

# HEADLINE REPORT

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<b>MEETING NAME</b>	Code Change & Development Group – Market-wide Half Hourly Settlement SCR
<b>Meeting number</b>	05 Part A
<b>Date of meeting</b>	21 April 2020
<b>Purpose of paper</b>	Information
<b>Classification</b>	Public
<b>Synopsis</b>	Summary of Part A of the fifth CCDG meeting and actions arising.

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## 1. Introduction, apologies and meeting objectives

### CCDG05 meeting objectives

- 1.1 The Chairman confirmed that, due to COVID-19, CCDG05 is being held as two separate Skype meetings:
- This Part A focuses on progressing outstanding areas of the straw men and related actions on the detailed design of the Target Operating Model (TOM)
  - A further Part B on Friday 1 May 2020 will focus on:
    - Reviewing the Code Change Matrices completed by ELEXON and other code bodies, which tabulate the impacts on BSC documentation and other impacted Industry Codes
    - Answering ELEXON's questions on aspects of the BSC legal drafting approach, which will help determine the final content of the matrices.

### High-level plan for CCDG06 and CCDG07

- 1.2 Following the CCDG's agreement at [CCDG04 Part B](#) of its activities for April-May 2020, ELEXON [presented](#) high-level suggested agendas for CCDG06 on 19 May and CCDG07 on 16 June 2020. It also suggested potential internal ELEXON activities for the rest of June and July 2020. The Chairman invited members to comment on this approach in light of COVID-19 priorities and resourcing.
- 1.3 The CCDG agreed to proceed with this approach for the time being, but to continue to review its ongoing feasibility on a regular basis. The CCDG agreed with ELEXON's suggestion to revert to a single meeting per month from CCDG06 onwards, to keep activities manageable. It also agreed to hold both the 19 May and 16 June meetings by Skype, even if ELEXON's office reopens. The CCDG agreed that this will help reduce the pressure on members to travel when they may be still be dealing with COVID-19 operational priorities and/or covering for furloughed colleagues.
- 1.4 ELEXON confirmed that it will ensure that the scope of the 19 May and 16 June meeting agendas remains feasible for shorter (e.g. three-hour) Skype meetings.

### Impact on CCDG consultation

- 1.5 ELEXON advised that the intention is to keep progressing the CCDG's deliverables that would have fed into its June 2020 consultation, but adjusting the ordering/timing of these as may be needed to keep them achievable. ELEXON noted that the consultation itself is likely to be pushed back anyway, so as not to burden industry with less time-critical work during the pandemic. ELEXON highlighted that this will also give time to complete the deliverables from the newly-established joint subgroup of the CCDG and Architecture Working Group (AWG, see item 2 below).
- 1.6 ELEXON advised that, if all CCDG pre-consultation deliverables are agreed by the 16 June meeting, it can then use the rest of June and July to start drafting the consultation ready for review. ELEXON suggested that it can also use this time to publish updates and/or pre-recorded presentations on the work done by the CCDG

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to date. It noted that, depending on the COVID-19 situation, the CCDG's work might then need to pause until it can issue the consultation.

## Consequential impact on AWG deliverables

- 1.7 ELEXON highlighted that a delay to the CCDG's consultation will also have a knock-on impact on the AWG's work plan. This is because the AWG needs the CCDG's agreed (post-consultation) business requirements for the detailed TOM design before it can finalise and consult on its proposed solution architecture.

## Work plan next steps

- 1.8 ELEXON confirmed that it is still discussing the adjusted CCDG and AWG work plans with Ofgem.
- 1.9 No CCDG members indicated that their resourcing situation has changed from that discussed previously at [CCDG04 Part B](#). ELEXON agreed to continue reviewing this with the group at each meeting and asked members to let it know if anything changes.

## 2. Updates from other work streams:

### Significant Code Review (SCR)

- 2.1 Ofgem highlighted that it has [published](#) the results of its work prioritisation exercise, undertaken in response to COVID-19.
- 2.2 Ofgem advised that it has finalised its draft Impact Assessment for Market-wide Half Hourly Settlement (MHHS) and still intends to publish this in early May 2020 for transparency. However, it will not set a deadline for responses at this time. The eventual window for responses, once set, will not be less than 10 weeks.

### Other code bodies

- 2.3 Ofgem confirmed that the Code Change Matrices for the BSC, Master Registration Agreement (MRA) and Distribution and Use of System Connection Agreement (DCUSA) will be ready to present at CCDG05 Part B.

