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Electricity settlement expert group

Meeting 6 – 23 October 2014

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Agenda

10.00 – 10.10	Welcome and introductions
10.10 – 10.20	Review minutes from meeting five
10.20 – 11.50	Detailed discussion on reform packages
11.50 – 12.15	Options for DCC data retrieval
12.15 – 13.00	*Lunch*
13.00 – 14.00	Discussion on priorities for the next stage of the project
14.00 – 14.45	Error allocation
14.45 – 15.00	Wrap up and AOB

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Review of minutes from meeting five

Expert group

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Detailed discussion on reform packages

Francis Jackson – Ofgem

Agenda and session objectives

- Re-cap key points from last session
- In the context of a possible future cost assessment:
  - Discuss how costs could be categorised
  - Discuss assumptions needed to provide cost estimates

Re-cap of last discussion
Packages

- Packages are viable sets of shortlisted options, across all focus areas.
- Group discussed combinations of options:
  - No incompatible options identified.
- Group discussed approach to costing options:
  - Group agreed with disaggregated approach, keeping options open at this stage.
  - DPDA and transition seen as key cost drivers.

Re-cap of last discussion

Cost assessment

- Industry will require time to prepare estimates.
- Organisations should be asked to provide narrative around costs.
- It was agreed that dialogue was required to achieve:
  - Clear shared understanding of cost categories and options.
  - Clarity around underpinning assumptions.

Cost categories
Approach

- Expert group agreed that it can provide useful input on cost categories.
- Costs grouped by organisation in best position to respond.
- Approach taken is to **categorise costs by business activity**.
- We are looking here at costs that would be directly caused by using HH data in settlement.
  - Costs of handling of greater volumes of data.
  - Costs of new processes.
- Costs of product/tariff innovation as a result of changing incentives may come later and is a separate consideration.
- Assuming competitive Supplier Agent model.

Upfront costs	Ongoing costs
Demand forecasting	Demand forecasting
Pricing	Customer service
Customer service	Settlement validation
Settlement validation	
Billing	
Supplier Agent contract changes	
Change of Measurement Class	

Does the group agree with these proposed cost categories for suppliers?

Do any require combining or sub-dividing?

Cost categories
Supplier Agents' costs

Upfront costs	Ongoing costs
Data processing	Data processing
Data aggregation	Data aggregation

Does the group agree with these proposed cost categories for Supplier Agents?

Does the group agree that Supplier Agents' costs can be separated from suppliers' costs, eg for suppliers with internal agents?

Cost categories
Other parties' costs

Upfront costs	Ongoing costs
Data retrieval (DCC)	Data retrieval (DCC)
Data transfers (Electralink)	Data transfers (Electralink)
Settlement processing (ELEXON)	Settlement processing (ELEXON)

- Given the recent changes to distribution charging, our understanding is that the costs to distributors would be minimal.

Does the group agree with these proposed cost categories for other parties?

Would any other organisations be affected?

Assumptions

Assumptions for first stage of project

Type	Assumption
Roll-out	Smart meters are installed in over 99% of domestic premises by end of 2020
	Smart meters are installed in 77% of smaller non-domestic premises by end of 2020; the remainder have advanced meters
Access to data	HH consumption data is available for settlement
DCC	DCC offers services from December 2015
	Suppliers receive consumption data from domestic premises through the DCC
	Suppliers receive consumption data from 97.5% of smaller non-domestic premises through the DCC
	Suppliers will not receive consumption data for smaller non-domestic premises with advanced meters through the DCC
Settlement	No change to settlement processes outside the scope of our work

Assumptions (cont'd)

Assumptions for next stage of project

- Some assumptions may require updating for the next stage of the project.

Do any assumptions require revisiting?

- Parties may be required to make additional assumptions in order to estimate costs.

What additional assumptions might be required?

