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# CoS meter reading

Removing blockers to a fast and accurate switch for customers

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# Summary of current views on CoS meter reading dependencies for each meter type

| Metering type | Summary of current views |
|---|---|
| Electricity Smart | Data dependencies on CoS for smart electricity customers can be removed through enabling the old and new supplier to get the information they need from the meter on CoS and for the new supplier to reconfigure the meter. |
| Electricity HHly ("over 100kW HHly") | We understand that due to the large value of the contracts in this market, and the agent market structure, the processes for transferring data on CoS are efficient and should not be altered at this stage. |
| Electricity AMR (possibly developing into "AMR HHly") | View that agent appointment and data dependencies still exist for AMR meters on CoS, and that if AMR meters are moved to HHly under P272, the current more efficient "large HHly" arrangements could not be effectively extended to the "AMR HHly" market – an alternative solution would therefore need to be found. There is also an additional dependency on the transfer of comms details and broader interoperability issues. |
| Electricity Traditional | Agent appointment and data dependencies still exist for this group of customers on CoS. |
| Gas Smart | The agent appointment and data dependencies that exist in the Electricity market on CoS do not exist in the Gas market because of the centralised market structure.<br>The industry does not currently see a strong driver for altering the read arrangements for gas smart, but that there may be a desire to align the CoS read arrangements for gas with any new electricity arrangements. |
| Gas Traditional | |
| Gas DM | We understand that due to the small number of high value customers in this category, the current bespoke arrangements are working efficiently and should not be altered at this stage. |
| Gas AMR | Agent appointment necessary ahead of CoS read and interoperability issues exist at CoS. |

# Electricity smart meters

## Content for panel letter

Any comments on the panel letter?

# To what extent is the CoS dependent on the CoS meter read?

- A meter reading must be taken within 5 days before or after the SSD

- Due to the current dependencies, we understand that in order for the read to be taken within SSD+/-5, time must be built in ahead of SSD for the agents to be appointed and for information to be exchanged to facilitate the read. This ultimately lengthens the CoS process.

    - Are we right in thinking that the SSD+/-5 requirement means that in practice suppliers build in time ahead of SSD to appoint agents/exchange data to facilitate the read?

- The data hand offs can also be a driver of errors in the data so a simpler and more reliable system of data exchange would support a more reliable and efficient CoS.

# Electricity AMR and traditional meters

## Central database reform option

| | |
|---|---|
| Central metering database | • Could hold any information necessary to remove data dependencies on CoS.<br>• For traditional meters it would need to contain MTDs and last read/associated EAC.<br>• For AMR meters it would need to contain MTDs (Including level 1 and 2 but excluding level 3 outstation passwords) and depending on P272, it may need to contain last read/associated EAC (if P272 is accepted, historical read data should not be necessary for validation, but it may still be necessary for deeming reads) |
| + | |
| Stringent governance on data quality | • Without excellent data quality, dependencies will not be removed, and could be worsened. |
| = | |
| No need for transfer of MTDs on CoS | MTDs can be retrieved from central database as necessary |
| No need for transfer of consumption history on CoS | Last read/associated EAC can be retrieved from central database as necessary (may not be necessary for AMR meters if P272 is accepted) |
| Change of agents still happens ahead of CoS read | Some agents would still need to be appointed ahead of the CoS read at SSD+/-5 |
| Minimal information flows necessary | Agents can be appointed after objection window, minimising flows |
| **AMR ONLY**: Level 1 and 2 access passwords held centrally | Will facilitate CoS read where MTDs are correct and where there is no reconfiguration necessary for the opening read |
| **AMR ONLY**: Interoperability issues exist around headends and comms contracts | These can require meter hardware to be changed on CoS to facilitate a read, or new contracts to be created, either of which can act as a drag on CoS. |

# Electricity traditional meters

## Addressing remaining issues around change of agents

Change of agents still happens ahead of CoS read

Where MTDs and consumption history are held centrally

- **MOPs:** no longer need to be appointed prior to the CoS meter read as the DC can get the MTDs from central systems.
- **DAs:** can be appointed following read, but prior to first submission to settlement.
- **DCs:** still needs to be appointed on CoS to obtain and validate the read.

- In BSCP 504 it is required that a new DC is appointed by SSD. Is there anything industry can/needs to do to reform the appointment process so that it can be done very quickly (e.g. within 1 working day) without creating the need for lead time ahead of SSD?
- Could efficiencies in the DC appointment process be carried over into the appointment of other agents?
- Might one option be to change the BSCP to allow the supplier themselves to obtain and validate the CoS read (but not subsequent reads)? Would this be sufficiently robust for stakeholders from an audit perspective, and might it enable a more efficient CoS process?

