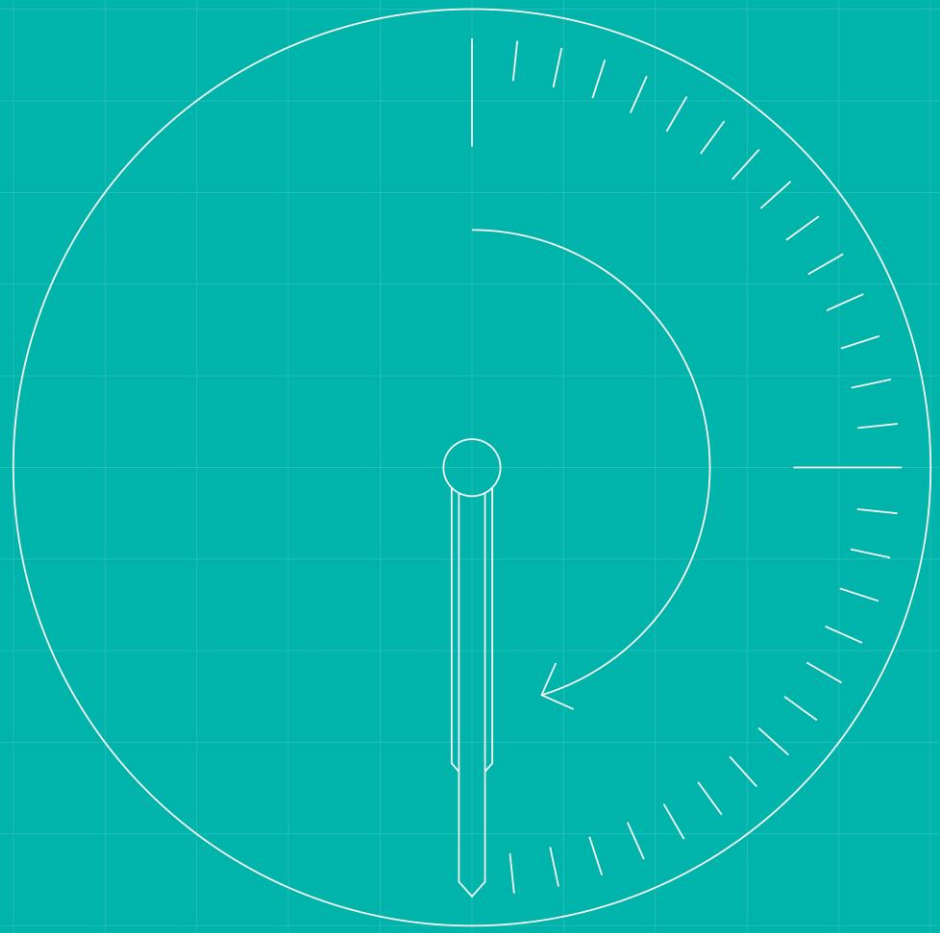
UTC vs Clock PPIR Response Analysis and expected Design Artefact changes



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The Context

- The Design Team took an action from DRG 9 to explore options around Service Appointment times and the impacts they would have on MHHS Design with the intention to recommend an option to DAG
- We engaged the impacted Participant Constituencies' DAG reps to either contribute or nominate contributors
- During these workshops, it became there were two separate, though interrelated questions that needed answering:

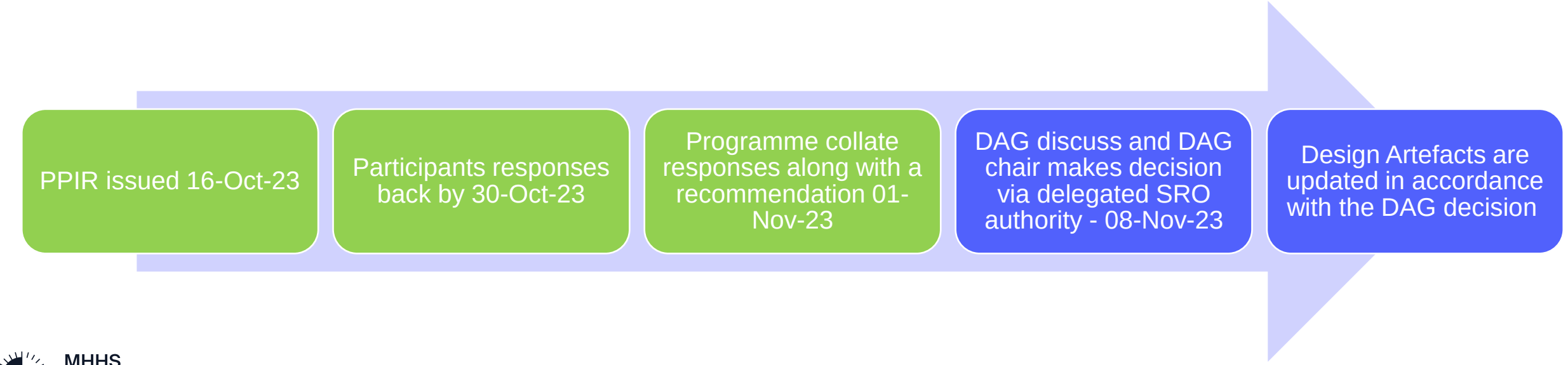
1. ***Should CoS reads be aligned to UTC Midnight or matched against Supplier Registration (Clock midnight)?***
2. ***Should Service Appointment times be aligned to UTC Midnight or matched against Supplier Registration (Clock midnight)?***

- Of these sessions was presented to DAG on the 11th October, but opinion within DAG was divided as to the best option to proceed with

PPIR

- Following direction from the DAG chair we are issuing a Programme Participant Information Request (PPIR) to request Participants' input on these subjects:

1. ***Should CoS reads be aligned to UTC Midnight or matched against Supplier Registration (Clock midnight)?***
2. ***Should Service Appointment times be aligned to UTC Midnight or matched against Supplier Registration (Clock midnight)?***



Response Assessment and Recommendation

- We had a good number of constructive contributions from a wide selection of Participants
- Opinion was divided on the best option for both subjects although every responding Participant was consistent in their responses when opting for either Clock or UTC
- The one consistent opinion through the piece was that in an ideal world there would be consistency across the industry but that is outside the scope of this Programme
- While opinion was divided, there was a majority on both topics to choose Clock Time options
- Taking this into account and reviewing the Participant feedback, the programme has ultimately been swayed by two key arguments, and the impact they have on the underlying benefits case for MHHS:
  - **Customer Experience:** Customers expect to be billed to their CoS date and time which is clock midnight. MHHS exposes any misalignment to those customers so that misalignment should not be present
  - **Settlement Accuracy:** Use of Actual data for both Change of Supplier reads and Settlement calculations ensures more accurate settlement calculations

Programme Recommendation

- Change of Supplier reads: **Option 2: Adjust to Clock Midnight**
- Service Appointment Times: **Option 2a: Clock with Actuals**

The DAG are requested to advise the SRO on the decision below:

DECISION [79]	**SRO to approve the recommendations above regarding CoS reads and Service Appointment times alignment to Clock time**

Next Steps

- Subject to approval, the relevant design artefacts will be updated accordingly

Voting by Constituency

Constituency	Change of Supplier Reads			Service Appointments		
	UTC	Clock	N/A	UTC	Clock	N/A
Large Suppliers	0	1	1	0	1	1
Medium Suppliers	1	1	0	1	1	0
Small Suppliers	0	0	0	0	0	0
I&C	0	2	0	0	2	0
DNOs	0	2	0	1	2	0
iDNOs	0	0	0	0	0	0
Ind. Agents	5	0	0	5	0	0
Supplier Agents	0	0	0	0	0	0
S/W Providers	0	1	1	0	1	1
REC Code Manager	0	0	0	0	0	0
National Grid ESO	0	0	0	0	0	0
Elexon (Helix)	0	0	0	0	0	0
DCC	0	0	0	0	0	0
Avanade	0	0	0	0	0	0
	6	**7**	**2**	**7**	**7**	**2**

