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# MP162 'SEC changes required to deliver MHHS'

# October 2021 Working Group session 1 meeting summary

### Wednesday 6 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 |
| Charlotte Semp | DCC |
| Kevin Spencer | Elexon MHHS Programme |
| Mark De Souza Wilson | Elexon |
| Seth Chapman | Castillo |
| Paul Saker | EDF Energy |
| Julie Geary | E.ON |
| Daniel Davies | ESG Global |
| Paul Akrill | IMServ |
| Mafs Rahman | Scottish Power |
| Matthew Alexander | SSEN |
| James Murphy | Stark |
| Nik Wills | Stark |
| Robert Johnstone | Utilita |
| Gemma Slaney | WPD |
| Kelly Kinsman | WPD |

## Overview

The Smart Energy Code Administrator and Secretariat (SECAS) (DK) provided an overview of 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.

## DCC Preliminary Assessment response

The DCC (DW and SS) took the Working Group through its Preliminary Assessment response.

A Working Group member (JM) sought clarity on how the DCC had assessed the additional impacts above the current baseline. The DCC (DW) confirmed that the Service Providers had been asked to assume the current system was 100% utilised, and to explain what additional capacity would then be needed to accommodate the MHHS traffic. They confirmed the current capacity was not 100% utilised, but that the available headroom did vary by Service Provider and would continue to change as more meters come online.

The DCC (DW) confirmed that the costs were due to this change impacting 11 Service Providers. The DCC has challenged the costs and will continue to do so. These costs currently cover implementation costs up to the end of Pre-Integration Testing (PIT) plus on-going Application Support costs. The estimated lead time up to the end of PIT is 12 months; this will be further refined in the Impact Assessment.

A member (JM) asked if the TRTs were contributing to higher costs. The DCC (DW) confirmed this was the case, as well as challenges with how the Smart Metering Equipment Technical Specifications

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

(SMETS) 1 Devices worked, due to them not being able to schedule requests. Ensuring as many MHHS-related requests are on the longer TRTs will help to reduce costs.

A member (PA) sought further clarification on what was driving the costs. The DCC (SS) noted the fixed costs were relatively low compared to the variable costs, as the DCC has a good understanding about what needs to change within its systems. User usage is less clear, particularly the number of additional requests that will be submitted and when. The three scenarios included in the Preliminary Assessment cover 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.

A member (JG) noted the biggest constraint for Suppliers is their own infrastructure and impact this may have on other processes such as Install & Commission (I&C). They are already seeing an impact on I&C times when processing half hourly data now. The DCC (SS) 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 member asked if the solution would be 'one size fits all'. The DCC noted this was its working assumption, but this will be further explored in the next session.

A member (SC) asked why the DCC was estimating up to 73m additional Service Requests per day when there would only be 30m meters at full rollout. This is because multiple types of Service Request are expected to be issued to each meter per day.

A member (MR) queried if the DCC had explored cloud storage. The DCC (SS) noted a lot of discussion had been held on technical solutions, with some options discarded, and the DCC has established a proposal based on the design principles.

A member (GS) noted that Network Parties have yet to begin obtaining networks-related data in earnest, which will also impact on capacity as they collect this data more over time. The DCC (SS) acknowledged that other issues will also impact on the capacity needed, but the MP162 solution has focused on the additional load needed for MHHS.

A member (DD) 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 (SS) confirmed this had been investigated. The key constraint is with the security model around 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 the response has been that this this is a fundamental requirement of the smart metering security model that data is encrypted end-to-end. There is more leeway with SMETS1 Devices though so there could be a short-term caching for SMETS1 data. This is something that will be covered in the third session. However, the DCC is working to a design principle that it doesn't store this data or create another repository.

A member (GS) asked, given the creation of a new User Role, whether it was worth going back to first principles and asking how the system would be built today if starting from scratch. They asked whether having the DCC become a User to be able to read the data off a Device for onward use could be an option.

The DCC (SS) confirmed it is having active conversations around capacity generally, as it won't just be MHHS increasing capacity. The DCC is keeping one eye on the future for other User Roles too, as they are all likely to add to the demand. It is keen to find way to not have to query a meter for each individual request submitted. However, the DCC storing data would have significant security implications. Given the overall timetable for MHHS, this won't be an option that can be explored under MP162, but is something the DCC intends to keep exploring for the future.

A member (JM) noted an ambition of the MHHS TOM is for half-hourly data submitted for settlement to be more readily available to others, so this could be a route for Parties to obtain this data outside of the DCC, which could reduce the impacts on capacity. They also considered that 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. The DCC (AP) noted this reusing of data would be a question for the TOM and was outside the scope of MP162.

A member (MDsW) sought clarity on how data validation would work under the solution. The DCC (SS) confirmed that the appointed MDRA would be registered in the Meter Point Administration Service (MPAS) and subsequently sent across to the Central Switching Service (CSS). The DCC would take this information and store it in its registration data. When it receives a Service Request from the MDRA, it will validate this through access control using the effective dates stored in the registration data. The data returned is the data stored in the meter, with no checks on this carried out by the DCC.

