

Discussion paper for electricity settlement expert group – transition to using actual HH data in settlement

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Audience: Electricity settlement expert group and other interested stakeholders

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Paper: #4.2

1. Purpose of the paper

1.01 As part of the Smarter Markets Programme, Ofgem has convened an expert group to support its work to examine how consumers can be settled against their half-hourly (HH) consumption data. This paper sets out Ofgem’s initial views on considerations around transition to such arrangements, for discussion at the expert group meeting on 3 September 2014.

1.02 We are seeking views from the expert group on the following questions:

- Do you have any comments on our initial analysis of what the key considerations are for transition (set out in Section 4)?
- Do you have any information or data that could assist us in developing our understanding of these key considerations?
- Can you help us answer the following specific questions relating to considerations for transition timing?
 - 1) What high-level changes to industry codes would be required? (See paragraph 4.04)
 - 2) What systems changes and business changes would the industry need to make to put in place the necessary arrangements for the go-live date? How quickly could they be made? (See paragraph 4.04)
 - 3) What types of costs would vary with different go-live dates (bearing in mind the interactions with other projects, set out in Section 5)?
 - 4) How quickly could the migration of customers onto the new HH arrangements be completed after the go-live date? (See paragraph 4.05)
 - 5) What types of costs would vary with different durations of the customer migration period? (See paragraph 4.05)
 - 6) What are the risks and opportunities posed by different timescales? (See paragraphs 4.04 and 4.05)
- Can you help us answer the following specific questions relating to considerations for transition process?
 - 7) Do you think that rules are required to govern the process of transition? (See Section 4.3)

- 8) In the absence of rules: which customers would bear the set-up costs of the new arrangements? and which customers would bear the costs of the residual NHH arrangements? (See paragraph 4.09)
- Do you agree with our analysis of the key interactions and dependencies (Section 5)? In particular, do you have a view of how other projects may affect costs for different transition timings? (Section 5.2)

2. Structure of the paper

2.01 This paper contains the following sections:

- Section 3 – describes the issue of transition and sets out our objective
- Section 4 – describes our initial analysis of the key considerations for transition
- Section 5 – explores key interactions and dependencies
- Section 6 – explains our next steps.

3. Description of the issue

3.1 What is transition?

3.01 When we refer to transition we include both the timing and the process of transition to using HH data in settlement.

3.02 Under timing, we include:

- The “go-live date”. This is the date when the new HH settlement arrangements would become operational.¹
- The “completion date”. This is the date by which all sites would be settled on the new arrangements.²

3.03 Under process, we include any rules that may be required to manage the process of transition (for example around which customers should be moved when or around the allocation of costs of the new and old arrangements).

3.2 Why are we looking at this?

3.04 We understand that the move to using actual HH data would be a large undertaking.. It is therefore important that we come to the right set of decisions around transition in order to get the best outcomes for consumers.

3.05 There are various factors that will affect the range of options for transition and these need to be explored in detail. We are therefore bringing this subject to the expert group at this early stage in order to gain their input into our thinking. This will help us to develop an informed and realistic range of options.

3.3 Objective and ambition

3.06 Our policy objective for this focus area is:

to identify high-level parameters for the transition of all customers to settlement with HH data on an ambitious timescale, while remaining achievable and cost-effective and also ensuring consumer protection.

3.07 In addition to the considerations captured in the objective, we are also mindful of the need to provide as much certainty as possible to industry. This will facilitate rational investment decisions and avoid unnecessary costs being incurred.

3.08 We consider that using HH data in settlement is critical to unlocking the potential benefits of smart metering.³ We are keen for these benefits to be realised as soon as possible. As such our ambition is for the changes to be delivered by the end of 2020. When we come to developing options we will explore a range of options with this ambition in mind.

¹ The go-live date requires arrangements to be in place to enable customers with smart/advanced meters to be settled using their HH data. Certain arrangements envisaged by this project may need to be phased in later. In particular, changes to the timetable for settlement runs may not be appropriate until the smart roll-out is complete. This would be to avoid the population of traditional meters negatively impacting settlement performance levels.

