

CCDG Consultation Response Template

Date	17 December 2020	Classification	Public
Document owner	Elexon	Document version	Version 1.1

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Confidential Y	The confidential elements in this response have been removed.		

A Webinar on the consultation will be held in early 2021 if you wish to get an overview of the changes before responding.

Please:

- Email your response to CCDGsecretary@elexon.co.uk by **08:00 (8am) on 26 January 2021**, using the subject line 'CCDG consultation response'.
- Use this Word response form where possible to make it easier for the CCDG to identify and summarise views.
- Provide supporting reasons for your answers to help the CCDG understand your response.
- Identify clearly which, if any, aspects of your response are confidential. We will not publish any information marked as confidential or share this with the CCDG. However, Ofgem will see all responses in full. We encourage you to provide non-confidential responses where possible, to inform the CCDG's discussions.

Email Elexon's MHHS team at CCDGsecretary@elexon.co.uk with any questions. More information can be found on the [CCDG webpage](#)

Question 1. Do you agree that the detailed MHHS TOM design is consistent with the Design Working Group's preferred Target Operating Model?

No

Rationale:

While we broadly agree that the detailed design is consistent with the preferred Target Operating Model (TOM), we are concerned that the solution is potentially being overengineered. Additional complexity is being introduced and changes being made or proposed that are not necessarily required to implement the TOM. This will increase the cost and time to deliver the changes required by the TOM, as well as increasing the risk that errors will arise as a result of misinterpretation of the design.

One example of this is the proposals for appointing agents/services. While there may be some benefit to implementing the approach detailed, it is still possible to implement Market-wide Half Hourly Settlement (MHHS)

using the current appointment processes and would require less change to Supplier (and agent) systems. It needs to be clearer whether MHHS is dependent on a specified change or an element of the detailed design, and where this is not the case the costs and benefits of making this change need to be more clearly articulated, to ensure that it has a business case and delivers value for money. Otherwise, there is a risk that 'nice to have' changes will be made that unnecessarily increase the cost and delivery timescales for MHHS. The Meter Data Retriever (MDR) role is another clear example; while some Suppliers might want to choose to use a third party to retrieve data for settlement on their behalf, it is not absolutely necessary to create a separate role in order to implement MHHS. All Suppliers are required by their supply licences to be able to retrieve HH data and register reads from smart meters via the Data Communications Company (DCC) to provide that data to their customers, and so could carry out the Data Retriever role. The additional costs, especially in regard to changes to the DCC systems, need to be clearly justified by the benefits of enabling other parties to take on this role on behalf of Suppliers, especially as the Smart Energy Code (SEC) funding model would currently mean that the costs of those changes would be spread across all Suppliers, not just those using an MDR.

We remain concerned that the TOM, and the detailed design, only addresses settlement processes and what is required to create half hourly (HH) settlement data for each MPAN. It does not address in any way the consequences of those changes on other non-settlement processes, such as the impacts on Suppliers and their interactions with their customers, or with each other as part of the switching process. In today's world the data used for settlement is intrinsically linked to a number of other processes. As an example, the Standard Settlement Configuration (SSC), which is primarily used for settlement purposes, also underpins numerous tariff and billing functions for Suppliers. Even if SSCs are not required for settlement purposes (and so do not appear in the TOM) it is highly likely that they (or something similar) will continue to be required in an MHHS world as a mechanism for describing how meters are configured for tariff and billing purposes.

Another example would be the Change of Supplier (CoS) reading processes. Currently, CoS reads (D0086s) are generated by a settlement process (defined in BSCP504) and are then used to open and close customer accounts as part of the switching process – ensuring that consumers are not billed twice for the same energy and that billing and settlement align. These CoS read generation processes will not be required for settlement purposes under MHHS, but Suppliers are still likely to bill to register readings and so will need a mechanism to generate and agree CoS readings when customers switch. They will also need to be able to reconcile the data being used in settlement with the data being used for billing. Even something like removing EACs and AAs (which again are not required for MHHS) will have a significant impact on non-settlement Supplier processes, as this consumption information is frequently used as part of contract quoting processes, or as part of energy purchasing and forecasting. Suppliers will still need to carry out these functions under the TOM, but the data they use for this will no longer exist under MHHS and may not be replaced with an alternative that serves the same function.

