# MP162 'SEC changes required to deliver MHHS'

# October 2021 Working Group session 2 meeting summary

### Tuesday 12 October 2021, 14:00-16:00

## Attendees

| Attendee | Organisation |
|---|---|
| Ali Beard | SECAS (Chair) |
| David Kemp | SECAS (Lead Analyst) |
| Robin Healey | SECAS |
| Rosie Knight | SECAS |
| Richard Vernon | DCC (Proposer) |
| Stuart Scott | DCC |
| David Walsh | DCC |
| Abhijit Pal | DCC |
| Helen Metcalfe | DCC |
| Charlotte Semp | DCC |
| Robin Seaby | DCC |
| Kevin Spencer | Elexon MHHS Programme |
| Sarah-Jane Russell | British Gas |
| Seth Chapman | Castillo |
| Paul Saker | EDF Energy |
| Julie Geary | E.ON |
| Daniel Davies | ESG Global |
| Paul Akrill | IMServ |
| Ralph Baxter | Octopus Energy |
| Emslie Law | OVO Energy |
| Mafs Rahman | Scottish Power |
| Elias Hanna | Smart ADSL |
| Matthew Alexander | SSEN |
| James Murphy | Stark |
| Nik Wills | Stark |
| Simon Wilcox | Stark |
| Robert Johnstone | Utilita |
| Kelly Kinsman | WPD |

## Overview

The Smart Energy Code Administrator and Secretariat (SECAS) (DK) noted the issue identified, the proposed solution and the plan for the four Working Group sessions planned across October.

## Issue

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 2045[1]. It has therefore concluded that Suppliers should be mandated to settle their customers on a half-hourly basis.

Delivering the full solution for market-wide half-hourly settlement (MHHS) will require changes to the Smart Energy Code (SEC) and to the Data Communications Company (DCC) Systems. Ofgem has [requested the DCC raise this SEC modification](#) to progress and deliver these changes.

## Solution

During the SCR, Ofgem has developed its target operating model (TOM) for how the full MHHS solution should be delivered. The SEC and the DCC Systems changes will need to deliver the requirements set out in the TOM.

This modification will cover all the SEC changes required to deliver the MHHS solution, which will include:

- The introduction of a new User Role for Parties carrying out the Meter Data Retrieval (MDR) service.

- 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.

- The User Entry Process requirements for the new User Role.

## 'A Day in the Life of MHHS' workshop

### Overview

The DCC (SS) set out the goal of this workshop, to establish Users' anticipated usage patterns and behaviours for MHHS data retrieval, to help define DCC System capacity requirements

A Working Group member (PS) noted design work is still in the early stages and participants may not know their expected behaviours. Any assumptions could also change as participants build their solutions. The DCC (SS) acknowledged this point. Any information that Users could provide would be of major benefit, but if not then the DCC will propose a set of assumptions to base its solution on, which Users can comment on during consultation.

A member (PA) queried what assumptions the DCC already had for its capacity needs by 2024. The DCC (SS) clarified that its approach has been to assess the additional capacity that would be needed

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

to accommodate MHHS. This has been decoupled from the existing capacity for the time being. This additional capacity requirements will be used as part of the Impact Assessment. Its wider needs are being based on forecasts, but for MP162 the DCC is seeking to understand the capacity needed to accommodate the expected traffic for MHHS. The DCC (DW) also noted that these forecasts are based on current usage profiles and on expected changes over time.

Another member (RB) noted the DCC System has a known demand now, and that the DCC should know how much of this is currently being used. They believed the DCC's current approach is not the right approach, and that the DCC should be seeking to make maximum use of the current system and utilising existing troughs in demand. They asked the DCC to confirm the current capacity and how much spare capacity it has now, believing the DCC needed to focus on enhancing business processes than on obtaining additional capacity.

The DCC (CS) confirmed that 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 that all meters would need to provide half-hourly data, or that this would include export data. The proposed Meter Data Retrieval Agent (MDRA) role is also additional party that can submit Service Requests not considered in the original requirements. The DCC stressed it 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.

A member (EL) echoed the DCC's comments regarding the original system requirements. 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. The risk that the DCC isn't set up to handle this capacity was 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. As such, this change will add additional demand to the DCC Systems which will need a corresponding increase in capacity.

A member (SC) considered that the approach the DCC was taking seemed to be asking people to tell the DCC what they are going to do. They queried whether the DCC should instead be trying to match the requirements and manage peaks in demand, rather than rely on Users to do this. The DCC (SS) clarified that the DCC wants to understand the assumptions around User behaviour and how much additional traffic is expected. If the DCC's assumptions are radically different to what Users are thinking then the costs the DCC provides for this modification won't be reflective. The DCC is seeking to align expectations with Users to ensure everyone is moving in the same direction.

