



## Report on Issue 46 'Non Half Hourly Interoperability'

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<b>Meeting Name</b>	BSC Panel
<b>Meeting Date</b>	12 December 2013
<b>Purpose of paper</b>	For Information
<b>Summary</b>	This paper sets out the discussions, conclusions and recommendations of the Issue 46 Group. The Group recommends that some changes could be raised as a result of this Issue. Issue 46 is now closed.

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### Background

An advanced Meter is defined as a Meter, which either on its own or with an ancillary device, stores measured electricity consumption data for multiple time periods; and provides remote access to such data by the licensee.

ELEXON investigated interoperability issues for sites with advanced metering at an interoperability workshop in September 2008. In collaboration with the Advanced Metering Expert Group (AMEG), ELEXON developed the Advanced Metering Operational Framework: Profile Classes 5-8. The purpose of the framework was to facilitate effective market operation and interoperability.

The Supplier Volume Allocation Group (SVG) endorsed the framework in November 2008, which has since been implemented via a number of Change Proposals (CP's) and Approved Modification [P230 'Enabling Interoperability through the use of CoP10 and CoP5 Metering'](#).

### What is the issue?

The SVG approved [CP1350 'Clarifying Meter Technical Details relating to Metering Systems that can be read remotely'](#) at its meeting on 1 November 2011. The solution for CP1350 was built upon the previously implemented [CP1335 'Mandating use of Auxiliary Meter Technical Details Data flow'](#). CP1335 was raised to support commercial interoperability under the roll out of advanced Meters for Profile Classes (PCs) 5 to 8. CP1350 introduced a requirement for the old Meter Operator Agent (MOA) to provide the new MOA, on change of MOA, with sufficient data to allow the new MOA to fully operate all the remote functionality of the Meter. This information would be provided using the D0313 'Auxiliary Meter Technical Details' data flow.

During the meeting some SVG members expressed wider concerns around issues with interoperability in the Non Half Hourly (NHH) market. One member believed that the CP1350 solution did not take into account issues arising from using (or changing between) communication methods such as Short Message Service (SMS), Global System for Mobile Communications (GSM) or General Packet Radio Service (GPRS). The SVG also noted that the seamless transfer of assets, or information about those assets, to enable data collection is becoming increasingly difficult in the NHH Market.

An SVG member noted that the uptake of smart metering, with the Data & Communications Company (DCC) as sole Data Retriever, would go some way to resolving these issues for smart Meters serviced by the DCC. Additionally, the SVG contended that it was unknown what impacts would be associated with the new non-BSC Smart Metering System Operator (SMSO) role.

The SVG asked ELEXON to investigate these concerns, requesting that ELEXON consider what lessons can be learnt from the Half Hourly (HH) market, for example from Meter and protocol approval processes.

ELEXON presented the current (and proposed) mechanisms for delivering technical interoperability to the SVG at its meeting on 5 February 2013 ([SVG144/06](#)). We considered interoperability in terms of the continuation of Settlement performance for remotely read Meters, following a Change of Supplier (CoS) or Change of Agent (CoA). We have looked at what is required to keep a Meter 'smart' on a CoS or CoA to the extent that the Meter can continue to be read remotely.

ELEXON suggested that NHH processes could be strengthened by introducing protocol testing for advanced Meters in PCs 5 to 8. It was also suggested that a change be raised to clarify the rules for Outstation Protocol approvals where HH Metering Equipment is used for NHH Metering Systems.

The SVG agreed that ELEXON should form an Issue Group to look at all the issues associated with interoperability in the NHH Market, including the role of the new non-BSC SMSO.

### Issue Group's Discussions

The Issue 46 Group identified NHH interoperability issues under the following categories:

- Communications
- Non-standard Meter configuration
- Commissioning
- Baud Rates
- Data Transfer Catalogue flows

- Third party data retrieval risks and outstation passwords

The Group identified a number of potential improvements under Issue 46. For example, changes to Data Transfer Catalogue (DTC) flow notes in relation to Meter Types to ensure that flows are always sent (even when communications details are not known). However, some of the issues identified by the group did not have an obvious solution (e.g. issues relating to Baud Rates). Furthermore, some of the issues identified cannot be addressed under the BSC due to the advanced stage of the advanced Meter roll-out (e.g. standard configurations) or can only be resolved commercially (e.g. SIM card migration). Full details of the Issue Group's discussions can be found in the below subsections.