• With a central metering database, but no further reform, the following issues with obtaining a CoS read will still remain:

a) MOP, DC and comms provider would still need to be appointed ahead of the CoS read at SSD +/-5. (Assume DA can be appointed following read, but prior to first submission to settlement)

- **MOP** may need to be appointed to allow for the transfer of the level 3 comms password to facilitate the read
- **DC** must be appointed to obtain the read
- **Comms** provider must be in place to obtain the remote read

b) Where the new DC's headend software is incompatible with the outstation, extra time will be necessary to replace the meter/arrange contracts with old DC to facilitate reads

c) Where the new MOP/supplier does not have a contract with the existing comms provider, they will have to establish one or change the comms provider by changing the sim in the meter – requiring extra time

d) The level 3 access password will still need to be passed from MOP to MOP (to keep it secure) this means that a read may still be dependent on information being passed where:

- The MTDs are wrong
- There is a change of tariff type (similar to smart) where the meter needs to be reconfigured at CoS for the opening read.

# Addressing the remaining issues with electricity AMR meters – Option 1

Within day process for appointment of agents (whether or not there has been a pre-existing contractual arrangement with them) such that all interoperability issues can be swiftly resolved through the appointment of appropriate agents

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If P272 rejected: Old MOP would be required to send level three password access to new MOP by SSD or SSD-1.

OR

If P272 accepted: Reconfiguration not necessary as half hourly data can be used for CoS read/billing in the event MTDs are incorrect or to calculate the bill impacts of a tariff change.

# Addressing the remaining issues with electricity AMR meters – Option 2

| | |
|---|---|
| A common solution for managing comms for all AMR meters (could be extended to include validation thereby being effective centralisation of DC function) | • 'Common solution' would need headend software compatible with all of the outstation types<br>• 'Common solution' would hold all of the comms provider contracts for the meters |
| + | |
| If P272 accepted: Half hourly data used to avoid need to reconfiguring | • Reconfiguration password not necessary as half hourly data can be used for CoS read/billing in the event MTDs are incorrect or to calculate the bill impacts of a tariff change. |
| **OR** | |
| If P272 rejected: Level 3 access passed MOP to MOP to facilitate reconfiguration | • MOP appointment/deappointment would have to be very quick<br>• MOP would have to be required to send data on SSD or SSD-1 |
| + | |
| Old and new supplier poll the meter for opening and closing reads | • So the old supplier isn't dependent on the new supplier for the opening read<br>• So the new supplier can reconfigure if necessary to ensure new read registers are set to 0 from SSD (as with smart, need to ensure the old supplier can take a read before reconfiguration takes place)<br>• Could ADM specification be changed to require midnight read on SSD to be stored? |

Issues described on slide 7 resolved in the following way:

a) If P272 accepted (to negate need to appoint MOP in advance of CoS read) and BSCP changed to allow the suppliers themselves to obtain and validate the CoS read but not subsequent reads (to negate need to appoint DC in advance of CoS read), no agent appointment should be necessary ahead of the CoS read. If either of these agents does still need to be appointed, the appointment process should be made more efficient.

b)+c) Using a common solution for procuring appropriate head end software for all outstation types and holding all the comms contracts, means that the hardware does not need to be replaced on CoS/new contracts do not have to be struck to enable meter reading.

d) If P272 is accepted ,the level 3 password should not have to be passed from MOP to MOP ahead of the CoS read.

# Gas AMR and traditional meters

## Central database already exists and agent appointment simpler

| | |
|---|---|
| Xoserve holds MTDs and read history | • Xoserve takes the read from the Meter Reading Agent and validates and processes it.<br>• Xoserve holds MTDs and read history centrally to allow it to do so. |
| + | |
| Simpler agent appointment processes | • Meter Reading Agents are the only relevant agents for these stages of the process<br>• For traditional meters, MRAs generally appointed on 'job by job' basis rather than being assigned to a particular MPAN |
| = | |
| No need for transfer of MTDs on CoS | MTDs held by and used by Xoserve as necessary |
| No need for transfer of consumption history on CoS | Consumption history held by and used by Xoserve as necessary |
| **TRADITIONAL METERS ONLY**: Contracts with MRA already in place to obtain CoS read | New supplier will simply add new MPAN to list of meters for MRA to read |
| Minimal information flows necessary | Agents can be appointed after objection window, minimising flows |
| **AMR ONLY:** Agents must be appointed ahead of CoS read | MRA needs to be appointed to obtain read |
| **AMR ONLY**: Interoperability issues exist around headends and comms contracts | These can require meter hardware to be changed on CoS to facilitate a read, or new contracts to be created, either of which can act as a drag on CoS. |
| **AMR ONLY:** No password arrangements comparable to electricity | Will facilitate CoS read where MTDs are correct and where there is no reconfiguration necessary for the opening read |