## TRTs for MDR Users

The Working Group noted a previous action for Supplier agents to provide use cases for why an MDR User may need to obtain meter data in less than 24 hours. Three scenarios had been raised before the meeting:

- Extracting data from a meter before it is exchanged
- Retrieving any missing data before the relevant settlement run times
- Collecting historic data if a customer fails to specify a collection frequency within seven days following a switch or a new install

A member (JM) queried if an MDR User may need to retrieve data for its first day of appointment if it couldn't set up a schedule beforehand. The DCC (SS) 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 the effective from date.

A member (PS) 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. Another member (JM) acknowledged that maybe this was the case for the second and third scenarios, but felt a faster response was needed for the first scenario.

A member (DD) queried how an MDRA would know a meter is being exchanged. Another member (SC) confirmed this would build upon existing communications about a meter exchange to ensure all relevant agents were notified ahead of time.

A member (DD) was not sure why Suppliers would choose to appoint a third party MDRA. Another member (JM) noted they may want to outsource the activity to another company with the relevant resources. Similarly, a proportion of non-domestic customers would seek to appoint their own agents under MHHS and so this must be facilitated by the creation of an independent MDR role. Furthermore, removing this option would remove competition. Allowing the MDRA role to be outsourced is a requirement in the TOM.

The DCC (SS) noted its view that for everything collected for use under MHHS, the longer TRTs should apply equally. On the basis that data doesn't need to be entered into settlement until five Working Days later, it opted to use the 24-hour TRT to mimic existing schedules. The more requests that can be scheduled, the more efficient the system will be, while more on-demand use creates

unpredictable behaviour. The DCC's 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 member (JM) asked why the relevant Service Requests couldn't be forced to be scheduled. The DCC (SS) noted this is an option but acknowledged the 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 requirement for MHHS is not to impact on existing arrangements, which means not changing or removing the on-demand options for these Users. They acknowledged this does create a dilemma of not knowing whether Suppliers are sending on-demand requests for MHHS or for an existing use case. However, for an MDR User, the data is only being collected for MHHS purposes.

A member (SC) noted that the need for an MDR User to send an on-demand request should be rare, so usage should not spike. They noted a meter typically lasts for 10-20 years so meter exchanges should not be common. They also highlighted there is currently no check for Suppliers and felt this will create inequality between the two User roles. For both User types, they questioned why Users would send on-demand requests when scheduled requests are easier. However, they considered that as long as the meter read takes place when requested, a delay in the subsequent response back should be acceptable.

The DCC (SS) 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 with Suppliers of sending an increased number of on-demand requests using the shorter TRTs, however the existing use cases for these still apply.

A member (JM) sought confirmation that a scheduled request would have a 24-hour TRT regardless of who set the schedule up. The DCC (SS) confirmed this was and will continue to be the case. They also noted that the TRT is the maximum expected turnaround, and the response would likely be returned much sooner.

The Working Group concluded that the expected use cases for when an MDR User may need an on-demand response had been drawn out. It agreed that further discussions on volumetrics at the next session would help with understanding if shorter TRTs should be applied to on-demand requests submitted by MDR Users.

## Issues noted with the business requirements

The DCC noted clarification was needed around permissions for SRV 4.1.1 'Read Instantaneous Import Registers' relating to the Access Control Broker Remote Party Role. 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 Great Britain Companion specification (GBCS) version should enable DCC to support this.

A member (DD) queried if the use case for SRV 4.1.1 was just as a check, and whether a User could just schedule a SRV 4.6.1 'Retrieve Import Daily Read Log' monthly instead. The DCC (SS) considered the primary use case seems to be reading the log, so it does seem an edge case. This can be discussed further at the next session.

A member (PS) considered they needed to understand the use case. The main one for Suppliers is as part of 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 use midnight reads. The member highlighted concern with upgrading the GBCS as this could strand Devices.

Another member (SC) queried the difference between the two requests. The DCC (SS) confirmed the data set is the same, it is just that one takes an instantaneous read and the other a midnight read.

The DCC considered it may be easier to drop the use case than to uplift the GBCS, noting the original principle was not to update Devices because of MP162. This needed to be confirmed prior to the Impact Assessment.

The DCC also noted that SRVs 4.1.1 and 4.2 'Read Instantaneous Export Register Values' were 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 member (DD) noted that the scope of SMETS1 was as a minimum viable product. The DCC noted SMETS1 meters don't support SRV 4.1.1 as they don't store the relevant data.

A member (JM) felt these likely don't need to be scheduled but would appreciate time to consider this further. Another member (GS) noted this would change the existing requirements, and it would depend on the costs. A further member (DD) 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 (SS) agreed that would likely be the case.

A member (MR) was not clear on the rationale for needing ad-hoc requests and felt Users would want SRV 4.8.1 'Read Active Import Profile Data' for MHHS. The DCC (SS) noted the assumption was that Users would collect interval data daily, then take a monthly meter read to validate advances. They also noted there is no equivalent to midnight reads for SMETS1 meters.

Elexon (KS) 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.

The Working Group did not reach a conclusion on these points. These will be revisited and concluded as part of the final October session. The Technical Architecture and Business Architecture Sub-Committee (TABASC) will also be consulted on these points in the interim.

## Next steps

The second October session will be held on Tuesday 12 October. This will be a workshop session to establish Users' anticipated usage patterns and behaviours for MHHS data retrieval and return, to help refine DCC System capacity requirements.

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 consider the DCC's issues noted with the business requirements and provide views on these for the fourth session.