy system.	
Association of Independent Meter and Data Agents (AIMDA) ²	Other SEC Party	Yes	We have provided a respond to this question in the previous consultation, which was contingent upon the competition issues identified being addressed and restrictions on usage of data collected by the MDR being removed.	
Western Power Distribution	Network Party	Yes	Based on Ofgem's prediction, consumers would benefit.	
British Gas	Large Supplier	Yes	The MHHS programme is expected to bring considerable benefits to consumers, and MP162 is a key component of implementing that programme. We are not sure of the specific benefit to consumers of the introduction of the MDR user role, which is at the core of MP162. Suppliers can already access this data, and it will depend on the market development of the MDR industry as to whether this new role does bring net value to consumers.	Please see the response to question 1 above.

Question 9				
Respondent	Category	Response	Rationale	SECAS Response
			We see absolutely no benefit to consumers of the proposed timing clash between MP162 being implemented, and the new DSP being put in place just 6 months later (and having to again build/test/implement the MP162 delivery platform). Instead, we think this will add an extra £10m+ to consumer bills. This timing clash needs to be flagged urgently with Ofgem – as it seems completely inappropriate at this time of unprecedented Energy Bills and Cost of Living increases.	

Question 10: Noting the costs and benefits of this modification, do you believe MP162 should be approved?

Question 10				
Respondent	Category	Response	Rationale	SECAS Response
Scottish and Southern Electricity Networks	Network Party	-	-	
OVO Energy	Large Supplier	No	As a Supplier, there are no benefits listed, other than mitigations if others carry out the functions. That is not a benefit to us though, that is just ensuring we can continue to operate as if this Mod was not implemented. We fully support the need to get as much data into settlements as possible and moving to a half hourly regime makes perfect sense to do so. The ability to link the settlement data to charging regimes sent out by the Networks is hugely beneficial to us and customers but this Mod is not achieving any of that. The costs, although far lower and more sensible, are still incredibly high for functions that can be done today by us in our current Roles except that of Export Supplier. We're still concerned many items under discussion for MHHS are not yet included. We would like to see the overall cost impact to us in our DCC Charges and would like to	

Question 10				
Respondent	Category	Response	Rationale	SECAS Response
			understand how that can be achieved. Also how the costs will be shared across other SEC Party's.	
Smart DCC	DCC	Yes	Consumer benefit as noted in response to question 9, plus wider obligations on all MHHS Parties to implement this Ofgem sponsored programme.	
Electricity North West Limited	Network Party	Yes	We support the design, development and delivery of the MHHS programme. It is vital that the DCC address the wider capacity issues so as to ensure that the MHHS solution and wider smart metering works. We recommend a risk be raised under the MHHS programmes regarding the wider capacity issues for the DCC MHHS solution.	
Utilita Energy Limited	Large Supplier	No	Noting our concerns raised in response to Q1, we cannot approve the modification as proposed. Despite the reduction in total cost, industry's concerns around cost recovery remain unanswered. We're also not sure whether the new User role is necessary.	
IMServ Europe Ltd	Other SEC Party	No	The competition issues inherent to the proposed solution are serious and need to be addressed.	Please see the response to question 1 above.
Association of Independent Meter and Data Agents (AIMDA) ²	Other SEC Party	No	We are in the difficult position of fundamentally disagreeing with much of the proposed solution but not wanting to delay the overall MHHS timeline. Follow-up mods to address flaws in this one will be expensive and inefficient. It would be much better to get it right first time with a solution that is workable for all parties. If the DCC	Please see the response to IMServ for question 1 above.

Managed by



Question 10				
Respondent	Category	Response	Rationale	SECAS Response
			can devise a way to manage TPS without discrimination and allow the MDR to access the same TRTs as the supplier then we would support approval of MP162.	
Western Power Distribution	Network Party	-	We would like to better understand how the revised costs of £9m with an annual support cost of £2.3m has been accounted for within the MHHS Programme business case, especially given that this is so different to the costs provided under the PIA.	We will ask the MHHS Programme to provide a view on this.
British Gas	Large Supplier	No	We do not think MP162 should be approved yet, until the clash with the timing of the new DSP appointment is resolved. We also consider that the extra questions (1-5) we raise in our answer to Question 2 need to be answered before Change Board can make a fully informed decision.	Please see the response to questions 1 and 2 above.

Question 11: Please provide any further comments you may have

Question 11			
Respondent	Category	Comments	SECAS Response
Scottish and Southern Electricity Networks	Network Party	-	
OVO Energy	Large Supplier	-	
Smart DCC	DCC	-	
Electricity North West Limited	Network Party	Electricity North West remains of the opinion that the likely most cost-effective model for accessing Half Hour consumption data would be to ensure that it needed to be read from a consumers meter once and once only. After the data has been retrieved it would then be stored in a secure data repository for retrieval by any authorised user as needed. This would include Suppliers, Network Operators and Other Parties e.g. energy switching service providers. We recommend this option be investigated further as part of the DCCs wider work on capacity issue.	A caching solution for Smart Metering Equipment Technical Specifications (SMETS) 1 Devices has been included in the DCC's solution. The SEC security framework means a similar approach is not permissible for SMETS2+ Devices, and so this option was not pursued under MP162. We will pass your request for this to be investigated further as part of the wider capacity work to the DCC.
Utilita Energy Limited	Large Supplier	At 4.4 Northbound Prioritisation within the DCC Impact Assessment, the DCC make note of capturing 2 additional Business Requirements regarding Northbound Prioritisation for inclusion within the Business Requirements. These have not been captured in the most recent Business Requirements document v0.6.	We will review and update the business requirements document.

