

Joint Office  
of Gas Transporters

IGT | UNC

Cross Gas Codes Final Report on Industry  
Data Quality, Ownership and Governance

SPAA

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**1.**

## *Executive Summary*

In response to a request from Ofgem sent to central bodies on 24 June 2014 entitled “Industry data quality, ownership and governance”, a Gas Cross Code Data Quality Working Group has been established. The purpose of this group has been to review the data quality arrangements that support the consumer switching process and recommend ways to improve the consumer switching experience.

The group has highlighted a number of areas where poor data quality will affect the consumer perception of the switching process through a delay in the switch occurring or poor billing data. Specifically the group has considered issues with address data, Meter Point Reference Numbers (MPRNs), metering data e.g. Meter Technical Details (MTDs), and Change of Supplier (CoS) Reads. Where possible the group has provided evidence to support its views.

The group has noted that there is a significant amount of work already going on that should improve data quality. Where necessary these projects have been referenced within the report and the group has tried to avoid making recommendations that would lead to duplication of effort in any particular area, for example there is already a working group considering issues with Smart CoS Reads.

The group has also highlighted that there is currently very little monitoring being carried out with regards to the impact the identified issues are having on the CoS process. This is not helped by the fact that the end to end CoS process sits across a number of governance regimes, with responsibility for data items split between different industry participants; therefore a holistic view of the process is not available.

In considering its recommendations the group did not identify any areas where additional Licence obligations would be required to ensure appropriate remedial action is taken to address the issues. In fact, the group noted that as the magnitude of the issues has not been quantified it would be inappropriate to introduce an additional Licence Condition at this time without further analysis being undertaken.

In conclusion the key recommendations agreed by the group are that:

- A Dual Fuel Working Group should be established to consider the creation of a common address format, this will include discussion on whether to adopt the Unique Property Reference Number (UPRN);
- A Dual Fuel Working Group should be established to consider the labelling of pipes on the termination of the electricity or gas supply e.g. the Emergency Control Valve (ECV) in gas;
- The current requirement to label ECVs should be strengthened, and therefore a change should be made to the Institution of Gas Engineers and Managers (IGEM) Standard TD/4 as soon as practicable;
- The SPAA Metering Schedules Working Group should continue considering the measures in SPAA for monitoring data quality and ensuring consistency in the transfer of metering data;

- The process whereby an incumbent Meter Asset Manager (MAM) sends details to a new MAM and how this ties in with the MAM de-appointment process should be considered under the Meter Asset Manager Code of Practice (MAMCoP);
- The SPAA Expert Group (SEG) should consider the MPRNs with meter location unknown and no meter asset data and determine whether an issue exists;
- The SEG should review the process for dealing with CDJOB data flows and consider ways to improve its robustness; and
- The SEG should further consider proposals to improve the rigour around the Notification of Old Supplier Information (NOSI) flow and determine whether there are any other issues with CoS Reads associated with legacy meters that can be addressed.

## 2. Introduction

On 24 June 2014 Ofgem published an open letter on industry data quality, ownership and governance<sup>1</sup>. This letter contained a request that groups be established to consider data quality issues in electricity and gas. The Cross Gas Codes Industry Data Quality, Ownership and Governance Working Group was set up in line with this request; and consists of members from the Uniform Network Code (UNC), the iGT UNC and the Supply Point Administration Agreement (SPAA).

Ofgem's letter stated that data quality issues are affecting consumer perceptions of the market and willingness to engage/switch. Electricity and Gas Code Panels have been requested to provide a report by the end of December 2014 including:

- Data Items - an exhaustive list of issues and data items which support switching and wider processes e.g. metering and address data.
- Current Arrangements - analysis of improvements that can be made to the current arrangements e.g. enforcement measures and data accuracy responsibility.
- Current and Future Remedies - current and additional proportionate improvements to secure data accuracy.

Although separate reports have been produced for electricity and gas, the working groups have been in communication throughout the process and have highlighted where similar issues exist in both markets and where it would be useful for a combined industry review.

In considering the issues for inclusion in the final report, the group noted that there is a difference between data quality and data accuracy: poor data quality can be picked up by validation e.g. inconsistent data held within two different systems, whereas inaccurate data can pass validation even though the data is not correct e.g. erroneous consumption data which falls within acceptable thresholds. Obligations which consider data quality and data accuracy are generally phrased in terms of requirements to maintain accurate data e.g. to inform affected parties when amendments to data arise; however it is very difficult to measure data accuracy and this tends to be considered within performance assurance frameworks. The group agreed that it should focus on data quality issues.

The group noted that the timescales for producing the report were challenging, the final report therefore focuses on issues that affect the consumer switching experience.

## 3. Working Group

The Cross Gas Codes Industry Data Quality, Ownership and Governance Working Group was set up in response to Ofgem's open letter and consists of members from the UNC, the iGT UNC and SPAA.

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<sup>1</sup> <https://www.ofgem.gov.uk/publications-and-updates/industry-data-quality-ownership-and-governance>

Each organisation provided a lead analyst to support the group's deliberations. In addition the UNC provided a Chair for the group; SPAA provided the secretariat function; and Xoserve provided analytical support. Ofgem attended working group meetings in an observatory capacity; and representatives from the Community of Meter Asset Providers, Association of Meter Operators and the Meter Asset Managers Code of Practice also provided input.

The recommendations in this report represent the group's views and opinions. The companies represented on the Working Group were:

- British Gas;
- Dong Energy;
- EDF Energy;
- E.ON Energy;
- ESP;
- Fulcrum;
- Gasprom;
- GTC UK;
- Northern Gas;
- Npower;
- Scottish Power;
- SGN; and
- SSE.

Draft terms of reference were developed and provided to the group at its first meeting for approval. Some changes were proposed and the terms of reference were subsequently agreed. The terms of reference provided an outline of the objectives, scope and responsibilities of the working group. The agreed terms of reference can be found in Appendix 3 of this report.

The group meetings were held on:

- 29 July 2014;
- 29 August 2014;
- 29 September 2014;
- 27 October 2014;
- 10 November 2014; and
- 1 December 2014.

This report has been produced on behalf of the working group and all members have had the opportunity to review the document and propose changes where necessary. The recommendations included in section 16 were unanimously supported by group members.

## **4. Review of Current Data Quality Arrangements**

This section contains an explanation of the current code obligations, which require industry parties to maintain accurate data in relation to all Gas Supply Points. In addition, there is an explanation of the ownership of data items, the process for updating address and metering data and the data flows used by industry participants.

### **4.1 Ownership of Data**

Ownership of gas data items is shared across Transporters, Suppliers and MAMs. Typically Large Gas Transporters (GTs) and Small Gas Transporters (iGTs) own address data whereas Shippers have the obligation to update address data during the CoS process. Transporters also have overall responsibility for data held centrally in relation to each Gas Supply Point. Xoserve acts as the Gas Transporters' Agent providing centralised information and data services for Gas Transporters and Shippers.

With regards to meter data, the MAMs own the data although they have no defined role within the CoS process. Once a MAM has installed a meter it will not necessarily be aware of changes which occur, unless it is specifically informed. Meter data that is added to the central Supply Point Register and used by the Transporter will be based on the view of the Supplier.

The Review of Gas Metering Arrangements (RGMA) Baseline Document Appendix D7 contains a table setting out the ownership of specific data items. This has been included in Appendix 5 for information.

### **4.2 Existing Code Obligations**

There are no specific Gas Supply Licence or Gas Transporter Licence obligations requiring industry parties to maintain accurate data in relation to Gas Supply Points. In addition, there are no high level obligations within the SPAA specifically relating to data quality. However, various SPAA requirements and Schedules do contain processes that Suppliers and their agents should follow which have been introduced to improve data quality. These are detailed in later sections.

There are also natural incentives on Suppliers to maintain accurate address and meter data for their own billing purposes. However, there are no natural incentives on Suppliers to pass this information to the Transporter via the Shipper. Legal obligations are therefore included in the Gas Act 1986, Connection and Disconnection (C&D) regulations<sup>2</sup>.

These requirements flow through to the UNC and iGT UNC where there are requirements on Gas Shippers, Suppliers and Transporters to maintain accurate information in relation to Gas Supply Points and metering data:

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<sup>2</sup> These can be found at: [http://www.legislation.gov.uk/si/si1996/Uksi\\_19960450\\_en\\_1.htm](http://www.legislation.gov.uk/si/si1996/Uksi_19960450_en_1.htm)

Section: G: 1.9 Supply Point Register of the UNC states:

*1.9.8 Without prejudice to any other provision of the Code, Users and the Transporter agree:*

*(a) to cooperate with a view to ensuring that the information contained in the Supply Point Register is at all times as accurate as is possible; and*

*(b) each to use reasonable endeavours to secure that it becomes aware, insofar as it might reasonably be expected to become aware, of any inaccuracy in the information contained in the Supply Point Register, and to inform (in the case of a User) the Transporter or (in the case of the Transporter) the Registered User of such inaccuracy,*

*but nothing in this paragraph 1.9.8 shall imply that the Supply Point Register is capable of being amended other than as provided in this Section G or Section M.*

These requirements are mirrored in iGT-UNC Section C12.8.

In addition, UNC Section M3.2 Meter Information states:

*3.2.6 Where in respect of a Supply Meter Point, C&D Information is received by the Transporter from a Meter Worker or User in accordance with paragraph 3.2.4(c) or (d), the Transporter will provide a copy of such C&D Information to the Registered User within 2 Supply Point Systems Business Days from the Day on which the identity of the such Registered User is known to the Transporter, and the Registered User will:*

*(a) submit such C&D Information to the relevant supplier;*

*(b) review the suppliers' response and within 30 Days from the date that such C&D Information was received by the Registered User, by means of a Meter Information Notification, use its best endeavours to provide the Transporter with the corrected C&D Information (if it is not correct) or confirmation that such C&D Notification is correct;*

*(c) notify the Transporter as soon as reasonably practicable where the Registered User is unable to comply with (b), together with the reasons for such non-compliance.*

The iGT UNC covering iGT Supply Points states:

*Section D 7: Updating Meter Information by Pipeline Operator*

*7.1 Where as a result of any Meter Installation Works undertaken (pursuant to Clause 3 or otherwise) by the Pipeline Operator in relation to a Supply Meter Point, the relevant Meter Information recorded in the Supply Point Register ceases to be accurate, the Pipeline Operator will after completing such works:*

*(a) amend the Supply Point Register so as to record the change in relevant Meter Information required as a result of such works; and*

*(b) provide to the Registered User details of the amendment made pursuant to paragraph (a).*

#### *Section E 2 Meter Information*

*2.6 Where in respect of a Supply Meter Point, C&D Information is received by the Pipeline Operator from a Meter Worker or Pipeline User in accordance with Clause 2.4 (c) or (d), the Pipeline Operator will provide a copy of such C&D Information to the Registered User within 2 Supply Point Systems Business Days from the Day on which the identity of the such Registered User is known to the Pipeline Operator, and the Registered User will:*

*(a) submit such C&D Information to the relevant supplier;*

*(b) review the Suppliers response and within 30 Days from the date that such C&D Information was received by the Registered User, by means of a Meter Information Notification, use its best endeavours to provide the Pipeline Operator with the corrected C&D Information (if it is not correct) or confirmation that such C&D Notification is correct;*

*(c) notify the Pipeline Operator as soon as reasonably practicable where the Registered User is unable to comply with paragraph (b), together with the reasons for such non-compliance.*

### **4.3 Process for Agreeing CoS Reads and the Resolution of Disputed CoS Reads**

During the CoS process, the New Supplier is required to provide a meter reading within a defined window via their Shipper, to the Gas Transporter in accordance with UNC requirements. Where the Gas Transporter accepts that read, this results in the Gas Transporter sending both the Old and New Supplier notification of the read to use for CoS billing. If the New Supplier is unable to obtain and provide an actual meter reading or the Gas Transporter rejects the read provided, then the Gas Transporter may issue an estimated CoS meter reading.

SPAA Schedule 11 'The Procedure for Agreement of CoS Reading and the Resolution of Disputed CoS Readings' sets out the procedure for the agreement of a reading between Suppliers in the event that a CoS read is not received from the Gas Transporter; and the resolution of a dispute where either the Old Supplier, the New Supplier or the consumer subsequently disputes the notified reading (Actual or Transporter Estimated Opening Read).

### **4.4 RGMA File Formats**

The Review of Gas Metering Arrangements (RGMA) between 2000 and 2003 led to the introduction of standard industry-wide business processes and IT data flows. This allows communication of instructions, responses and information between participants involved in the provision, registration, operation and maintenance of metering assets in the regulated domestic retail gas market.

It should be noted that iGTs are not currently mandated to use RGMA processes/flows.

Details of these RGMA processes and flows are contained within the RGMA Baseline and Appendices<sup>3</sup> and this sits under SPAA governance. In particular, the RGMA baseline is intended for use by MAMs, Meter Asset Providers (MAPs), Meter Workers, Gas Act Owners, and the existing Suppliers, Shippers and GTs. The processes covered by the baseline include:

- Asset installation;
- Asset removal;
- Asset exchange;
- Reposition;
- Change of Gas Act Owner;
- Change of Supplier;
- Emergency; and
- Change of MAM.

Discussion of the group has focussed on processes and flows that are particularly important in ensuring the transfer of data required for a successful switching event. The key flows are included in the table below:

File Format	File Name	Event
<b>ORJOB</b>	Request Metering Job	Request work to be carried out for example asset installation, removal or exchange.
<b>ONJOB</b>	Notify Metering Job	Notification of work that has been carried out for example asset installation, removal or exchange.
<b>ONAGE</b>	Notify Agent Change	Notification of agent appointment or de-appointment.
<b>ORDET</b>	Request Metering Details	Request for Transfer of Asset Information.
<b>ONDET</b>	Notify Metering Details	Transfer of Metering Details Update.

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<sup>3</sup> <http://www.spaa.co.uk/spaa-products---current>

File Format	File Name	Event
<b>ONUPD</b>	Notify Update Details	Notification of asset collection details or notification of a successful transfer.

SPAA Schedule 22 'SPAA Metering Schedule' sets out the obligations placed on Parties to operate in accordance with the RGMA Baseline. Suppliers are required to report their performance against these obligations each calendar month to the SPAA Executive Committee.

#### **4.5 Transporter Data Flows**

Section U of the UNC requires Transporters to secure the establishment and operation of UK Link, and requires Users and Transporters to communicate with each other using this system for specific UK Link communications. Details of UK Link communications are set out in the UK Link Manual e.g. file formats, data items and validation.

There is an obligation on the Transporter and Users to comply with a provision of the UK Link Manual where such provision is expressly identified in the UK Link Manual or in Section U of the UNC.

The UK Link Manual does not form a part of the UNC itself although the change process is set out in paragraph 8 Section U.

#### **4.6 Objections Process**

Erroneous transfers occur where a consumer has been transferred to a Supplier without a valid contract being in place. The standard Objections process allows the incumbent Supplier to object to the consumer switching to a new Supplier for reasons of unpaid debt or ongoing contract. Standard Condition 14 of the Gas Supply Licence provides for Suppliers to use the facility of a Co-Operative Objection where the New Supplier identifies that it has erroneously registered a consumer. SPAA Schedule 7 'Co-Operative Objections Working Practice' sets out the procedure for carrying out a Co-operative Objection.

Where the new Suppliers believes that it has erroneously registered a consumer and the Objection Window is still open, it should provide details of this registration to the incumbent Supplier who will then raise an objection. The Co-Operative Objections procedure only applies to erroneous transfers where the MPRN is above or equal to 73,200kWh; it does not apply to MPRNs below 73,200 kWh as the New Supplier has the ability to cancel the confirmation within the Objection Window to prevent an erroneous transfer.

In circumstances where the Objection Window has expired, the procedure in SPAA Schedule 10 'The Procedure for the Resolution of erroneous transfers' should be followed to return the consumer to the previous Supplier. It should be noted that this procedure only applies to Domestic Customers.

In addition SPAA Schedule 8 'Customer Requested Objection Agreed Procedure' sets out the procedure for incumbent Suppliers to raise an Objection at the request of the consumer, where the consumer clearly states not to have entered into a contract with the New Supplier.

