



Making a positive difference
for energy consumers

Electricity suppliers, distribution companies, consumer representatives, Code Panel chairs and other interested parties

Email: half-hourlysettlement@ofgem.gov.uk

Date: 17 December 2015

Dear colleagues,

Half-hourly settlement (HHS): the way forward

The energy industry is undergoing significant change driven by the roll-out of smart meters and other technological developments, changes in the generation mix, and the rise of new business models. This technological and commercial innovation has the potential to provide the solutions we need to transition to a low-carbon system that is both secure and affordable. Ofgem's role in this transition is to ensure the regulatory framework allows consumers to capture the benefits which arise from innovation, while protecting them from new risks which may arise.

In this context, we have agreed with the Secretary of State for Energy and Climate Change to take forward a project to reform the electricity settlement arrangements in Great Britain. As a priority, this project will identify and remove the barriers facing suppliers wishing to settle their domestic and smaller non-domestic electricity customers¹ on a half-hourly (HH) basis. We will also consider the approach for moving to mandatory HHS in the longer-term. The project builds on our earlier work on settlement reform as part of the Smarter Markets Programme.² It is part of broader collaborative work with the Department of Energy and Climate Change (DECC) to move towards a smarter, more flexible energy system that delivers lower bills, lower carbon emissions and enhanced security of supply.

We have listened to the feedback from industry about the volume of concurrent regulatory change, including Project Nexus, the smart meter roll-out and our reforms to deliver reliable, faster switching. As such, our work on settlement reform is focused initially on improving the elective HHS arrangements. This will only require changes to central systems, if necessary, and to the systems of any suppliers or supplier agents who choose to settle customers on a half-hourly basis. This will reduce the risks to consumers, as suppliers will not be required to make further IT system upgrades in parallel to other changes being made for existing programmes. However, we expect at some point in the future that we will need to mandate all suppliers to settle their customers on a half-hourly basis to realise the full benefits. We expect to take a final decision on the introduction of mandatory HHS, including any transitional arrangements, by the first half of 2018.

This open letter sets out our plan and invites views from interested parties.

¹ Electricity consumers in profile classes 1-4. For further information on the allocation of profile classes, see Balancing and Settlement Code Procedure 516.

² See our update in January: https://www.ofgem.gov.uk/sites/default/files/docs/2015/01/settlement_final_doc.pdf

Why is half-hourly settlement important?

Generators and suppliers buy and sell electricity in HH periods. However at present, the majority of consumers are settled 'non-half hourly' using estimates of when electricity is used based on a profile of the average consumer (within a given profile class). This is because most sites do not have meters that can record consumption in each half-hour period.

Smart meters record the amount of energy consumed or exported within every half-hour period and this data can be provided to energy suppliers remotely.³ Energy suppliers are required to take all reasonable steps to install smart meters in every home and small business premises by 2020. This presents an opportunity to make the settlement process more accurate and timely.

We think it is in consumers' interests to be settled using their HH consumption data,⁴ because it will:

- promote innovation and competition in the energy market
- help to create the right environment for more demand-side response (DSR), leading to a more efficient energy system. HHS will allow suppliers to help customers move load to periods when electricity is cheapest (or export when it is beneficial to the system)
- help suppliers to forecast demand more accurately, strengthening competition and reducing costs
- make the settlement process itself faster and more efficient, reducing barriers to entry to the energy market.

Taken all together, these will help the energy market to deliver the outcomes we wish to see for consumers: lower bills, reduced environmental impacts, enhanced security of supply and a better quality of service.

However, settling all consumers on a HH basis raises a number of policy questions. For example, the impact of tariffs that enable DSR – such as time-of-use (ToU) tariffs – will vary between consumers. In particular, those who consume electricity at more expensive peak periods and who are unable to significantly change their consumption patterns could end up paying more. Therefore the distributional effects of HHS will need to be examined and, where necessary, possible mitigations considered. It is also important to consider how best to support consumer engagement and understanding in a market that is more complex, for example as a result of ToU pricing. Consumer action is necessary to help make the overall system more efficient. In these areas, DECC will be involved in progressing this work.

Building on previous work on half-hourly settlement

We have a long-standing interest in HHS and have worked on this issue as part of our Smarter Markets Programme for a number of years.⁵ In 2014 we held a series of Expert Group meetings to consider the issues that need to be addressed before mandating HHS for all consumers.⁶ The issues included: meter operator, data processing and data aggregation

³ Within this letter, we use the term 'smart meter' in the broad sense, encompassing smart meters and advanced meters for consumers in load profile classes 1-4.