### Architecture Working Group (AWG)

- 2.4 ELEXON [presented](#) a brief update on the work that the AWG, and the joint CCDG/AWG subgroup, has been undertaking since CCDG04 Part B:
- The AWG has met on 24 March (see [AWG04 Headline Report](#)), held a checkpoint on 7 April and will next meet on 28 April
  - The joint CCDG/AWG has met on 1 April and 20 April 2020, and is currently arranging its next meeting
  - The subgroup is identifying the lower-level business requirements for data exchange between TOM services, so that the AWG can complete its interface specifications
  - ELEXON and Ofgem are producing a plan of subgroup deliverables, with a current end date for these deliverables of July 2020
  - ELEXON will run this plan past the subgroup members shortly, to confirm its feasibility, before sharing it with the CCDG and AWG
  - ELEXON is considering the best way to present the subgroup's deliverables to the CCDG and AWG.
- 2.5 ELEXON confirmed that it will provide a more detailed update at CCDG06.

## 3. Load shaping methodology for Register Read Meters with switched load

- 3.1 Following the CCDG's agreement of a potential solution at [CCDG04 Part B](#), ELEXON presented updates on its actions from that meeting.

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## Update on Action 04/08

- 3.2 ELEXON [presented](#) the conclusions of its analysis on the difference between using Estimation Methods 6 or 7 to create adjusted Load Shapes for Register Read Meters with switched load. It noted that it has circulated the full analysis to CCDG members.
- 3.3 ELEXON advised that the analysis shows that Method 6 is more accurate, as it normalises across the Meter read period and allocates the Meter Advance accurately. In contrast, Method 7 tends to over-estimate at the start and under-estimate at the end of the period modelled.
- 3.4 The CCDG therefore agreed to use Estimation Method 6, with Method 7 as a fall-back where no Meter Advance is available.

## Update on Action 04/09

- 3.5 ELEXON [presented](#) its tabulated counts, by GSP Group, of the switched load Standard Settlement Configurations (SSCs) for Profile Classes 2 (Domestic Economy 7 Customers) and 4 (Non-Domestic Economy 7 Customers).
- 3.6 ELEXON advised that, for England and Wales, it is clear whether Midnight to 7 (SSC 244) or 00:30-07:30 (SSC 151) is the more prevalent regime in a given GSP Group. The CCDG agreed that whichever regime is more prevalent for the GSP Group should therefore be used in the off-peak calculation of the seven-day rolling total.
- 3.7 However, ELEXON highlighted that these SSCs are not as prevalent in the Scottish GSP Groups. South Scotland (\_N) has no Metering System IDs (MSIDs) with either SSC, while North Scotland (\_P) only has low numbers of SSC 151. A CCDG member advised that their own analysis suggested that SSC 721 (23:00-07:30, 8.5 hour White Meter) is quite common in \_N, with SSC 889 (23:30-07:30, Two rate with 8 hours night) being common in \_P. The member agreed to share this analysis with ELEXON and the rest of the group.

## ACTION 05/01

- 3.8 ELEXON proposed that the calculation uses Midnight to 7 for both Scottish GSP Groups because:
- Any resulting inaccuracy is no worse than the existing Non Half Hourly (NHH) profiling for Profile Classes 2 and 4, where the profiling sample has no Economy 7 customers for these Profile Classes in the Scottish GSP Groups (the algorithmic profiling approach was not designed to model loads where the switching length changes on a daily basis, so is currently not that accurate for the Scottish GSP Groups)
  - While the overall Load Shaping solution for switched load Meters contains inherent inaccuracy (since it captures other types of switched load), it will only be a transitional and time-limited solution
  - The solution is designed to ensure that Suppliers can still offer cost-reflective tariffs to switched load (primarily Economy 7) customers who have not yet had the opportunity to have a smart Meter installed, but without significantly increasing the complexity of the Load Shaping Service requirements
  - Using Midnight to 7 for the Scotland GSP Groups would therefore avoid additional complexity without significantly decreasing accuracy.
- 3.9 The CCDG agreed to proceed on this basis.
- 3.10 A CCDG member noted that the SSCs simply record switched capability and that Meters may not actually be switching load in practice. ELEXON agreed but noted that this issue already exists with the current profiling. The CCDG member also noted that some SSCs are only used in small numbers. Another member commented that the smart Meter rollout should identify which two-rate Meters are no longer needed. They considered that the rollout is also likely to lead to consolidation of SSCs, as Suppliers will not necessarily undertake like-for-like replacements.