² This includes provision for the small number of customers remaining on traditional meters.

³ For Ofgem’s view of the benefits of using HH data for settlement, see Ofgem, ‘Electricity Settlement Reform launch statement’, pp.8-16. (<https://www.ofgem.gov.uk/ofgem-publications/87053/electricitysettlementlaunchstatement.pdf>)

4. Key considerations for transition

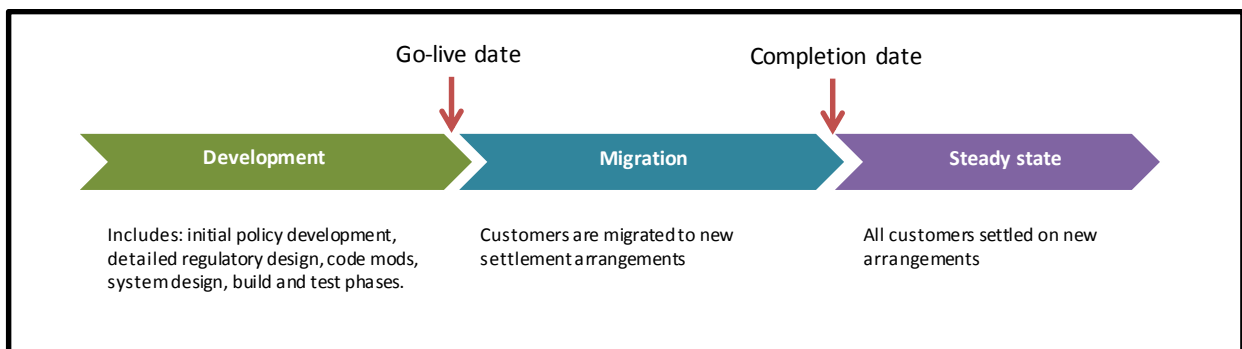
4.1 Introduction

4.01 As explained above, the subject of transition can be broken down into decisions around timing and decisions around process. They interact: timings will inform the appropriate process. Below is our initial take on the key considerations for these two decision areas.

4.2 Considerations for the timing of transition

4.02 There are two milestone dates that will set the framework for other timings and have implications for the process considerations in the next section. As shown in Figure 1, these are the go-live date and the completion date, already defined in Section 3.

Figure 1 – milestone dates



4.03 The development stage is when the arrangements are being put in place and leads up to the go-live date. The migration stage is the time between the go-live date and the completion date: this is the window in which all customers would be migrated from the current arrangements onto the new arrangements. Following the completion date, the market would be in steady state: all sites would be settled on the new arrangements.

4.04 We think that the key considerations for the go-live date are:

- The mechanism chosen by Ofgem to implement the necessary governance changes, for example a Significant Code Review. This will primarily be an internal Ofgem decision. The duration of this process would determine the date when code modifications can be raised.
- The length of the modification process. This would depend on the complexity of changes required to industry codes.
- The technically necessary time for the industry to make the requisite systems changes. This includes system design, build and test. Systems development would entail IT projects by both central bodies (eg ELEXON, DCC), suppliers and other parties (eg DNOs). Much of this would not be able to begin without reasonable certainty around the detailed market rules.
- The time required by the industry to implement the necessary business changes. These may include, for example, the development of pricing strategies and building new forecasting models. Some of these changes, such as tariff research and development, could begin independent of other changes; other changes would need to wait until there was reasonable certainty around the detailed market rules.
- The time required by the industry to undertake sufficient consumer engagement and communications. This would be necessary to make consumers aware of any changes they would face when their sites are migrated to the new arrangements (or shortly thereafter).