A member (EL) felt it had not been clearly defined how Users should be behaving, noting that the extraction of profile data can be done now without any changes. As a Supplier, they could choose to carry on as they do now, extrapolate the half-hourly profile data and send this into settlement, while others could choose to do more. Furthermore, nothing expected to change around the existing business use cases.

## Anticipated User behaviours

A member (DD) sought confirmation on the difference between the MDR and the Smart Data Services (SDS) role in the MHHS TOM. Another member (JM) confirmed that organisations carrying out the SDS and the MDR functions will be in the registration data and that the DCC will then be looking specifically at the MDR entry when validating Service Requests.

A member (RB) asked what the DCC's worst-case scenario was in its assumptions. The DCC (SS) noted this will be covered later but confirmed that the DCC needs to be able to support all the different options but want to better understand how likely or unlikely each given scenario is. The DCC also noted it 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.

Elexon (KS) highlighted that the current market pressures may mean that some of the smaller Suppliers who may have favoured outsourcing the MDRA activity to a third-party agent may disappear. However, they stressed that any solution needed to account for longer-term developments, and so the Working Group should not assume too much about the current baseline.

A member (JM) considered there could be the potential for data to be reused as an MDRA could then pass on the data it collects to the relevant Supplier or to other parties as required. This could reduce the expected demand and therefore the capacity needed. The DCC (SS) acknowledged this, and noted another assumption 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. The member hoped the Supplier and the MDRA would communicate to identify such duplication.

A member (EH) 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 (SS) noted that the current security architecture requires consumption data from Smart Metering Equipment Technical Specifications (SMETS) 2 meters need to be encrypted so only the end user can access it. As such, the DCC cannot collect and store this data to push out to Users, it has to 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 any MP162 solution is for it not to need any changes to Devices.

A member (EL) 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 when they can collect it themselves faster and cheaper.

The DCC (SS) noted that, irrespective of who the User is, the DCC would want as much traffic as possible to be scheduled, meaning everyone would receive the same TRT. Most of the Service Requests relevant to MP162 are already mostly scheduled by Users.

A member (SC) clarified that data would be collected by Meter Point Administration Number (MPAN) and not by Supplier. They also considered that legislation to prevent duplication would be beneficial, so not trying to place reliance on participants to not duplicate data collection. The DCC (SS) noted this option but had thought previously that members hadn't been in support of regulating this.

The DCC (SS) informed the Working Group of their initial assumptions used in the Preliminary Assessment. The key question the DCC had asked is what proportion of MHHS data collection will be collected by Suppliers and what proportion will be collected by agents. The DCC is hoping to gain better clarity on this ahead of the Impact Assessment.

Elexon (KS) queried whether the model could be broken down further into small, medium and large Suppliers and number of MPANs for each, and make an assumption on which way each type could go. Their assumption is that larger Suppliers would likely carry out the MDRA role in-house. A

member (JM) noted it would be hard to provide valuable input but was inclined to agree with Elexon's view.

A member (RB) asked, assuming either all data was collected only by Suppliers or all data only by agents and the existing capacity was better utilised, how much extra capacity the DCC would need in each scenario. They considered that seeing this difference would help members provide a steer to the DCC. The DCC (SS) noted there are a lot of variables in the model, but the more refined any assumptions are, the better the cost estimate the DCC can provide.

A member (RB) noted the three scenarios the DCC assessed as part of the Preliminary Assessment and asked how the DCC's assessment of traffic under MHHS would compare to current usage. The DCC (SS) responded that depending on how users behaved the total traffic could be more than double what is seen today.

A member (PA) noted the DCC's assumption that 30% of meters are already seeing half-hourly data extracted. The DCC (SS) confirmed this is based on how many meters currently have schedules set up for the relevant Service Requests.

A member (PA) queried the DCC's assumptions on how Network Party usage may increase, and whether they could also receive the data from a central source rather than requesting it themselves. Another member (EL) noted there is nothing to stop a Network Party from requesting this data for itself, and also highlighted Other Users could also seek this data. The DCC (SS) noted its working assumption that these wider use cases are outside the scope of MP162, although do need to be considered as part of wider work on capacity.

A member (SC) asked if there would be any difference between the scenarios if there is more re-use of collected data. The DCC (SS) noted 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 but needs answers to the broader questions first before it can drill down on the detail.

A member (JM) queried if there was a fourth option the DCC could assess, where all data is collected by an MDRA, and Suppliers' behaviour subsequently changes to not collect this data for themselves. The DCC (SS) acknowledged this and reiterated there are many different scenarios that could arise. The DCC's Preliminary Assessment response contains an embedded Excel workbook that members can use to test their own variables within the DCC's model.

A member (RB) 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.