#### ***4.7 Notification of Old Supplier Information (NOSI) Flow***

The UNC outlines the circumstances in which a New Supplier, via their Shipper, becomes registered to a Supply Point. The New Supplier will then begin to appoint Metering Agents and start to build the billing record for that consumer. This billing record will be based upon data received from the consumer, Gas Transporter and the Metering Agents.

The Old Supplier's billing record will also have been based upon information held by the Gas Transporter and Metering Agents, however during the time that the consumer was registered with the Old Supplier, the views of the Old Supplier, Metering Agents and the Gas Transporter may have drifted out of alignment.

Work carried out by the Customer Transfer Programme (CTP) identified that a number of consumer complaints resulted from discrepancies between the information that the New Supplier and the Old Supplier used to bill the consumer. Therefore a new mandatory flow was created, the NOSI flow, to enable the New Supplier to identify discrepancies between Gas Transporter and Old Supplier views and to therefore proactively manage these to improve the consumer experience.

SPAA Schedule 20 'The Procedure for Domestic Supplier to Supplier use of the "Notification of Old Supplier Information" Flow during Registration' contains details of how the NOSI flow should be used.

#### ***4.8 Amending Address Data***

Where a consumer requests a change to the address data used by its Supplier, the updated address data must be sent by that Supplier to Xoserve so that central systems can be updated. Xoserve will only accept amendments to address data from the current Shipper and will not allow a Royal Mail Postcode Address File (PAF) valid address to be replaced by a PAF invalid address on its system. A PAF invalid address would only be added if the address was not already on the system e.g. a new development.

Currently there is a different process for sites registered with iGTs, however, should iGT Single Service Provision be implemented, the process will be the same for iGTs and GTs. If the Shipper is not registered to the site then the Supplier must talk directly to the GT/iGT using Connection and Disconnection (C&D) information flows.

Suppliers attempt to validate consumer provided addresses against PAF. If this doesn't match the address requested by the consumer then they will invalidate the address on their system, this may then lead to the creation of an incorrect address in order to get it registered with Xoserve, as it is not possible to amend the address data on central systems if the Supplier is not registered to that site.

#### **4.9 Amending Metering Data**

Details of work carried out on a meter should be passed from the Meter Worker to the MAM. The MAM is then required to pass this information on to the current Supplier who in turn passes the information to Xoserve via the Shipper. Issues may occur at any stage in this process, which will lead to data quality issues.

Following a CoS event new Suppliers have different processes for determining the correct meter data in relation to a Supply Point; some Suppliers will accept the view from the old MAM that has been passed to them via the new MAM; others will accept the view of the old Supplier which has been passed to them via the NOSI flow; and others will accept the view of central systems. The governance around the flow of meter data is relatively weak although there is an overriding obligation in the C&D Regulations that Meter Workers tell the Supplier (or the Transporter if the Supplier is not known) about changes to meter data.

### **5. Change of Supplier Process**

There is no documented end to end CoS process as this consists of various interlinked activities which are spread across various governance regimes. These activities have been summarised below:

- The initial stages of the CoS process are contained within the Suppliers internal processes e.g. obtaining opening reads. These activities do not fall under any external governance.
- The new Supplier then has to register the Supply Point in the central Supply Point Register managed by the Transporters Agent, Xoserve. This process involves the submission of Nomination data flows to Xoserve via the Gas Shipper, with Confirmation data flows sent from Xoserve to the new Supplier via the Shipper. This process is governed by requirements within the UNC.
- Additional activities are then required to transfer the ownership of the Supply Point within central systems to the new Supplier. This involves the submission of meter data and read history from Xoserve to the new Supplier via the Shipper. This process is governed by requirements within the UNC.
- In addition, there are a number of additional processes that may be required and fall under the governance of the SPAA e.g. Submission of the NOSI flow and agreement of CoS reads.

The process steps covering the Shipper - Transporter flows are included in the diagram in Attachment 1. The data items, which are transferred at each stage of the Nomination, Confirmation and Exchange of Ownership processes, are included in Appendix 4. This is included to provide context when issues are detailed with particular flows later in the report.

## 6. Methodology

The group's initial discussions focussed on identifying scenarios, which could lead to data quality issues and impact the consumer switching experience. These high level scenarios were then grouped into key issues that could be considered further. The group noted that due to the limited time available it would not be possible to provide detailed analysis in relation to all of the issues highlighted. Therefore an initial view of the materiality and impact was established to determine the priority of the issues going forward. It was agreed that those issues deemed to be low priority would be listed within the final report but detailed analysis would not be carried out.

The group acknowledged that this assessment of materiality was subjective and based on anecdotal evidence. Therefore it was agreed that a questionnaire would be produced and issued to all group members asking for details of the frequency with which these events occurred and the impact on the consumer switching process. This would provide the group with quantitative data to assist in further prioritisation of the remaining issues and would allow the group to consider potential solutions to the key issues.

Questionnaire responses can be found in Appendix 2. The group noted that no responses were received from Domestic Suppliers. Information provided in response to the questionnaire fed into the detailed discussions and analysis provided in sections 8 - 13. It should be noted that additional data was provided by some domestic Suppliers, separate to the questionnaire exercise and this has been incorporated in the group's discussion on an anonymised, aggregated basis.

## 7. High Level Description of Issues

Throughout the project, the group has highlighted a number of scenarios that could lead to data quality issues. A high level description of these issues has been included in the following paragraphs in order to provide a holistic view. It should be noted that some of these issues will have a low impact on the consumer switching experience and therefore no further analysis was carried out by the group. Also some issues may have a significant impact, however they are infrequent and have therefore been assigned a low priority by the group. Where the group agreed that issues were high priority, or required further consideration to determine the materiality, they are discussed further in sections 8 - 13 below.

### *Address Data*

- **Inconsistent address formats used for gas and electricity** - The address format used for gas is the PAF, while electricity uses the Standard Address Format (SAF) set out in MRA Agreed Procedure (MAP) 09 in the Master Registration Agreement. This can lead to difficulties communicating with the consumer and arranging a CoS event. This is covered in further detail in section 8 below.
- **Inconsistent address data depending on industry party** - The term "Address" has different uses, meanings and requirements for industry parties: the Supplier needs to know where the consumer lives and where to send communication to; the Transporter needs to know the address of the cut-off (where the pipe ends); and the MAM needs to know where the meter is to be located/installed. These may all be

slightly different and any of the parties can request a change to the address details to reflect their own requirements, which may lead to errors on central systems. This is covered in further detail in section 8 below.

- **Crossed meters** - A crossed meter is defined as a situation where a Supplier bills a consumer based on meter readings taken from another consumer's meter. Crossed meters happen for a number of reasons, but typically where there are group meter installations such as with flats. The MPRN and meter allocated to a premises may physically be supplying a different premises, as the outlet pipe work may have been labelled incorrectly when the installations were commissioned. This creates consumption and billing errors and may delay the switching process and require multiple site visits, as it is difficult to resolve crossed meter scenarios where there are multiple Suppliers and MAMs involved. The group noted that this is a high impact low frequency issue and can take a significant amount of work to resolve. However, as each scenario is unique they must be resolved on a case by case basis so the group did not discuss this further.
- **Address details do not match meter location** - An associated issue is where a meter is recorded as being installed at a particular premises and physically it is found to be installed at another. Anecdotal evidence suggests that meters are sometimes moved around new developments by installers commissioning boiler systems or prioritising premises for occupation. If a query is raised regarding the location of a meter, Suppliers triangulate the meter serial number, the MPRN and the address details to ensure they all match up. If they do not match, then the meter should be moved administratively to the correct location. This is not always the remedial action chosen and sometimes the address and MPRN details will be changed instead. If the MPRN details are changed to reflect the Meter Serial Number (MSN) then the Supplier will have the incorrect consumer details. This causes a significant impact on the consumer as they will end up registered to another Supplier without a formal transfer taking place. This mainly occurs with iGTs and new builds and can be highlighted through a CoS event. The group noted that this is a high impact, low frequency issue and can take a significant amount of work to resolved. However, as each scenario is unique they must be resolved on a case by case basis so the group did not discuss this further.
- **Hard to find meters** - Some meters have been installed in unusual places and the meter reader has difficulty in finding the meter, in some cases the meter may never be found. When the meter is eventually found more detailed location data can be stored but this may not be transferred on CoS. Trying to find some meters can be costly to Suppliers and therefore there is no incentive for them to pass on location details to subsequent Suppliers and there is no mechanism for them to send location details back to the MAM. The group noted that this was a low frequency issue as the meter is usually not hard to find for domestic consumers and therefore low priority. This issue would not affect the consumer switching process although it may delay the initial bill.
- **Consumer addresses** - The consumer will sometimes request that an address be used for correspondence that is not PAF valid, for example a house name rather than a number. The group noted that this was a low priority issue as Supplier's can elect

to store two account linked addresses: one for consumer correspondence; and the other for use in all industry flows.

#### *Meter Point Reference Number (MPRN) Data*

- **Incorrect MPRN** - This issue can occur if the MPRN is associated with the wrong address or address details are ambiguous. This is covered in further detail in section 9 below.
- **Erroneous Transfers** - This is linked to the issue of incorrect MPRNs as the majority of erroneous transfers are caused by incorrect MPRN details. In addition some erroneous transfers are due to meter exchange cancellations not being affected in time. This is covered in further detail in section 9 below.
- **Duplicate MPRNs** - This issue occurs when a Shipper requests a new MPRN be created where one already exists. This may be due in part to new site plot addresses converting to actual addresses and the consumer or Supplier may not identify this so a duplicate is created. This can lead to duplicate billing and issues for subsequent CoS events. This is covered in further detail in section 9 below.

#### *Metering Data*

- **Mismatch of information between MAM and central systems** - This disconnect will not in itself affect consumer billing although it will affect the accuracy of estimated reads produced centrally as these estimates are based on underlying meter reading history. In addition, Suppliers submit Customer Own Reads and CoS reads to Xoserve for validation. These reads may actually be rejected based on incorrect Annual Quantity (AQ) data held centrally. This could be caused by a delay or failure in the information being passed from the MAM; a meter exchange occurring close to a CoS event, or data erroneously being amended in central systems. This is covered in further detail in section 10 below.
- **Automated Meter Read (AMR)** - With AMR a data logger is put onto the meter and plugged into the meter pulse output. The AMR logger may have been fitted by an AMR service provider rather than the MAM or the Supplier and therefore the standard governance arrangements will not apply. This is covered in further detail in section 10 below.

#### *CoS Meter Read Issues*

- **Transporter rejects CoS Meter Read** - There are a number of reasons why Xoserve may reject a meter reading and many of these will relate to the rejection of erroneous meter readings. However, a data quality issue arises where an accurate reading is rejected. This is covered in further detail in section 11 below.
- **Disputed CoS Reads** - There are a number of different root causes that could lead to CoS reads being disputed. For example infrequent meter reading may affect the accuracy of estimated data and tolerance checks may lead to good readings being rejected. This is covered in further detail in section 11 below.
- **Incorrect replacement reads** - The date on the replacement read is the submission date rather than the date of the read to be replaced. This could lead to the closing

read being on a different date to the opening read for the new Supplier. This is covered in further detail in section 11 below.

### *Smart Metering Issues*

- **GSME Identifier (GUID)** - Smart Metering is introducing the GUID as a second unique ID for a meter. The GUID is used to define a meter in all communications to the Data Communications Company (DCC) and does not correspond in any way to the Meter Serial Number (MSN). This could lead to data quality issues where the GUID is associated with the wrong MSN. If more than 1 smart meter is installed at a property, there is no clear route for identifying which GUID is attached to which meter. This is covered in further detail in section 12 below.
- **SMETS Capable versus SMETS Compliant Metering Systems** - There is no clear process for designating meters as NS - Non SMETS compliant; S1 - SMETS 1 compliant; or S2 - SMETS 2 compliant. Some meters are SMETS 1 capable, which means they are not currently SMETS 1 compliant, however they are capable of becoming compliant with a firmware upgrade e.g. to add prepayment capability. Some Suppliers will register these SMETS capable meters as S1 meters, whilst others will register them as NS meters. DECC documentation defines what is SMETS compliant, but does not refer to SMETS capable meters. There is also no clear definition of NS and S1 in the UNC. This is covered in further detail in section 12 below.

### *Governance/ Industry Processes*

- **IGTs not bound by RGMA** - SPAA Change Proposal CP12/227 'Mandating Schedule 22 for Small Transporters' introduces an obligation on iGTs to comply with RGMA, however, iGTs may not be using standard process flows and communication routes to meet these obligations. This is covered in further detail in section 13 below.
- **Repeated Registrations/Objections** - The objections process allows the current Supplier to object to the consumer switching to a new Supplier for reasons of unpaid debt or ongoing contract. Repeated registrations/objections can become very frustrating for the consumer and may be based on inaccurate data such as a wrong address. This is covered in further detail in section 13 below.
- **Property vacant prior to CoS** - The process for dealing with long term vacant sites may lead to inaccurate data used for estimates and validation once the property is no longer vacant. The group agreed that this was a low priority issue and should not be considered further as long term vacant properties do not tend to change Supplier immediately. If a consumer did attempt to change Supplier as soon as moving into a long term vacant property then there may be additional correspondence from Suppliers.
- **UK Link Network Information Exchange (IX) versus DTN** - There is no consistency between the use of IX and/or DTN communication between parties. For example one MAM may be using IX and another is using DTN for the same data flows, therefore the communication from one MAM will be sent to another but not 'received' by the other MAM as it is in the wrong format for their system. This affects MAM processes but should not impact the consumers, unless the MAM fails

to identify incorrect meter details, therefore the group agreed not to consider this further.

### *Other Issues*

- **Transfer of debt on a Change of Tenancy (CoT)** - On CoT where a Gas Prepayment Meter exists the new tenant may unwittingly pay the previous tenant's debt if they use the previous tenant's prepayment card. Transfer of debt more generally poses more risks than non-debt switching, as Suppliers must ensure they transfer the debt to the correct person whilst adhering to data protection. This may become more prevalent in future when transfer of debts becomes more frequent on CoS in line with the Debt Assignment Protocol process (DAP). The group noted that this is a CoT issue, not CoS and therefore should not be considered further.
- **Misinformed consumers on CoS** - Upon moving into a property consumers are often not aware of the process they need to follow. For example, a consumer will attempt to contact a number of Suppliers to try and find out which one the property is registered too. They may be unaware of the meter number contact centre which can provide the information they need to contact the Supplier. The group agreed that this was due to lack of awareness and was not a data quality issue so should not be considered further.
- **Meter malfunctioning** - Where the meter malfunctions the meter read data may be corrupted. The group agreed that this was not a specific CoS issue and should not be considered further.
- **Incorrect use of market sector code** – This may prevent switches where consumers are allocated incorrectly against Domestic or Industrial and Commercial as Shippers may not hold appropriate licences and refuse to supply the consumer. This may lead to a delay in switching but should be addressed by the UK Link System Replacement Project as it will be possible to update the market sector code retrospectively.
- **Erroneous meter exchange** - The accelerated meter exchange expected with the mass rollout of smart meters may, in itself, lead to data quality issues. For example where a number of meters are being exchanged within one street, the agent may exchange the meter at the wrong property. Although the smart meter can tell the vicinity it is in, it cannot tell exactly where it is, and once it is configured it will not detect that it is in the wrong place. This has been included for information but is not a current issue so the group has not considered it further.

### *Non Domestic Specific Issues*

- **Aggregated Meters** - Historically aggregated meters have been transferred together. UNC Modification 0428 'Single Meter Supply Points' and iGT Modification 055 'Single Meter Supply Points' prevents the aggregation of meters. This may lead to single meters not being transferred during a CoS. This was implemented in April 2014, and existing aggregated meters are currently being disaggregated. This may introduce new data quality issues, however the group did not discuss this further as it is not a current issue.

It was noted that there may be VAT issues for aggregated meters, where multiple meters at one site must be aggregated for VAT purposes but then disaggregated on Transporter systems and this could lead to switching issues.