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## Update on Action 04/10

3.11 ELEXON advised that it will write up the agreed solution in Working Document A, in time for CCDG06.

## 4. Actions 04/07 (UTC/GMT & Supplier/agent appointments) and 04/06 (Use of partial data)

4.1 ELEXON presented proposed updates to the Smart Data Service (Processing Service Smart) requirements, covering off both actions. The updated requirements clarify that:

- The Data Service shall only submit full Universal Coordinated Time (UTC) days of data into Settlement (whether or not this data comprises actuals, estimates or a mix of both)
- Appointments will occur on a UTC basis (noting that Meters store data on the basis of UTC days).

4.2 The CCDG agreed that only whole days of data should be submitted into Settlement for central processing by the Market Wide Data Service (MDS). ELEXON noted its list of questions posed at CCDG04 Part B (and subsequently circulated to the CCDG), and noted that no members have identified any significant benefits of processing partial data.

4.3 Some CCDG members did not wish to preclude the possibility that the Data Service could store partial data as an interim step, before then completing the missing Settlement Periods and submitting the full day of data for the Initial Settlement (SF) Run. These members asked whether this partial data would be stored locally or centrally. The Chairman advised that these architectural considerations fall outside the scope of the CCDG's work, which only needs to determine the business requirements for Settlement.

4.4 ELEXON noted that there will need to be business rules for what to do if data is still incomplete at the Settlement Run. Members expressed differing views on whether or not to default the whole day in this situation, with some believing that this would be throwing out good data and others arguing against adding complexity to the defaulting rules. ELEXON advised that the already-agreed Data Service requirements should prevent partial data, since they require the Data Service to estimate any missing periods. Other members believed that the requirements did not say when this estimation has to occur, and that this could be any time before the SF Run. The CCDG agreed that this was an implementation question for the Data Service unless the AWG identifies otherwise.

4.5 ELEXON suggested potentially using different default Load Shapes by market segment and voltage level (see Industry Standing Data discussion under item 5 below). The CCDG noted that while ELEXON's slides refer to the Smart Data Service (SDS), this also applies to the Advanced and Unmetered market segments. ELEXON agreed to consider further the defaulting rules for each market segment and to bring its suggestions to CCDG06.

## ACTION 05/02

4.6 A member asked for clarification that conversion from UTC to Clock Time is undertaken by the MDS and that no other 'upstream' TOM services have to undertake this conversion. ELEXON confirmed that this is the case, noting that this is part of the requirements already agreed by the Design Working Group (DWG).

## 5. Review status of straw men and outstanding areas for discussion

### Settlement 'run-off' arrangements

5.1 ELEXON gave the CCDG a brief verbal update on the offline work completed with volunteer members since [CCDG04 Part A](#).

5.2 ELEXON confirmed that work is proceeding along the lines of Option 1, which would set a cut-off beyond which no further amendments could be made to NHH Settlement data (except potentially through Extra Settlement Determinations (ESDs)). The key conclusion so far is to set 'book-end' dates based on parameters

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and then interfere as little as possible. ELEXON will make clear where there are dependencies on the centrally-provided NHH software support end-dates.

- 5.3 ELEXON noted that the considerations for NHH run-off are different to [P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8'](#), as the switch from NHH to Half Hourly (HH) Settlement can take place on the same day with the same Meter providing that the TOM services are in place. As there is no need to visit a site to reconfigure the Meter, firm cut-off dates can be set.
- 5.4 ELEXON noted that there will be a window between the date on which migration is completed and the date on which Settlement is no longer running 'old world' NHH activities.
- 5.5 ELEXON advised that the other conclusion so far is to leave enough time for all NHH Settlement Dates to go through the final Reconciliation (RF) Run. The ability to truncate the Settlement timetable will be left open, but this will not be mandated, and any decision to truncate will be based on data quality.
- 5.6 ELEXON confirmed that it will bring the run-off straw man back to CCDG06 for the CCDG's agreement.