These wider impacts do not appear to have been considered in any detail to date, if all. This means that the TOM cannot be regarded in any way as an end to end design for operation in an MHHS world. It is not clear that the detailed design for the TOM would deliver the information that Suppliers require to be able to operate effectively under the MHHS TOM, for example to be able to bill their customers, switch customers effectively, or carry out processes such as energy forecasting. The TOM as set out is only one aspect of how the future market will operate, wholly focussed on getting data into settlement. Until the full end to end impacts of these changes are understood and properly accounted for, it would be impossible for Suppliers and other parties to understand how they will operate under the TOM, or to commence any design or build activity.

The structure of the TOM agreed a year and half ago implied more of an evolution from the current market design – the structure of agents and services in the TOM is broadly similar to today, with the role of the current parties (such as data collectors) evolving to be able to process HH data rather than non-half hourly (NHH) register reads. Our expectation was that a relatively minimal amount of change would be required in our Supplier billing systems as a result of MHHS; we would continue to bill our customers largely on the same basis as we do today, but changes would occur to enable the HH data (which in many cases we already collect from smart and advanced meters), to be used in settlement.

Based on the current design, it is increasingly likely that parties, and especially Suppliers, will need to make fundamental changes to their systems, or even re-build them from scratch, in order to operate under the TOM. This will increase the cost and complexity of delivering MHHS as well as making the current timescales for implementation challenging, if not impossible. The potential scale and complexity of the changes required in order to

implement the TOM using the proposed detailed design exceed those that have been required under Ofgem's Switching Programme. It is likely that the time required to deliver these changes will be much longer than suggested in Ofgem's indicative timeline.

As well as these broad themes, we have a number of specific concerns regarding the TOM which are set out in detail later in this response.

Question 2. Do you have any specific comments on the proposed set of detailed data items or associated transition requirements set out for the MHHS TOM

Comments can be in relation to any or all of the areas set out by the CCDG under Section A.

Yes

Rationale:

Measurement Classes and Market Segments

- We question whether Measurement Class data should be set to NULL values as part of transition.
- Would a potential option be to have a new Measurement Class of 'X' which would show the MPAN has been migrated to HH settlement, or would this cause issues with other aspects such as Consumption Component Classes?
- This new Measurement Class could also then be used to drive changes needed for getting HH data from meter to settlements (and any estimation) in a simpler way than is currently proposed, which as noted we believe is overly complicated and over-engineered.

Industry Standing Data

- ISD1.19 (Measurement Class) see note about Measurement Classes above.
- ISD1.22 (Meter Timeswitch Code) and ISD1.30 (Profile Class) – we agree in principle but would really need to see a fuller view in regard to Supply Number changes - if we do not have anything simple for customers then we would suggest freezing and maintaining somehow (but recognise this might be complicated). This section suggests that a new "New Load Shape Category table" will be used to replace Profile Class which might be required, but this seems to be at odds with how Loading Shaping is defined elsewhere which seems to be one shape for everything. It is difficult to fully assess this part without all of the details.
- ISD1.61 (Line Loss Factor Identifier) says it is replacing LLFC id but LLFC id (ISD1.17) is down as a must have so this is not really clear.
- ISD1.63 (Valid Set of Load Shape Categories) – this data item and the related section is not clear, we require further clarification of the proposals in this area.
- ISD1.64 (MHHS Consumption Component Classes) is this just not replication of ISD1.6 (Consumption Component Class) which is down as 'must have'?
- There is a statement on page 79 that "The CCDG agreed that it would be desirable to split the Distribution Use of System (DUoS) LLFC ID from the LLF, so that they are two separate data items". There are no reasons given for this decision and it is not clear from this document – we would welcome further explanation especially as LLFC ID is being maintained so this just seems to give rise to duplication of data.

Registration Data Items

- We are not sure why consent granularity and date are required to be held in the registration system as it would seem that it is only relevant to current registered Supplier and their appointed agent, and so could be shared bilaterally between those parties.

