

Smarter Markets Programme – Workshop on electricity settlement

This note provides a summary of the issues raised at the July 2013 workshop on electricity settlement.

From	Ofgem
Date and time of meeting	9 July 2013, 14.00 – 16.30

1. Introduction

- 1.1. The Chair, Grant McEachran (GM), welcomed attendees to the workshop and introduced the agenda. A full list of attendees is set out in Appendix 1. The materials presented at the meeting are available on the Ofgem [website](#).
- 1.2. GM explained that Ofgem’s electricity settlement project forms part of the Smarter Markets Programme and is focused on the arrangements set out in the Balancing and Settlement Code for allocating energy volumes to suppliers. He explained that Ofgem’s longer-term objective for the project is to have in place arrangements that can use data from smart meters to allocate energy in an accurate, timely and cost-effective way.
- 1.3. Referring back to Ofgem’s March 2013 open letter¹ on the way forward on settlement reform, GM explained that the focus of the project at this time is to scope out in more detail the problem that may require changes to existing arrangements and how best to address this problem. He set out that the workshop aimed to help Ofgem’s thinking on the former, with attendees split into three groups and asked to consider the following questions across two breakout sessions:
 - How can smart metering improve the performance of the settlement arrangements?
 - How might longer-term developments in the sector change what settlement needs to deliver to support effective operation of the market?

2. Breakout discussion 1 – How can smart metering improve the performance of the settlement arrangements?

- 2.1. The groups discussed the opportunity that smart metering presents to improve the performance of the settlement arrangements. All three highlighted the potential to use more granular and timely consumption data from smart meters in settlement.
- 2.2. Considering the benefits this could deliver for consumers, attendees stated that consumption volumes, and hence energy and network costs, could be allocated more accurately to suppliers over shorter timeframes. Delegates argued that this could strengthen competition between suppliers. For example, some suggested that smaller suppliers and potential new entrants could particularly benefit from quicker and more accurate allocation of costs as this would reduce uncertainty and risk. On this point, some delegates noted that the settlement arrangements are not the only barrier to market entry and growth. One also highlighted that in the half-hourly market, where sites are settled using actual consumption data, smaller suppliers have a greater proportion of market share in comparison to the non-half-hourly market where sites are settled using estimates.

¹ [Way forward on longer-term electricity settlement reform](#), Ofgem, March 2013.

- 2.3. Linked to the points raised around the accuracy of volume allocation, all three groups argued that using more granular consumption data in settlement could help facilitate demand-side response and the potential benefits this could bring in terms of enhancing security of supply, contributing to sustainable development and lowering consumer bills. In discussing demand-side response, one group highlighted that some consumers may not be able to respond to price signals, for example because they are unable to shift load to off-peak periods.
- 2.4. One group also emphasised the potential to improve the transparency of the settlement arrangements. Reflecting on the accuracy of costs allocation today, the group noted that the assumed load profiles used to settle non-half-hourly sites can lead to averaging of costs across different suppliers and groups of consumers. In discussing this point, some delegates queried the extent to which profiling of consumption leads to material inaccuracies in volume allocation for larger suppliers due to the size of their portfolios.
- 2.5. Many attendees argued that using more granular and timely consumption data in settlement could lower suppliers' costs to serve. Delegates identified a number of ways in which suppliers might realise cost savings that could be passed on to consumers in the form of lower bills. This includes the potential to reduce the resources required to manage exceptions and reconcile purchases versus sales (the volume of energy that they sell to consumers against the volume that they are allocated through settlement). In addition, some attendees argued that suppliers may be able to improve their forecasting of demand, which in turn can reduce their exposure to imbalance charges. However, others cautioned that suppliers might face greater risk and (hence higher costs) in forecasting actual half-hourly demand as opposed to profiled demand.
- 2.6. One group particularly stressed that using more granular data in settlement could help to simplify the arrangements. They noted that this could be another way in which suppliers' costs to serve could fall. The group also argued that the complexity of the current arrangements may deter new players from entering the market.
- 2.7. During the discussion, attendees raised other points in addition to those related to improving the accuracy and timeliness of consumption data in the longer term. For example, one group argued that smart metering could help resolve current issues with meter technical details, which are a record of the information needed to interrogate and interpret the data from a meter. If the meter technical details are incorrect then the consumption data calculated from the meter readings and passed into settlement might be erroneous. It was suggested that more accurate meter technical details could, in turn, reduce the costs associated with performance assurance. The same group also suggested that the roll-out of smart metering presents an opportunity to correct inaccuracies in existing consumption data.
- 2.8. As well as considering how smart metering could improve the performance of the settlement arrangements, delegates were asked to consider the extent to which changes might be required to deliver the potential benefits. One group stressed that without settlement reform the full benefits of smart metering will not be realised. Referring to those benefits relating to demand-side response, one attendee argued that significant change will be required to deliver these benefits.
- 2.9. Another group warned that the option for suppliers to settle any site with appropriate metering in the half-hourly market under the existing arrangements could lead to unintended outcomes for consumers. For example, if suppliers choose to move customers with the flattest loads to the half-hourly market, those that remain in the non-half-hourly market could pay more. The same group argued that security of data

will also need to be carefully considered, particularly which market participants can access granular consumption data through the Data and Communications Company.²

3. Breakout discussion 2 – How might longer-term developments in the sector change what settlement needs to deliver to support effective operation of the market?