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Options for DCC data retrieval

Jeremy Adams-Strump – Ofgem

Introduction and agenda

- Recap on options
- Initial assessment
- Next steps

Recap of retrieval options

- At first expert group DCC presented two options for retrieving HH data from smart meters

Option	Description
1. Enhance meter calendar to support half-hourly schedule readings	One-way communication – meter sends data to suppliers at programmed times
2. Issue "Read Profile Data" Service Request to obtain half-hourly readings	Two way communication – suppliers issue a service request and meter sends HH data back 3 sub-options for this: • Ad hoc service request – can be issued at any time (30 seconds) • Future dated in Data Service Provider (DSP) – supplier sends request with target time, DSP stores request until target time arrives and then issues the request to the meter to retrieve the HH data (24hours) • Scheduled in Data Service Provider (DSP) – DSP issues future dated request as defined in a schedule e.g. daily, weekly (24 hours)

Enhanced calendar

Pro: Less stress on communications infrastructure than a service request
Con: Current SMETS 2 meters do not have this functionality – upgrading would be expensive

Service request

Pro: Command already exists
Con: If all suppliers send service request at same time it could overload the system but there are options to manage this
Con: Uses slightly more network capacity than enhanced calendar

Enhanced calendar is unlikely to be a viable option as benefits are not significant and costs likely to be high

On-demand service request
Assumption for assessing costs

- Bulk on-demand service requests could overload the communications system
- Scheduling the service request in the DSP would mitigate this risk
- DECC defined target response time for DSP scheduled service request is 24 hours – included in DSP's contract and the SEC
- On that basis, our assumption, for any assessment of costs of using HH data in settlement, is that data will be retrieved through a scheduled DSP service request
- Under DCC's current policy, messaging costs will be recovered through parties' DCC monthly fixed charges

We welcome your views on our assumption on how data could be retrieved

Lunch

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Priorities for 2015

Jeremy Adams-Strump – Ofgem

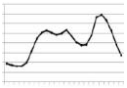
Introduction and agenda

- Recap on 2014
- Review potential focus areas for next stage of project
- Seeking your view on what to prioritise in next stage of project

Recap of 2014
Much progress made

Developed analytical framework

Settlement timetable



Estimating data for consumers with smart and traditional meters

Data processing and data aggregation

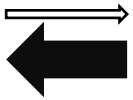
Correcting errors after the final settlement run

Identified key considerations for transition and interactions with other reforms

Agreed approach to developing reform packages

Recap of 2014
Still areas to address

? Error – approach in a smart world

 Export – options for settling export in smart world

Potential areas for 2015

Feedback from expert group meetings

- Members have raised a number of areas which could be considered further as part of work to look at using half-hourly data in settlement

Further work on options	Potential new areas	Assessment
Further development of DP/DA central agent option and counterfactual	Impact on Data Transfer Network	Detailed assessment of costs
Detailed development of site-specific estimation methodology and smart profiling	Review Change of Measurement Class process	Distributional analysis
	Explore models of mitigating risk of disputes	Detailed assessment of benefits
	Further analysis on accuracy of smart meter HH reads	

Potential areas for 2015
Seeking your views

- Are there other areas critical to the case for using HH data in settlement which could be considered?
- What do you consider to be the priority for the next stage of the settlement project ?

Next steps

- Reflect on group's views
- Present at Smarter Markets Coordination Group
- Provide update at next expert group meeting

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Error allocation

Francis Jackson – Ofgem

Introduction and agenda

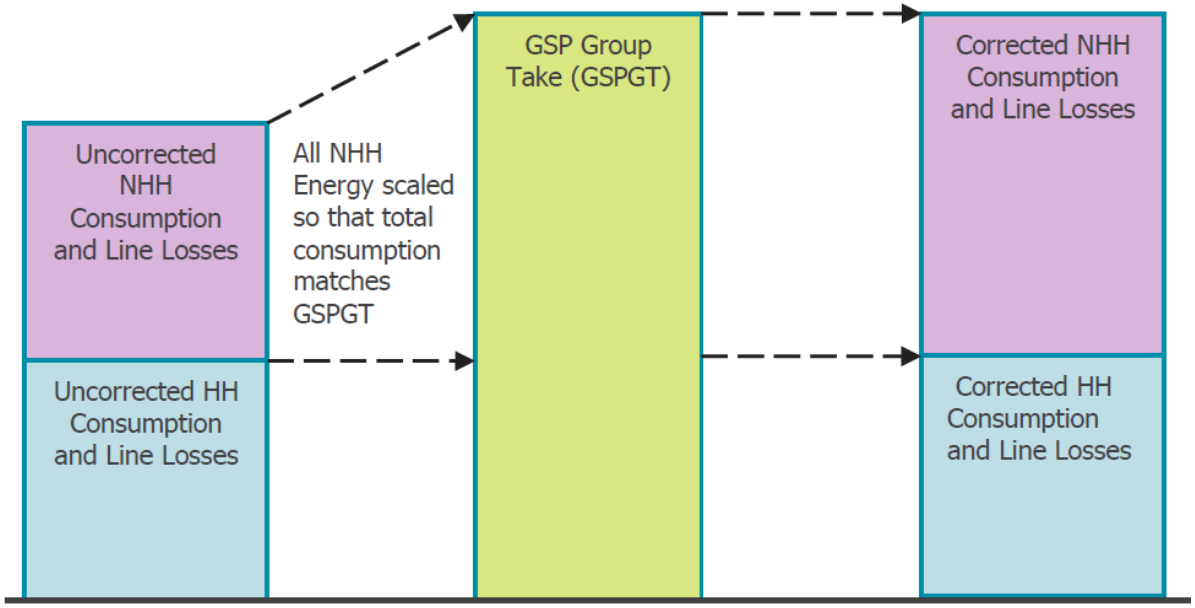
- The group has raised this as a potential area for reform.
  - Equity of allocations in future HH world (longer-term reform).
  - Need to protect NHH customers during transition (shorter-term changes).
- Agenda:
  - Why do we need to allocate error?
  - How does Group Correction work today?
  - Gather expert group's views on shorter-term changes to the current process.
  - Gather expert group's views on longer-term principles for error allocation.