**No MAM ID** - Flows with no MAM ID cause issues for Industrial & Commercial Suppliers determining metering charges. This is covered in further detail in section 13 below.

## 8. Address Data Issues

As set out above there are a number of scenarios leading to errors in address data. The group felt that there were three main root causes which should be considered in more detail:

- Electricity and gas are inconsistent;
- Data populated in central systems may be incorrect; and
- Misinterpretation of address data by different industry parties.

The group agreed that addresses are a significant data quality issue with 6000 address queries being submitted to Xoserve a month. Being able to identify consumers from the information provided is key to enable communication and ensure the correct consumer is transferred during a CoS event. This is more complicated with iGTs and consumers are often asked for additional information e.g. MPRNs. The group noted that iGT Single Service Provisions which implements a common agent will help resolve some iGT issues.

Inaccurate address data could prevent the MAM from locating the property to take a meter reading or may affect the consumers ability to receive a bill which can result in poor consumer perception of the switching process. Incorrect address data could also lead to erroneous transfers.

### 8.1 Inconsistent Electricity and Gas Address Formats

#### *Description*

The address format used for gas is the PAF, while electricity uses the SAF set out in MAP 09 in the Master Registration Agreement. This can lead to difficulties communicating with the consumer and arranging a CoS event.

#### *Analysis Undertaken*

Suppliers determined that it is not possible to quantify this issue as Distribution Network Operators (DNOs) hold the electricity address data and GTs hold the gas address data. It is therefore not possible for Suppliers to cross check whether the information is consistent. The group noted that DECC has previously carried out a review of MPRN data and matched 96% of gas MPRNs to electricity Meter Point Administration Numbers. .

Anecdotal evidence suggests that inconsistency between electricity and gas address data is an issue. For example, the group noted a scenario where the gas and electricity supplies are registered to different but possibly related tenants living within the same premises. Suppliers try to arrange an appointment to install the gas and electricity meters at the same time but have to contact the customers separately. Sometimes the tenants do not discuss this between themselves so separate appointments are arranged. In addition, ambiguity in the address used for a CoS event may lead to an erroneous transfer.

The group noted that UNC Modification 0468 'Unique Property Reference Number (UPRN) Population by Gas Transporters' may help with consistency between gas and electricity addresses provided the electricity industry also introduce UPRNs. The work group considering Modification 0468 has noted a number of concerns regarding the use of UPRNs, for example, the UPRN may not address the issues with new connections as it may be created too late in the process to resolve the amendments required for changing plot address to actual address when consumers contact Suppliers for a gas supply. Also it is possible to move a UPRN. Another concern was that consumers are unlikely to know their UPRN as it is only issued annually on a bill from the local council. Modification 0468 is currently on hold awaiting additional information from DECC.

In the electricity industry, some DNOs are using the UPRN for asset management, but not for registration. It will be 12 - 18 months before these DNOs introduce the use of UPRN into their business as usual processes as there will need to be a huge data cleanse and alignment process first. The group noted that the introduction of a central registration service may help and the Theft Risk Assessment Service Provider could be used as this body as it will be holding both gas and electricity address details.

The electricity Data Quality Working Group also raised address data as a key issue affecting data quality. It was therefore suggested that a Dual Fuel Working Group be set up to take this forward. Both groups noted that a common address format for electricity and gas is desirable for faster switching and next day switching may not be possible without it.

### *Recommendations*

**The group concluded that a Dual Fuel Working Group be established to consider a common address format. As part of its discussions, this working group will need to consider UPRNs and any other proposal that may provide a cost effective solution for improving address data quality.**

## **8.2 Accuracy of Central Systems Address Data**

### *Description*

Inaccuracies in central system address data could be due to erroneous changes being requested by consumers or Suppliers. It would be difficult to assess the number of inaccuracies as issues are raised periodically and these are resolved at the time.

### *Analysis Undertaken*

Xoserve noted that approximately 90% of addresses on the system are PAF valid. Xoserve would not allow a PAF valid address to be replaced by a PAF invalid address. A PAF invalid address would only be added if the address was not already on the system as a temporary measure e.g. a new development plot address.

The group asked Xoserve to provide data on the number of S42 'Confirmation File' rejections which cited erroneous postcodes as the reason for rejection. Xoserve confirmed that for the last quarter (1 July - 30 September) 1,500 S42 rejection files were issued with erroneous postcodes cited as the reason for rejection. This was not necessarily the only reason for rejection. Also there can be up to 15 rejections at confirmation level, therefore this number could include multiple rejections for the same metering point. To put this figure into context, Xoserve confirmed that there were 720,000 transfers during that period, and 75,000 S42 rejections (again noting that this could include multiple rejections for the same metering point). Other reasons for rejection included:

- Confirmation date doesn't give the required notice - 56,000 S42 rejection files. This may be due to stuck files leading to a delay in the file being sent to Xoserve. This is not a data quality issue.
- Confirmation already exists - 12,000 S42 rejection files. This could be caused by the same Shipper submitting multiple confirmations, or there could be different Shippers involved. This is not a data quality issue.
- AQ greater than the threshold - 2,000 S42 rejection files. This is generally due to the Supplier incorrectly assuming that the site will be under the threshold. This is not a data quality issue.

The group noted that 1,500 rejections based on erroneous postcode was not a particularly high figure when compared to the other reasons listed above. Therefore the group concluded that the accuracy of central systems address data was not a major issue affecting CoS.

It was noted that Transporters are responsible for holding central address data, although Shippers/Suppliers have to deal with any issues raised by consumers. Also iGTs often have a different process for managing address data, although there should be more consistency after the implementation of the Single Service Provision. The Queries, Standards and Services document includes the current information on who is responsible for updating address data and it was suggested that this could be amended to include additional guidance.

The group noted that if UNC Modification 0468 'Unique Property Reference Number (UPRN) Population by Gas Transporters' is approved and implemented, then Shippers may not be required to update address data. However, Shippers may still need to update address data where, for example, an incorrect UPRN has been assigned, there is no UPRN, or the MPRN and UPRN cannot be matched.

Currently plot to postal updates can take a long time and parties' requests for switching can be rejected where the proposed address is not PAF valid. The UPRN process allows for local authorities and Ordnance Survey to update address information on a more frequent and regular basis.

### *Recommendations*

The group agreed that a separate process or additional guidance should not be proposed at present whilst there are other modifications that may address the issue.

**Therefore it was agreed that this issue should be included in the scope of the Dual Fuel Working Group proposed above.**

This Dual Fuel Working Group may need to take UNC Modification 0468 and the equivalent iGT Modification 056 into account during its discussions.

## **8.3 Misinterpretation of Address Data by Different Industry Parties**

### *Description*

The term "Address" has different meanings for industry parties: the Supplier needs to know where the consumer lives and where to send communication to; the Transporter needs to know the address of the cut-off (where the pipe ends); and the MAM needs to know where the meter is located. Sometimes in a small property these three addresses will be in the same place, whereas at other times such as group meter housings, parties will require different information.

### *Analysis Undertaken*

In response to the questionnaire one respondent stated that they received on average 450 address queries a month. However, these include standard CoS plot to postal enquiries and other standard address updates, so are not necessarily related to data quality issues. Other respondents to the questionnaire noted that this was only an issue for CoS if the postcode didn't match central systems. It was also noted that provided the agents could find the site, the location of the meter was not usually an issue.

### *Recommendations*

**The group agreed that it is not possible to accurately quantify this issue as data on address queries does not highlight the root cause. However, it was felt that this is not a significant issue provided the postcode is correct.**

## **9. MPRN Issues**

### **9.1 Incorrect MPRN and Erroneous Transfers**

#### *Description*

Incorrect MPRN issues are often highlighted during the CoS process. For example a consumer chooses to switch Supplier and the Supplier initiates the CoS process. The MPRN is transferred to the new Supplier, however this is found to correlate to a different customer at a different address.

### *Analysis Undertaken*

The group felt that approximately 0.5 - 1% of transfers are erroneous. Of these erroneous transfers, the majority are caused by incorrect MPRNs. Erroneous transfers can also be caused by consumer error or failure by the new Supplier to action a cancellation request.

One respondent to the questionnaire stated that approximately 80% of erroneous transfers are due to an incorrect MPRN, however data provided by large domestic Suppliers suggest this figure may be lower and ranged from 25 - 60%. The group noted that data had been received from very few Suppliers and there was therefore not sufficient evidence to quantify the scale of this issue.

As mentioned above, not all erroneous transfers are caused by incorrect MPRNs; erroneous transfers may occur because consumers use the internet to investigate prices and accidentally agree to transfer to a new Supplier without realising. Additionally consumers may put a neighbours address in to the search facility to determine the price without unwanted follow up marketing. They then accidentally transfer their neighbour to a new Supplier.

The group agreed that issues with MPRNs and erroneous transfers are not frequent, however when they occur there is a significant resource impact on the Supplier trying to resolve the issue. There is also a significant impact on the consumer who has been erroneously transferred and a delay in switching for the consumer who wanted to change Supplier.

The group noted that if the MPRN is available on a label there will be no ambiguity. GTs are required to label new connection ECVs with the MPRN, however not all iGTs label new connections (for example, both NGN and SGN indicated they always attach a label on new connections and ESP indicated they did not always label) It was highlighted that the label must include the MPRN and service pipe pressure. Where the service pipe is not labelled, errors could occur leading to the MPRN being linked to the wrong address and/or meter serial number. In addition, incorrect MPRNs may be caused by consumers providing the wrong information during discussions with Suppliers. The group noted that it was not possible to analyse the reasons why MPRNs were incorrect so they could not say whether or not this was due to the customer.

There is a disconnect between what was happening in the I&C and the domestic markets. A clear unambiguous requirement to label new connections should reduce instances of incorrect MPRN and therefore erroneous transfers. However, GTs noted that they provide their Utility Infrastructure Providers (UIPs) with labels for new connections but could not confirm whether those labels were consequently used, so this issue also needs to be addressed.

Legacy service pipes are unlikely to have labels attached if they were installed prior to 2004, therefore a separate process may be required to address these sites. However, the key point raised was the need to stop inconsistent practice between the iGTs and GTs and it would be desirable if both adopted the consistent use of the label.

The requirement to label ECVs is included in the IGEM Standard TD/4 and an example of the label is published by the Energy Networks Association on behalf of Transporters in GDN/PM/GT/1 Management Procedure for requesting gas service pipe pressure and capacity information from Gas Transporters. The IGEM Standard TD/4 states that the service pipe "...should be terminated with a labelled ECV...". However, the IGEM document defines 'should' in such a way that allows it not to occur, it is the weakest of the three levels of obligation. TD/4 is currently under review so the group has written to the TD/4 Review Group and asked them to consider strengthening the requirement to label ECVs to at least 'shall'. The group is likely to conclude its discussions in 2016 and therefore a specific request to the IGEM Panel to amend this clause may be preferable. The electricity Data Quality Working Group has also raised incorrect Meter Point Administration Number (MPAN) data as a key issue affecting data quality. In the electricity industry labelling the cut out is not common practice, however the electricity group felt that this should be considered further as it may help to reduce the issues with incorrect MPANs. It was suggested that a joint gas and electricity label may be useful, particularly with the rollout of smart meters and additional information such as the GSME Identifier (GUID) being used to identify meters.

### *Recommendations*

**The group agreed that the current requirement to label ECVs should be strengthened. Therefore a proposal should be sent to IGEM. This will be shared with the IGEM TD/4 Technical Panel and the subject debated accordingly. If the Panel agree that the changes to the Standard need to be made immediately then amendments will be issued.**

**In addition, the group agreed to recommend that a Dual Fuel Working Group be established to consider the use of dual fuel labels in preparation for the smart meter rollout.**

## *9.2 Duplicate MPRNs*

### *Description*

Where a Supplier cannot identify the MPRN, they may request that a new MPRN be created. If there was an original MPRN this could lead to dual billing. Once identified, there are rules to determine which MPRN should stay live as set out in SPAA Schedule 30 'The Procedure For Resolution Of Duplicate Meter Points (RDM) For The Same Gas Supply'. However, these may not be customer friendly; for example they may require the erroneous new Supplier to refund the customer, and this refund may not cover the costs of the previous Supplier if they have a higher tariff. Suppliers could lessen the impact of this issue on consumers by working together to ensure the consumers requirements are paramount.

### *Analysis Undertaken*

In order to understand the extent of the issue, the group asked Xoserve to provide data on the use of the Meter Number Creation (MNC) process. Xoserve confirmed that in September 2014 there were 1,500 Meter Number Creation (MNC) flows submitted to Xoserve. The group felt that this number was high and indicated that this process is not just being used in exceptional circumstances.

The group noted that this issue is being debated at the Unregistered and Shipperless Working Group and that it is considering greater controls that can be put around the process to reduce the number of duplicate MPRNs being created. For example whether the consumer should be referred back to the UIP if they are not able to tell the Supplier their MPRN. The group noted that developers may request installation of a gas connection even if there is no immediate need for a gas supply. When a consumer moves in and requires a gas supply then they might not have details of the MPRN from the developer.

### *Recommendations*

**The group agreed that as this issue is being looked at by the Unregistered and Shipperless Working Group, they should note the impact on data quality and defer to the Unregistered and Shipperless Working Group for the solution.**

## **10. Metering Issues**

Consumer billing requires accurate metering data to be held for each supply point. Where inaccurate metering data is inherited by a gaining Supplier there may be a delay in the first bill or this may be inaccurate. Significant time and effort is often required to rectify the data which can lead to a poor consumer perception of the switching process.

There are a number of scenarios that can lead to inaccurate metering data and these have been summarised above. A number of these relate to inconsistencies between the data held by MAMs and that held on central systems. The group considered a number of these scenarios and asked for specific data from Xoserve to understand the materiality where relevant.

### **10.1 Delay or Failure in Passing Information from the MAM to Central Systems**

#### *Description*

The MAM is the primary source of information for meter details, such as meter location. Therefore, ideally Suppliers should be able to rely on the meter data provided by the MAM which is then used for consumer billing. However, on CoS there is an obligation on the old Supplier and its agents to pass this information and meter reading history to the new Supplier and its agents, which is then passed on to central systems. If this is not done in a timely manner or amended information is not passed on at all, a disconnect may be introduced between the data held centrally and that held by the MAM.

#### *Analysis*

The group noted that the SPAA Metering Schedules Working Group is currently considering the measures in SPAA for monitoring data quality and ensuring consistency in the transfer of metering data. Currently SPAA measures how many ONJOBS are sent and how many are met. However this means that if the MAM fails to send the ONJOB then they do not fail against the measure. The Metering Schedules Working Group also noted that a number of Suppliers do not actually submit the required performance data, therefore there is not sufficient data to measure performance of each Supplier and its agents.

The Metering Schedules Working Group are considering an alternative approach taking into account the impact of missing data at the CoS event by measuring metering data quality at that time. This will allow data to be collected in relation to all Suppliers regardless of whether they provide the required performance data themselves, as they will be the incumbent Supplier reported on by others in some circumstances.

### *Recommendations*

**The group agreed the measures in SPAA for monitoring data quality and ensuring consistency in the transfer of metering data should be improved and that this issue should be dealt with by the current SPAA Metering Schedules Working Group.**

## **10.2 Timing of Data Flows**

### *Description*

This issue links to the one described above in 10.1 but has been listed separately to avoid confusion regarding the group's assessment. When a new MAM requests data from the old MAM the old MAM should send an ONUPD flow containing the Meter Technical Details (MTDs). However, the old MAM does not release that data until it has been de-appointed. Under faster switching the new MAM will receive the appointment earlier than currently, but the old MAM may not receive the de-appointment until after the Supply Start Date. In some cases the de-appointment flow will not be received at all. In this scenario, the MAM should contact the Supplier to confirm whether to send the data rather than failing to respond to the request.

### *Analysis Undertaken*

The group agreed that there are a significant number of instances when the new MAM does not receive information from the old MAM, however processes are in place to mitigate the effects of the issue e.g. the NOSI flow can be used to transmit data from the old Supplier to the new Supplier, or data from central systems can be used. Some Suppliers rely more on the MAM MTDs than others.