- The cost implications of different dates. In some cases different timescales may generate different costs. As referred to in the objective, we intend for the transition to HH arrangements to be cost-effective while delivering the benefits as soon as possible, and the go-live date will reflect this consideration. The interactions with other projects, explored below in Section 5.2, will be particularly relevant for this consideration.
- The risks posed by a precipitous timetable. For example, the transition should not come at the price of a deterioration of settlement accuracy. New systems must be sufficiently tested before they go-live.

4.05 We think that the key considerations for the completion date are:

- The go-live date. The migration of customers to HH arrangements can only begin after those arrangements go-live.
- The technically necessary time for the migration stage. Again, the nature of such an IT project may impose some absolute technical constraints on the possible speed of the migration (independent of the costs).
- The cost implications of different durations of the migration stage. There may be some degree of cost-speed trade off. As for the go-live date, the completion date will reflect our objective's regard to both costs and the timeliness of transition. Again, interactions with other projects may inform this consideration.
- The time required by industry to undertake sufficient consumer engagement. This will be necessary to inform consumers of any customer-facing changes that suppliers may choose to implement upon the completion date, such as changes to tariffs.
- The risks of a precipitous timetable, as for the go-live date.

4.3 Considerations for the process of transition

4.06 As explained in Section 3, when we talk here about process we are primarily interested in rules governing the process of transition. Rules could be necessary for both efficiency reasons and distributional reasons.

4.07 Rules to ensure the efficiency of transition could stipulate, for example, interim targets for the number of customers migrated to the new arrangements. This could help ensure that the migration remains on track for completion by the designated completion date.

4.08 Rules relating to distribution would have regard to the allocation of costs to suppliers and consumers. For example:

- The allocation of process costs of the old and new settlement arrangements. This could include both how central costs should be allocated to suppliers and how suppliers' costs should be passed on to different groups of consumers. Such rules may extend beyond the completion date since there may continue to be a small number of customers remaining on traditional meters, whose average settlement (process) costs will differ from the rest.
- The transition to more cost-reflective energy charges. Settlement on HH data will make suppliers' energy costs more reflective of their customers' actual consumption. Suppliers may pass on these changing costs to customers, for example via time-of-use tariffs. We recognise that not all consumers will be willing or able to shift load. Consideration will need to be given to the distributional impact on consumers, including how the changes are communicated to them.
- Allocation of error. Migration could cause inaccuracy in allocation of energy volumes for a time, thereby increasing error in settlement. For example if customers with flatter consumption are moved first, additional errors would be introduced into NHH settlement (because the profile would be

incorrect, at least temporarily). Under the current regime this additional error would be smeared over suppliers according to their number of remaining NHH customers.⁴ Rules may be required to prevent perverse outcomes such as this.

4.09 We think that the key considerations around such rules are:

- The duration of the migration stage. A shorter migration would reduce the need for rules around process since the risk of any negative outcomes (for example owing to perverse incentives to migrate certain customers before others) would be limited.
- Where costs are likely to be incurred and how the market would incentivise suppliers to allocate them to different consumers in the absence of rules.

5. Key interactions and dependencies

5.1 Introduction

5.01 This section is intended to stimulate a discussion about the interactions of the settlement project with concurrent developments in the industry and regulatory landscape. It is important to consider all such interactions in order to assess any implications they may have for transition options.