Meter Technical Details

- We disagree that D0149/D0150 data is redundant as it is required for non-settlement reasons, especially to understand the details of the SSC and the tariff configuration of smart meter in an easily tractable form.
- Whilst it is true that the Metering Service or the Data Service will not need to have any knowledge of how the Supplier has programmed the registers within a smart meter, this data is incredibly useful for any prospective

Supplier and the easiest way to have this is to keep SSCs. Everyone knows how these work and should already have processes to decode switching timings, meaning nothing new has to be created. It is easier and cheaper to maintain this data than to recreate something different for the same purpose.

- The main reasons for maintaining SSCs are:
 - o They are very useful for customer discussions as they allow quick look up of any switching times for quoting/acquisition processes. For example, if a customer is moving to a new house and wants to stay with the same Supplier it enables them to quickly assess the new contract and the likely setup they would need as they may be unaware, e.g. they have storage heaters in the new property and so need Economy 7 style set-up.
 - o The majority of consumers will not want HH bills but will prefer to keep bills as now with start and end reads for registers which they can easily check for correctness. SSCs are used to provide data of register timings on bills which would still be useful for consumers.
 - o To manage networks for Distributors, particularly in North Scotland. If SSCs are removed it is not clear how will load switching times will be managed, which then poses a possible risk to network security, i.e. managing Load Managed Areas Scottish and Southern Electricity Networks (SSEN) have just set-up over 100 new SSCs in order to manage the cutover from Radio Teleswitch (RTS) meters to smart in order to maintain geographic switching timings, removing SSCs will make this process redundant but not address the underlying requirement to manage load switching regimes..
- There is also a lot of combination data that might need to be frozen and kept in Market Domain Data (MDD) that we might identify as necessary over next few years, therefore we should determine process for assessing and amending this table. There are other data items that we might want to keep such as Clock Interval (ISD1.4) if SSCs and Time Pattern Regimes (TPRs) are just frozen and left in MDD.
- It is not clear how the new “Auxiliary Load Control Switch (ALCS) connected” data items are going to work as there may be no way of finding this out for existing installed meters until the next site visit.
- We would need further information on how the use “Effective from Settlement Date {MSMTD}” that is proposed to be added to the D0312 would be used and especially how it would be validated. This might help prevent incorrect updates being made when ‘old’ data is sent on the flow, at the same time it might increase the volumes of rejections which could lead to the data held being out of date, and additional resource to resolve the rejections.

Question 3. Do you agree that the TOM should not include a process for correcting Settlement volumes associated with ETs?

Yes

Rationale:

Ideally it should be possible for Suppliers to be able to adjust the settlement volumes during the period of an Erroneous Transfer (ET) to re-allocate the energy to the other Supplier and align settlement volumes with customer billing.

However, we recognise that this is technically complex to achieve when settlement is using HH data rather than register readings, and that the cost and complexity of any solution is likely to be disproportionate to the benefit to be gained. This is especially the case where the volumes of ETs have been falling over time and should reduce even further as a result of the changes being made by the Switching Programme to improve the accuracy of the switching process. The negative settlement impact resulting from an ET may also act as a further deterrent to Suppliers and provide further encouragement to prevent ETs from occurring in the first place.

Question 4. What impact would the lack of a process to correct ET Settlement volumes have on your organisation?

Response: N/A

Rationale:

[confidential information removed]

Question 5. Are there any non-Settlement reasons why your organisation would require new Related MPANs to be created in the target end state?

Yes

Rationale:

New Related MPANs will need to be created in the target end state, in order to be able to offer consumers tariffs that suit their circumstances, and which meet the needs of Network Operators. The existing Related MPANs in the market are likely to be retained and will be difficult if not impossible to engineer out. In our view the existence of Related MPANs should not create any issues from a settlement perspective as each MPAN in the relationship will have its own separately recorded consumption (usually actual HH data obtained from a smart meter but potentially also register reads in some circumstances) that will be able to be used in the settlement process. The settlement processes in the target state must be able to cope with these metering set-ups appropriately; changes to settlement should not unnecessarily restrict the tariffs that Suppliers are able to offer our customers.