## Communications

### *General Packet Radio Service*

The Issue Group identified interoperability issues with Meters that use GPRS. One of the issues discussed was around Meters with GPRS being embedded with only one Internet Protocol (IP) address. This means that the Meter will only communicate with this IP address unless it is reprogrammed or the Subscriber Identification Module (SIM) card is replaced. This causes problems when a Meter migrates away as it will continue to communicate (and send data) to the old Agent and probably the Agent who initially installed the Meter. One member noted that when this happens (while operating as a Data Collector (DC)) they will either ignore the data, or reprogram the Meter if they are able to do so. If the new DC is unable to communicate with the Meter they will ask the MOA to configure it as they need the GPRS data (otherwise the Meter may need to be replaced). Another member commented that because of these issues they do not put GPRS in a Meter when they are only operating as a MOA, but will put it in when operating as an MOA and DC. The member believes that this is good practice.

The Group also discussed issues with Suppliers and agents using private Access Point Names (APNs)<sup>1</sup>, where GPRS is used. One member noted that, although this is an issue, it is still possible to capture data with an ordinary phone number through the use of Global System for Mobile Communication (GSM). This is a way of getting around some of the issues with private APNs. The member pointed out that this does not always work and some Meter types can only do one or the other. This work around (if applicable) means that an agent can obtain a register read at small cost, though that cost would build up over time. Another member noted that one could try to remotely reprogram the Meter in order to keep the Meter as is.

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<sup>1</sup> Private APNS could include access to a business network, access to the internet or just a static address to allow the device to be contacted.

### ***Migrating Subscriber Identification Modules***

The Group identified a number of interoperability issues around migrating SIM contracts. One member noted that not all Parties buy their SIMs from a single mobile communications provider. This becomes an issue when taking over a group of Meters. For example, a Party may have adopted 50 Meters but 10 have SIMs from Orange, 10 from Vodafone and 30 from T mobile. The Party may be able to use or migrate some of the adopted SIMs where they have existing contracts with a particular provider, but if they don't have a contract these SIMs may become stranded and therefore unusable. This is an issue as it takes time and effort to resolve and could result in Meters being replaced.

There were also issues identified with SIM contract durations. For example, a DC signs a two year deal with a customer for its services and then signs a five year deal with its communications provider. This becomes an issue for any future adopting agents. If the customer switches Supplier, resulting in a change of DC, the new DC will attempt to migrate the SIM contract but may not be able to as there is a valid contract still running with the old DC.

ELEXON asked the Group whether or not the interoperability issues relating to SIMs could be solved by changing the SIM card rather than changing the Meter. One Member responded that it really depends on where you get Meters from and whether it is more cost effective to replace the SIM or the Meter once on site. It was also noted that the MOA and DC contracts should go hand in hand with the SIM contracts; meaning that a SIM contract should not last longer than any given Supplier Agent contract. They also stated that for SIMs that are installed by the MOA, the DC needs to have connectivity to whatever network is associated with the SIM in order to communicate with the Meter.

ELEXON asked the Group how the issues identified with Supplier Agent and SIM contract durations might be addressed under the BSC. One Group member noted that the issues associated with contract duration are difficult to address as they are commercial issues that are causing industry frustration. Another member responded that most agents go with a 5 year SIM contract because of the cheaper price as the majority of communications providers do not do cheap short SIM contracts. The Group also noted that potential newly Qualified DCs may have significant interoperability issues because, at the onset, all of their SIM operated Meters will have existing contacts with other DC.

A question was raised around how many Automated Meter Reading (AMR) Meters contained SIMs. One member responded that the number is high, given that the number of Meters with Public Switched Telephone Networks (PSTNs) is in the tens of thousands, and there are now more Meters out there that contain SIMs than PSTNs.



### ***Loss of historic data***

The Group discussed issues with adopting Meters resulting in the loss of historic data.

One member stated that where they adopt a Meter and are unable to communicate with it, they will reprogram it to their settings, which can result in the loss of historic data held within that Meter. This is an issue because once this historic data is lost there is no way to get it back. The member advised that when they are unable to dial a Meter, replacing the Meter or reprogramming it is the best course of action to get around the interoperability issues (despite the potential loss of data). The majority of members agreed that in most cases adopted Meters are replaced routinely to avoid interoperability issues.