5.2 Interactions with other projects

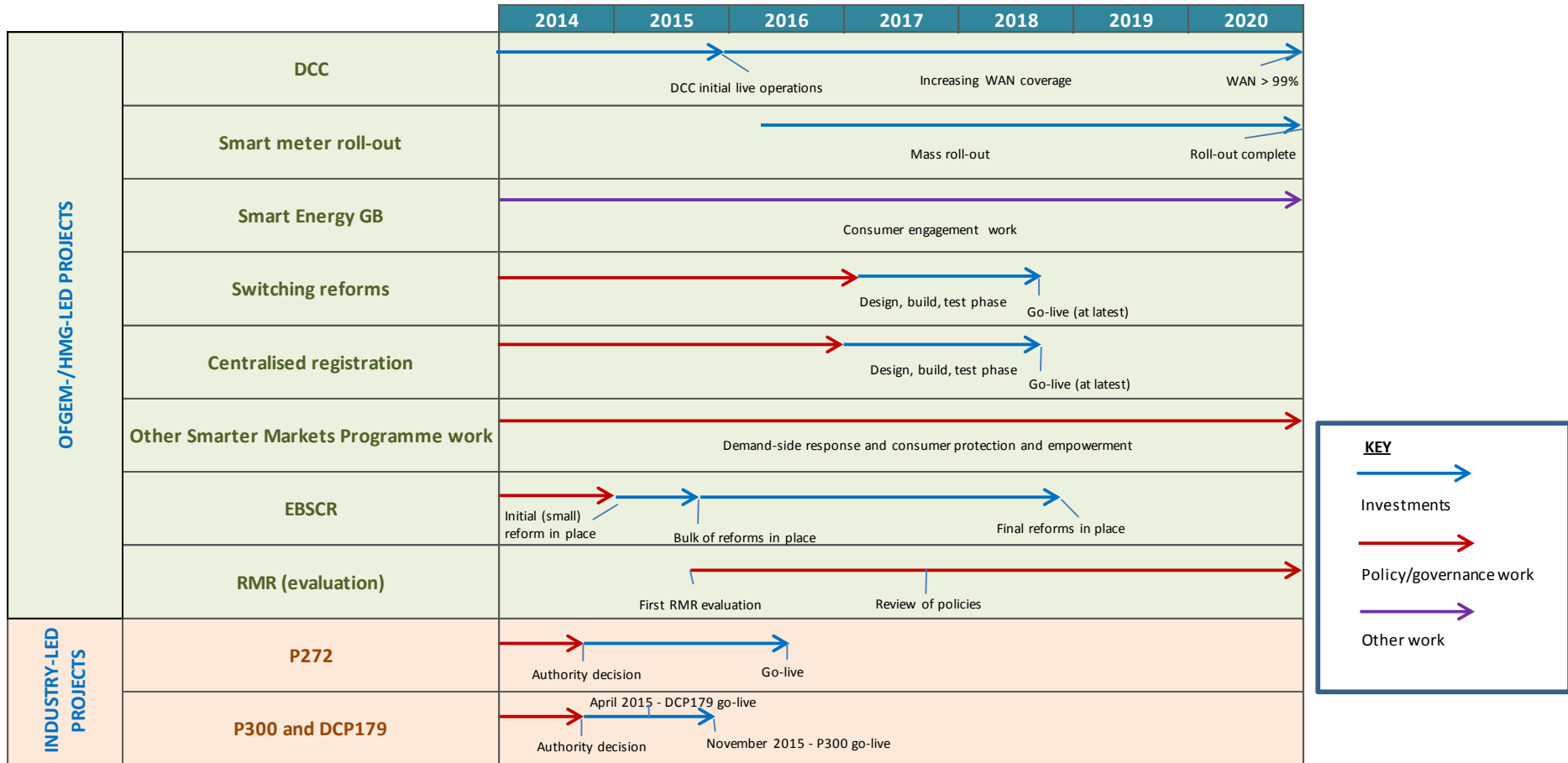
5.02 Our initial analysis has identified interactions between the settlement project and the following projects. Each section explains: what the project is, how it interacts with settlement (eg if it is a precondition to settlement reform) and what the likely implications are for transition options. Indicative high-level timings are also set out diagrammatically in Figure 2.

5.03 In summary, we have not identified any projects whose timings appear likely to impose absolute restrictions on options for settlement reform. Several interactions may however have cost implications for different transition timings.

⁴ We are looking separately at the current rules for error allocation to decide if they will require permanent changes in a smart future, where the errors inherent in profiling will no longer be the driving force.

Electricity settlement expert group – transition

Figure 2 - Timelines of other projects⁵



⁵ The dates shown in the table are indicative and are subject to change.