CoS Read Comments

Programme Parties	Range of respondents' views on benefits and concerns (related to the approach in CR032)
Large Suppliers	• If UTC, Smart customers will not readily understand why a UTC reading is taken for the CoS gain opening meter read for the 6 months of BST - the opening read is one that customers are particularly interested in • The opening read will not align to the IHD display which is in local time - this will result in increased customer contact and is a potential cause of complaints. • Clock Time aligns better with customer expectations & experience - dificult to explain/ justify why the registration of the supply does not align to the reads. • Option two addresses the core benefit the programme is trying to deliver which is more accurate settlements on suppliers which can be passed down to the consumer.
Medium Suppliers	• Option 2: Customer billing and Suppliers settlement will have much clearer approach
Agents	• Customers at a SMART level will not notice this change as they are currently being billed on UTC reads and at an advanced level they are billed on HH data • Our design currently considers the DS or MS Effective from Dates to be effective from the UTC Settlement Date and therefore aligned to the consumption data that we will receive for the Meter • Option 1, for the reasons outlined above is the preferred way forward and requires a relatively small change to our design. • Suppliers are currently using the UTC readings provided by SMART meters for COS anyway • For smart meters (the largest number of customer in MHHS steady state) a midnight UTC reading would align with the data suppliers would be able to retrieve from a DCC serviced meter
I&C	• Clock time aligns the Change of Supplier read with settlement reporting and does not lead to the MHHS design providing a sub-optimal treatment of COS reads in comparison to the pre-MHHS arrangements. • Clock - the COS read provided for customers will align with that used for Billing. • It aligns with our current approach to settlement and billing and therefore should avoid workaround costs in the billing system • Consumers will expect to be billed by the outgoing and incoming supplier to a common read, which is aligned to their Change of Supply date and time • Current assumption - CoS Reads are aligned to Supplier Registration
DNOs	• Option 2 has a more positive impact on customers as their first Supplier bill from their new Supplier will be based on data that aligns to their belief/contract start date of when they changed Supplier • Option 2 reduces complexity of using data within billing processes and ensures impact on customers is minimised
Software Providers	• Meter reads is a currency for suppliers and customers. Since a supplier/customer contract (CSS registration effective) starts at midnight local time the CoS read should align to this. • Option 1 could lead to errors in calculations for time-of-use tariffs • Option 2 could add complication, because the read received from DCC will not be the read used for the CoS.

Appointment Times Comments

Programme Parties	Range of respondents' views on benefits and concerns (related to the approach in CR032)
Large Suppliers	• We have assumed that local time would be implemented so that appointment aligns to the Registration in CSS and our understanding is that the appointments take effect in local time • As the registration is local time the customer will not readily understand why the appointment is different during BST in the event of any problems in service in last hour of a switch at CoS gain • Clock time - No impact to functionality which was previously believed to be outside the scope of MHHS
Medium Suppliers	• We had previously assumed that service appointments would commence at the point of receipt of CSS_SECURED_ACTIVE • Clock aligns the suppliers MPAN ownership and Services appointment to the local time in summer or winter periods. Clear responsibility relating to retrieval of meter reads / HH data for smart meters. • If there is a change to clock…we are concerned that this creates another item that could slow entry into SIT functional
Agents	• Our design currently considers the DS or MS Effective from Dates to be effective from the UTC Settlement Date • Option 1 only requires updates to baseline document to support the sending of the IF-021 to the new supplier in summer time. Option 2a and 2b would require additional updates to ensure all baseline documents have service appointments in clock time. • Option 1 - Its the current design, it matches how settlement will function.
I&C	• Our design expects to appoint an at Clock midnight to align with supply liability • Most consumers will be unaware of Agent Appointment times. Those who utilise their own arrangements with agants, would expect appointments to be made at midnight Clock • We prefer Option 2B to 2A as although it uses estimation for the two problem settlement periods, it aligns with contractual start and end dates and avoids the Data Service sending reads for periods where it is not contracted
DNOs	• We have assumed that LDSOs will receive all IF-021s (and any necessary IF-014s/IF-013s), regardless of option approved • Option 2a should align service appointments with Supplier registrations which are already in clock time for consistency • Option 1 - Durabill & Settlement operates within this already - with estimates already given for missing reads
Software Providers	• Agent appointments should align with SSD which is in local clock time. • Option 1 and 2a require SDS to send IF-021 to Supplier they are not appointed to and requires functionality to receive, store and identify the new Supplier. Option 2b requires manufactured CoS read.