Related MPANs will be required for billing customers and must be supported by the settlements process. These have to be retained to enable customers to continue to be billed to register readings, and to maintain timing diversity; especially in North Scotland where SSCs are used as part of the process for managing Load Managed Areas. We noted the statement that “under MHHS there is no need to retain the Related MPAN association provided a single set of Half Hourly (HH) data can be provided for all the active import energy consumed at a site. Meter variants to provide this data are becoming available and should eventually allow discontinuation of the Related MPAN requirements”.

While a single smart meter could collect all HH energy and settle Suppliers would not be able to bill correctly where each HH period has energy for lights, water and space heating being collected on one meter where these are charged at different rates. The increased penetration of Electric Vehicles (EVs) over the coming years is likely to increase rather than reduce the need for such tariffs. If it is the case that we would need to have three smart meters to collect data for billing and send aggregated HH advances across these meters for settlement purposes, then need to know how each smart meter is configured. This is best achieved by three MPANs each with an SSC as that will have been developed before we move to mandatory HH settlements.

In North Scotland, current RTS Related MPANs will in some cases require three meters to be able to manage and bill the customer. If for any reason one of these meters cannot provide HH data, it is not clear how settlements will work for these scenarios. If related MPANs are not used in this case this could lead to network issues as there is no control that Distribution Network Operator (DNO) would have when heating switches on. In our view Related MPANs are required to enable effective billing of customers and may require SSCs and LLFCs to be retained in some circumstances as is as this also allows Load Shapes to be created for restricted hours setups rather, than forcing all of them to one type of shape, i.e. for E7 and E10.

Example:

Current RTS related MPANs MPAN X and MPAN Y have SSCs 0802 (Two rate with 8 hours night – 23:30 to 07:30) and 0803 (Dynamic – Heating of between 5 and 12 hours a day in up to four periods depending upon weather in Central Highlands. Heating will be in up to four periods with no more than 5.5 hours between 08:00 - 16:30.).

For replacement with a Smart meter a third MPAN is required to be added into relationship. This does make the process complex as a new MPAN has to be created and registered and then meter exchange on existing two and install on new MPAN can take place. This is because new SSCs and data would be expected to be:

MPANX SSC 0054 (Clock Interval Two rate – 23:30 to 07:30)

MPANY SSC 0061 (Clock Interval mirrors TRS GC 15 Water – 03:00 to 06:45 and 15:30 to 17:00)

MPANZ SSC 0068 (Clock Interval mirrors TRS GC 15 Heat – 03:30 to 07:00 and 12:00 to 15:30)

For current settlement process, and based on discussions we have had internally, MPANX and MPANY would require a twin element five terminal meter and MPANZ a four terminal meter to support current settlements processes and to allow billing over four registers. We would need to understand how one MPAN with a single smart meter could ever maintain this configuration or if one MPAN could do this whether this would still require multiple smart meters. Using multiple smart meters on a single MPAN creates additional complexity in the CoS process which would need to be part of the design, as noted above it is not at all clear how the CoS process will work under the TOM. For the current CoS journey, we can quote accurately and maintain the tariff configuration without the need to interrogate DCC inventory; this only works provided current Supplier has same understanding. Failure to support existing metering configurations in the TOM could lead to loss of this diversification for such MPANs, which then increases the risk of network faults if no re-enforcement actions are taken by the DNO.

We would be happy to discuss these concerns further to explain our understanding and how it is envisioned that these scenarios would be accounted for in the TOM through a single meter. Based on our current understanding, we do not see how this could be managed with a single smart meter, or how this would work in new world without Related MPANs if customer did not want HH billing.

Question 6. Do you have any specific comments on the proposed detailed processes, or associated transition requirements, set out in Section B for the MHHS TOM?

Yes

Rationale:

Non-Smart Meters with Switched Load

- While it is positive that non-smart meters with a switched load capability have been accounted for in the TOM design, it is not yet clear whether the proposal for the consumption on the 'low' register to be allocated to the Settlement periods for most common switching regime (00:30 to 07:30 or 00:00 to 07:00) for the GSP Group will result in accurate allocation of energy. This will depend on the residual volume of non-smart meters installed and how they are configured – for example if the residual population is largely composed of Economy 10 or other similar switch load tariffs then the proposed process is likely to result in inaccurate allocation of energy in the load shaping process.
- A non-Switched Load shape customer in the Smart segment that doesn't share their HH data would be assumed have a profile similar to those customers who do share their HH data. The 'switched shape' customers have an incentive to share HH data to ensure volume is against the lower cost night periods, so they might disproportionately impact the profile applied to those who don't share and increase the GSP Group Correction Factors (GSPGCF) for the day period.