Ofgem/HMG-led projects

- 5.04 **Smart meter roll-out.** Suppliers are obliged to take all reasonable steps to install smart or advanced meters into every site in Profile Classes 1-4 between now and the end of 2020. In addition to the investment in the technology, suppliers will also be investing in internal systems for handling the data from smart meters and developing their business propositions to leverage the opportunities offered by smart.
- 5.05 Based on the ambition set out in Section 3, the development of new HH arrangements would coincide with the smart meter roll-out. This may create opportunities for cost savings (or conversely impose additional costs) for transition. For example, there may be synergies to be found by enabling firms to make systems or business changes (eg tariff development) simultaneously for both the smart meter roll-out and settlement reform.
- 5.06 Additionally, go-live may occur before the end of roll-out. We recognise that there needs to be a viable number of smart meters ready to move onto the new arrangements by go-live, but this is unlikely to be problematic given that the mass roll-out will begin in 2015.
- 5.07 **Smart Energy GB.** This body has been charged with building consumer awareness and engagement with the smart meter roll-out and will sit alongside suppliers' own efforts on this front. The consumer engagement plan is scheduled to last for the duration of the smart meter roll-out (ie until 2020).⁶ It would therefore overlap with settlement reform. Provided that consumer messages (undertaken by suppliers or the Smart Energy GB) on smart meters and settlement reform are joined up and avoid causing consumer confusion, we do not foresee any issues with the timetables overlapping. Indeed, it could be beneficial if it enables synergies and joined-up messaging.
- 5.08 **Data and Communications Company (DCC).** The DCC is responsible for linking smart meters in homes and small businesses with the systems of energy suppliers, network operators and other companies. The DCC is scheduled to reach initial live operations towards the end of 2015 at which point 80 percent of premises will have communications coverage. It will continue to expand coverage until 2020. The DCC would be critical to the new HH arrangements and its initial live operations date of late 2015 means that it would be established prior to HH arrangements being developed. We therefore do not foresee the DCC's timetable imposing constraints on settlement reform.
- 5.09 **Reform of switching arrangements.** Ofgem's proposal for the industry to move to next-day switching for electricity and gas is currently pending an Authority decision. Ofgem proposes that this reform is implemented by Q3 2018⁷ at the latest and the development phase (including detailed design, enactment of changes and system design, build and test) could therefore overlap with settlement reform. It would be a similar type of project to settlement, insofar as it would entail cross-industry coordination on code changes, require changes to IT systems for both central systems and suppliers, and entail consumer communications and engagement. This could prove a useful learning exercise for the settlement project. We do not see it as having significant cost implications for transition timings.
- 5.10 **Centralised registration.** As part of the next-day switching proposal, Ofgem proposed moving to a centralised registration service for the gas and electricity market. This would be operated by the DCC and governed under the SEC. Interface with registration is a key part of settlement, for example for validation of meter reads. There may be cost savings to be made by developing new settlement systems that interface with the new registration system from day-one, as opposed to systems designed for existing registration systems that subsequently need to be redesigned. The downside would be that introducing such a dependency increases the risks of delays to delivery.
- 5.11 **Other work in Ofgem's Smarter Markets Programme.** Alongside settlement and change of supplier, Ofgem's Smarter Markets Programme is currently addressing demand-side response and consumer protection and empowerment. We will ensure that settlement is aligned with other projects where required.