Why do we need error allocation?

- Group Take (total net energy flowing into a GSP group) will not always equal the total uncorrected consumption (actual and estimated) and line losses.
- This is because of ‘errors’. Errors (shape and volume) arise for a number of reasons, including:
  - profiling (around 80% of shape error)
  - incorrect line loss calculations
  - unmetered supplies
  - SVA process errors
  - theft, etc.
- Errors are material: it is estimated that around 10TWh energy allocated to wrong period each year (shape error) (ELEXON, 2013).

How is error allocated?
Group Correction

- The Group Correction mechanism exists to allocate the total error between suppliers by scaling up or down their metered volumes.
- It does so based on a best estimate of errors attributable to different types of consumption (eg NHH).
- The amount of Group Correction would reduce with the transition of sites from NHH profiling.
- All Group Correction is currently allocated to NHH sites.



Source: ELEXON

NHH/HH allocation
What is the issue?

- NHH profiling creates around 80% of allocation error. Settlement reform would reduce the number of NHH sites to a small minority.
- However, there are errors that the move away from NHH settlement may not eliminate, eg:
  - HH metering inaccuracies.
  - HH estimation errors.
  - SVA process errors.
  - UMS inventory and estimation errors.
  - Energy theft.
- With the current 0.0 weighting for HH sites, NHH customers are currently allocated all of these errors. As the number of these customers declines during transition, those remaining would each pick up an increasing share of them.
- There is scope under the current mechanism to allocate error to HH sites – this has been done in the past…

NHH/HH allocation
Past changes

	Original Weights	Revised Weights (Effective 1 April 2013)	Revised Weights (Effective 1 April 2014)	Revised Weights (Effective 20 August 2014)*
NHH consumption	1.0	1.0	1.0	**1.0**
NHH losses	1.0	2.3	2.25	**1.2**
HH consumption	0	0	0.1	**0**
HH losses	0	1.0	0.94	**0**

New method for calculations

*Same scaling weights currently applicable to export components.

Principles
Group discussion

- Does the group agree that changes will be required to the current allocations during and after the transition?
- Does the allocation mechanism need to be forward-looking?

- Group Correction is reflective of costs if all suppliers' portfolios create the same amount of error given their volumes.
- This may not always be the case, however. Suppliers may, for example:
  - serve niche markets,
  - have different amounts of actual meter reads,
  - be responsible for more or less process error etc.

- It has been suggested that Group Correction should be allocated according to suppliers' performance against targets for submitting actual data to settlement.
- However:
  - Not all errors are attributable to poor settlement performance.
  - There are other ways of controlling fluctuating volume allocations to suppliers. For example, we have looked at reducing the settlement timetable.
  - Group correction may not necessarily the best tool to use to incentivise settlement performance – fines could be separately determined, for example.

Does the group think that the principles behind error allocation need to be revised? Is there a practicable alternative to the current mechanism?

What are the risks of changing the process?

Wrap up and next meeting

Chair

Wrap up and next meeting

Next meeting: Wednesday 12 November 2014, Ofgem.

- Agenda:
  - Issues around export settlement
  - Priorities follow-up item
  - Summary of group's findings
- **Papers circulated:** 5 November 2014

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