### ***Potential solutions***

One member believes that the way to address the issues with industry using different communication providers and different contract lengths is for the industry to use one, or a number of, agreed providers across the market. The member noted that the industry could use a collective group of providers where migration agreements were in place. Although the member believes that this is the best way to fix a number of the issues identified, they do not think it is achievable at this time.

Another member believes that the issues being discussed by the Group only apply to a minority of the Meters migrating. The member also noted that these issues do not currently sit under any governance, as these are commercial issues causing industry frustration. They believe that these are real issues for the industry now but it is relatively manageable given the number of 'inoperable' Meters migrating presently.

One member noted that it might be worth looking into guidelines of what to do when a Meter is taken over and what agents to use. Another member stated that this cannot be done as the Supplier needs to have the choice.

The Group also discussed the option of using PAKNET (an existing low power radio communications solution). One member highlighted that the PAKNET radio service is totally interoperable and would be a reasonable alternative to other radio services such as GRPS or GSM, but it's more expensive. Another member noted that even if it was used, the size of the equipment is not small enough to be practical in most cases and access to reasonable radio signal at the Meter location is a historical problem with the system. The Group agreed that this was not a viable solution.

The Group agreed that the majority of the issues discussed cannot be addressed at this point in time. However, the Group did believe that it would be helpful to have the SIM Serial number and provider listed in the [D0313](#)

[‘Auxiliary Meter Technical Details’](#) data flow<sup>2</sup> as a potential future update to the flow. The Group believes that this would help with the migration of SIM contracts and being able to communicate with adopted Meters. Therefore, the Group believes that SIM Serial number should be added as a new data item in the D0313.

ELEXON asked the Group if there is anything that can be done to better understand the migration (also known as contract novation) process. One member responded that on a practical level it might be worth having a list of contactable people in respect of SIM contracts. Another member had concerns over the lack of a migration process. ELEXON agreed to look into the protocol for migration processes to see if there was a way to give the industry a better view of the issues, potentially through a guidance note.

### Non-standard Meter configuration

The Group identified interoperability issues relating to non-standard Meter configuration. One member noted that there is currently no standard of configuration in the NHH market. To add to this, different manufacturers use different standards for the identification of Meter registers across the market. It was also noted that the lack of/range of configuration standards means that, as a DC, they need to spend a lot of time on a case by case basis to find the details they need which ultimately passes costs down to the customer.

One member stated that some form of standardisation (or convention) of how to deal with each Meter type would be helpful. Another member responded that the NHH market is already too far into the roll out of AMR to be setting standards against Meters already installed. The member advised that it may be a good idea to apply a standard across newly installed Meters going forwards.

Another member noted that a single standardisation of Meter configuration may cause problems with MOAs. This is because MOAs would need to sign up to the new standards which may mean a change of Meter programming software. One member responded that it’s the DC that really has to deal with a change of data standards, though they believe that DCs would see the benefit of this (as it would make it easier for them to deal with and understand the acquired data).

The Group identified other issues with data standards when operating as a MOA. For example, if you give the same Meter to two different MOAs with the same tariff requirements, they may be configured differently. Furthermore, some argued this to be the case between different operatives of the same MOA. This causes issues with Seasonal Time of Day (STOD) and other multi-rate tariffs because not all MOAs are consistent in dealing with Meter configurations when it comes to tariffs. One member stated that they didn’t think there was any real way to

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<sup>2</sup> For advanced Meters in Profile Classes 5 to 8, security and communications details are transferred by supplementing the [D0150 ‘Non Half-hourly Meter Technical Details’](#) data flow with the D0313 data flow.

standardise Meter configuration across the NHH market. Another member responded that impacted Meters should be remotely programmable and that all the MOAs would need is the relevant password and software. Therefore, it should be possible to come up with a standard format across all AMR Meters. The member also noted that this single standard would need to be as low level as possible, but still allow for key data items to be included. However, the member believes that there is no standard that could be put in place which would fix all the data issues that are currently out there.

There were questions raised around how a DC would cope with a change of Meter configuration by the MOA in such cases. For example, how the DC would get access to the final readings in the old Meter configuration. Some Group members believe that there would need to be a change to D0313 in order for this information to be obtained.