## Exception reporting

- 5.7 ELEXON [presented](#) an update on the offline work completed with volunteer members since [CCDG04 Part A](#).
- 5.8 The CCDG noted that it has already agreed that:
- Registration standing data forms the 'single source of truth'
  - The Registration Service is responsible for validating Registration standing data against Industry Standing Data (meaning that the MDS doesn't need to undertake this validation at ingestion)
  - The Data Service is responsible for validating its data against Registration standing data before submitting it into Settlement.
- 5.9 The CCDG continued its discussion from CCDG04 Part A on whether it is therefore necessary to undertake any further 'downstream' validation of data received from the Data Service, beyond checking for missing / incomplete data.
- 5.10 Some members remained concerned that the Data Service could be looking at the wrong version of Registration standing data (i.e. could get out of sync with the Registration Service) and wanted more information on whether the solution architecture could 'design out' this risk. ELEXON clarified that the CCDG only needs to agree the business requirements for Settlement – if the business requirement is for the Data Service to validate against Registration data, then the AWG must ensure that the solution architecture delivers this. ELEXON also noted that the Qualification process could test that the Data Service can perform this validation correctly.
- 5.11 Some members were concerned that the Data Service could apply the correct data incorrectly. ELEXON and other members suggested that this can be addressed through Performance Assurance Framework activities such as the BSC Audit.
- 5.12 ELEXON advised that the requirement for the Data Service to check Energisation Status against the Registration Service should 'design out' the possibility of having two different views of this. The CCDG noted the conclusion of the offline work that the MDS should reject non-zero data for a de-energised MSID. However, some members highlighted that this conflicted with the group's view at CCDG04 Part A that data should still be accepted into Settlement in this scenario, as the mostly likely reason for the non-zero data is that the Meter has been energised without this being recorded.
- 5.13 A CCDG member noted that Registration standing data, including Energisation Status, can change between Settlement Runs. They asked whether this requires the Registration Service (and potentially the Data Service) to keep multiple time-stamped versions of data up to the Post-Final Settlement Run, so that the BSC Auditor can establish whether the Data Service has used the correct Registration data at the point it made its submission to Settlement. ELEXON noted that the TOM requirements already require data to be time-

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stamped by the notifying service. A member suggested potentially recording Energisation Status with both a date and time, rather than just with a date as currently.

- 5.14 The CCDG noted that the joint CCDG/AWG subgroup will be considering what Registration data items need to be exchanged between the TOM services and why/when this needs to take place. It agreed to revisit its discussion on exception reporting once ELEXON has an update from this work, potentially at CCDG06.

**ACTION 05/03**

### **GSP Group Correction Factors and Scaling Weights / Consumption Component Classes**

- 5.15 ELEXON [presented](#) its proposed mapping of the new TOM Scaling Weights to existing Consumption Component Classes (CCCs), noting that these would apply during the transition to the TOM. ELEXON advised that, to do this, it has mapped the new TOM CCCs as closely as possible to the existing SSCs. Where a new CCC maps to more than one existing SSC, an average has been taken of these mapped weights.
- 5.16 The CCDG discussed the proposed values, noting the spreadsheet and the extract from it included on [Slide 33](#).
- 5.17 A CCDG member asked what the materiality would be for Parties of moving from the current, to the transitional, Scaling Weights. ELEXON advised that it is very difficult to quantify this in the absence of having more granular data. It also noted that GSP Group Correction can improve some Parties' position, depending on whether you are scaling up or down, and that a change does not necessarily equate to inaccuracy. ELEXON noted that the biggest impact will be on CCCs for which Scaling Weights are currently zero (for example, no scaling is currently applied to Export but this is a known inaccuracy). ELEXON commented that the overall volume of GSP Group Correction should be considerably less at the end of transition, as most customers will be settled on HH data rather than profiled Meter Advances.
- 5.18 ELEXON agreed to update the spreadsheet to use a theoretical volume of 1GW split across CCCs, so that members can attempt to establish the delta between old and new Scaling Weights before discussing this further at CCDG06. However, ELEXON cautioned that this analysis is unlikely to give significant insight.

**ACTION 05/04**

### **Industry Standing Data**

- 5.19 ELEXON [presented](#) the latest updates to the Industry Standing Data (ISD) tables.
- 5.20 ELEXON noted that Valid Set of Load Shape Categories (ISD1.63 on [slide 35](#)) is recorded as a 'must have', but that this is not a new Registration Service data item as it is derived from a number of other Registration data items. ELEXON agreed to circulate a proposed table of these data items as Load Shape Categories to CCDG members.

**ACTION 05/05**

- 5.21 ELEXON noted the new Advanced Market Default Load Shape (ISD1.62). It proposed that, rather than trying to populate this annually, the Load Shaping Service (LSS) calculates a value by GSP Group/voltage level and sends it to the Advanced Data Service. This would be a minor change to the TOM because it requires the LSS to interface with the Advanced market segment. CCDG members agreed with this approach in principle, but agreed that the values should only be calculated by voltage level to avoid the risk of having too few Meters in some GSP Group/voltage combinations. ELEXON agreed to check that this change has no other knock-on impacts on the TOM requirements, for example those relating to timescales.

**ACTION 05/06**

### **Registration – Data items, appointments & confirmations**

- 5.22 ELEXON advised that it is continuing to work on this offline, following the discussion at CCDG04 Part B. It confirmed that it will bring the updated straw man to CCDG06.