⁴ Data containing information on the amount of energy consumed within every half-hour period.

⁵ <https://www.ofgem.gov.uk/gas/retail-market/market-review-and-reform/smarter-markets-programme>

⁶ The materials from each of the meetings are available here: <https://www.ofgem.gov.uk/electricity/retail-market/forums-seminars-and-working-groups/electricity-settlement-expert-group>

rules for metered sites, the change of measurement class (CoMC) process, the data access and privacy framework, metering accuracy, distributional issues, the integration of HHS with other market arrangements and the timing of the transition. We published a summary of the conclusions from this work in early 2015² and committed to provide an update on our approach in the light of our Flexibility paper published this Summer.⁷

Since that work, the Competition and Markets Authority (CMA) has published its Provisional Findings of its Energy Market Investigation. In this, the CMA stated "*the absence of a plan for moving to half-hourly settlement for domestic customers is a feature that gives rise to an AEC [Adverse Effect on Competition] in the domestic retail electricity market through the distortion of suppliers' incentives to encourage their customers to change their consumption profile, which overall reduces the efficiency and, therefore, the competitiveness of domestic retail electricity supply.*"⁸

The CMA is due to publish its Provisional Decision on Remedies in January, and its Final Report in April. We will pay close attention to any conclusions or remedies on HHS, and ensure that we take account of them as our work develops.

What changes are we making to improve elective half-hourly settlement?

There is an existing HHS process which is mandatory for larger sites. Suppliers are able to elect to use these arrangements to settle any site on a HH basis. However, this process is not appropriate for small sites (electricity consumers in profile classes 1-4) due to the complexity of the rules and the prohibitive costs to which it would give rise. For example, extensive checks must be carried out to validate data during the data processing and data aggregation processes. While this is necessary for the accurate billing of large sites, it may be less critical for small sites and the required staff time and costs are disproportionately large.

To introduce cost-effective arrangements for HHS for smaller sites we will need to review the meter operator, data processing and data aggregation rules and make changes to industry codes and/or subsidiary documents. Elexon has already started to consider these issues through their Settlement Reform Advisory Group (SRAG). The SRAG intends to deliver its report to the Balancing and Settlement Code (BSC) Panel in February.⁹ The issues that the SRAG is considering¹⁰ include: the data flows required in the settlement process for smart meters enrolled with the Data and Communications Company; simplifying the data validation and estimation processes for smart meter data; the question of whether proving tests are required for smart meters; and the level of precision at which supplier agents¹¹ hold data.

We welcome the work that Elexon and the SRAG have done to date, which is a positive step towards elective HHS. However, to realise our ambition to enable elective HHS for domestic and smaller non-domestic consumers in early 2017,¹² additional work is needed to

⁷ https://www.ofgem.gov.uk/sites/default/files/docs/2015/09/flexibility_position_paper_final_0.pdf

⁸ https://assets.digital.cabinet-office.gov.uk/media/559aacbee5274a1559000017/EMI_Notice_of_PFs.pdf

⁹ This report will cover SRAG Work Area 1 – the SRAG is covering four work areas, as set out in its Terms of Reference: https://www.elexon.co.uk/wp-content/uploads/2015/07/SRAG01_01Av1-0.pdf

¹⁰ This list only contains issues related to the SRAG's Work Area 1. The SRAG has also considered issues related to its other work areas – eg the impact on settlement of unmetered export from distributed generation.

¹¹ Specifically, Half-Hourly Data Collectors. A Data Collector is the party appointed by an electricity supplier to retrieve and process meter readings to meet the requirements set out in the BSC.

¹² The precise timing will depend on practical factors such as the BSC Release schedule, which will affect any central systems changes.

supplement the work of the SRAG. For example, we want HHS to be available for all smart meters, including SMETS1,¹³ as well as for advanced meters.

Therefore, we propose to carry out our work on elective HHS in two batches:

- The first batch will develop changes based on the recommendations of the SRAG on Work Area 1⁹ from February and progress these through the BSC modification and/or Change Proposal process.
- The second batch will look to address additional or wider barriers to elective HHS, based on stakeholder feedback following this open letter.