One member raised a question around commercial incentives affecting Settlement. Another member stated that under the BSC we could not restrict an agent commercially if they are providing Settlement data as required. Though, by the introduction of different standards of configuration in the market we are inhibiting ones competitor from adopting Meters.

ELEXON asked the Group if creating a single or single set of standards in the industry would help address the configuration issues identified. One member replied that they believed this would only be beneficial and efficient if it were applied to new or adopted Meters, as there are too many existing Meters out there. Requiring the standards to be applied across all impacted Meters would be onerous on agents. Another member stated that there are already a number of standards across the market and creating a further standard will only make the situation worse. Other members of the Group agreed that applying a single standard to new or adopted Meters could not be implemented at this point in time.

### **Commissioning Records**

The Group considered issues with providing commissioning records.

One member noted that as it's an obligation under the BSC for MOAs to pass commissioning and other records to a new MOA that the only option when this does not happen is to replace the Meter. Another member asked whether the approval and implementation of [P283 'Reinforcing the Commissioning of Metering Equipment Processes'](#) would help with any commissioning record issues. The Group agreed that this would indeed go some way towards helping.

ELEXON advised the Group that P283 had been approved for implementation in the November 2014 Release.

## Baud Rates

The Group discussed the potential interoperability issues relating to data communication speeds or Baud Rates. It was noted that there is no standard Baud Rate for Meters and these rates are generally very slow (some at 1,200 Baud) by today's standards. The issue this raises for interoperability is that when a Meter is adopted it may prove difficult to identify the communications speed of the Meter and its modem, making it difficult establish communications or to reprogram it remotely.

It was noted by one member that EDM I Meters, when first introduced, were fixed at a rate of 9,600 Baud. The Meter also included an integral modem which was already configured at this rate and shipped out with the Meter. The member advised the Group that fixing the Baud Rate for EDM I Meters has really helped to deal with some of the issues identified by the Group. The same member pointed out that PSTN, GSM and GPRS all run at different baud rates so this can be an issue as well.

It was noted by the Group that MOAs have issues with their equipment not being compatible with all Baud Rates. One member noted that although this is an issue, the MOA may be able to configure the modem to an appropriate Baud rate, if the appropriate level password is provided. Another member stated that there are a limited number of agents (in the field) that would have the appropriate equipment to do this. The member noted that this is more of an operational issue, but caused by commercial standards (i.e. equipment and assets in the field etc.)

Another Group member believes that there was no way to standardise the Baud Rate across the market. The Group agreed that the issues associated with Baud Rates are a frustration, but that this is not something that can be addressed.

## Data Transfer Catalogue flows

The Group identified interoperability issues around existing DTC data flows, specifically the [D0149 'Notification of Mapping Details'](#), [D0150 'Non Half-hourly Meter Technical Details'](#) and D0313 flows. One member noted that they believe there is a lack of understanding in the market around these flows and the information they contain.

There were a number of issues raised in reference to the D0313, around both the consistency in which the flow is received and the quality of data included in the flow. One member considered that the D0313 is not being completed in the spirit it should be.

The Group noted issues with not receiving the relevant D0313 following receipt of the D0149 and D0150. One member pointed out that some MOAs, in their experience, were not great with sending through the D0313. They also stated that MOA systems should not allow them to send a D0149 and D0150 without a D0313. The member was not entirely sure why they have had such difficulty receiving the required flow. Another member stated that when they do not receive the D0313 they attempt to chase MOAs for the missing flow (over a few days), but they

are then told that the MOA does not have the relevant information or that the flow does not exist. One member put this down to a lack of communication between agents, resulting in insufficient data to pass on.

There were a number of reasons discussed, as to why a new MOA or DC would not receive the required D0313 flow. One member noted that some MOAs will not send through the D0313 flow until the communications contract has been migrated. Another member stated that some MOAs system software does not match what would need to be captured in the D0313. It was also suggested that some MOAs have not adopted the D0313 as a solution. Furthermore, the old MOA may have only received the D0149 and D0150 to begin with and will therefore not have the D0313 data to pass on to an adopting agent. All instances will result in a visit to the adopted site.

One member noted that there were issues with the quality and validation of the data in the D0313, and believes that there needs to be more clarity around the importance of the information. Other members of the Group agreed that there needs to be some further education in the industry on how to populate the D0313.