The group noted that there is precedent in electricity for the data to be released by the old MAM regardless of whether they have received the de-appointment flow and therefore this option should be considered further for the gas market. An alternative solution was considered where an obligation would be placed on the Supplier to ensure the appropriate data flows are sent. However, as this issue really only affects a minority of Suppliers (i.e. the ones who rely on MAM data rather than NOSI flows and central system data) the group did not think this was appropriate.

### *Recommendations*

**The group agreed that the process whereby an old MAM sends details to a new MAM and how this ties in with the MAM de-appointment process should be considered further by MAMCoP and Suppliers. For example a potential obligations could be added to require the old MAM to release data prior to the de appointment date.**

### **10.3 Unknown Meter Location Code**

#### **Description**

The group raised concerns that the meter location code within central systems was set to "unknown" in a number of cases. Xoserve was asked to investigate this further.

#### **Analysis Undertaken**

Xoserve confirmed that for the last quarter (1 July - 30 September 2014) 17,500 transactions were received amending the location code to "unknown". Xoserve confirmed that the location code is an optional field. If it is left blank then the data currently on the systems will flow through. Therefore, for this field to be amended to "unknown", the flow originator may be positively updating the field even if actual location data was previously included. It was suggested that a change could be made so that "unknown" is an invalid option if the field is already populated. It was noted that the Manufacturer field was dealt with in the same way so similar issues may exist.

The group were keen to understand if actual data was being lost because users were updating the location code to "unknown". Therefore, Suppliers were provided with a sample of sites where the location code was amended to "unknown" in the last quarter to investigate the reasons for the amendment. This highlighted that many of the cases in the sample were new sites and therefore the unknown location was probably accurate. Overall Xoserve confirmed that there are 1m meters in central systems with meter location code unknown and/or the word unknown included in the meter location description field; therefore this should be considered further.

#### **Recommendations**

**The group agreed that this issue be considered further by the SPAA Expert Group (SEG).**

### **10.4 Meter Exchange Coincident With or Close to CoS**

#### **Description**

In itself this isn't a data quality issue; however where a meter exchange is planned by the old Supplier and they find that they are losing the site the old Supplier should cancel the meter exchange, but this doesn't always happen. The old Supplier will pass on information in relation to the old meter and the new Supplier will not be able to reconcile this with future meter readings. This will lead to inaccurate consumer billing data.

#### **Analysis Undertaken**

The group noted that there is an unwritten rule that Suppliers should cancel any planned meter exchange if they are notified that the consumer is transferring to a new Supplier. However, this does not always occur. The group felt that this issue will become more prevalent with the smart meter rollout and the accelerated meter exchange, therefore any current data would not be relevant.

The electricity Data Quality Working Group has considered adding an obligation on Meter Operators (MOPs) to resubmit details after the meter exchange. The group agreed that this would not work for gas as there is currently an obligation on Suppliers/MAMs to tell the Transporter that a meter exchange has taken place even if they have lost the customer. This is done using the ONJOB data flow. Where a new Shipper has been registered to the site, Xoserve will reject the ONJOB data flow. However the meter exchange notification will be placed in the Connections and Disconnections (C&D) Store and the new Shipper will be sent a CDJOB data flow.

The C&D notification is generally used by meter workers to provide information to the Transporter where the Supplier identity is unknown, therefore the ability of Xoserve to mandate data is limited to that required to comply with the Gas Meters Information on Connection and Disconnection Regulations (C&D Regs). Should Xoserve receive a C&D notification for a site with a registered Shipper, they forward information to the Shipper. However, as C&D notifications often contain limited information they are dealt with by Shippers as exceptions. However, where the C&D notification has been created because the original ONJOB data flow was rejected by Xoserve, the notification should be filled in with all the information included in the rejected ONJOB file and can therefore be fully utilised by the gaining Supplier.

The electricity Data Quality Working Group has been discussing an industry wide database to contain all metering information. Members of the gas group raised concerns with this as it could be misused by Suppliers trying to gain a competitive advantage. For example, Suppliers could choose to target those customers who have already had smart meters installed, or could avoid customers who are fitted with prepayment meters due to the additional information that must be maintained. Therefore safety factors would need to be built in to mitigate these concerns if an industry wide database were to be created. The group noted that a lengthy process would be required to put this in place and agreed that it wasn't their preferred approach.

The group also noted the suggestion that the old Supplier/MAM should be made responsible for updating central systems after the meter exchange. The group felt that this was inappropriate as the control should rest with the current Supplier who has responsibility for ongoing billing.

In conclusion, the group agreed that there are adequate obligations on Suppliers to provide data on meter exchanges, and there is a process for this information to be sent to the new Supplier even if the initial ONJOB flow is rejected. However, there may be a higher occurrence of meter exchange coincident with CoS during the smart meter rollout and concern was raised that the gaining Supplier might not have robust processes in place for dealing with CDJOB flows as this is currently a manual process.

### *Recommendations*

**The group agreed to recommend that this issue be considered further by the SEG to determine whether changes can be made to increase the visibility of the CDJOB flow to the gaining Supplier.**

## 10.5 No Meter Asset Data

### Description

The group raised concerns that there were a number of supply points with no meter asset data. The group felt that this was a big issue as it would prevent Xoserve validating meter reads and will prevent the new Supplier issuing its first bill. This issue could occur on CoS if meter exchange details are received before registration of the new Supplier. The meter details would be rejected as the Supplier is not registered to the consumer. Sometimes the information is not re-submitted once the new Supplier is registered causing a delay.

### Analysis Undertaken

It was suggested that Xoserve would be best placed to provide details of the number of MPRNs with no meter asset data centrally rather than Suppliers looking at each of their systems individually.

Xoserve confirmed that the number of supply points with not meter asset data are as follows:

#### **Confirmed Supply Points i.e. there is a registered Supplier:**

- Live 51,500 with no meter asset data;
- Non live 3,700 with no meter asset data.

#### **Unconfirmed Supply Points i.e. there is no registered Supplier:**

- Live 302,500 with no meter asset data;
- Non live 167,500 with no meter asset data.

Xoserve explained that the meter asset data for unconfirmed supply points is automatically set when they convert to live. Therefore the group's main concern was the 51,500 live confirmed supply points with no meter asset data. The group agreed that this issue should be considered further.

### Recommendations

**The group agreed that this issue be considered further by the SPAA Expert Group (SEG).**

## 10.6 AMR

### Description

With AMR a data logger is put onto the meter and plugged into the meter pulse. This AMR logger may have been fitted by an AMR service provider rather than the MAM or the Supplier and therefore the standard governance arrangements will not apply. If the AMR data item is not populated in the RGMA data flows, MAMs will have poor visibility and may not identify that there is equipment in situ. This can lead to the removal of an existing AMR unit unless it is properly labelled.

### *Analysis Undertaken*

There is currently no requirement for an AMR unit to be labelled however the proposed UNC Modification 0487 'Introduction of an Advanced Meter Reader (AMR) Service Provider (ASP) Identifier (ASP ID) and Advanced Meter Indicator may assist or improve identification of the units. This proposal seeks to introduce AMR details within the central system and place an obligation on Shippers to populate and maintain the relevant information.

SPAA Change Proposal 14/283 'Record Presence of AMR and Provider – Transitional Change' is also being progressed alongside UNC Modification 0487. This proposal looks to introduce the ability for parties to infer AMR details based upon information held within the central systems and provided to Shippers and Suppliers at a Change of Shipper event.

### *Recommendations*

**The group concluded that this is a significant issue for non domestic Suppliers and will impact their ability to obtain meter readings during a CoS event. Therefore the issue should be considered further if the modifications are not successful.**

## **11. CoS Read Issues**

There are a number of issues relating to the provision of meter reads. For the purposes of this report the group agreed to concentrate on those relating to CoS reads. Therefore additional discussion took place regarding the Transporter rejecting a CoS read and the process for dealing with disputed CoS reads.

### **11.1 Transporter Rejects CoS Read**

#### *Description*

This issue occurs where the consumer sends in an actual reading, which is accepted by the Supplier but rejected by the Transporters Agent Xoserve. The group noted that there are a number of reasons why Xoserve may reject a meter reading and many of these will relate to the rejection of erroneous meter readings. However a data quality issue arises where an accurate reading is rejected. For example:

- Xoserve may reject an accurate reading because it doesn't logically fit with the data held on its system. For instance, the consumer may have previously provided an incorrect meter reading and this reading has been accepted. When subsequent readings are received they are rejected by the Xoserve because they are inconsistent with the earlier customer read.
- The meter asset data may not have been updated following a meter exchange, installation, and/or removal. Therefore the meter read would be loaded onto an incorrect meter and would fail validation and be rejected; or
- The meter asset information may be incorrect e.g. incorrect AQ, no meter read history or previous meter reads not loaded.

This can result in delays in the first invoice following the CoS as the new Supplier cannot validate the reading. In addition, the old Supplier may issue a closing invoice based on a spurious read. Both of these issues will affect the perception of the consumer switching experience.

### *Analysis Undertaken*

Suppliers agreed that it may be possible to provide details of the percentage of CoS reads that are rejected for inclusion in the final report. However, the reason for rejection would not be obtainable in the time available.

The group believed that approximately 20 - 30% of CoS Reads are rejected by Xoserve. This was based on data from 2 Suppliers and only a limited sample of data was analysed, therefore additional analysis would be required to gain a more robust view on materiality.

The group noted that CoS Reads relating to smart meters are being considered by the Smart CoS Read Working Group. Under the Smart CoS Read Working Group, there is an intent to design the reforms such that any settlement validation issues (i.e. rejection of accurate reads) have a reduced impact on accurate and fast billing. Nevertheless, even where the negative billing impacts of poor data quality can be reduced for smart meters, they will remain for legacy meters. Any negative impacts on the quality/efficiency of settlement will remain for all meter types.

### *Recommendations*

**The group considered the issues with CoS reads as one issue regardless of the root cause. Therefore the conclusions in relation to this issue are incorporated in section 11.2 below.**

## **11.2 Disputed CoS Reads**

### *Description*

There a number of different root causes that could lead to CoS reads being disputed. For example infrequent meter reading may affect the accuracy of estimated data and tolerance checks may lead to good readings being rejected.

### *Analysis Undertaken*

The group noted that views of respondents to the questionnaire varied with parties stating that 5 - 15% of CoS reads are disputed. Respondents also provided various reasons why reads can be disputed e.g. estimated meter reading used for CoS. Suppliers stated that there are no reason codes applied to disputed CoS reads so it would not be easy to provide a breakdown of the data. Suppliers could analyse a sample of disputed CoS reads to determine the reason for the dispute but this would take a significant amount of time and therefore the group agreed that it was not possible to carry out this analysis for the final report.

The group considered some issues in more detail. For example Suppliers are currently unable to appeal AQs outside of AQ window; and all Suppliers do not maintain updated AQ information. The group agreed that this issue should be resolved as part of rolling AQ introduced under the UK Link Replacement Project.

The group also noted that it is the responsibility of the gaining Supplier to provide the CoS read, however, they are unable to validate this therefore responsibility for validation sits with the Transporter. The gaining Supplier can ensure that readings are provided in line with rules for must reads and this will help with Transporter estimates.

It was suggested that a change could be implemented to make the incumbent Supplier responsible for supplying the CoS read. The group did not support this proposal as the gaining Supplier is responsible for the ongoing relationship with the customer and therefore must ensure that billing is accurate going forward. In addition this proposal is inconsistent with the approach being developed by the Smart CoS Read Working Group, which is considering alternatives based around:

- enabling both Suppliers to obtain the CoS read independently (given that both Suppliers can directly access the midnight read on the meter on the transfer date): or
- retaining the old Supplier's dependency on the new Supplier for the CoS read.

### *CoS Reads Conclusions*

The group noted that some of the issues with CoS reads discussed above are being considered by the Smart CoS Read Working Group in relation to smart meters. However, it would still be useful consider potential changes to improve the situation for legacy meters. It was noted that the SEG are considering proposals to introduce more rigour around the NOSI flow. They are specifically considering extending the Data Transfer Network (DTN) service to allow small Suppliers to transmit NOSI flows across the DTN. In addition, a new SPAA obligation would be introduced stating that Suppliers should use a DTN flow or other bilaterally agreed communication e.g. email to transmit the NOSI flow.

### *Recommendations*

**The group agreed that issues with CoS reads for legacy meters and the use of the NOSI should continue to be considered by the SEG. The SEG may also want to consider other CoS Read data quality issues in relation legacy meters.**

## **12. Smart Metering Issues**

The accelerated meter exchange with the smart metering rollout is likely to exacerbate a number of the data quality issues discussed. In addition, there are specific data quality issues which could be introduced through the smart metering arrangements:

### **12.1 SMETS Capable vs SMETS Compliant**

#### *Description*

There is no clear process for designating meters as NS - Non SMETS compliant; S1 - SMETS 1 compliant; or S2 - SMETS 2 compliant. Some meters are SMETS 1 capable, which means they are not currently SMETS 1 compliant, however they are capable of becoming compliant with a firmware upgrade e.g. to add prepayment capability. Some Suppliers will register these SMETS capable meters as S1 meters, whilst others will register them as NS meters. DECC documentation defines what is SMETS compliant, but does not refer to SMETS capable meters. There is also no clear definition of NS and S1 in the UNC.

### *Analysis Undertaken*

The SEG are considering various solutions, for example the creation of an SX category for SMETS capable meters in order to distinguish these from other NS meters that are not SMETS capable, and will therefore need replacing in order to become SMETS compliant. Another suggestion is to allow a new Supplier to change the status from S1 to NS if they acquire a meter that has been registered as S1 even though it is not currently SMETS compliant. However, concern was raised that this could lead to more data quality issues.

The group noted that this issue will affect data quality, and will be exacerbated by the accelerated meter exchange with smart rollout. It should therefore be resolved before mass rollout.

### *Recommendations*

**The group agreed that SEG should continue to consider this issue and determine the most appropriate solution for implementation.**

## **12.2 GUID**

### *Description*

Smart Metering is introducing the GUID as a second unique ID for a meter. The GUID is used to define a meter in all communications to the DCC and does not correspond in any way to the meter serial number. This could lead to data quality issues where the GUID is associated with the wrong MSN. If more than 1 smart meters are installed there is no clear route for identifying which GUID is attached to which meter.

### *Analysis Undertaken*

The group discussed whether a GUID could potentially replace an MSN. However the group noted that a GUID is given to multiple pieces of kit; therefore, there would be multiple GUIDs for an address, and potentially one for a meter and a separate one for the meter shadow. Furthermore, the GUID is a randomised number, and therefore no elements of the sequence would identify the meter model, manufacturer etc and the GUID is a 32 digit number making it potentially challenging for field workers to record the GUID for a meter.

The group decided that the MSN would be a better identifier and should not be replaced by the GUID. The group also noted that the MSN isn't stored by the DCC, therefore it will not be possible to link the MSN to the GUID.

### *Recommendations*

**The group agreed that the introduction of a second unique ID could lead to additional data quality issues. Sufficient clarity on the use of the GUID does not yet exist to allow the group to propose any solutions to address this potential data quality issue. SEG should continue to consider this issue as information on the GUID becomes available.**

### **13. Governance/Industry Processes**

There are a number of industry processes, which interact with the consumer switching process. The group felt that the processes surrounding the MAM appointment and submission of flows should be considered further. In addition MAPs have raised concerns regarding communication and identification processes that the group wanted to discuss. The process of repeated objections was also highlighted as a concern. These are considered further below.

#### **13.1 MAM Appointment Process**

##### **Description**

If a Supplier appoints a MAM to a site where the MAM is not also the MAP for the asset the appointed MAM can accept the appointment, and then resolve the MAP aspect with a contract with the MAP or replacement of the meter; or the MAM can reject the appointment.

##### **Analysis Undertaken**

The group noted that there appear to be two governance models. One is the 'Original Gas Intended Model' where the Supplier appoints a MAM, and the appointed MAM accepts the appointment, and then resolves the MAP aspect with a contract with the MAP; or the MAP is requested to replace the meter, and once replaced, they accept a MAM (and MAP) appointment. The other model is the 'Electricity Model' where the MAP invoices the Supplier directly which is also a smart meter obligation.