Registration: Appointments and Confirmations

- While there may be some benefit to be gained by using the Supplier Meter Registration Service (SMRS) to appoint agents, the proposed process also introduces additional complexity to the current 'bilateral' process by making SMRS an additional participant in the process, and therefore an additional point of failure. It is not clear how any exceptions that arise as a result would be managed.
- We are concerned that this takes control away from the Supplier as it is not clear what (if any) information will need to be shared bilaterally between Suppliers and agents, such as service levels and contract references. Will this information be sent on each appointment that is made via SMRS or would this be sent separately between Suppliers and Agents; in the latter case two separate interfaces are being used for a single process which increases the complexity of the process.

- We welcome the introduction of the new Registration data items that would identify whether agents/services are appointed as the result of a direct contract with the customer, but there is not sufficient detail on how these data items would be populated and maintained, or how they would be used as part of the end to end process for appointing agents.
- We require further information as to subdividing the existing Meter Operator (MOP) market role ("M") into Metering Service Smart (MSS) and Metering Service Advanced (MSA) variants would work, to be able to assess the impact on both our Metering and Supplier systems. Currently MOP is a single market role and our systems are designed to support that role, and to operate in both the NHH and HH markets. It is not clear what changes might be required to our existing systems to enable them to operate under both the MSS and MSA variants. As noted above we are concerned that this might require significant re-engineering or even replacement of our systems, which would be unnecessary given the actual change to the role of the metering service compared to today is quite small.
- There is not enough granularity on how this will work in detail to be able to think about starting any design.

Change of Market Segment and Change of Data Service

- This is another example of something that is potentially being overengineered and adding complexity to processes that largely works today, where Suppliers co-ordinate any change with their Agents and notify SMRS retrospectively of the changes that have been made.
- The new process seems to be an over complication of what is required and adding in functionality that would seem unnecessary – it is only really necessary because of the proposed changes to the appointment process and is not really any value to the settlement process.
- We assume Electricity Central Online Enquiry Service (ECOES) data would not be updated with a future change of market segment, as this would possibly give false data to any prospective future Supplier, especially if the customer decides to move before and future change. However, that is not clear in the document. If this is seen in ECOES then it could complicate the CoS journey if what is shown (and used as the basis for quoting) is not accurate – for example if the current Supplier cancels site work due to the impending CoS.
- The statement "The current Metering Service may agree with Supplier that when a 'change of segment indicator' (CoSI) is set they will not attend to resolve a meter fault, which would be pointless as the meter is about to be changed" cannot be correct as it suggests customers can be allowed to go off supply as the result of a fault, which is clearly inappropriate. In practice, either the CoSI would need to be brought forward, or a decision made to replace like for like and remove the CoSI.
- Additional rules required for export MPANs – we need to determine what information is communicated to parties on CoS for either import or export. For example, if the import Supplier changes, the new Supplier will want to appoint their agent and so the export MPAN Supplier needs to know and be able to accept a new Meter Service Agent. We agree that there should be some link between import and export, and to ensure that the export is linked only to the Primary MPAN in the case of the import being a Related MPAN set-up.
- Licensed Distribution System Operator (LDSO) changes to the connection type – we cannot see that a process on how this is to be managed is actually specified. Is this still to be worked on as an exception process?
- Wrong meter is fitted - should this not just be a retrospective update as now to align the segment to the meter actually installed?