ELEXON asked the Group whether the issues were with the definition or the population of the D0313 flow. One member responded stating that they believe the design of the flow is adequate, but considers that it's how the flow is populated that is the issue. Other members of the Group agreed with this.

The Group also discussed issues resulting from an AMR Meter Type being changed to 'N' (denoting that there is no remote HH data available). It was noted that the Gemserv Guidelines<sup>3</sup> states that if an AMR Meter is installed in a site with limited signal strength, the MOA is instructed to change the Meter Type to 'N'. This can result in site visits by any adopting agents as they will be unable to dial or communicate with the Meter. It can also result in confusion for adopting agents, who may be unaware that there is an advanced Meter on site.

### ***Meter Memory Location***

The Group discussed issues with not receiving Meter Memory Locations relating to the register readings for an adopted Meter, either because the D0313 flow is missing or the data is not provided in the flow. One member noted that as a DC, they do not need the Meter Memory Location to dial a Meter or collect information from the adopted Meter. Though, they do need it to understand the information they have collected and what order it goes in. They noted that as a DC they are able to map back to the Time Pattern Regime (TPR) but are unable to find out where a particular stream of data is located (meaning they don't know where data is in the Meter or what order it goes in). The member stated that they need mapping between the register ID, D0149 and the Meter Memory Location.

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<sup>3</sup> Notes on usage of 'Meter Type' (J0483) data item in the Data Transfer Catalogue

One member asked whether or not this information was on the display screen of the Meter. Another member replied that this is only an issue for remote reads, as the display screen will show the data in order. They noted that the intention of the Meter Memory Location was to enable an Agent to map out the location of details pulled from remote reads. Therefore, if the DC does not know what the Meter Memory Location is they are unable to determine what order the remotely read data goes in. One member pointed out that another issue with this data item is that it is a free format field. The member believes that most MOAs don't understand the data they are putting into the flow, in respect of the Memory location, whereas DCs generally will.

It was noted by another member that, when operating as a MOA, they would have no idea if the data on the Meter was populated correctly or whether the Meter Memory Location is correct. This is because it's not something that the MOA needs to know in order to carry out their work on a Meter. Another member responded stating that the MOA could reconfigure the Meter (given the correct passwords were provided). The previous member stated that this would not be the best idea, as when operating as MOA you do not want to have to reconfigure a large group of Meters. Another member, who operates as a DC, noted that this would not be a good idea because by moving the location of data you risk disrupting the TPR. This causes issues with Suppliers as the functionality of the reads could change.

### ***D0313 data analysis***

The Issue 46 Group identified a number of issues with the D0313, as detailed above. ELEXON requested data and analysis on the D0313 flow from members of the Group.

A review of the data received in each response showed a high volume of missing D0313s, ranging from 16% up to 57%<sup>4</sup>. The data received also showed that out of the D0313s that have been received, high volumes were either incomplete or were not able to be processed. A summary of responses can be found in Attachment A.

In order to obtain further information, a subsequent questionnaire was sent to Group members. The Issue Group reviewed the collated responses to the questionnaire at its final meeting, which can be found in Attachment A.

The Group agreed that some changes could be made to the D0313 to help address interoperability issues with changing an AMR Meter Type to 'N' as well as not receiving information on the state of communications for a Meter.

The Group believes that there are a few scenarios that need to be reflected in the DTC noted for the D0313. That way the old MOA can correctly populate the flow so that the new MOA will know that the Meter is AMR and will

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<sup>4</sup> In comparison, missing D0150 flows (as measured by PARMS Serial NM12) are currently averaging 0.11%.

also know what state the communications are in. In all cases, the Group believe that the Meter Type should stay AMR. The Group identified four such scenarios.

- Scenario 1 – there are communications installed and the details are known: the Group believes that the Meter Type should be AMR and the communications details should be provided as required in the D0313.
- Scenario 2 – there are communications installed but the details are not known: the Group believes that the Meter Type should be AMR but that the MOA filling out the D0313 should have the ability to say that there are communications installed but the details are unknown.
- Scenario 3 – The Meter is communications capable but there are no communications installed (and communications would work if it were to be installed): the Group believes that the Meter Type should be AMR but that the 'Communications Method' should show 'HT' (Hand Held Temporary), meaning that the Meter is communications capable and that if communications were to be installed it would work.
- Scenario 4 – the Meter is communications capable but the location etc. means that communications would not work even if it were to be installed: the Group believes that the Meter Type should be AMR but that the 'Communications Method' should show 'HP' (Hand Held Permanent), meaning that the Meter is communications capable but if communications were installed it would most likely not work.

