

# Electricity settlement expert group

Meeting 2 – 10 July 2014

ofgem

- 10.00 – 10.10** Welcome and introductions
- 10.10 – 10.20** Review minutes from meeting one
- 10.20 – 10.35** Introduction to discussion on settlement timetable
- 10.35 – 11.20** Evidence to inform discussion on settlement timetable
- 11.20 – 12.30** Detailed discussion on settlement timetable
- 12.30 – 13.15** *Lunch*
- 13.15 – 14.30** Introductory discussion on data estimation
- 14.30 – 14.50** Update to analytical framework
- 14.50 – 15.00** Wrap up and AOB

# Review of minutes from meeting one

## Expert group

# Introduction to discussion on settlement timetable

Kevin Spencer – ELEXON

## **Evidence to inform discussion on settlement timetable**

Simon Bevis – Utilita

Tabish Khan – British Gas

Jonathan Bennett – DCC

Jonathan Priestly – ELEXON

# Detailed discussion on settlement timetable

Jonathan Priestly – ELEXON

**Lunch**

12:30 – 13:15

# Introductory discussion on data estimation

Francis Jackson – Ofgem



- Recap context to project from expert group paper.
- Explain proposed options.
- Explore other potential options.
- Discuss initial evaluation of those options.
- Explore next steps.

## Why will estimation be necessary?

- There will be situations where actual HH data is missing for one or several settlement runs.
- This could occur in the following situations for sites where a smart/advanced meter is installed:
  - There is a delay in receiving data from the meter, for example due to communications disruptions.
  - There are errors in the data, for example due to data corruption.
  - The meter has been incorrectly installed or configured and has not correctly recorded the HH data.
- It will also be the case at sites where no smart/advanced meter is installed and at sites lacking WAN coverage.

## Why is estimation in scope for the settlement project?

- Likely to need one or several new processes – eg the current HH process is designed for a relatively small number of non-domestic sites.
- Important to keep costs under control.
- Need to look at how customers with traditional meters are settled and charged for costs of estimation – consumer protection consideration.
- Objective:

*To identify a process or set of processes for estimation which will enable sufficiently accurate settlement, whilst remaining cost-effective.*

- The number of customers on traditional meters – our assumption is less than one per cent by 2020. Prior to completion of roll-out this number will be higher.
- Settlement timetable – accurate estimation may make earlier runs possible; earlier runs may mean that estimation is relied on more frequently.
- Data processing and data aggregation – this work on estimation may affect the nature of the data processing function.

**Are there other important interactions that we should be aware of?**

### 1) Maintain current profiles

- Retain current Profile Classes.
- Continue to update annually by sampling customers with traditional meters.

### 2) Freeze current profiles

- Retain current Profile Classes.
- Remove requirement to update them – end sampling.

### 3) Profiling with profiles generated from smart data

- The HH data from smart meters opens up numerous possibilities for profiling. Variables that could be changed include:
  - Dynamic versus static profiling.
  - The size of the sample.
  - The number and type of profiles.
  - Profiling for volumes.

**Are all of these options realistic? Are there other options that should be considered?**

	1) Maintain current profiles	2) Freeze current profiles	3) Generate profiles from smart data
<b>Accuracy</b>	Maintains current level of accuracy	May reduce the accuracy of profiling in comparison to Option 1.	Has the potential to significantly improve the accuracy of profiling over Option 1.
<b>Costs – capital</b>	Nil – the process is already in place.	Nil – simplifies existing process.	Costs of developing new software to calculate profiles (central costs).
<b>Costs – operational</b>	Costs of running the sample and conducting data analysis.	Eliminates sampling costs, which make up the majority of profiling costs. Requires minimal data analysis.	Likely to be cheaper than Option 1 since eliminates physical sampling.

**Do you agree with this assessment? Do you have any comments on other evaluation criteria?**

### 4) Profiling with profiles generated from smart data

- Profiles could be used for estimation at HH-metered sites. As per Option 3 (for traditional meters), smart data presents a wide range of possibilities for profiling for estimation.

### 5) Freeze current profiles

- As per Option 2 (for traditional meters), the current profiles could be used for estimation. Under this option they would no longer be updated.



### 6) Site-specific estimation using historical site data

- Approach currently used for estimation in HH market – BSCP502.
- Uses historical consumption data for the site to recreate load shape and volume.
- Can be fully automated.
- Would require a profile of last resort for situations when sufficient data is missing. This could be:
  - 6a) **generated from smart data**; or
  - 6b) **frozen current profiles**.

**Are all of these options realistic? Are there other options that should be considered?**

	4) Profiling with profiles generated from smart data	5) Freeze current profiles	6) Site-specific estimation using historical site data	
			6a) Profile(s) of last resort generated from smart meter data	6b) Frozen current profiles used as profiles as last resort
<b>Accuracy</b>	Has the potential to significantly improve the accuracy of profiling over the current system. More accurate than option 5.	Future changes to load patterns would not be captured in the profile. This is the least accurate solution for these meters.	Can be highly accurate. The smart-generated profiles make this option more accurate than 6b.	Can be highly accurate. Using frozen profiles make this option less accurate than 6a.
<b>Costs – capital</b>	Costs of developing new software to calculate profiles (central costs).	Nil – introduces no new process.	Costs of developing new software to calculate site-specific estimates and profiles (costs to suppliers/Agents).	Costs of developing new software to calculate site-specific estimates and profiles (costs to suppliers/Agents).
<b>Costs – operational</b>	Minimal manual data analysis.	Minimal manual data analysis.	Running costs of automated systems for site-specific estimation. Minimal manual data analysis for profiling.	Running costs of automated systems for site-specific estimation. Minimal manual data analysis for profiling.

**Do you agree with this assessment? Do you have any comments on other evaluation criteria?**

- Ofgem will revert to the group at the 31 July meeting with options updated in light of today's discussion.
- The group to reflect on discussion and send any further thoughts or feedback.

**Can group members provide any data or information to inform option development or evaluation?**

# Update on analytical framework

Jonathan Amos – Ofgem

- Revised objective relating to forecasting:

*“Settlement should provide incentives on suppliers to forecast actual demand accurately.”*

- Revised objective relating to market arrangements:

*“Settlement should support market arrangements that rely on consumption data from settlement, **including distribution network charging and government programmes designed to support low-carbon generation.**”*

- Added a new evaluation criterion for “impact on consumers”
  - Consider both direct and indirect impacts of options on consumers

# Wrap up and next meeting

Chair

**Next meeting:** Thursday 31 July 2014, Ofgem.

- Morning – detailed discussion on estimation
- Afternoon – introductory discussion on the options for data processing and data aggregation

**Papers circulated:** 24 July 2014

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