Data Communications Company

Switching Address Quality Plan

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Document control heading

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SmartDCC (DCC) Approvals

Name	Title / Responsibility	Release Date	Version number
Bilal Ali	Head of Service Management	29 February 2024	1.0

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1. Foreword

I am delighted to issue this next iteration of the Address Quality Plan (AQP) for use to industry. It builds on the great collaboration we have seen during the successful operation of the Address Quality Plans for the periods since Go Live of the new switching arrangements. During the execution of the current plan, the teams within Landmark, the Data Communications Company (DCC), Electricity (independent) Distribution Network Operators and Xoserve have collectively worked on trying to improve the quality of addresses which had been supplied but were not available within the GB wide address gazetteer being used, in this case, Ordnance Survey's (OS) AddressBase Premium (ABP).

This consultation timeline for this document was provided to the Code Manager for publication on the Retail Energy Code (REC) Portal and inclusion in the weekly REC Bulletin on 27 November 2023. DCC has listened to industry feedback to engage earlier in the Financial Year and has brought forward the consultation by almost two months and provided you longer to participate within the consultation process.

This next iteration of the plan, to apply from April 2024, has been updated following consultation and will continue that good work but complement it by increasing the information made available to parties by extending information about potential crossed addresses to Energy Suppliers.

DCC will continue to run the address management forums and bi-lateral meetings and will extend the forum invitation to Energy Suppliers to ensure issues identified by source data providers to the Central Switching Service (CSS), can be effectively resolved by the appropriate organisation.

I very much look forward to my team working with you and continuing the great collaboration we have seen over the last year to improve address quality across the industry.

Bilal Ali,

Head of Service Management

2. Introduction

2.1. Background

A core objective of the introduction of the CSS, which includes a registration and address service, is to improve consumers' experiences and perceptions of switching by making the switching process more reliable. This is not only to reduce the harm which negative switching outcomes can cause directly to consumers, but also to avoid having consumers being discouraged from engaging with the market in future.

DCC recognises the observation made by Ofgem in the Switching Business Case that where industry address data relating to premises has been recorded in an inaccurate, inconsistent or confusing way, it can lead to unsatisfactory outcomes or experiences for consumers. This also includes consumers that have not even attempted to switch Suppliers. The premise stated by Ofgem was, the introduction of the CSS could bring about a reduction in instances where: a consumer is switched in error, the switch is unsuccessful, or the switch is delayed.

Although it is recognised there is currently no central mechanism for measuring erroneous transfers, unsuccessful, abandoned or delayed switches, the Ofgem business case is based on the premise the most prevalent cause of erroneous switches is thought to be poor quality within industry address data in the form of being either incorrect or ambiguous. In addition, the business case stated, one of the main causes of these negative outcomes for consumers is inaccurate matching of meter point and address data. By improving the quality of this industry held data, and by the introduction of new processes, rules and systems, including the CSS, the quality of address data could be improved over time which in turn could significantly reduce the instances of these negative experiences for consumers.

This document, the Address Quality Plan (AQP), for the Financial Year commencing April 2024, seeks to continue the processes established during 2022 and 2023 which set out to improve the overall quality of address data. By implementing this approach and, if the premise set out in the Ofgem Switching Business Case continues to be valid, the significant improvements expected in the end consumers' experience of switching envisaged by Ofgem can be achieved.

The regulatory basis for this document can be found in the Retail Energy Code (REC) Address Management Schedule (Schedule 29)[1], which includes an obligation on the Switching Operator, in advance of each Financial Year, to prepare a plan setting out the approach, to be taken during that Financial Year, to meet the Address Quality Objective as set out in the Address Management Schedule. This plan has been prepared by the Switching Operator in accordance with the REC. The plan builds on the work undertaken to improve address quality and switching reliability carried out in the Switching Programme and in the period since Go Live of the revised Switching Arrangements in July 2022. This plan continues to build on the feedback received on the previous iterations of the AQP and has provided additional detail to help address the underlying themes to which these comments related.

The Switching Operator recognises data accuracy as a key factor in maintaining and improving the reliability of switching and supporting a positive switching experience

[1] Available at https://recportal.co.uk/rec-documents-public-

for the end consumer. The CSS was originally populated with data from Xoserve's registration database covering the gas industry and data from systems operated by the 14 Distribution Network Operators (DNOs) and the 13 independent DNOs existing at that time. Within this document, these organisations are collectively referred to as Source Data Providers (SDPs). The initial population of CSS was a significant challenge since data was provided to a differing level of quality from each of the source systems. CSS processed each address by attempting to match it to addresses in a standardised format held within OS' ABP data set. This data set is compliant to British Standards. To achieve a successful Go Live for the revised Switching arrangements, DCC needed to load the data into CSS and achieve a high enough correlation[2] to Ordnance Survey Address data to ensure that each supplied address could be uniquely identified and, where the address related to gas and electricity meters, that link could be made. At Go Live of the revised Switching arrangements, over 95% of addresses provided by SDPs were matched to OS ABP, which was a significant achievement given the diversity of data.