⁶ Central Delivery Body, Engagement Plan, 2013. (<http://www.smartenergygb.org/sites/default/files/engagement-plan-1213.pdf>)

⁷ Ofgem, 'Moving to reliable next-day switching', p.33. (<https://www.ofgem.gov.uk/ofgem-publications/88156/fastandreliableswitchingcondocfinal.pdf>)

- 5.12 **Electricity Balancing Significant Code Review (EBSCR).** This policy entails a significant change to cash-out arrangements and as such to the incentives that suppliers face in balancing their positions. Ofgem strongly urges industry and the BSC panel to implement the modifications according to a timetable including a winter 2015/16 release for the bulk of the reforms with the final steps in place by winter 2018/19.⁸ This means that it would likely overlap with the transition to new HH arrangements.
- 5.13 The EBSCR will sharpen incentives by making balancing prices more accurate and settlement reform would make energy charges more reflective of actual consumption. Therefore in terms of impact on suppliers' business, both would work to incentivise suppliers to forecast actual consumption accurately (one of the objectives of the settlement project). We do not foresee EBSCR implementation affecting the costs of transition timings.
- 5.14 **Retail Market Review (RMR).** The RMR is now in place. In order to make the market more transparent and accessible to consumers it has placed various constraints on suppliers' pricing options. For example, a customer must be notified 30 days in advance of any disadvantageous change to their tariff and there is a cap on the number of tariffs a supplier can offer. The added incentive on suppliers to offer time-of-use tariffs is one of the key benefits of settlement reform. The expert group has previously raised the point that such tariff innovation could be restricted by the RMR rules. Ofgem is putting in place an RMR evaluation regime starting in 2015 as part of the annual competition assessment work.⁹ We will feed into this analysis any issues that the RMR causes for settlement reform.

Industry-led projects

- 5.15 **BSC Modification Proposal 272 ('P272').** This proposal would mandate that larger non-domestic customers be settled on the current HH arrangements. The BSC Panel recently published a consultation that proposed implementing P272 in April 2016. It is a similar process to this settlement reform in scope here but does not have direct implications for the latter and they are unlikely to overlap.
- 5.16 **Changes to distribution charging.** This comprises P300 and DCUSA Change Proposal 179. If approved, these changes would enable sites to be moved from NHH to the current HH arrangements. These changes are also preconditions for the settlement reform under discussion here; however they are expected to be in place prior to the move to new settlement arrangements.

5.3 Interaction with existing settlement arrangements

- 5.17 There are considerations around the integration of the new HH settlement arrangements with the existing settlement arrangements, including Central Volume Allocation (CVA) arrangements, the process for settling unmetered supplies and the existing HH settlement process.
- 5.18 The latter in particular raises a number of questions. For example, up to what point would suppliers be able to move customers onto the existing HH arrangements? Would suppliers be permitted to move customers from the new to the existing HH arrangements? The detail of such issues will need to be explored at a later stage in the project; however it is worth being aware of such issues in case they inform questions of transition.

5.4 Potential reforms triggered by settlement project

- 5.19 The settlement project may require changes to other parts of the regulatory framework, which are outside the strict scope of this project. Such changes must be taken into account since their timings will determine the timings of settlement reform.
- 5.20 One such area is the licence rules that relate to data access and privacy. The rules as they stand oblige the supplier to obtain explicit opt-in consent from the customer in order to collect their HH consumption data.

⁸ Ofgem, 'Electricity Balancing Significant Code Review Final Policy Decision', p.6. (<https://www.ofgem.gov.uk/ofgem-publications/87782/electricitybalancingsignificantcodereview-finalpolicydecision.pdf>)

⁹ Ofgem, Open letter on RMR monitoring and evaluation. (<https://www.ofgem.gov.uk/ofgem-publications/85836/retailmarketreviewmonitoringandevaluatingtheimpactofthenewrules.pdf>)

As the expert group has already discussed, work may be required to enable settlement to use actual HH data including from customers who have opted out of submitting such data to suppliers.

6. Next steps

- 6.01 At the expert group meeting on 3 September we will present a summary of this paper to set the scene for an initial discussion on the key considerations, focused on the questions set out in section 1. Drawing on this initial discussion, we will refine our thinking in preparation for a second detailed discussion at the fifth expert group meeting on 1 October. We ask that expert group members reflect on this paper and the discussion at the 3 September to develop their thoughts ahead of the 1 October meeting.