The Group also believes that it would be helpful to have the SIM Serial number and provider listed in the D0313 as detailed previously.

A decision on Proposed Modification [P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8'](#) has yet to be made. However, if it were to be approved it would result in the use of the D0313 being limited to advanced Meters installed in Profile Classes 3 and 4. Therefore, ELEXON asked the Group whether it was worth adding the agreed changes to the D0313 regardless of the P272 decision. Some Group members responded that if P272 is approved the agreed changes should still be made to the D0313. ELEXON will review these potential changes once a decision has been made on P272, because the number of advanced meters settled NHH will diminish. A decision will also need to be made on whether the Profile Class 5-8 issues will migrate to the HH market and whether any changes to the [D0268 'Half Hourly Meter Technical Details'](#) (the HH equivalent of the D0313), are needed as a result.

### **Third party data retrieval risks and outstation passwords**

One Member stated that there have been issues in the past with obtaining the relevant passwords to enable remote Meter reads and allow for clock resets. A case was put forward which suggested that a third party data retriever could set the Meter clock to its system time which may differ from the appointed DC's system time.



Another member noted that there were issues with consistency and reliability of third party software. They stated that most third parties use packaged software, providing off the shelf solutions. The member noted that when their organisation (a Qualified DC in its own right) operates as a third party, it makes the point of using its accredited software (meaning it always use manufactures software or agreed programs). Other third parties are not obligated to use accredited software as they are not Qualified under Settlement.

ELEXON asked the Group if there was any solution for addressing the issues with third party data retrievals. One member stated that they had a concern over non-Qualified parties dialling Settlement Meters and resetting the clock's time. It was noted that they have access to MTDs but ideally should not have access to the passwords associated with the Meter. Most Meters provided by the manufacture contain 'standard' passwords known as manufacturers default passwords. The purpose of these passwords is to enable the MOA to access the Meter and install its own secure passwords. However, it was felt that most MOAs leave the default password in the Meters. The member stated that the MOA needs to start programing non-default passwords and that a password programming standard is needed in the industry. It was noted that this is also an issue in the HH market as default passwords are in the public domain, especially levels 1 and 2. Another member noted that it is quite easy to find lists of default passwords on the internet. This means there is a risk of people taking action against a Meter (or large groups of Meters).

The Group discussed whether or not it would be feasible in the field to deal with individual passwords for each Meter. One member noted that the use of cloud software and laptops is a viable option at this point. Therefore, a MOA in the field could use a computer to dial a network, based on the Meter's serial number, and pull out the relevant passwords based on the MOA's access level. It was noted by another member that if there is an issue in the field with obtaining the correct passwords this could be fixed with a quick call or text to their organisation to obtain the details over the phone. One member responded that there is a risk of slowing down field work by requiring the person visiting the Meter to obtain passwords, either via phone or computer.

Another member pointed out that there might be some issues with manufacturers' software being unable to generate three or four passwords for each Meter, though some of the software out there already has the capabilities.

ELEXON advised the Group that [CP978 'Security access meter passwords'](#) was raised and rejected in 2004. The CP tried to deal with security issues around the control and use of Outstation passwords. The CP was rejected at the time because the issues identified by the CP had not materialised yet, meaning that the CP was raised to try to address potential future issues. ELEXON asked the Group if they wanted the issues investigated further.

The Group noted that there is sufficient voluntary control of level 3 and 4 passwords throughout the industry and agreed that a CP does not need to be raised at this point in time.

## Protocol Approvals

ELEXON advised the Group of inconsistencies between [BSCP601 'Metering Protocol Approval and Compliance Testing'](#) and [CoP10 'Code of Practice for Metering of Energy via Low Voltage Circuits for Settlement Purposes'](#) in relation to the Protocol Approval process.

BSCP601 states that "For the avoidance of doubt, this procedure applies only to Half Hourly Metering Equipment". This is inconsistent as CoP10 section 5.7 'Communications' references the use of BSCP601 Protocol Approval procedures. ELEXON asked the Group whether or not a CP should be raised to amend this and make it clear that in the case of CoP10, BSCP601 applies to NHH Metering Equipment as well.