A member (EH) noted the forthcoming Network Evolution changes, which could change the model. The DCC (SS) noted that Network Evolution is still at an early stage and will relate to Communications Hubs and not Devices. In any event, the DCC reiterated its design principle to not change existing Devices under MP162.

A member (JG) felt it reasonable for the DCC to ask Suppliers what their intentions are. While the industry can talk about capacity for a long time, ultimately, the DCC needs to build the system to meet Users' requirements. In addition, it is not just DCC System capacity that is of concern here; Suppliers will also need to consider how to manage an increase in the data they receive data and whether to do this as they do now or via a third party, as this will impact their infrastructure too. 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. They considered that Suppliers must have at least begun to think about how MHHS will impact on them.

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A member (PS) acknowledged this and wanted to be as helpful as possible on this. However, they highlighted there would be a limit to what discussions could be held until there was more clarity on the wider MHHS solution. The DCC (SS) noted that any information Users could provide, even if just at a high level, would be greatly appreciated by the DCC.

**Challenges relating to variable User demand**

The DCC (SS) took the Working Group through their view of the expected use cases for MHHS.

A member (EL) agrees with DCC's assumptions set out in the slides. They noted that this is missing the ability of other Parties to also collect this data. They also queried the requirement for collecting reconciliation data, which currently isn't needed. The DCC (SS) noted that reconciliation data is an option potentially required. If the industry believes this isn't needed, then that will affect the DCC's assessment. The member queried the rules for collecting reconciliation data for SMETS meters under the TOM.

Elexon (KS) noted the TOM is looking at collecting a total register read, and there is a requirement for MDRAs to carry out a meter advance reconciliation once a month. A member (JG) queried if this would be mandated and where this requirement had come from, as it is not an activity currently carried out. Elexon confirmed this requirement has come from the Code Change and Development Group (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, not the Supplier (unless the Supplier appointed itself as the SDS). A member (EL) was concerned that this requirement could have many implications for Suppliers' processes and queried who is looking at this and what participants would need to do to meet this.

A member (SC) 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. They also highlighted there is a chance the meter may not return the data. Another member (EL) 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.

A member (EL) sought clarity on whether the MDR User will receive Alerts. The DCC (SS) 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.

A member (JM) queried the assumption around Service Request Variant (SRV) 4.6.1 'Retrieve Import Daily Read Log' asking whether this would be a monthly request but with a read for each day, or just a single total read at the end of the month. The DCC (SS) assumed that if the request was sent daily then it would be for the daily read, but if sent monthly then it could be either. The member noted their preference would be to obtain the half-hourly values and a daily midnight read each day and would use an on-demand Service Request only if the scheduled requests failed.

A member (EL) queried if the DCC's assumptions for SMETS1 meters applied over all Devices across all the cohorts, and whether they were all behaving in this way. The DCC (SS) confirmed this is their working assumption but has been clarifying this through the SMETS1 Service Providers' Preliminary Assessments.

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The DCC (SS) again noted that any further information that members could provide offline would help with its modelling, for example whether reconciliation reads will be collected daily or monthly.

**Volumetrics assumptions**

The DCC (SS) took the Working Group through their assumptions around the volume of requests, and noted the key question was whether anything seemed wrong with these.

A member (SC) asked whether twin-element meters would have a single daily total or a total per element, believing only the total is needed for settlement. Another member (PS) believed each element would have its own MPAN, so should be recording its own readings. The DCC (SS) agreed to check and confirm this.

**DCC Scheduling time periods – smoothing demand peaks**

The Working Group did not have time to discuss this section and agreed to cover this in the fourth session on Friday 22 October.

**Final comments**

A member (RB) reiterated that they considered it necessary to see the current demand peaks and for the Working Group to consider how times of low demand can be better utilised. They were unsure what the current capacity usage is and how this varies.

A member (SC) noted the view from Ofgem that the DCC should have considered the impacts of MHHS when originally developing the DCC Systems. They believed that the industry should be considering what else could happen as a result of MHHS, given the end goal of this work is to better manage system load. Another member (EL) reiterated that Suppliers originally provided their estimates of how much traffic they would generate, which the DCC then used to build the system. Suppliers did not factor MHHS into these estimates, so capacity had not been included for it. Another member (RB) considered that even if this had been known at the time, it likely wouldn't have been built in then as it wouldn't have been needed.

# Next steps

The third October session will be held on Wednesday 20 October. This will be a workshop session to discuss the challenges with the SMETS1 aspects of the solution.

The final October session will be held on Friday 22 October. This will close out any remaining questions around the Preliminary Assessment response and seek the Working Group's views on the solution and business case ahead of issuing the Refinement Consultation.

The following actions were recorded from the meeting:

- Working Group members to provide any further information they can on expected behaviours and volumetrics to the DCC offline.

- SECAS to add the DCC Scheduling discussions to the agenda for the fourth session on 22 October.