

By email to half-hourlysettlement@ofgem.gov.uk

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Dear Áine Higgins Ní Chinnéide

Half-Hourly Settlement (HHS): The way forward

ELEXON Limited welcomes the opportunity to respond to your open letter on the way forward for Half-Hourly (HH) Settlement. The views expressed in this response are those of ELEXON Limited, and do not seek to represent those of the BSC Panel or Parties to the BSC.

We welcome Ofgem taking the lead in this area and see this as an important step to providing a vision of the markets for the future. It will help deliver the original intent of the Smarter Markets Programme, in particular on electricity Settlement reform. This builds on the work ELEXON started in 2010 with the Profiling and Settlement Review and our belief that customers should be settled on accurate and timely granular (half hourly) meter data, that both advanced and smart meters can provide.

We agree with your view that it is in consumers' interest to be settled using their HH consumption (and generation if they have it) meter data. We agree that it will promote innovation and competition in the energy market, facilitate Demand Side Flexibility (DSF) initiatives, improve Supplier forecasting and make for a faster and more efficient energy system. This is likely to reduce costs and potentially reduce barriers to the energy market.

In addition to the benefits to consumers identified in your letter, there are benefits to new technologies such as battery storage, opportunities for new aggregator offerings and opportunities to account for export spill from distributed generation. The use of the HH data will aid the development of non-traditional business models such as community energy schemes. Such schemes will require the use of more granular data (such as HH meter data) to extract commercial benefits for scheme members through the movement of generation to meet demand (and vice versa with demand side management).

Building on previous work on half-hourly Settlement

A move to HH Settlement (HHS) will ultimately remove the existing processes for non-half hourly (NHH) Settlement, with its complex calculations and requirements for large volumes of standing data. Settlement on actual HH metered data is a significant simplification to the Settlement process. To this end we have been promoting the use of HH data for Settlement since 2010 through the work of the Profiling and Settlement Review Group ([PSRG](#)), which led to Modification P272 which is introducing HHS for customers that are registered in Profile Classes 5 to 8. More recently through the work of the Settlement Reform Advisory Group ([SRAG](#)) we have been seeking to remove barriers to elective HH, as recognised in your open letter.

One lesson worth noting are the potential timescales for moving to mandatory HH Settlement. ELEXON and the PSRG looked at moving Profile Classes 5 to 8, initially by 2014, when those customers were intended to have an Advanced Meter fitted under the Supply Licence Condition. Some customers are yet to have such metering fitted and the implementation is now due in 2017, some

three years after the original plan. The current planned rollout of smart meters and the actual installation of smart metering will need to be considered and managed carefully in the implementation of mandated HH Settlement.

The recommendations of the SRAG and changes needed to improve HH Settlement

The SRAG will make recommendations to the BSC Panel in February on a simplified end-to-end elective HH Settlement process for smart metered¹ customers. The new simplified process includes:

- improved data transfer processes for smart Meter data from Suppliers to their Agents;
- removal of processes such as proving² and protocol³ testing which are unnecessary for smart meters;
- reduced validation requirements for smart Meter data and data estimation processes where initial, or replacement data, is required for Settlement; and
- changes to address potential inaccuracies in the precision used in data flows that contain HH data. Proposals to increase precision and move to the nearest Watt hour.

The SRAG believes that no Modifications are required to the Balancing and Settlement Code (BSC) to implement the simplified elective HH settlement process above. These improvements can be delivered through changes to BSC Procedures (BSCPs) via Change Proposals (CPs). ELEXON proposes that two Change Proposals (CPs) to the following BSCPs are raised in early 2016 for implementation as soon as practicable in 2016/early 2017.

In addition to these changes, there is an outstanding work area (SRAG Work Area 4). The SRAG propose that this work should now be progressed under Ofgem's HHS project work. Work Area 4 covers how Settlement could develop to support new technology and innovation, including demand side response, local energy schemes, storage and virtual balancing. For example, there are visibility issues with 'virtual aggregation' such as:

- the mixed aggregation of domestic and non-domestic customer data;
- the netting of import and export volumes;
- how losses would be applied in these scenarios;
- issues for Settlement (and visibility that would occur) if such an approach were to be adopted (and changes that may be required for distribution charging); and
- whether there is a requirement for new types of Balancing Mechanism Unit (BMU) or other ring fencing of data required to facilitate virtual aggregation.

The SRAG also recommends that further work is undertaken on Supplier Agent roles, building upon the proposals we have developed to date. In particular, the suggestion for a new agent role that can perform both HH and NHH functions, as well as undertaking both data collection and data aggregation. Centralisation of some functions, such as data collection and aggregation, should also be looked at in detail, as we believe there are potential significant benefits for demand side flexibility.

¹ *The scope of the improved process is for Smart Meters that comply with either Smart Meter Equipment Technical Specification (SMETS) 1 or 2. These meters may be serviced by the Data Communications Company (DCC). See [DECC](#) for further information on the SMETS.*

² *Proving Tests are used to 'prove' the data at the Meter matches that collected by the Data Collector*

³ *Protocol testing ensures that the Meter readings collected by the Data Collector are consistent with the Meter manufacturer's specification.*

Moving from Elective to mandatory HHS

Moving to mandatory HHS is likely to require more significant changes to BSC Settlement processes (meter to bank) than any that are identified for elective HHS. For elective HHS, the expectation is that only small numbers of customers will take up the option which can be accommodated by existing processes and systems.

Consideration of new processes will be also required for mandatory HHS. For example, data validation, data estimation and other processes, where data cannot be collected or where customers do not have meters with HH capability. The role of Supplier Agents and central Settlement functions, recognising the central data retrieval role of the DCC, should also be analysed (building upon the work of the SRAG). Therefore, for mandatory HHS, realistic timescales for central system changes will need consideration given the target of early 2018 set out in the open letter.

Additionally, there will be an interaction between the work on Reliable Next Day Switching, for example with the definition of the Centralised Registration System (CRS). Any integration between CRS and BSC central systems will create a dependency on the implementation of the CRS. For example, if the solution for mandatory HHS needs CRS in place and already operational.

Most parties have cited costs and data volumes as the main barriers to HHS for smaller customers. We believe cost barriers will come down with economies of scale, particularly, those associated with agency services. Costs and timescales for changes to BSC Party systems are also likely to be seen as a potential barrier.

As you are aware, some of these issues have already been covered in some detail in the previous Settlement Reform work undertaken for the Smarter Markets programme. This will be a useful starting point for the Significant Code Review (SCR).

We firmly believe HH settlement is needed to unlock the potential benefits of smart meters, demand side flexibility and new technology. We are committed to support your work and look forward to taking to delivery. I would be very happy to discuss my comments and understand further the support from ELEXON for this work. Please contact me either by phone on 020 7380 4364 or via email justin.andrews@elexon.co.uk.

Yours sincerely,

Justin Andrews

Head of Design Authority, ELEXON