One member advised that their organisation already goes through the Protocol Approval process for NHH as good practice. They also noted that if one is using the manufacturer's software they should be compliant (as the meter manufacturer's software is built to its own protocol), though from the point of view of the Performance Assurance Framework (PAF), there needs to be something that Suppliers can rely on.

The Group agreed that raising a CP to clarify that for CoP 10 BSCP601 applies to both HH and NHH Metering equipment would be beneficial.

## Potential issues relating to the SMSO role

At the request of the SVG, the Issue 46 Group discussed the new SMSO role. The Group noted that the governance around the role had yet to be determined and that it may be something that the industry has to watch play out. It was also noted that a foundation process has been published on the [MRA website](#), as a form of best practice. There is no other information on the role readily available.

One member noted that a potential issue in relation to the SMSO role is that there is no standard interface. Another member noted that they do not like the idea of having to build a new interface each time they contract with a new customer. This would not allow business to move forward, and is therefore impacting competition. This also means the addition of extra costs and complexity to the process could be passed down to the customer.

One member stated that the role of the SMSO will not work unless there is some form of standardisation spread across some of the required data flows. Another member asked a question as to whether or not two SMSOs could transfer data between them. Neither the Group nor ELEXON were able to answer this question. It was also stated that DECC may not see it in its remit to define the SMSO role.

Another member noted that the Supplier will have the option to stick with original agents, which will solve some of the issues that could arise from using SMSOs. It was noted that because any migration from SMSO to SMSO will be managed as an individual process, there should be less interoperability issues. It was also noted that because



there will be fewer choices for the industry in relation to smart metering, there will be fewer issues with interoperability. Members of the Group believe that it's unlikely that SMSOs will change that often. The Group agreed that as the role of the SMSO is yet to become clear, it remains uncertain as to its role with interoperability.

### **What issues could be addressed in PCs 5-8 by the approval of P272?**

ELEXON asked the Group if they thought the approval and implementation of P272 (which is currently with the Authority for decision) would resolve any of the NHH interoperability issues identified.<sup>5</sup>

One member noted that P272 would be a good thing for NHH interoperability in PCs 5-8, as the transferable data will be simpler and therefore easier to collect. Another member commented that this benefit means it's more likely that their Meters will 'stay on the wall'. It was also noted that issues concerning Meter register mapping would be resolved as, in most cases, the Supplier will bill their customers on the HH data rather than through a specific TPR.

The Group agreed that the idea of making HH Settlement for PCs 5-8 mandatory would be a good thing overall for NHH interoperability.

ELEXON decided to include a question in relation to P272 in the D0313 questionnaire sent to the Group. The Group had mixed views as to whether or not P272 will address any of the NHH interoperability issues identified (if approved). You can find the full detailed responses to this question in Attachment A.

### **What can be learnt from the HH market?**

It was noted by one member that there is an opportunity here to do more about validating reads. They stated that in the HH market there is a protocol approval process which is lacking in the NHH market. They also stated that they carry out Meter Advanced Reconciliations to gain high level of assurance of remotely read data.

It was also mentioned that the standard of NHH validation was lacking when compared to with the HH market. The member noted that there is also an opportunity to look at better validation, though it might be difficult to agree what should be required coming out of it. ELEXON noted potential scope to look at validation processes in the HH market and see what can be applied to the NHH market. It was noted by a member that they believe this is not unrelated to interoperability as it's about setting standards for Suppliers and Supplier Agents in the NHH market which will in turn help interoperability.

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<sup>5</sup> At its meeting on 5 February 2013 ([SVG144/06](#)), the SVG considered that the implementation of P272 would go some way to resolving some of the NHH interoperability issues in PC 5-8.

## Issue Group's Conclusions

The Group agreed that there are a number of issues with interoperability in the NHH Market that cannot be addressed under the BSC at this time.

The Group agreed that a CP should be raised to make changes to BSCP601 and CoP10 in relation to Protocol Approval process to reference that in the case of CoP10, BSCP601 applies to both HH and NHH Metering Equipment. ELEXON advised the Group that a CP will be raised following receipt of the Authority's decision on P272<sup>6</sup>.