Some members of the group stated a preference for the MAM making a commercial arrangement with the MAP upon appointment instead of rejecting the MAM appointment because the Supplier becomes 'stuck' if they don't have a commercial agreement with the relevant MAM. It was added that in the I&C sector it is more likely that the MAM is also the MAP compared to the domestic market, which is more aligned to the situation in the electricity sector.

The group noted that generally they are expected to pay a combined MAM and MAP charge directly to the appointed MAM, who then passes on the monies to the MAP. MAP charges are considerably lower than MAM charges, and the Supplier's relationship with the MAP tends to take a 'back seat' to the Supplier's arrangement with the MAM. Where the MAM cannot determine the identity of the MAP, the MAM collects the MAP charges but cannot pass them on.

It was noted that different parties have different interpretations of the 'correct approach', which is causing conflicts and may need to be resolved.

##### **Recommendations**

**The group agreed that although some Suppliers may have issues dealing with MAMs and MAPs, this does not impact the consumer because the switch still takes place with no delay, and billing data is not impacted. Therefore no solutions were proposed.**

### 13.2 Length of communication chain

#### Description

The chain of communication goes from the MAM to the Supplier, then to the Shipper who updates Xoserve. Each link in the chain gives an opportunity for data to be corrupted or not passed forward to the next link in the chain. Also as the communication through each link in the chain takes a finite length of time, there is an opportunity for a delay in the CoS event to occur and so communication with Xoserve could fail. This will become more challenging still under faster switching.

#### Analysis Undertaken

The group considered a suggestion that a change be made to allow MAMs to pass data directly to central systems. The group agreed that this went against the Supplier Hub Principle and would be a fundamental change to the gas industry. Suppliers are required to submit data to central systems as they are responsible for the data and the ongoing customer billing. It was suggested that the MAM could submit the data to the C&D Store, however Xoserve would still not update central systems based on this notification.

The group also noted that UNC Modification 0431 'Shipper/Transporter Meter Point Portfolio Reconciliation' should resolve some of the historic issues with inconsistent data. This change seeks to improve the completeness of the data held by Transporters on behalf of industry parties by carrying out a MPRN portfolio reconciliation between Shipper records and sites and meters.

#### Recommendations

**The group agreed to note this issue in the final report but not to include any specific recommendations.**

### 13.3 Blank MAM Ids

#### Description

Previously the MAM ID was deleted on Change of Supplier/Shipper. Without details of the MAM the new Supplier is unable to produce accurate billing data.

#### Analysis Undertaken

The group noted that a change has been implemented in Xoserve whereby the MAM ID is no longer deleted upon Change of Supplier/Shipper. This change has reduced the number of blank MAM IDs from its peak at 350,000 to less than 100,000. However there is still an issue with blank MAM IDs where these have historically been deleted and this is being looked at by the SPAA Expert Group. Action has been taken by Suppliers which has reduced the number but there is still work to do. Letters have been written to a number of Suppliers asking them to populate the MAM ID.

#### Recommendations

**The group agreed that this issue was already being dealt with therefore they didn't need to propose any additional solutions.**

### 13.4 No MAP ID or MAP Flows

#### Description

Another issue is that the lack of the MAM Id means that Suppliers do not know who the MAM is and cannot determine charges. The group agreed this is an issue for I&C consumers who want a quote for gas which includes the tariff and metering charges. The Supplier needs to know who is responsible for the meter in order to provide the price.

#### Analysis Undertaken

The group also noted that at RGMA implementation, the gas industry was set up with no MAP and therefore there was no requirement to flow MAP data. Therefore MAPs have to rely on MAM to MAM flows and the updates provided by them. More recently some MAPs have raised concerns regarding this situation as they would like to have visibility so they can follow their assets and there is a licence obligation on Suppliers to communicate with MAPs.

The group noted that this should not affect the consumer unless meter asset information fails to flow such as following a meter exchange. In addition there have been two UNC Modifications implemented to help identification of industry parties:

- UNC Modification 0386 'Extending Rights to Protected Information Provisions for Meter Asset Managers/Registered Metering Applicants - Unpopulated MAM ID records' was implemented in October 2011 and allows MAMs to identify the Supplier for each Supply Point where necessary; and
- UNC Modification 0457S 'Extending the use of the UK Link Network Information Exchange (IX) to Meter Asset Provider (MAP) organisations' was implemented in December 2013 which allows MAPs to identify the MAM.

#### Recommendations

**The group agreed to note this issue in the final report but not to include any specific recommendations.**

### 13.5 iGTs not bound by RGMA

#### Description

SPAA Change Proposal CP12/227 'Mandating Schedule 22 for Small Transporters' introduces an obligation on iGTs to communicate via RGMA data flows. Under the RGMA the iGT must act as MAM and GT where an iGT meter is installed, and where the supplier hasn't 'de-appointed' the iGT MAM. However, Suppliers noted their concern that when CP12/227 is implemented in October 2015, iGTs may not use standard process flows and communication routes to meet these obligations as RGMA allows for information to be provided using data flows or by other means. For example, iGTs will be required to send asset details but there is no requirement for this to be automated. If iGTs start sending this information manually it may cause significant data quality issues, particularly with the accelerated meter exchange under the smart rollout.

### *Analysis Undertaken*

The Xoserve representative explained that they were not expecting flows to be sent to them manually. When CP12/227 is implemented in October 2015, the meter fit report will be used and where this is not confirmed, Xoserve will confirm on behalf of the iGT. The group noted that the final process is still being developed so it is not clear whether a data quality issue will arise.

### *Recommendations*

**The group agreed that this is not a current issue but could lead to significant issues depending on how the change is implemented. Suppliers could raise changes to the relevant Codes to address this if necessary.**

## **13.6 Repeated Registrations/Objections**

### *Description*

The Objections process allows the current Supplier to object to the consumer switching to a new Supplier for reasons of unpaid debt or ongoing contract. Repeated registrations and objections can become very frustrating for the consumer and may be based on inaccurate data. For example incorrect address details may prevent the switch as the old Supplier may state that the consumer at that address is still under contract. In addition, Suppliers may have automated registration processes where they continue to attempt to register a new consumer whilst the old Supplier continues to object rather than looking into the root cause of the failure in the registration process.

### *Analysis Undertaken*

Within the January to April 2014 there were:

- 78,462 objections raised against 66,923 Smaller Supply Points (SSP).
- 8,022 objections raised against 5,613 Larger Supply Points (LSP).

The following table demonstrates the occurrence of objection cycles, between the SSP and LSP sites, between January and April 2014. The term 'cycle' refers to a repeated pattern in which an attempted confirmation is followed by an objection. e.g. a repeated pattern of 5 attempted confirmations and objections would comprise one cycle. Registration attempts are not limited to the same proposing user.

Number of Objections within Cycle	Occurrences of Cycle within January – April 2014 period (MPRNs)		
	SSP	LSP	Total
5	393	144	537
6	134	53	187
7	59	42	101

Number of Objections within Cycle	Occurrences of Cycle within January – April 2014 period (MPRNs)		
8	33	32	65
9	11	27	38
10	0	15	15
11	10	3	13
<b>Total</b>	640	316	956
<b>Average</b>	91	45	137

The objections process was discussed as part of UNC Modification 0472 'Restricting the number of registration attempts by a Shipper'. This modification was implemented in September 2014 and should mitigate this risk.

#### *Recommendations*

The group agreed that **UNC Modification 0472 is seeking to address the concerns with repeated registrations/objections, therefore they didn't need to propose any additional solutions.**

### **14. Other Data Quality Issues**

The group noted that there are a number of other issues that can lead to poor data quality. These are generally low frequency and/or low materiality issues. Processes can be put in place to prevent the error re-occurring, however there are no generic resolutions. Therefore the group did not consider these issues further.

### **15. Industry Initiatives**

There are a number of industry initiatives and projects that may affect data quality in the future. Details of these have been provided in the following paragraphs.

#### *iGT Single Service Provisions Project*

This project incorporates a number of changes:

- A new iGT Licence Condition requiring iGTs to utilise the services of the Transporter's Agent Xoserve to administer relevant Supply Points downstream of the Connected Systems Exit Point (LDZ CSEP);
- UNC Modification 0440 'iGT Single Service Provision' which identifies changes to the UNC to enable iGTs to utilise the services of the Transporter's Agent Xoserve;
- iGT Modification 039, which reflects the changes proposed in UNC Modification 0440; and

- An updated Agency Charging Statement.

#### ***UK Link Systems Replacement Programme - Project Nexus***

Transporters have agreed to replace UK Link systems and a requirements gathering project named Project Nexus was established to identify stakeholder requirements. This has culminated in the review of the UNC settlement regime and proposed inclusion of iGTs in central systems.

The UK Link Systems replacement is currently set for 1 October 2015. In preparation for this implementation, Xoserve will be carrying out further data cleansing activities. This will be based on validation rules and will therefore not be looking at the accuracy of the data.

#### ***UNC Modification 0467***

The delivery of the changes to the UK Link systems necessary to support implementation of UNC Modification 0440 is dependent upon data received from iGTs. Modification 0467 seeks to require the iGTs to participate in the preparation of iGT data to enable implementation of the iGT 'single service provision' arrangements.

This modification is currently being considered by the Authority.

#### ***UNC Modification 0428 - Single Meter Supply Points***

The current initiative to move to single meter supply point addresses for aggregated meter supply points may resolve a number of data quality issues. However, it could also lead to additional data quality issues if errors are made during the disaggregation process. While there will be a single Supplier for each supply point there is a danger that some meters may not be captured. This is referred to section 7 above under non domestic issues.

#### ***Modification 0468 - Unique Property Reference Number (UPRN) Population by Gas Transporters***

This proposal aims to provide a common address reference number, which could be used across both fuels and links the property address to a geographical location. Currently there is no universal support for this modification as UPRN has not been mandated by DECC.

UNC and IGT UNC modifications have been raised to require Gas Transporters to populate the UPRN field. The UPRN provides a unique reference code for every premises and plot of land in the UK. This could increase Suppliers' ability to make sure that they have the correct site to transfer and avoid erroneous transfers. It may also be a useful way of linking gas and electricity into a central registration system held by the Data Communications Company (DCC) as the DCC may hold the UPRN for each enrolled smart meter.

However, a cost benefit analysis has not yet been carried out. Also the Modification 0468 Working Group has identified that the UPRN doesn't provide a solution for existing issues (i.e. cross meters) and may create new issues/difficulties (i.e. cross MPRNs/UPRNs, UPRNs not being available until after property is habitable, UPRNs/MPRNs can change separately of one another, 1 UPRN may have >1 MPRN, the meter point may be located in a different UPRN/property to the UPRN/property that the relevant supply is serving).

***UNC Modification 0472 'Reporting the number of registration attempts by a Shipper'***

This proposal seeks to enable Shippers to resolve issues where multiple registration attempts are made resulting in multiple objections. At the moment there is no restriction on the number of registration attempts that a Shipper can make when attempting to gain a customer. This can lead to numerous repeated attempts to register the customer when this is not appropriate, e.g. when the customer is under contract to their existing Supplier. These repeated registration attempts are inefficient, as they have to be responded too. It has been identified that an existing Shipper cannot identify the proposing Shipper attempting registration, however Xoserve can report on these issues where repeated inappropriate registration attempts may have been made. This will allow the incumbent Shipper to identify the proposing Shipper and resolve the issue resulting in more efficient switching.

Modification 0472 was implemented in September 2014.

***UNC Modification 0477 and iGT UNC Modification 059 'Supply Point Registration - Facilitation of Faster Switching'***

These modifications seek to reduce the Supply Point confirmation period following the Supply Point Objection Deadline event 7 Business Days to 2 Business Days to enable a faster switching service for the gas consumer.

These modifications were approved by the Authority and implemented in November 2014.

***SPAA Change Proposal CP12/227 'Mandating Schedule 22 for Small Transporters'***

This proposal introduces an obligation on iGTs to communicate via RGMA data flows. This should introduce consistency in the data transmitted between iGTs and other industry participants.

Implementation of CP12/227 is aligned with Single Service Provision go live (currently October 2015), and from that date, iGTs will be mandated to use standard RGMA processes/flows (in line with the requirements of other MAMs and GTs).

However, RGMA does not specify the means by which data should be sent therefore it may be transmitted using email which could introduce additional data quality issues.

***Market Domain Data reconciliation exercise***

Currently UK Link allows all combinations of valid data items to be submitted. For example, invalid combinations of meter model and meter serial number would not be rejected. Xoserve believe there are several thousand incorrect make and models on UK Link. They are currently working with the Meter Asset Manager Code of Practise (MAMCoP) to review the data item combinations held on their system. Xoserve propose to end date 2,000 meter models as they have no live meters. A further 2,800 need to be reviewed which have live meters associated with them. Some of these will be invalid and others will need adding to MDD. A further 1,000 will need detailed assessment with priority given to those which impact billing.

### ***Performance Assurance Work Group***

There are a number of modifications currently being progressed the UNC Performance Assurance Work Group. The overall objective of the work group is to ensure that gas settlement has accurate allocation, control, self monitoring and governance so that no undue commercial advantage is derived from settlement.

The work group aims to establish a Performance Assurance regime in time for the implementation of the UK Link replacement programme delivery and its Terms of Reference can be found here <http://www.gasgovernance.co.uk/PA>

A number of modifications have been raised to support the establishment of the regime and these are set out below. These modifications have been allocated to work group for assessment and are due to report to the UNC Panel in April 2015.

- Modification 0483 'Performance Assurance Framework Incentive Regime' - This modification proposes a top down incentive regime that encompasses the allocation of energy and its subsequent reconciliation to actual usage by meter point, enabling the gas industry to set performance targets designed to incentivise behaviours that are consistent with the risk placed on other market players.
- Modification 0506 'Gas Performance Assurance Framework and Governance Arrangements' - This modification proposes that there will be a new Performance Assurance Framework introduced into the gas market arrangements. The Performance Assurance Framework is expected to use the risk assessment process, as set out in Modification 0483.
- Modification 0520 'Performance Assurance Reporting' - This modification proposes to introduce low level reporting arrangements for the key inputs, which impact accurate settlement allocation.

### ***Meter point portfolio reconciliation exercise UNC Modification 0431***

This change seeks to improve the completeness of the data held by Transporters on behalf of industry parties by carrying out a MPRN portfolio reconciliation between Shipper records and sites and meters.

A total of 2,900 Unregistered MPRN's have been identified as a result of Modification 0431. In order to resolve these unregistered sites, they will need to be registered on Xoserve's central systems. A further 3,300 Shipperless MPRN's were identified and these will also need to be registered on Xoserve's central systems.

Modification 0431 also identified 2,600 MPRN's that are not present on Sites and Meters, these MPRN's will need to be investigated by the Shippers and where needed new MPRN's will need to be created on the central systems using the current processes that are in place for registering sites.

A further 9,500 MPRN's with a status of Dead or Extinct were provided back to Xoserve, these will need to be investigated individually by the Shippers and the appropriate action taken to register the sites.

### ***MAMCoP portfolio reconciliation exercise MAMCoP Change 14/005***

This change is currently being developed with the intention of placing an obligation on MAM's to provide a yearly snapshot of their entire portfolio of meter assets to allow transporters to carry out portfolio reconciliation against the data that they hold on their systems. This process would act as a backstop in the event that data is not passed across to Xoserve during normal business as usual operations. This change will give Transporters visibility that a site has a meter and should therefore have a supply contract in place. This would allow an investigation to be triggered in the event that a site has a meter installed but is unregistered or shipperless.

### ***Data Catalogue creation***

The data items under the UNC are documented in the UNC file formats, which are used extensively within the gas industry. Xoserve is currently working to create a catalogue detailing these data items and their ownership, similar to that available in electricity. This is scheduled for completion in 2015.

### ***Theft Risk Assessment Service (TRAS)***

A project is underway to procure a service provider to deliver a dual fuel TRAS to identify potential theft and highlight this to the relevant Supplier for further investigation. Although aimed to detect theft, this could lead to a number of data quality issues being uncovered and corrected.