- 3.1. In the second breakout discussion, the groups discussed factors that could change the role of settlement in the longer term and considered how each might shape reform.
- 3.2. All three groups highlighted the impact that new technologies could have on what settlement needs to deliver to support market operation. For example, attendees identified the uptake of microgeneration as an important factor. It was suggested that, as uptake increases, more energy could be spilt onto the network. This could increase the volume of energy that is smeared across all market participants.
- 3.3. Reflecting on the implications for progressing reform, one group suggested that data should be collected on generation and export to enable the implications for settlement to be better understood. Taking this point further, another group suggested that to improve the visibility of microgeneration, all relevant sites may need to be metered. To support this, another group floated the idea that all relevant properties should have an export MPAN.³ Other attendees also advocated for Feed-in Tariffs to be based on the settled export volumes.
- 3.4. Attendees also discussed other developments linked to new technologies that could change how consumers use energy. These included the uptake of electric vehicles and fuel substitution, as consumers adopt new ways of heating their homes as alternatives to using gas (for example, through heat pumps). Another discussed the potential growth of public charging points for electric vehicles and questioned how the energy used through these would be allocated through settlement. Another relevant development that was highlighted is the potential for consumers to use their electric vehicles as batteries as a means of saving money.
- 3.5. All the groups noted the opportunity that smart metering presents to open demand-side response to a wider range of consumers. Echoing the discussion during the first breakout session, attendees emphasised the role that settlement will play in helping realise this opportunity. One group highlighted that demand-side response extends beyond the offer of time-of-use tariffs to other products and services, such as home automation. Another group discussed the potential for local-level demand-side response, with some attendees emphasising that that the value of demand-side response might be geographic as well as temporal.
- 3.6. The groups also considered the implications of ongoing regulatory changes for settlement reform. For example, attendees discussed the interactions between settlement reform and the potential for centralisation of data processing and data aggregation services. Identifying that potential centralisation is being considered by Ofgem through its change of supplier project, attendees stressed the need for coordination between this work and the settlement project to help ensure that any reforms are complimentary. Discussing other regulatory changes, one group highlighted the potential impact of new European network codes that are under development. On this point, one attendee noted that some countries in Europe use a shorter settlement period of 15 minutes (as opposed to 30 minutes in Great Britain).

² The Data and Communications Company will be responsible for managing all the messages and data transferred between domestic consumers' smart meters and suppliers or other authorised parties.

³ An MPAN is a reference number used to uniquely identify electricity supply points. It provides information about the characteristics of supply

- 3.7. Reflecting on the points above, a key theme emerging from the discussions across the breakout groups was the need for, and potential to build, a flexible system that can accommodate developments in the market as well as regulatory change.
- 3.8. Delegates raised a number of other factors that could be relevant to longer-term settlement reform. One group questioned the relevance of Grid Supply Point Groups⁴, suggesting that it might be possible to settle over a smaller geographic area. This could help in reducing error in the allocation of volumes. Another group highlighted that during the transition to smart metering – and, if reforms are progressed, to settlement – the arrangements will need to accommodate data from a range of metering systems. Some attendees also suggested that settlement will need to accommodate those consumers who may not receive smart meters. Others commented that alignment between the gas and electricity sectors should be an objective wherever possible.

4. Next steps

- 4.1. GM thanked delegates for attending the workshop. He invited attendees to contact Ofgem if they wish to hold further bilateral discussions. He also explained that Ofgem plans to hold another workshop in the autumn to present our initial thinking on the problem and seek input on the approach to reform.

⁴ For the purposes of imbalance settlement, Great Britain is split into 14 geographical areas called Grid Supply Point Groups, which correspond to the 14 licensed distribution networks.

5. Appendix 1

Attendee	Company	Discussion Group
Anthony Cox	G4S	Group 3
Ben Coates	Gemserv	Group 3
Chiara Redaelli	Ofgem	Group 3
Chris Welby	Good energy	Group 3
Claire Antill	EDF	Group 2
Clare Hannah	IMServ	Group 1
Colette Baldwin	E.ON	Group 3
David Crossman	Haven Power	Group 2
Donna Townsend	ESP Electricity Limited	Group 3
Eric Graham	TMA Data Management	Group 2
Grant McEachran	Ofgem	Group 1
Gurpal Singh	St. Clements Services Ltd	Group 3
Hazel Ward	Npower	Group 3
James Evans	EDW Technology	Group 2
Jeremy Adams-Strump	Ofgem	Group 3
Jo Fallows	Electricity North West	Group 2
Joe Warren	Open Energi	Group 1
John Christopher	Department of Energy and Climate Change	Group 2
Johnny Amos	Ofgem	Group 2
Judith Ward	Sustainability First	Group 2
Justin Andrews	Elexon	Group 3
Kevin Spencer	Elexon	Group 2
Mark McGuire	G4S	Group 1
Maxine Frerk	Ofgem	n/a
Mo Rezvani	Scottish and Southern Energy	Group 1
Paul McClennan	Siemens	Group 2
Richard Hall	Consumer Futures	Group 1
Sally Lewis	National Grid Electricity Transmission	Group 3
Simon Bevis	Utilita	Group 1
Simon Yeo	Western Power	Group 1
Stefan Leedham	EDF	Group 1
Tabish Khan	British Gas	Group 1
Teresa Camey	Department of Energy and Climate Change	Group 1
Tim Roberts	Scottish Power	Group 2