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MHHS Design Artefact Changes to Support ‘Clock time’

8th November 2023 – v0.4

SC/MF

- **General Clarifications**
  - **The term ‘clock time’ has been used through this document, however, the terms ‘clock time’ & ‘local time’ are interchangeable**
  - **BP002 & BP003 Service Provider Appointment ~** addition of ‘purple note’ to confirm that appointments become effective as of Midnight clock time
  - **BP003C Transfer of Readings on Change of Data Service ~** addition of ‘purple note’ to confirm that readings are at Midnight clock time
  - **DES138 DI-830 & DI-833 [Proposed] Service Provider Effective From Dates ~** add guidance note that these should be populated with Midnight local time.
  - **DES138 DI-827 & DI-824 [Confirmed] Service Provider Effective From Dates ~** add guidance note that these should be populated with Midnight clock time.
  - **Add new Section to DES138 Registration Notes ~** to describe the formatting options for the submission of date/times, with both UTC & Clock time examples e.g. YYYY-MM-DDTHH:MM.SS±TZH:TZM → 2023-07-19T23:00:00.00±00:00 or 2023-07-20T00:00:00.00+01:00
  - **Revise Validation rules for IF-031 ~** to ensure that Proposed Service Provider Start Time equates to midnight clock time
  - **Revise population notes for IF-041 ~** to make it clear that Transfer Readings [only] Date/Time should equate to clock time.
  - **IF-037 Block B002 Incoming Supplier Information** – this would be required for [DSDeApp] event

- **‘Appointment Related’ Requirements (MS & DS)**
  - Currently Appointment related Requirements reference the commencement / ending of appointments, based on the “receipt and processing” of the relevant PUB message, and do not reference a specific time per se
  - However, in order to provide further clarity around the commencement / ending of appointments the following requirements have had the ‘additional information section’ updated as follows :
  - [Updated] **BR-DS-018, BR-DS-030, BR-DS-030.1, BR-DS-030.104 (DS) and BR-MS-005, BR-MS-009, BR-MS-009.1, BR-MS-040 (MS),** *‘de-appointment’ requirements,* have been updated to state that “all appointments cease to be effective from one second to midnight clock time” i.e. 23:59:59
  - [Updated] **BR-DS-002, BR-DS-003, BR-DS-013, BR-DS-029 BR-DS-029.1 (DS) and BR-MS-007, BR-MS-008, BR-MS-008.1, BR-MS-030 (MS),** *‘appointment’ requirements,* have been updated to state that “all appointments become effective at midnight clock time” i.e. 00:00:00
- **‘Appointment Related’ Requirements (Registration Service)**
  - [NEW] **BR-RS-004.3, ~** Registration Service must ensure that all Service Provider appointments take effect at midnight clock time, and de-appointments take effect at one second to midnight clock time ie. 23:59:59