### ***Third Party Intermediaries***

Industry are considering the potential development of a Code of Practice to regulate Third Party Intermediaries (TPIs). 80% of I&C Consumers use a broker to switch. This is problematic for data quality as some brokers may be more concerned about commissions than data quality. Another proposal being discussed is that TPIs could be granted access to industry databases such as ECOES and SCOGES. This should help prevent erroneous transfers because the TPI would be able to perform better up front validation. There would need to be tight governance because of access to customer data and to ensure it is not misused as TPIs would be able to cherry pick preferred customers.

### ***Next Day Switching***

In June 2014 Ofgem issued a consultation 'Moving to Reliable Next- Day Switching' setting out proposals that will allow next day switching for electricity and gas consumers. The group have considered the data quality improvements recommended within this report in light of the proposals for next day switching and have noted where data quality improvements are required to enable next day switching, for example consistent address data across gas and electricity is a key requirement before the introduction of next day switching.

The group also noted that the CoS process required to support next day switching will be fundamentally different to the current process and therefore different data quality issues are likely to be identified.

## **16. Summary of Recommendations**

The group concluded that this project has led to the identification of a number of issues that are leading to poor data quality and impacting on the CoS process. It has also highlighted that there is currently very little monitoring being carried out with regards to the impact the identified issues are having on the CoS process. This is not helped by the fact that the end to end CoS process sits across a number of governance regimes, with responsibility for data items split between different industry participants; therefore a holistic view of the process is not available.

In considering its recommendations the group did not identify any areas where additional Licence obligations would be required to ensure appropriate remedial action is taken to address the issues. In fact the group noted that as the magnitude of the issues has not been quantified it would be inappropriate to introduce an additional Licence Condition at this time.

The group did agree a number of specific recommendations in relation to the identified issues, and these are summarised below:

### ***Address Data***

The group concluded that inconsistent address data could have an impact on the consumer switching experience. The issues experienced in the gas market reflect those being discussed by the electricity Data Quality Working Group. Therefore a Dual Fuel Working Group should be established to consider a common address format and the potential adoption of the UPRN, or any other proposal that may provide a cost effective solution for improving address data quality.

### ***Incorrect MPRNs and Erroneous Transfers***

The group concluded that the majority of erroneous transfers are caused by incorrect MPRNs and that a clear unambiguous requirement to label new connections should reduce instances of incorrect MPRN. The current requirement to label ECVs should be strengthened, and therefore a change should be made to the IGEM Standard TD/4 as soon as practicable.

The electricity Data Quality Working Group has also considered labelling cut outs, therefore a Dual Fuel Working Group should be established to consider the creation of a common label.

Finally the group noted that additional controls are required around the MNC process to reduce the number of duplicate MPRNs and that this is being considered by the Unregistered and Shipperless Working Group.

### ***Metering Data***

The group concluded that there are various issues that can lead to incorrect metering data and a number of recommendations were made as follows:

The SPAA Metering Schedules Working Group is currently considering the measures in SPAA for monitoring data quality and ensuring consistency in the transfer of metering data. The

group recommended that these measures should be improved and that this issue should be dealt with by the current SPAA Metering Schedules Working Group.

The group concluded that the old MAM failing to send metering data to the new MAM can lead to delay and inaccuracies in the first bill following a consumer switching event. Therefore Suppliers and MAMCoP should further consider the process whereby an old MAM sends details to a new MAM and how this ties in with the MAM de-appointment process.

In addition, analysis carried out by Xoserve highlighted potential issues with a significant number of meters in central systems with the meter location unknown, and also a significant number of confirmed supply points with no meter asset data. The group recommended that SEG consider these issues further.

Finally, the group noted that the process for updating metering data by the old Supplier once a consumer has changed Supplier requires the use of the CDJOB from Xoserve. This is currently dealt with manually by the receiving Shipper and it is proposed that SEG consider whether changes are required to improve the visibility of this flow.

### *CoS Reads*

The group concluded that inaccurate CoS reads will have a significant impact on the consumer switching experience as there will be a billing delay if the CoS read is rejected, or inaccurate bills if an erroneous CoS read is accepted. Inaccurate CoS Reads are due to inaccurate data held by the gaining Supplier and its agents. Therefore the NOSI process is in place to allow Suppliers to receive data directly from the old Supplier and mitigate these issues.

The Smart CoS Read Working Group is looking at issues with Smart CoS reads and SEG is looking at introducing more rigour around the NOSI flow process to improve the flow of data. Therefore, no alternative solutions were developed although the group noted that the SEG may also want to consider other CoS Read data quality issues in relation legacy meters.

### *Smart Metering Issues*

The group concluded that there is a risk that the smart meter rollout will lead to an increase in data quality issues and therefore controls should be built into the new processes to mitigate this risk. Specifically, issues with SMETS Capable meters should continue to be considered by the SEG and care should be taken with the introduction of the GUID.

### *Governance/Industry Processes*

The group noted that there are a number of industry processes which interact with the consumer switching process. The group considered: the processes surrounding the MAM appointment and submission of flows; communication and identification of MAMs and MAPs; and repeated objections/registrations.

The group concluded that changes have been raised to address concerns in these areas and therefore no further changes were proposed.

## **17. Next Steps**

As set out in the Terms of Reference, this final report will be issued to the SPAA EC, UNC Panel and iGT UNC Panel for final approval. It will then be submitted to Ofgem by 31 December 2014.

The group agreed that where recommendations have been made that issues should be considered further by another industry group e.g. the SEG, MAMCoP or SPAA Working Group; then this report should be issued to that group with details of the issue for consideration. This can be done following approval of the report by the various Panels and there is no need to wait for a direction from Ofgem as these issues are already being considered widely within the industry.

Other recommendations relate to Dual Fuel Working Groups being established to consider issues which affect both gas and electricity. The group agreed that these Dual Fuel Working Groups will not be established without a direction from Ofgem. Therefore these recommendations will be put on hold until further notice.

The group noted that one final recommendation has been made for a change to the IGEM Standard TD/4 to strengthen the requirement to label ECVs. The group agreed that the SPAA EC should be asked to write to the IGEM Panel to request that this change be made. Again it was agreed that this should be done as soon as possible and was not dependent on a direction from Ofgem.

## ***18. Appendices and Attachments***

Appendix 1 - Definitions

Appendix 2- Consolidated Questionnaire Responses

Appendix 3 - Working Group Terms of Reference

Appendix 4 - Data Flows for the Shipper - Transporter CoS Process

Appendix 5 - Data Ownership Appendix D7 of the RGMA Baseline

Attachment 1 - Shipper - Transporter Switching Diagram

*Appendix 1 Definitions*

Acronym	Name
<b>AMR</b>	Automated Meter Reading
<b>AQ</b>	Annual Quantity
<b>CoS</b>	Change of Supplier
<b>CoT</b>	Change of Tenancy
<b>DAP</b>	Debt Assignment Protocol
<b>DCC</b>	Data Communications Company
<b>GT</b>	Large Gas Transporter
<b>GUID</b>	GSME Identifier
<b>iGT</b>	Small Gas Transporter
<b>iGT UNC</b>	iGT Uniform Network Code
<b>MAM</b>	Meter Asset Manager
<b>MAMCoP</b>	Meter Asset Manager Code of Practice
<b>MAP</b>	Meter Asset Provider
<b>MEC</b>	MRA Executive Committee
<b>MNC</b>	Meter Number Creation
<b>MPRN</b>	Meter Point Registration Number
<b>MSN</b>	Meter Serial Number
<b>MTDs</b>	Meter Technical Details
<b>PAF</b>	Postcode Address File
<b>RGMA</b>	Review of Gas Metering Arrangements
<b>SMETS</b>	Smart Metering Equipment Technical Specification
<b>SEG</b>	SPAA Expert Group
<b>SPAA</b>	Supply Point Administration Agreement
<b>UIP</b>	Utility Infrastructure Provider
<b>UPRN</b>	Unique Property Reference Number

**Appendix 2 Questionnaire Responses**

**Question 1a - Inconsistent Address Formats**

Different address formats are used for gas and electricity. The address format used for gas is the Royal Mail Postcode Address File (PAF), while electricity uses the format of MAP09 in the Master Registration Agreement. There is currently an initiative to move to single supply point addresses for dual fuel customers which may address this issue. However, there is a danger that some meters will not be captured so the initiative may not resolve all data quality issues.

Organisation	How often does your organisation come across this issue?
Fulcrum Pipelines	Fulcrum Pipelines (FPL) do not hold any electric information. However, we do experience problems with address details based on the format specified by XOServe on a regular basis.
ESP	Not often
Brookfield Utilities UK	This issue occurs on a regular basis
Northern Gas Networks	NA – Supplier question
SGN	N/A – This is a Supplier question. For information SGN uses the Post office Address File.
Npower I&C	Currently, I&C do not come across this issue as we do not service dual fuel customers. However, in the future with the introduction of Smart and if we start to service dual fuel customer, this may become an issue. With the introduction of a UPRN for a single property, the difference address formats across Gas and Electricity may cause problems.
Npower SME	This does cause problems when we are trying to register the accounts for SME. Often there are mismatches between the databases and this can cause problems registering the accounts.
EDF Metering	In metering we would come across the issue daily of raising an address amendment query with either Conquest or MPAS to resolve the mismatch

**Question 1b - Inconsistent Address Formats**

Organisation	Does this issue have any impact, either direct or consequential, on the CoS process?
Fulcrum Pipelines	No real impact on FPL but may impact Shippers if they are unable to identify a relevant property using the details recorded on XOServe system.
ESP	-
Brookfield	Yes

Utilities UK	
Northern Gas Networks	NA – Supplier question
SGN	N/A – This is a Supplier question.
Npower I&C	This would have a consequential impact on the CoS process.
Npower SME	Yes, Detailed above
EDF Metering	-

Question 2a - Misinterpretation of Address

The term “Address” has different meanings for industry parties: the Supplier needs to know where the Consumer lives and where to send communication to; the Transporter needs to know the address of the cut-off (where the pipe ends); and the MAM needs to know where the meter is located. These may all be slightly different and any of the Parties can change the address details to reflect their own requirements which may lead to errors for the other Parties.

Organisation	How often does your organisation come across this issue?
Fulcrum Pipelines	Fulcrum Pipelines (FPL) do not experience any issues. Irrespective of the party all MPRN’s / MPAN’s should be relate to a postal address.
ESP	Not often
Brookfield Utilities UK	We believe this happens fairly often but we are unable to quantify it. We receive on average 457 address queries but we are unable to break this down further to this particular issue.
Northern Gas Networks	Issues with address data tend to arise in trying to find the site rather than finding the meter once on site, which will come through conversations with the site occupier and our internal records. For registered sites when the address data held in DE is too poor to find the site in question and it is not uncommon for us to contact the Shipper with improved address data to update DE once we have visited the site and confirmed the proper address.
SGN	SGN does from time to time experience issues with address data but this is when we are trying to locate a site.
Npower I&C	It is difficult to put a number on how often we come across this issue as these scenarios are dealt with on a case by case basis and cannot be differentiated from standard address amendments. The process however, does cater for differing addresses between the parties (which is more common for B2B customers) and when amending addresses we do validate the correct address for each purpose.
Npower SME	For new registrations this does cause issues. Often the data has been manipulated by previous suppliers/shippers. This does cause issues with billing, meter jobs and correspondence with the customers when there are mismatches.
EDF Metering	In metering we could come across this when updating records and have mismatches with Rainbow, SAP and Xoserve potentially – this happens regularly – probably daily

Question 2b - Misinterpretation of Address

Organisation	Does this issue have any impact, either direct or consequential, on the CoS process?
Fulcrum Pipelines	None as the address is only used as a secondary means of checking the request. The actual validation is carried out against the MPRN.
ESP	-
Brookfield Utilities UK	Yes but the effect is minimal compared to other issues however a difference of postcode does cause problems
Northern Gas Networks	If a site has poor address data then it is not uncommon for a new MPRN to be raised for a property to complete a registration. This creates a legacy of duplicate MPRNs on DE.
SGN	We have seen instances of poor address data resulting in new MPRNs being created for a site to enable the registration process to be completed.
Npower I&C	This issue wouldn't particularly have an impact on the CoS process. As long as the postcode on the registration flows match that held on Xoserve, the registration will go ahead successfully.
Npower SME	Yes, detailed above
EDF Metering	-

Question 3a - Incorrect Meter Point Reference Number

Meter installed at the wrong location - Currently iGTs do not all label new connections, they use the meter serial number to determine the Meter Point Reference Number (MPRN). However, the meter may have been installed at the wrong address, for example if the developer directed the meter installer to property 1 rather than plot 1, or the developer has moved the meter itself. This may lead to erroneous transfers.

Address details changed to match meter location - If a query is raised regarding the location of a meter, Suppliers triangulate the meter serial number, the MPRN and the address details to ensure they all match up. If they do not match, then the meter should be moved to the correct location. Again this is not always the remedial action chosen and sometimes the address details will be changed instead, leading to further issues.

Organisation	How often does your organisation come across issues resulting from incorrect MPRNs?
Fulcrum Pipelines	FPL do label new connections on our networks. However we do still experience a fair amount of crossed meter queries / situations. This tends to be caused by third party actions, e.g. Gas Safe engineers running the outlet pipework to a different property than the one which the MPRN is allocated.
ESP	Often come across issue with incorrect Meter Serial Number rather than MPRN
Brookfield Utilities UK	Quite often however not all iGT's treat this issue the same way. Above it states that iGT's use the meter serial number to determine the MPRN but this is not true of all cases, as we utilise the plot number.

Northern Gas Networks	This is not a scenario identified on NGNs network, although use of MSN to find addresses do from time to time create queries about the data quality provided at the time of the meter installation. This is not necessarily incorrect MPRN, but moved meters or partial MSNs which are duplicated.
SGN	If SGN finds a crossed meter situation then we will investigate the issue and carry out remedial action.
Npower I&C	It is difficult to specifically identify how often this issue occurs but it is rare. As a note, not sure whether the description above refers to physically moving the meter to the correct location, or attaching the correct assets to the correct MPRN's. Our business process is to attach the correct assets to the correct MPRN's based on site visits rather than to amend the addresses.
Npower SME	Not sure, this isn't a process that team do.
EDG Metering	As above – meter mismatch issues causing MMU's

Question 3b - Incorrect Meter Point Reference Number

Organisation	Does this issue have any impact, either direct or consequential, on the CoS process?
Fulcrum Pipelines	Significant impact on CoS as the MPRN which the Shipper or the iGT have recorded could actually be feeding an alternate flat. This usually only comes to light when an end user contacts either the Shipper or iGT stating that they have received a letter notifying them they are changing shipper.
ESP	Direct
Brookfield Utilities UK	Yes
Northern Gas Networks	N/A
SGN	We do not have any evidence that could be used to prove that there is an impact on the CoS process.
Npower I&C	This issue may have a consequential impact on the CoS process. If this issue is not resolved correctly by the supplier, duplicates could be created in error.
Npower SME	Not sure, this isn't a process that team do.
EDF Metering	-

Question 4a - Supplier Creation of MPRNs

Currently Suppliers will use the Meter Number Creation (MNC) process when they are not able to identify the MPRN, for example if the consumer cannot provide this information. Labelling the Emergency Cut Off Valve (ECV) should reduce the number of instances when the MPRN cannot be identified however the group were keen to understand how often Suppliers are requesting the creation of MPRNs and why this process is being used.

Organisation	Why does your organisation use the MNC process?
Fulcrum Pipelines	FPL do not use this process.
ESP	N/A
Brookfield Utilities UK	This issue does not apply to us in our capacity as an iGT
Northern Gas Networks	As a GDN, we use the MNC process only for sites where a survey has taken place and a service is found with no corresponding MPRN. These are usually very old legacy sites as all new connections are assigned an MPRN during the planning process.
SGN	This is predominately a Shipper process for raising new MPRNs. If SGN becomes aware of a site that has no MPRN then we would go to site to inspect the service before we raise a new MPRN. It must be noted that the vast majority of our MPRN creation are carried out for newly laid services.
Npower I&C	We use the MNC process on the back of the Xoserve dead portfolio report if a new MPRN is required.
Npower SME	Not sure
EDF Metering	Where a meter has been identified and no MPRN can be located for the property address and there's no MPRN on the pipework to the meter.