ELEXON asked the Group if there is anything that can be done to better understand the migration process. One member responded that on a practical level it might be worth having a list of contactable people in respect of SIM contracts. Another member had concerns over the lack of a novation processes. ELEXON agreed to look into the protocol for migration processes to see if there was a way to give the industry a better view of the issues, potentially via a new guidance note.

The Group discussed a number of solutions to the issues identified in relation to SIM/GPRS contracts. The Group agreed that the majority of the issues cannot be addressed at this point in time. However, the Group did believe that it would be helpful to have the SIM Serial number and provider listed in the D0313 as a potential future update to the flow. The Group believe that this would help with the migration of SIM contracts and being able to communicate with an adopted Meter.

The Group also believe that there are a few scenarios that need to be reflected in the D0313 via the DTC notes. This will enable the old MOA to correctly populate the D0313 so that the new MOA will know when a Meter is AMR and will also know what state the communications are in. In all cases, the Group believe that the Meter Type should stay AMR. ELEXON will review these potential changes once a decision has been made on P272 because the number of advanced meters settled NHH will diminish. A decision will also need to be made on whether the Profile Class 5-8 issues will migrate to the HH market and whether any changes to the D0268 (the HH equivalent of the D0313), are needed as a result.

## Recommendations

We invite you to:

- **NOTE** the Issue 46 Group's discussions and conclusions;

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<sup>6</sup> The Authority's decision on P272 is currently anticipated to be received in February 2014.



- **NOTE** the Group's recommendation that some changes could be raised to address NHH interoperability issues identified by the Issue 46 Group; and
- **NOTE** that Issue 46 is now closed.

### List of Appendices:

Appendix 1: Glossary

Appendix 2: Issue Group Membership

### List of Attachments:

Attachment A: Collated Responses to D0313 Questionnaire

### For more information, please contact:

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## Appendix 1: Glossary

Acronym	Defined Term
AMEG	Advanced Metering Expert Group
AMR	Automated Meter Reading
APN	Access Point Name
CP	Change Proposal
CoA	Change of Agent
CoP	Code of Practice
CoS	Change of Supplier
DECC	Department of Energy and Climate Change
DC	Data Collector
DCC	Data and Communications Company
GPRS	General Packet Radio Service
GSM	Global System for Mobile Communication
HH	Half Hourly
HP	Hand Held Permanent
HT	Hand Held Temporary
IP	Internet Protocol
MOA	Meter Operator Agent
MTD	Meter Technical Details
NHH	Non Half Hourly
PAF	Performance Assurance Framework
PC	Profile Class
PSTN	Public Switched Telephone Network
SIM	Subscriber Identification Module
SMS	Short Message Service
STOD	Seasonal Time of Day
SMSO	Smart Meter System Operator
SVG	Supplier Volume Allocation Group
TPR	Time Pattern Regime

## Appendix 2: Issue 46 Group Membership

Member	Organisation	29/04/13	05/06/13	17/10/13
Talia Addy	ELEXON Ltd ( <i>Lead Analyst</i> )	✓	✓	✓
Keith Champion	ELEXON Ltd ( <i>Chair</i> )	✓	✓	✓
Jon Spence	ELEXON Ltd	✓	✓	✓
Martin Thomasson	bglobal metering	✓	✗	✓
Eric Graham	TMA	✓	✓	✗
Tom Connolly	ScottishPower	✗	✗	☎
Peter Gray	SSE	✗	✓	✓
Mathew Day	Npower	✓	✗	✗
David Smith	Npower	✗	✗	☎
Dan Rynne	IMServ	✓	✓	✗
Geoff Matthews	IMServ	✓	✓	✓
Geoff Hatherick	DECC	✗	✗	✗
Liam Burlinson	Centrica	✗	✓	✓
Steve Pick	British Gas	✓	✗	✗
Jon Hillier	British Gas	✗	✗	✓
Paul Saker	EDF Energy	✓	✓	✗
Vijay Chikoti	Total Gas & Power	✗	✗	✗
Amanda Dainty	Total Gas & Power	✓	✓	✓
Ed Sutton	Stark	✓	✓	☎
Seth Chapman	G4S	✓	✓	✓
Paul McClennan	Siemens	✓	✓	✓
Richard Evans	Siemens	✓	✓	✓
Gill Burrage	SSE	✗	✗	✓
Hanna Pain	Gemserv	✗	✗	✓