Grid Supply Point (GSP) Group Correction

- At the start of the transition existing scaling weights will be amended, creating a GSPGCF 'risk' for Suppliers of Unmetered and Advanced customers (as these customers are not currently impacted by the GSPGCF). Business customers are currently pushing back in the gas market where it is proposed losses from theft should be applied to them and a similar reaction might be expected for electricity correction factors.
- Inaccuracies in Scaling Weights would result in inequitable apportionment of Unallocated Volume across customer classes, potentially creating winners / losers and opportunities for gaming. We can't see any evidence to support the proposed weights and how they have been arrived at.
- Inaccurate apportionment would be aggravated when GSP volumes are incorrect. These can take months or years to resolve and would increase the frequency of Dispute runs. Customers may change Supplier during that time and costs (benefits) at correction may not be recovered (note: there are currently a number of GSP metering issues being investigated).
- The inexact alignment of Scaling Weights between Legacy and Smart might create incentives/disincentives to move to the TOM arrangements.
- We are aware of a further review of the GSPGCF approach again in the near future, potentially including ToU Scaling Weights to mitigate gaming risks where customers chose not to share their half-hourly Smart data. This suggests that the TOM proposals are incomplete.
- To de-risk the transition period it might be prudent to maintain alignment of Legacy / Smart Scaling Weights and continue to use zero weights for Advanced meters. The additional complexity could be introduced later once the TOM is proven to be stable. perhaps first by including export and then introduce the elaborations around meter

reading and network quality. We would expect that all the functionality can still be built in advance and the timing of these changes controlled through Scaling Weights updates.

- Generally, the approach looks sensible, but the effectiveness depends heavily on the appropriateness of the Scaling Weights (which must be very difficult to calculate). We would recommend separating out any apportioned Unallocated Volume in the industry data flows that publish Consumption Component Class (CCC) volumes in the same way that losses are currently isolated, for full visibility (if not already included in the design).

Question 7. Do you agree that the detailed MHHS TOM design meets Ofgem's Design and Development Principles?

No

Rationale:

As noted previously we believe that the design is potentially being over-engineered. While in many cases the design may meet the Design and Development Principles, there may be simpler approaches which would achieve the same outcome. Also, as previously noted, a number of the changes being proposed do not seem to be necessary to deliver the TOM or to enable the Design and Development Principles to be met.

We also have the following specific concerns.

- Settlement timetable – while the CDDG's design does not present any specific barriers to achieving a four-month settlement timescale, it does not explicitly explain how this timescale would be achieved as a result of the design. Specifically, the design does not address the issue of non-smart meters that would need to be read manually, and the impact that reduced settlement timescales would have for those meters. We have previously noted that moving to a four-month Final Reconciliation (RF) window should not drive Suppliers to need change behaviours or incur additional costs, for example through taking additional manual readings or needing to fix faults more quickly than we do now. Moving to shorter settlement timescales should only happen if the data that is being collected and processed indicates that you could move to four months without a negative impact on settlement, with no other change.
- Data retrieval and processing – the creation of the MDR role and the potential changes to the SEC and DCC systems required to support this role are not simplifying the process for retrieving and processing data, especially for Suppliers who might not choose to outsource the data retrieval to a third party.

Question 8. Do you believe that all the major changes to the Industry Code documents required to deliver the MHHS TOM have been identified?

Yes

Rationale:

While it appears that the major changes to the Industry Code documents have been identified, we have not been able to review this content in detail due to the limited timescales for this consultation.

Question 9. Do you think there are any drivers for changing the scope and/or structure of the BSCPs impacted by MHHS?

No

Rationale:

There do not seem to be any clear drivers for changing the scope or structure of the Balancing and Settlement Code Procedures (BSCPs) impacted by MHHS. As noted in the consultation, parties are familiar with the existing structure of the BSCPs, and they capture information in a logical and structured way.

What should be considered is how the accessibility of the BCSPs might be improved, for example as the result of the digitisation approach which most industry codes seem to be embracing. The consultation notes that the BSCP scope could be split by process or by role – through digitisation it should be possible to retain the current BSCP structure but to present those views by process/role views to those parties that require them.

Question 10. Do you have any other comments?**Yes****Rationale:**

Given the breadth of the material included in this consultation, it is disappointing that a relatively short time has been given to respond which has limited our ability to review all of the material in detail. This was exacerbated by issuing the consultation just before Christmas, and at the same time as other consultations (specifically the Ofgem REC v2.0 consultation) which created a resource conflict. We are concerned that these factors will have limited parties' ability to fully review and respond to the proposals in the consultation and identify issues that will impact the design of the new settlement arrangements.