Question 4b - Supplier Creation of MPRNs

Organisation	How often does your organisation use the MNC process?
Fulcrum Pipelines	Never
ESP	N/A
Brookfield Utilities UK	N/A
Northern Gas Networks	Very rare
SGN	We do not keep figures on how often we use this process however the number of instances will be low.
Npower I&C	We use the MNC process approximately twice a month.
Npower SME	Not sure
EDF Metering	This used to be at least once a month.

Question 4c - Supplier Creation of MPRNs

Organisation	What controls do you have in place to ensure there is not a valid MPRN before using the MNC process?
Fulcrum Pipelines	N/A
ESP	N/A
Brookfield Utilities UK	N/A
Northern Gas Networks	System checks for address including wider area such as postcode and street level, followed by site survey.
SGN	We carry out a number of system checks for works we may have undertaken at the address before creating an MPRN. We also check Data Enquiry taking into account the variances of address that may have been used.
Npower I&C	As we use the Xoserve dead portfolio as the driver for using this process, it is unlikely that a valid MPRN already exists, however the process does include steps to check the address in UK Link to ensure an MPRN does not already exist.
Npower SME	Not sure
EDF Metering	Check the MSN, address, plot address and pipework to the meter with all available parties before raising the query.

Question 5a - Disputed Reads

There are a number of elements that can contribute to a poor billing experience for consumer around Change of Supplier, including:

- Estimated meter readings (the performance of the old Supplier in terms of gathering meter readings can impact upon the new supplier);
- Meter exchanges;
- Incorrect AQ;
- Incorrect market sector code;
- Infrequent/inconsistent meter reading (if an estimated meter reading is used on CoS it can be significantly incorrect due to infrequent/inconsistent meter readings);
- Human error; and
- Supplier/Shipper Short codes.

Organisation	How many disputed CoS reads do you receive, as a percentage of your total CoS transfers?
Fulcrum Pipelines	0%

ESP	Few
Brookfield Utilities UK	We have not been able to conduct any analysis using the system as we do not currently have any reporting which could obtain it but in our experience we believe this affects approximately 15%
Northern Gas Networks	N/A
SGN	N/A – This is a Supplier question
Npower I&C	Approximately 6.5%
Npower SME	I don't have the actual data but I would say it was around 6%
EDF Metering	-

Question 5b - Disputed Reads

Organisation	Can you provide a breakdown of the reasons for these disputed reads in relation to the areas listed above (if possible)?
Fulcrum Pipelines	We don't get any disputes directly. The issue tends to be caused due to Shippers not submitting an actual read as part of CoS, the iGT generates an estimated read and then the next actual read is lower than the estimated read and as such gets rejected.
ESP	Often where the incoming shipper has not provided a read within the timescales provided to them, they will then later challenge the estimate created by the iGT.
Brookfield Utilities UK	Incorrect meter serial number's, higher reads than expected/lower reads than expected, incorrect addresses leading to Erroneous Transfers'
Northern Gas Networks	N/A
SGN	N/A – This is a Supplier question
Npower I&C	The most common reason for disputed CoS reads is that the CoS read is an estimate which is then invalidated by an actual read.
Npower SME	Transposed reads, estimated too high/low, incorrect MSN
EDF Metering	-

Question 6a - Erroneous Transfers

This issue occurs primarily for the following reasons:

- Cancellations are not affected in time; and
- The wrong MPRN is applied.

Organisation	How many erroneous transfers do you encounter, as a percentage of the total number of transfers?
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Fulcrum Pipelines	0%
ESP	n/a – ET's are not visible to us.
Brookfield Utilities UK	Again we have not been able to obtain any firm analysis but in our experience it is less than 50%
Northern Gas Networks	N/A
SGN	N/A – This is a Supplier question
Npower I&C	Approximately 0.5%
Npower SME	I don't have the actual data but I would say it was around 1%
EDF Metering	-

Question 6b - Erroneous Transfers

Organisation	Of those erroneous transfers, how many are due to an incorrect MPRN?
Fulcrum Pipelines	We would state that all erroneous transfers are due to incorrect MPRN's.
ESP	-
Brookfield Utilities UK	As above we believe it is approximately 15%
Northern Gas Networks	N/A
SGN	N/A – This is a Supplier question
Npower I&C	Unable to retrieve this level of detail as it is not recorded within the team.
Npower SME	80% (Roughly) are due to incorrect MPAN/MPR
EDF Metering	-

Question 7a - Transporter Rejects Meter Read

This issue occurs where the customer sends in an actual reading which is accepted by the Supplier but rejected by the Transporter. It can result in CoS invoicing delays and incorrect bills which affects the perception of the consumer switching experience.

This issue may occur because the meter read does not logically fit with the data held by the Transporter. For instance, the customer may have incorrectly read the meter and this reading has been accepted, when subsequent readings are received they are rejected by the Transporter because they are inconsistent with the customer read.

Organisation	What percentage of your provided CoS reads are rejected?
Fulcrum Pipelines	This needs to be answered by the Shippers or Supplier
ESP	N/A
Brookfield Utilities UK	Approximately 25%
Northern Gas Networks	N/A
SGN	Xoserve may be able to provide this information
Npower I&C	Unfortunately we only record our rejected reads as a whole rather than the specific read type i.e. CoS read.
Npower SME	Very low amount DC are pretty good in validating the reads.
EDF Metering	-

Question 7b - Transporter Rejects Meter Read

Organisation	What is the impact of this from the consumer perspective?
Fulcrum Pipelines	This needs to be answered by the Shippers or Supplier
ESP	N/A
Brookfield Utilities UK	Higher final/opening bills than they expect
Northern Gas Networks	N/A
SGN	As above
Npower I&C	If the CoS read is rejected, once we receive a valid read, we would follow the filter failure process to withdraw the incorrect read and accept the correct read. However if this is not done, we would not have those valid reads available for AQ review etc, meaning the consumer could potentially receive estimates based on incorrect data.

Npower SME	Not sure
EDF Metering	-

Question 8a - Meter exchange coincident with or close to CoS

This issue occurs where a meter exchange is planned by the old Supplier but they then find that they are losing the site. In this instance the old Supplier should cancel the meter exchange, but this does not always happen. The old Supplier will pass on information in relation to the old meter and the new Supplier will not be able to reconcile this with future meter readings.

Organisation	How often does this issue occur?
Fulcrum Pipelines	This needs to be answered by the Shippers or Supplier
ESP	Not often
Brookfield Utilities UK	We believe this affects approximately 20% of transfers
Northern Gas Networks	N/A
SGN	N/A – This is a Supplier question
Npower I&C	-
Npower SME	Very rare
EDF Metering	-

Question 8b - Meter exchange coincident with or close to CoS

Organisation	What is the impact of this from the customer perspective?
Fulcrum Pipelines	This needs to be answered by the Shippers or Supplier
ESP	N/A
Brookfield Utilities UK	We are unable to comment on the impact on the customer as we are rarely involved
Northern Gas Networks	N/A
SGN	N/A – This is a Supplier question

Npower I&C	From a consumer perspective, they could experience a delay in receiving their first invoice following CoS. If we become aware that a meter exchange has taken place prior to our supply, we would have to undertake an investigation to obtain the correct asset details which could involve site visits and become extensive. If we are not made aware of a meter exchange straight away, consumers may receive estimated invoices which otherwise could have been actual consumption, or the invoice could be for the incorrect meter. This would then result in a credit and rebill for the customer, rather than getting the correct invoice out to the consumer straight away.
Npower SME	When the occasions this does happen, this does cause issues for customers billing. This is made more difficult when the MOP's are reluctant to send flows one another without a site visit to confirm the exchange details.
EDF Metering	-

Question 8c - Meter exchange coincident with or close to CoS

Organisation	Do you believe faster switching will impact the ability of the old Supplier to cancel a meter exchange on notification of a loss?
Fulcrum Pipelines	This needs to be answered by the Shippers or Supplier
ESP	N/A
Brookfield Utilities UK	Yes
Northern Gas Networks	N/A
SGN	N/A – This is a Supplier question
Npower I&C	Faster switching could impact the ability to cancel a meter exchange due to the reduced amount of turnaround time. Coupled with Smart and AMR, suppliers will be processing far more meter exchanges resulting in a further possibility of this problem occurring.
Npower SME	No, often the meter exchanges aren't at customers request and are re-certifications of the meter.
EDF Metering	-

Question 9 - MAM Rejects the Appointment

Where a MAM receives an appointment for a meter where they are not also the MAP there two routes forward. One is the 'Original Gas Intended Model' where the Supplier appoints a MAM, and the appointed MAM accepts the appointment, and then resolves the MAP aspect with a contract with the MAP. Or the MAP is requested to replace the meter, and once replaced, they accept a MAM (and MAP) appointment. The other model is the 'Electricity Model' where the MAP invoices the Supplier directly.

It was noted that different parties have different interpretations of the ‘correct approach’, which may lead to MAMs rejecting their appointment.

Organisation	What impact does this issue have upon the consumer, in terms of the CoS experience?
Fulcrum Pipelines	This needs to be answered by the Shippers or Supplier
ESP	N/A
Brookfield Utilities UK	No comment
Northern Gas Networks	N/A
SGN	N/A – This is a Supplier question
Npower I&C	Following a CoS, if this issue occurs then there is a period whereby there is no MAM appointed. For meters above a U16, if there is no MAM appointed and there is a gas emergency on site, the supply will be capped and the supplier would be unable to book any meter works to go and repair the fault. This would leave the consumer off gas for “x” amount of time whilst a MAM is appointed.
Npower SME	N/A
EDF Metering	-

Question 10 - No meter asset information available at CoS

This issue occurs where the meter is not held in the central systems and thus a meter reading cannot be entered. The old Supplier cannot therefore close the account and the new Supplier cannot enter an opening read.

Organisation	What percentage of acquisitions do you get at CoS where there is no meter asset information on the central systems?
Fulcrum Pipelines	Approx 2 - 3%
ESP	N/A
Brookfield Utilities UK	Approximately 30%
Northern Gas Networks	N/A
SGN	N/A – This is a Supplier question
Npower I&C	0% The only gains we receive where there is no meter asset information on the central systems relate to new connections whereby we are

	waiting for the asset to be installed or waiting for the asset details.
Npower SME	Very low, don't have the data
EDF Metering	-

Question 11 - Rankings

Issues	Fulcrum Pipelines	ESP	Brookfield Utilities UK	Northern Gas Networks	SGN	Npower I&C	Npower SME	EDF Metering
Inconsistent Address Formats	2	3	10	-	-	4	3	10
Misinterpretation of Address	1	3	9	-	-	6	3	8
Incorrect MPRN	9	7 (incorrect MSN)	10	-	-	1	10	10
Supplier Creation of MPRNs	3	7	6	-	-	2	1	7
Disputed Bills	8	-	10	-	-	10	7	7
Erroneous Transfers	10	-	10	-	-	7	10	
Transporter Rejects Meter Read	5	-	8	-	-	5	3	5
Meter exchange coincident with or close to CoS	4	6	5	-	-	9	7	
MAM Rejects the Appointment	6	-	7	-	-	3	n/a	7
No meter asset information available at CoS	7	7	10	-	-	8	5	

Question 12a - General

Organisation	Are there any specific issues relating to non-domestic consumers that you believe require consideration?
Fulcrum Pipelines	As an iGT we find that there are more meters installed via the Shipper / Supplier that we are not informed about or made aware of. This would cause delays associated with any CoS.
ESP	No
Brookfield Utilities UK	None
Northern Gas Networks	N/A

SGN	None
Npower I&C	-
Npower SME	-
EDF Metering	-

Question 12b - General

Organisation	Do you have any further comments?
Fulcrum Pipelines	We feel that the majority of these questions are aimed at the Shippers rather than the iGT's/GT's
ESP	No
Brookfield Utilities UK	Unfortunately we were not able to obtain quantitative figures for analysis however we have obtained reasonable qualitative information based on experienced individuals.
Northern Gas Networks	N/A
SGN	None
Npower I&C	-
Npower SME	-
EDF Metering	-

CMAP Response	
Issue	Impact
Energy suppliers (or their agents) not providing appropriate flows	Independent MAP's unaware of changes and reconciliation differences between MAP and industry/supplier data Lack of MAP ID means suppliers ignorant of asset owner Inability to charge the correct supplier on churn Uncooperative MAMs not sending removal flows therefore MAPs continue to charge the supplier even when the meter has been removed – supplier may be paying two rentals Different models across the market - some suppliers operate a bundled service (MAP/MAM) with systems set up to appoint the MAM and expect MAPs to contract with MAMs
Industry Reporting only on what's known	Following on from Point 1, the concept of reporting on what is known is useful (ORDET/ONDET for example) but reporting of flows not sent would highlight issues of participants not sending data
Deletion/absence of MAM ID resulting	Inability to accurately track asset

in asset becoming invisible to MAP	Suppliers not checking MAP and potentially appointing the wrong MAM / MAP combination
Industry database search facility not available to MAPs	Restricted to acting on historic data dumps Suppliers and MAMs do not have the same incentive to cleanse the data as the asset owner; a database that holds the MAP id centrally and that can be queried by all would be of great benefit
Objection process not visible to MAPS	Churn events incorrectly processed
No specific MAP flow in gas	Reliant on MAM flow ONUPD (from old MAM to new MAM)
Networks and IGTs not bound by RGMA	A proportion of the industry assets mainly PEMS exchanges are not subject to RGMA flows. From an Independent MAP perspective removals are not effectively/consistently notified Differences between Rainbow and RGMA flows formats produces inconsistent data and requires two systems to be held by participants who want to receive flows

## Appendix 3 Working Group Terms of Reference

### Terms of Reference

#### Joint Gas Code Industry Data Quality, Ownership and Governance Working Group

#### Introduction

Cross Gas Codes Industry Data Quality, Ownership and Governance Working Group consists of members from the Uniform Network Code (UNC), the iGT UNC and Supply Point Administration Agreement (SPAA) and is convened to support Ofgem's CoS Project. This is in line with the request outlined in the open letter published by Ofgem on 24 June 2014: [open letter on Industry Data Quality, Ownership and Governance](#).

#### Objective

The objective of the Working Group is:

- *To undertake a piece of work, with the support of the relevant code administrators through a gas cross code group(s), to review the data quality arrangements that support the consumer switching process;*
- *To liaise with the equivalent Working Group in electricity, as well as other relevant industry Working Groups with a view to maintaining links, testing and presenting findings; and*
- *To recommend ways to improve consumer switching experience.*

#### Responsibilities of the Working Group and Expected Outcomes

In undertaking this work, industry parties will build on their experience and expertise to identify and document the following:

##### Identification of the relevant data items

- The data items that support the switching process - these will include those associated with address and metering data and other relevant data items. Whilst undertaking this work and producing the final report, Panels and industry groups are encouraged to also take into consideration data quality issues which may result from deficiencies in processes other than the Change of Shipper and/or Supplier process such as in relation to new connections, change of meter etc. An assessment of current data accuracy associated with the Change of Supplier process. This should separately identify issues impacting different market groups and sectors e.g. domestic and non-domestic consumers.

##### Current arrangements to ensure data quality and identification of existing issues

- The existing code obligations (UNC, iGT UNC and SPAA) that support data quality and on which Parties those relevant obligations fall;
- An explanation of the processes and systems for updating each data item to maintain its accuracy;
- The specific code obligations that drive the existing monitoring arrangements, as well as any supplemental monitoring arrangements that sit outside the formal code agreements, to establish when parties have not met their requirements;

- If effective enforcement measures are in place to require Parties to maintain data accuracy;
- Any instances when the responsibility for the accuracy of data and the duty to ensure its accuracy is not clear.