- **Splitting of Consumption Data on COS Day, during BST only (Data Service)**
  - **[New] BR-DS-094.3** ~ Data Service must, as a result of a Change of Supplier de-appointment, split Consumption Data on the day of their de-appointment, during British Summer Time, into two separate IF-021 messages. The first 46 half-hours UTC Consumption Data should be shared with the Outgoing Supplier. Half-hours 47 and 48 UTC Consumption Data should be shared with the Incoming Supplier, as notified within the IF-037 de-appointment message.
  - **[New] BR-DS-094.4** ~ ADS must, as a result of a Change of Supplier de-appointment, split Reactive Data on the Day of their De-appointment, during British Summer Time, into two separate IF-021 messages. The first 46 half-hours UTC Reactive Data should be shared with the Outgoing Supplier. Half-hours 47 and 48 UTC Reactive Data should be shared with the Incoming Supplier , as notified within the IF-037 de-appointment message.
  - *It is assumed that 'splitting of data' is only required for Change of Suppler, however the reading adjustment will take place for both COS and Change of Service Provider, during BST (Ref. next slide)*
  - *It is assumed that no changes are required to MDS requirements around consumption defaulting, as these should already be based around CSS Supplier ownership periods, which are [already] in clock time.*
  - *For the avoidance of doubt, consumption data should still be allocated for each settlement day which consists 'settlement periods', lasting for the defined 'settlement period duration', starting at midnight 00:00:00 UTC time and ending at 23:59:59 UTC.*

- **Estimation of Midnight UTC Reading, during BST only, to provide an 'clock time' COS Transfer Reading (SDS Only)**

  - **[Updated] BR-DS-024.1** ~ Outgoing SDS must, after 5 working days following de-appointment, in the absence of an actual valid read for a Smart meter, send an estimated cumulative read for midnight (Clock time) on the day following the de-appointment (i.e. if effective de-appointment is 23:59:59 Clock time on 1st Jan then read point should be 00:00:00 Clock time on 2nd Jan) to the new SDS and new/old Supplier via the appropriate interface. Estimates should be determined using the Smart Validation & Estimation Method statement

  - **[Update] Smart Validation & Estimation Method Statement** – an update will be required to define the exact mechanism for estimation in this circumstance. The expectation being this is simply a further application of the existing estimation methodologies.

- **Adjustment of an 'Actual' Midnight UTC Reading, during BST only, to provide an 'clock time' COS Transfer Reading (SDS Only)**

  - **[Update] BR-DS-024.2** ~ Outgoing SDS must, within 5 working days following de-appointment during Greenwich Mean Time, on retrieving an actual valid read for a Smart meter, send the actual cumulative read and register reads for midnight on the day following the de-appointment to the new SDS and new/old Supplier via the appropriate interface.

  - **[New] BR-DS-024.3** ~ Outgoing SDS must, within 5 working days following *any* de-appointment during British Summer Time, on retrieving an actual valid read for a Smart meter, adjust the reading to midnight clock time in line with the Smart Validation and Estimation Method statement. Data Service must send the adjusted actual cumulative read on the day following the de-appointment to the new SDS and new/old Supplier via the appropriate interface. Where a Data Service chooses to send register reads these should also be adjusted in the same manner.

  - **[Update] Smart Validation & Estimation Method Statement METH001** – an update will be required to define the exact mechanism for estimation in this circumstance. The expectation being, this is simply a re-use of existing estimation methodologies, within a new context.

- **Clarification on Exchange of COS Transfer Readings (SDS Only)**
  - **[Update] BR-DS-025.1** SDS must be able to receive and process estimated cumulative closing reads sent by the previous SDS via the appropriate interface. Where SDS has retrieved its own data, SDS could compare data received from the old Data Service (noting that this will be a midnight clock time read) to ensure no significant discrepancies. SDS should use the best (clock time) data available for its starting position.
  - **[Update] BR-DS-025.2** Incoming SDS must, for smart meters, send the opening cumulative read and, where available register reads, for midnight clock time on the day of appointment of the new SDS to the new Supplier via the appropriate interface.
  - *It is assumed that, as the current design does not deal with Advanced Data Services exchanging COS readings, that no change(s) are required for ADS with respect to COS Transfer Readings.*