By the end of 2016, we expect all changes to industry rules to be complete. Any changes to central systems would then follow, where needed. In parallel with any changes to central systems, suppliers and supplier agents will also need to make any necessary changes to their own IT systems to be able to use the new arrangements, if they wish to do so.

We are keen to make progress to deliver cost-effective elective HHS for small sites. We welcome views from stakeholders on the barriers to cost-effective elective HHS, which they think we should address as part of our work. In particular, we are interested in those barriers which are not being considered by the SRAG (for example any barriers from other industry codes). If you have examples of barriers, please respond before 29 January 2016.¹⁴

When providing examples of barriers, we encourage you to consider the following:

- The more information you can provide about the details of a potential barrier, the easier it will be for us to understand the issue in the time available.
- If you have any knowledge about how a particular barrier could be resolved (for example which sections of codes would need to be changed), this would also be helpful.
- Any indications of the costs and delays imposed by a particular barrier would be useful, as this will help us to determine which issues are priorities. Our work on elective HHS will prioritise the most significant barriers – some issues may need to be addressed through our subsequent work on mandatory HHS.

We will analyse the issues raised over the coming months.¹⁵ During this period, we may speak to stakeholders to discuss the issues they raised and refine our understanding of the challenges involved. We will issue a summary of responses in March. We will then consider the priority issues and set out a plan for how these can be addressed in conjunction with industry.

Moving from elective to mandatory HHS

We continue to believe that all consumers should be settled using HH data to fully realise the benefits of smart metering and deliver our vision for smarter energy markets.⁵ Removing the barriers to elective HHS is the right first step towards achieving this

¹³ The Data and Communications Company's (DCC) services will be in operation ('live') from 2016. Suppliers will be able to install and commission SMETS2 meters on the DCC network once it goes live; SMETS1 meters will be enrolled with the DCC at a later date.

¹⁴ We intend to publish responses to this open letter. If you do not want your response published, or there are confidential elements to your response which you do not want published, please indicate this clearly in your response.

¹⁵ To facilitate our functions and inform our discussions with DECC and Elexon, we intend to share responses with them; if this raises any concerns, then please indicate this clearly in your response. (We recognise that in some cases, it may be appropriate for commercially-sensitive information to be shared with DECC and Elexon, but not to be published).

ambition. It will support competition, by enabling innovative suppliers to differentiate themselves. However, we expect that we will need to mandate all suppliers to settle their customers on a half-hourly basis to realise the full benefits. Starting with elective HHS will enable us to learn about the types of products that suppliers offer in response to the new arrangements and in turn how consumers react to them.

We recognise that moving to mandatory HHS is a major undertaking. It involves significant systems changes for suppliers, supplier agents and central systems. The plan for mandatory HHS needs to take account of the existing volume of IT changes described earlier in this letter.

It is likely to require changes to a number of industry rules. We intend to launch a Significant Code Review (SCR) on mandatory HHS in early 2016. We are carrying out the pre-launch consultation through our draft Forward Work Programme, published today. In addition, the Government has stated that it will bring forward proposals to give Ofgem powers to progress settlement reform more quickly.¹⁶

Our ambition is that by the first half of 2018, the central systems and industry rules will be in place to facilitate mandatory HHS. We believe that it is currently too early to fix an end date for the transition of small sites to mandatory HHS. This should be considered in the context of other industry changes, and with the knowledge that we will develop from policy work on mandatory HHS and from observing the effects of elective HHS. We plan to issue a decision on mandatory HHS, including timescales, by the first half of 2018.

We plan to progress with our policy work on mandatory HHS from the second quarter of 2016. We will also continue monitoring the implementation of BSC Modifications P272 and P322¹⁷ which mandate the use of HHS for larger non-domestic consumers.¹⁸

Contact

Please send your response, any comments or questions about this letter or on the electricity settlement project in general to Áine Higgins Ní Chinnéide at half-hourlysettlement@ofgem.gov.uk.

Yours sincerely

Rob Salter-Church
Partner, Retail Markets

¹⁶ DECC's response to the CMA's Provisional Findings in the Energy Market Investigation: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/450605/CMA_response.pdf

¹⁷ For further information, see: <https://www.ofgem.gov.uk/publications-and-updates/bsc-modifications-p272-and-p322-frequently-asked-questions>

¹⁸ Customers in profile classes 5-8.