#### Potential remedies

- Any improvements that are currently being developed and their anticipated impact on data accuracy;
- Any additional and proportionate improvements that should be made with the aim of securing data accuracy including (but not limited to):
  - Any changes that should be made to clarify or amend responsibility for maintaining data quality;
  - Any changes that should be made to improve monitoring and/or the enforcement of responsibilities;
  - Any changes that should be made to existing rules around the processing or sending of data;
  - Any improvements that could be made to enhance or ensure the integrity and consistency of data across existing systems; and
  - An assessment of the need for and the potential benefits of a new licence obligation on parties to update relevant systems when they become aware that the data held is inaccurate.
- whilst being mindful of how Ofgem's proposals for next-day switching on a new centralised registration service can best be designed to maximise data quality.

#### **Outputs**

Provide a report to the SPAA EC, UNC and iGT UNC Panels for their approval for submission to Ofgem, by the end of December 2014. This should include analysis and recommendations on any improvements that are identified to meet the objectives of the Working Group and intended outcomes set out above. The Secretariat shall have the responsibility to develop and deliver the report, and shall hereby rely on the appropriate input and support of Working Group members and Code administrators.

#### **Working Group Governance**

The Working Group is convened by the EC and will report to the EC, in open session where possible, on progress. Progress reports will also be submitted to the UNC Panel and iGT UNC Panel on a periodic basis. The reports will contain sufficient detail to allow the committees to understand the group's work and to support the committees' endorsement of the output report (see above). Any recommendations for industry code changes are to be raised under the respective Codes and be subject to their governance arrangements.

#### **Membership and Representation**

Membership will be open to SPAA, UNC and iGT UNC Parties; Ofgem will be invited to attend all meetings as will a representative of the equivalent Working Group in electricity and consumer representative(s).

### **Chair**

The Chair and vice-Chair will be appointed by the SPAA Executive Committee (EC). In the event that no Working Group member is nominated, ElectraLink (as the SPAA Secretariat) will provide a Chair. The Chair's role is to:

- Chair meetings
- Ensure adherence to the agenda
- Ensure discussion remains focussed
- Take the lead on decision-making
- Take the responsibility to deliver the report, with the appropriate input and support of Working Group members and Code administrators.

In absence of the Chair, the Secretariat will chair meetings.

### **Decision-Making**

Decisions and recommendations will be arrived at by consensus. Where there are varying views, the Secretariat will capture these in the minutes and / or final report.

### **Secretariat**

- ElectraLink as SPAA Secretary will provide secretariat services to the Working Group. This will include drafting and circulating the minutes of the meetings to attendees and the Code Administrators of the UNC, iGT UNC, SPAA and Ofgem. The secretariat will endeavour to publish any papers for discussion a week in advance of meetings. The Secretariat will take the responsibility to produce the report, with the appropriate input and support of Working Group members and Code administrators.

### **Meetings**

The meetings will be hosted primarily by the Secretariat either at their offices or other meeting facilities in London. The host will provide webinar and / or teleconference facilities wherever possible.

The Chair of the Working Group may convene a meeting of the Working Group where necessary at short notice, in order to meet project timeframes or deadlines. Where practical, and expedient, emergency meetings of the Working Group may be conducted wholly, or partly, by conference call.

Where relevant the Working Group shall facilitate cross industry discussions with the view of determining synergies where these exist, and present and test its findings to a wider audience before finalising the report.

The Chair of the Working Group, in consultation with the Secretariat, will be entitled to cancel with at least 24 hours notice any scheduled meeting if, in their opinion, there are insufficient items of importance for debate at the meeting to warrant holding it, or insufficient members able to attend for all or part of the meeting.

### **Funding**

Participants will be responsible for their own costs of attending Working Group meetings, and are encouraged to offer meeting room facilities for the group's use.

The Working Group shall not incur any other costs unless approved by the SPAA EC.

*Appendix 4 Data Flows for the Shipper - Transporter CoS Process*

User to Transporter Flow			
Nomination	To	Timescales	File Type
S48 - Current Supply Point Nomination S69 - Nomination Meter Points S49 - New Supply Point Nomination S69 - Nomination Meter Points	Confirming Shipper	D*-6 months (calendar)	NOM

Transporter to User Flow				
Nomination Response	To	Timescale	File Type	Key Data Items:

<p><b>Accepted Offer</b> S64 - Offer details S70 - Address Details S75 - Meter Point Details K12 - MAM and Gas Act Owner K14 - Additional Metering Details S98 - Smart Data</p> <p><b>Referred</b> S21 - Referred (RF) S69 - Meter points</p>	<p>Confirming Shipper</p>	<p>NMR - Two Days from Nomination Request NRF - Twelve Days from Nomination request, if referred</p>	<p>Accepted Offer: <b>S64 - Offer details</b> - SOQ/SHQ - Rates - EUC Id - LDZ / EZ Id <b>S70 - Address Details</b> <b>S75 - Meter Point Details</b> - <b>Meter Point Status</b> - <b>Correction Factor</b> - Meter Serial Number - Meter Mechanism (e.g. Credit / Prepayment) - Meter Location - Datalogger Detail - Meter Link Code (Prime / Sub / Freestanding ...) - Previous Supplier <b>K12 - MAM and Gas Act Owner</b> <b>K14 - Meter details</b> - Meter Model Detail - Converter Model Detail <b>S98 - Smart Data</b> - SMSO Detail - DCC Flag - NWO Detail - 1st SMETS Installation Date - IHD Status</p>
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User to Transporter Flow			
Confirmation	To	Timescales	File Type

<p><b>S42 - Non Competitive Market</b> S66 - Contact Details (optional) S83 - End User Details (optional) S84 - Special Conditions (optional)</p> <p><b>S38 - Competitive Market</b> S66 - Contact Details (optional) (Mandatory - over 732,000) S67 - Contact Point (optional) (Mandatory - over 732,000)</p>	Confirming Shipper	D*-30 to D*15	CNF
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Transporter to User Flow				
Confirmation Response	To	Timescale	File Type	
<p>S07 - Accepted Confirmation S66 - Contact Details (If Submitted with Competitive Conf) S67 - Contact Point (If Submitted with Competitive Conf) S83 - End User Details (If Submitted with Non-Competitive Conf) S84 - Special Conditions (If Submitted with Non-Competitive Conf) S70 - Address Details S75 - Meter Point Details K12 - MAM and Gas Act Owner S98 - Smart Data</p>	Confirming Shipper	Two Days from Confirmation Request	CFR	<p><b>Accepted Confirmation:</b> <b>S07 - Accepted Confirmation</b> As per S64 key data above, plus... - Special End User Conditions - No of Dataloggers <b>S66 / S67 / S83 / S84</b> - as per input by User <b>S70</b> - Address Detail - <b>as above</b> <b>S75</b> - Meter Point Detail - <b>as above</b> <b>K12</b> - MAM and Gas Act Owner Details - <b>as above</b> <b>S98</b> - Smart Data - <b>as above</b></p>

Transporter to User Flow				
Transfer of Ownership	To	Timescale	File Type	

S15 - Successful Transfer of Ownership S66 - Contact details (If Submitted with Conf) S67 - Contact Point (If Submitted with Conf) S70 Address S75 - Meter Point K12 - MAM and Gas Act Owner S98 - Smart Meter	Confirming Shipper	D*-2	TRF	<b>Transfer of Ownership (Confirming):</b> <b>S15</b> - Successful Transfer of Ownership As per S07 Detail <b>S66 / S67</b> - as per input by User <b>S70</b> - Address Detail - <b>as above</b> <b>S75</b> - Meter Point Detail - <b>as above</b> <b>K12</b> - MAM and Gas Act Owner Details - <b>as above</b> <b>S98</b> - Smart Data - <b>as above</b>
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Transporter to User Flow				
Transfer of Ownership	To	Timescale	File Type	
S88 - Ceased Responsibility Notification K13 - Meter Point Ceased Ownership details	Incumbent Shipper	D*-2	TRF	<b>Transfer of Ownership (Incumbent):</b> <b>S88</b> - Ceased Responsibility Notice - Confirmation Details - Reference, Effective and End Date <b>K13</b> - Meter Point Ceased Ownership Detail - Incoming Supplier Id

Transporter to User Flow				
Transfer of Ownership	To	Timescale	File Type	

<p>U06 - Meter Read Instructions N90 - Asset Details (for Bundled service (Primes and Subs)) K15 - Additional Meter Reading Instructions S98 - Smart Data</p>	<p>Confirming Shipper</p>	<p>D*-2 / D*-2 to D*-1</p>	<p>MRI - Meter Reading and Access Instructions (D*-2) / PAC - Pre Transfer Asset Confirmation (data as per MRI) for Asset detail received after MRI issue</p>	<p><b>Meter Reading and Access Instructions</b> <b>U06 / N90</b> - Meter Read Instructions (NB: N90 for bundled service) - Meter Location - Address Detail - Meter Details (MSN; Meter Model Details; Meter Status) - Converter Details (CSN; Converter Model Details) - Last Read Date - Last Inspection Date - GAO <b>K15</b> - Additional Meter Read Instructions - Meter Installation Date - Meter Link Code - Gas Nomination Type - Datalogger Details <b>S98</b> - Smart Data - <b>as above</b></p>
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\* - D is the proposed / accepted Confirmation Effective Date  
Days refers to Business Days unless otherwise stated

**Appendix 5 Data Ownership Appendix D7 of the RGMA Baseline**

This Appendix is for information only: Data Ownership is not determined solely by RGMA, but some of the rules affect the processing of the RGMA flows<sup>4</sup>.

Attribute Number	Attribute Name	Responsibility for Data			
		GT	MAM	Originator	Supplier
<b>Record</b>	Ownership:				
<b>Address</b>					
	Asset Provider Address				
	Contact Address				█
	Consumer Address				█
	Unconnected Asset Address				
	Gas Account Owner Address				█
	Meter Asset Manager Address				
	Meter Point Address	█			
	Meter Worker				
	Request of Job/Query Address				
	Site Address				█
	Title Address Owner				
<b>Appointment</b>	Works Appointment only				
A0177	Record Identifier = APPNT			Typically, the Supplier	
A0019	Appointment Qualifier Code				
A0138	Appointment Date From				

<sup>4</sup> e.g. Meter Point Address is determined by the GT and any 'updates' are only advisory

Attribute Number	Attribute Name	Responsibility for Data			
		GT	MAM	Originator	Supplier
<b>Record</b>		Ownership:			
A0139	Appointment Date To				
A0019	Appointment Qualifier Code				
A0140	Appointment Time From				
A0141	Appointment Time To				
<b>Asset</b>					
A0177	Record Identifier = ASSET				
A0178	Data Update Code				
A0144	Transaction Type Code				
A0024	Asset Class Code				
A0109	Product Id				
A0163	Payment Method code				
A0083	Model Code				
A0060	Manufacturer Code				
A0021	Year of Manufacture				
A0022	Serial Number				
A0059	Asset Location				
A0158	Asset Location Notes				
A0037	Asset Status Code				
<b>Care Details</b>					
A0177	Record Identifier = CARE				
A0039	Care Category Code				
<b>Contact Mechanism</b>					
A0177	Record Identifier = CONTM				

Attribute Number	Attribute Name	Responsibility for Data				
		GT	MAM	Originator	Supplier	
<b>Record</b>		Ownership:	GT	MAM	Originator	Supplier
A0049	Contact Mechanism Code					
A0106	Contact Mechanism Value					
<b>Converter</b>						
A0177	Record Identifier = CONVE					
A0178	Data Update Code					
A0036	Conversion Basis Code					
A0027	Converter Conversion Factor					
<b>Header</b>						
A0177	Record Identifier = HEADR					
A0179	File Type Code					
A0180	Originator Id					
A0181	Originator Role					
A0182	Recipient Id					
A0183	Recipient Role					
A0184	Created Date					
A0185	Created Time					
A0186	File Identifier					
A0187	File Usage Code					
A0188	Record Count					
A0189	Transaction Count					
<b>Job</b>						
A0054	Job ID					
<b>Market</b>						

Attribute Number	Attribute Name	Responsibility for Data			
		GT	MAM	Originator	Supplier
<b>Record</b>	Ownership:				
<b>Participant</b>					
A0177	Record Identifier = MKPRT				
A0126	Role Code				
A0064	Market Participant Abbreviated Name				
<b>Meter</b>					
A0177	Record Identifier = METER				
A0178	Data Update Code				
A0025	Meter Type Code				
A0085	Meter Mechanism Code				
A0112	Measuring Capacity				
A0079	Meter Usage Code				
A0044	Collar Status Code				
A0149	OAMI Inspection Date				
A0126	Role Code			Typically the Supplier	
	Gas Act Owner				
A0160	Last Refurbished Date				
A0194	Pulse Value				
<b>Meter Point</b>	Child of Transaction				
A0177	Record Identifier = MTPNT				
A0178	Data Update Code				
A0072	Meter Point Reference Number				
A0076	Meter Link Code				
A0077	Meter Point Status				

Attribute Number	Attribute Name	Responsibility for Data			
		GT	MAM	Originator	Supplier
<b>Record</b>	Ownership:				
A0059	Meter Point Location				
A0157	Meter Point Location Notes				
A0075	Access Instructions				
A0074	Conversion Factor				
A0073	Last Inspection Date			Typically Supplier	
A0164	Metering Pressure				
<b>Name</b>					
A0177	Record Identifier = NAME				
	Asset Provider				
	Connection Company				
	Contact for Key				
	Contact Landlord				
	Consumer Contact				
	Contact to Report to				
	Site Contact				
	Contact Tenant				
	Gas Account Owner				
	Key Holder				
	Meter Asset Manager				
	Meter Worker				
	Requester of Job/Query				
	Title Owner				
	Unconnected Asset Address				
<b>Person Contact Mechanism</b>					

Attribute Number	Attribute Name	Responsibility for Data			
		GT	MAM	Originator	Supplier
<b>Record</b>	Ownership:				
	Asset Provider				
	Connection Company				
	Contact for Key				
	Contact Landlord				
	Consumer Contact				
	Contact to Report to				
	Site Contact				
	Contact Tenant				
	Gas Account Owner				
	Key Holder				
	Meter Asset Manager				
	Meter Worker				
	Requester of Job/Query				
	Title Owner				
	Unconnected Asset Address				
<b>Reading</b>	In the context of meter work				
A0177	Record Identifier = READG				
A0031	Reading Date				
A0033	Reading Index				
A0034	Round the Clock				
<b>Reason</b>					
A0177	Record Identifier = REJRS				
A0173	Attribute Number				
A0190	Response Code				
A0192	Response Notes				

Attribute Number	Attribute Name	Responsibility for Data			
<b>Record</b>	Ownership:	GT	MAM	Originator	Supplier
<b>Register Details</b>					
A0177	Record Identifier = REGST				
A0178	Data Update Code				
A0124	Register Type Code				
A0121	Number of Dials or Digits				
A0123	Units of Measure				
A0120	Multiplication factor				
<b>Response Transaction</b>					
A0177	Record Identifier = REJFL/RESPN				
A0186	File Identifier				
A0184	Created Date				
A0185	Created Time				
<b>System Fault</b>					
A0129	Asset faults				
A0129	The title of the system fault				
A0130	System fault description				
A0131	System fault possible cause				
<b>Trailer</b>					
A0177	Record Identifier = TRAIL				
<b>Transaction</b>					
A0177	Record Identifier = TRANS				
A0055	Transaction Reference				

Attribute Number	Attribute Name	Responsibility for Data			
		GT	MAM	Originator	Supplier
<b>Record</b>	<b>Ownership:</b>				
A0056	Transaction Comment				
A0053	Contract Reference				
A0144	Transaction Type Code				
A0167	Transaction Type Reason Code				
A0058	Cross-Ref Other Internal Job Reference				
A0122	Cross-Ref Other External Job Reference				
A0142	Transaction Status Code				
A0057	Transaction Status Change Reason				
A0161	Market Sector Code				
A0166	Date of Notice				
A0068	Registration Body				
A0069	Registration Reference				
A0081	Effective From Date				
A0082	Effective To Date				
<b>Transaction Outcome</b>	<b>Child of Transaction Reason</b>				
A0177	Record Identifier				
A0193	Outcome Code				
A0072	Meter Point Reference No				
A0055	Transaction Reference				
A0144	Transaction Type Code				
A0142	Transaction Status Code				