# Gas AMR

## Understanding remaining issues around agent appointment and interoperability

- Without further reform, the following issues with obtaining a CoS read will still remain:

a) AMR service provider (otherwise called the MRA) must be appointed in time to obtain the CoS read at SSD +/-5. (Assume read not contingent on appointment of any other agents)

b) AMR service providers hold comms contracts for obtaining the data, and also have the head-end software to read the meters. Not all AMR service providers have the appropriate head-end software/comms contracts to read all AMR devices.

- The new supplier will generally appoint the existing AMR service provider for a MPRN on CoS, but this may take a long time if they don't have a pre-existing contract with that provider
- If they wish to appoint an alternative AMR service provider on CoS, the AMR device on the meter will need to be replaced along with the sim for the comms contract

c) There is no formal obligatory database which records the meter type (i.e. AMR) for an MPRN, the type of AMR device installed, and the existing AMR service provider associated with an MPRN

- This means that AMR meters are sometimes turned dumb under current arrangements, and also inhibits the efficiency of the above processes.

d) In gas, there are no password arrangements comparable to electricity. (NB remote disconnection is not possible in gas)

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# Addressing the remaining issues with gas AMR meters – Option 1

Within day process for appointment of agents (whether or not there has been a pre-existing contractual arrangement with them) such that all interoperability issues can be swiftly resolved through the appointment of appropriate agents

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Additional data held on central database

# Addressing the remaining issues with gas AMR meters – Option 2

| | |
|---|---|
| A common solution for managing comms for all AMR meters (effectively centralising MRA function) | • 'Common solution' would need headend software compatible with all AMR devices<br>• They would hold all of the comms provider contracts for the meters |
| Central database holds additional details | • Meter type for an MPRN (including what type of AMR it is)<br>• Existing MRA associated with an MPRN (If still necessary) |
| Password access created (to mirror electricity arrangements) and held centrally | • We understand that no passwords are currently necessary to allow access to gas meter data.<br>• To create a more secure system, passwords created and held centrally<br>• Would reconfiguration passwords be necessary in gas? |
| Old and new supplier poll the meter for opening and closing reads | • So the old supplier isn't dependent on the new supplier for the opening read<br>• So the new supplier can reconfigure if necessary to ensure new read registers are set to 0 from SSD (as with smart, need to ensure the old supplier can take a read before reconfiguring)<br>• Could ADM specification be changed to require midnight read on SSD to be stored? |

Issues described on slide 11 resolved in the following way:

a) New supplier able to obtain reads directly from 'common solution', so no need for AMR service provider to be appointed to facilitate CoS read.

b) Using a common solution for procuring appropriate headend software for all AMR device/meter types, means that the hardware (either the device or the sim) does not need to be replaced on CoS/new contracts do not have to be struck to enable meter reading.

c) Additional details held on obligatory central database to make process more efficient.

d) Password arrangements created with the aim of making reads more secure.

# Proposed next steps

## Removing agent dependencies for the CoS meter read

| Metering type | Next steps |
|---|---|
| Gas Smart | Ofgem to give a high level direction to Panel asking them to review whether or not there would be benefits to harmonising the smart gas arrangements with the new smart electricity proposals. |
| Gas AMR | Where 'quick wins' are identified, we consider that these should be progressed now by industry. Where longer-term reforms are thought to be necessary we will look to consult on these in Q1 2014.<br><br>N.B. we may consider it necessary to hold further discussions with the metering sub-group to refine reform proposals. |
| Electricity Smart | To be led by industry following clear high-level direction given from Ofgem. |
| Electricity AMR (possibly developing into "AMR HHly") | Where 'quick wins' are identified, we consider that these should be progressed now by industry. Where longer-term reforms are thought to be necessary we will look to consult on these in Q1 2014.<br><br>N.B. we may consider it necessary to hold further discussions with the metering sub-group to refine reform proposals. |
| Electricity Traditional | |

Following COSEG discussions, broader centralisation of DPDA functions is still under consideration. However, latest thinking is that the drivers for doing so might be more closely linked to settlement rather than CoS.

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