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## 6. CCDG04 Part B Headline Report and actions

- 6.1 ELEXON noted that it had not received any comments on the CCDG04 Part B Headline Report, which it has now [published](#).
- 6.2 ELEXON advised that the open actions had either been discussed under the above agenda items, are being progressed offline or are not due for completion until CCDG06.

## 7. Summary and next steps

- 7.1 ELEXON confirmed that CCDG05 Part B will be held by Skype on Friday 1 May 2020, from 10:00-13:00. ELEXON will circulate the BSC, MRA and DCUSA matrices before the meeting and the relevant code bodies will present slides to draw out the key themes/impacts for their Codes.
- 7.2 A CCDG member suggested that the group should consider whether there is still a Settlement need to retain Related Meters under the TOM, and volunteered to email ELEXON with their thoughts.
- 7.3 The member also suggested that the CCDG should consider, at a future meeting, how Suppliers and Distributors access data for billing purposes. The Chairman noted that Supplier billing may fall outside the scope of the CCDG's work.

## ACTIONS

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01/02 – Ofgem to clarify whether the legal text for MHHS should be drafted against the current Industry Codes baseline or new consolidated REC baseline – Open – Update provided at CCDG02. Ofgem is still considering this, and a representative from Ofgem's REC team will be attending future Code bodies meetings.

02/05 – ELEXON to clarify what data item outputs the AWG needs from the CCDG and when – Open – ELEXON gave updates at CCDG03 and CCDG04 Part A. This is also being considered by the new joint CCDG/AWG subgroup.

04/04 – ELEXON to work with the relevant CCDG members to reconsider the exception reporting straw man in light of discussions at CCDG04 Part A, before bringing the outputs to CCDG05. ELEXON to focus on what last-resort protections are needed for Settlement and consider if/how the AWG's work can help remove the need for downstream validation checks – Closed – Discussed under item 5 above.

04/06 – ELEXON to consider further any issues associated with processing partial data if Actual/Estimate IDs are allocated to CCCs at a Settlement Period level – Closed – Discussed under item 5 above.

04/07 – ELEXON to work with the relevant CCDG members to consider further how 'clock time' Supplier/agent appointments will work under a UTC-based TOM – Closed – Discussed under item 5 above.

04/10 – ELEXON to write up, in one of the Working Documents, the solution for adjusting Load Shapes for Register Read Meters with switched load. Write-up to clarify which types of switched load the solution covers – Open – ELEXON will capture this in Working Document A and bring it to CCDG06.

04/11 – ELEXON and the CCDG to revisit the need for any TOM requirements for RTS Meters at a future meeting, once more information is available on any extension to the RTS arrangements – Open - ELEXON is maintaining a watching brief.

04/13 – ELEXON to continue updating the ISD tables and write-up in Working Document A to reflect the CCDG04 discussions and outstanding areas – Open – ELEXON will bring this to CCDG06.

04/14 – ELEXON to work with internal colleagues and a CCDG member to progress a potential solution to separate the LLF and LLFC data items, as discussed at CCDG04 Part B – Open – Email received from the CCDG member on 3 April 2020, containing suggested options for a LLF look-up table.

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04/15 – ELEXON and a CCDG member to work up a decision tree, to help determine the best option for validating that a TOM Service Provider can operate in the Market Segment for the Meter to which they are appointed – Open – Email received from the CCDG member on 3 April 2020 with suggestions for a decision tree.

04/16 – ELEXON to continue finessing the Registration straw man for inclusion in Working Document A, incorporating the discussions from CCDG04 – Open.

04/17 – ELEXON to look into whether the Switching Programme has considered any ways of linking Import and Export MPANs to a single property – Open.

05/01 – CCDG member to email ELEXON with their analysis of which switched load SSCs are most prevalent in the Scottish GSP Groups – Closed – Email received on 21 April 2020.

05/02 – ELEXON to consider further the defaulting rules for each market segment and bring its suggestions to CCDG06 – Open.

05/03 – CCDG to revisit its discussion on exception reporting once ELEXON has an update from the CCDG/AWG subgroup's work, potentially at CCDG06 – Open.

05/04 – ELEXON to update the transitional Scaling Weights spreadsheet to use a theoretical volume of 1GW split across CCCs, so that members can attempt to establish the delta between old and new Scaling Weights before discussing this further at CCDG06 – Open – Spreadsheet circulated on 23 April 2020. To be discussed at CCDG06.

05/05 – ELEXON to circulate a proposed table of valid Load Shape categories to CCDG members – Open.

05/06 – ELEXON to check that requiring the Load Shaping Service to calculate the Advanced Market Default Load Shape has no other knock-on impacts on the TOM requirements, for example those relating to timescales – Open.