Question 11			
Respondent	Category	Comments	SECAS Response
IMServ Europe Ltd	Other SEC Party	-	
Association of Independent Meter and Data Agents (AIMDA) ²	Other SEC Party	We have commented on this Mod and the competition issues it introduces extensively – both as a group and individually. As the intended users of the MDR role, it feels like we have no influence on how it is specified. We would welcome stronger commitments from SEC/DCC that the MHHSP design-principle of a level-playing field will be implemented. At the moment, it is far from level.	Please see the response to IMServ on question 1 above.
Western Power Distribution	Network Party	We note that there was concern from a TABASC member that although SMETS meters are designed to record the consumption in each half-hour period, they had not been designed to be half-hourly meters and therefore we seek assurance that meters will be fit for purpose, continue to operate and not be negatively impacted but this new requirement. With regards to the cache option under S1SPs, would this data be made available to any party that was requesting it and not just the MDR/Supplier, i.e. would DNO's request for that data come from the stored data too? We also note that there have been some discussions around how this modification is paid for. Whilst we understand that this is likely not relevant at this time as the SEC Modification process is defined and time is of the essence, we question whether modification costs should be reviewed in relation to how it is identified who should pay for them on a more enduring basis.	On the SMETS1 caching option, this information would be available to any User, including Network Parties, that subsequently requests the same date. Whilst the DCC agrees that not all meters are 'half-hourly meters' they will be able to support half-hourly settlement.

Question 11			
Respondent	Category	Comments	SECAS Response
British Gas	Large Supplier	<u>Concern over volume assumptions</u> We are worried about the volume assumptions, if the anticipated volumes used to underpin the FIA turn out to be too low, versus what actually happens once MHHS launches. Page 2 of the MP162 modification report states: “<i>The DCC technical solution is well defined and has now undergone the full DCC Impact Assessment, which is included in this consultation.</i>” This sounds positive. However, section 3.4 (Update from PIA Response) in the DCC FIA says: <i>“As part of the PIA Response, DCC noted that there were several key points that created a level of uncertainty which heavily influenced the variable ROM costs. DCC further noted that resolving these in a clear and unambiguous manner should significantly reduce solution costs as part of any requested FIA and maximise the value of the FIA.</i> <i>DCC is happy to report that with the support of the Working Group, DCC has managed to reduce the level of ambiguity in the key areas noted within the PIA, by proposing a more complete set of anticipated User behaviours and key volumetric assumptions as well as a firmer DCC System end-to-end (E2E) solution design using these, that the FIA proposed DCC solution has been designed against.</i> <i>This has resulted in reduced solution costs as anticipated, but has meant that the proposed DCC solution is now more sensitive to any future changes to the documented anticipated User behaviours and</i>	We will review and clarify the statements over volume assumptions for the final Modification Report. The DCC has validated the assumptions and design principles as far as it can, and these have been approved by the Working Group. The build costs will remain the same (unless there is a change raised before implementation) but running costs could increase or decrease based on patterns of use. Please also see the response to questions 1 and 2 above.

Question 11			
Respondent	Category	Comments	SECAS Response
		<i>key volumetric assumptions and this should be noted by Industry.”</i> This sounds much less confident. There is a lot of uncertainty over how MHHS will be used by industry as it opens up the opportunity for new tariff propositions and operations. However, the FIA is saying it has reduced the ambiguity, and now has lower solution costs, but these will only apply if the demand volumes exactly follow those forecast (which is impossible to forecast). I read this as meaning that the build isn't that flexible at remaining optimised at different volume levels, and costs could well end up a lot higher than the £9.3m being forecast. This needs to be made really clear in the final modification report for MP162, so those making decisions are fully aware of the risk here. Please also see our additional questions (1-5) that we think need to be addressed in our answer to Question 2. <u>Concern over timing clash with the re-procurement of the DSP contract</u> We are concerned that consumers may end up paying twice for the build. DCC are reprocurring the DSP (Data Service Provider), currently managed by CGI. CGI's contract expires just after MHHS goes live, meaning the old DSP has to make system changes and the new DSP will also include in its design, ultimately costing the consumer money.	

Question 11			
Respondent	Category	Comments	SECAS Response
		All the industry parties (including us as a Large Supplier, plus whoever we use as MDR) will also have to test twice. We estimate this is at least £10m of avoidable cost. The current DCC IA assumes it will be in the February 2024 release under the current DSP (CGI). The New DSP go live October 2024.	