The Address Quality Objective is defined as ensuring the **accuracy** and **quality** of Retail Energy Location (REL) Addresses so that a REL Address can be promptly generated for each new Registrable Metering Point (RMP), and such that the REL Address recorded for each RMP can be used to quickly and accurately identify the Location of the RMP. Furthermore, the CSS Provider must take all reasonable steps to achieve the Address Quality Objective with obligations also placed on other REC Parties to take reasonable steps to support the CSS Provider and the Switching Operator in achieving that aim.

The CSS Provider must also:

- Regularly review the accuracy and quality of the addresses held within CSS;
- Investigate and resolve the inaccuracies and anomalies in addresses; and
- Maintain a quality indicator from each address (the Address Quality Confidence Score).

The CSS Provider and the Switching Operator will be fulfilling these obligations and carrying out the necessary investigations. Where there is insufficient information held by those parties to resolve an address issue, support from REC Parties will be requested. This model has been successfully operated and was the basis of the previous year's AQP.

As the REL data is initially created based on Meter Point Location Address data provided by the SDPs, the regular review of accuracy and quality is likely to result in queries related to that source data and, as such, the Switching Operator will continue to seek clarifications and corrections of that data to be made by the SDPs. If required by the SDPs, and in addition to any direct requests which may be made by the Switching Operator, Suppliers may also be required to support the activities of SDPs.

CSS holds approximately 58.2 million addresses sourced from the 28 different SDPs for which an address match has been attempted. The address records relate to

[2] The correlation between an address to that held within Ordnance Survey's address dataset is measured by a confidence score

approximately 29 million properties across Great Britain which are capable of being switched using the switching arrangements managed by the Switching Operator.

Building on the activities carried out in the execution of the previous AQPs from Go Live to March 2023, this plan continues to focus on those areas of data improvement that will help meet the Address Quality Objective and improve the switching experience for end consumers.

In September 2023, DCC undertook some early engagement with SDPs to identify areas where the AQP for the next Financial Year (April 2024) could be further enhanced. The feedback from that forum was twofold:

- Continue to work with SDPs through the bi-lateral meetings to help improve the unmatched data set;
- Identify areas where Suppliers could also take more responsibility for the correction of data where it is their responsibility to do so.

This plan has been developed on the basis of the of continuing to work with bi-lateral meetings with SDPs and engaging more with Energy Suppliers to deal with issues relating to address anomalies which may give rise to significant end consumer impact.

2.2. Purpose of the Document

The purpose of this Switching Address Quality Plan is to set out the approach that the CSS Provider will take during the Financial Year commencing April 2024[3] in order to help meet the Address Quality Objective.

This plan will also identify the supporting activities of the Switching Operator and other REC Parties to help achieve the Address Quality Objective.

2.3. Notes for Readers of this Document

Capitalised Terms within this document are either defined on first use within this document or take the meaning given to those terms in the Retail Energy Code and its subsidiary documentation. Readers are advised that further information on REC defined terms can be obtained by reading the Schedule 1 "Interpretations and Definitions" of the REC. This information can be found on the REC Portal at https://recportal.co.uk/.

Readers may also wish to familiarise themselves with the following REC schedules:

- Schedule 24 – "Switching Data Management Schedule"; and
- Schedule 29 – "Address Management Schedule".

Where references are made within this document to a REC Party carrying out a task, no inference is suggested within this document that the requirements for reasonableness in those activities, as identified within the REC, has been over-ridden.

[3] as detailed in paragraph 2.6 of the REC Address Management Schedule

2.4. Scope of the Plan

2.4.1. In scope

This plan:

- Identifies how DCC (as Switching Operator) and the CSS Provider will engage with REC Parties to analyse address data to help meet the Address Quality Objective. It sets out the recommended engagement framework that will facilitate the improvement of address data quality which will help to increase the reliability of switches;
- Specifies the key activities which will be undertaken by the CSS Provider and the Switching Operator together with high level timelines for those key activities;
- Includes details of key activities that will be required of other REC Parties together with their high-level timelines;
- Defines what the Switching Operator considers to be relevant targets[4] which could be used during the period covered by this plan as required by the REC;
- Outlines how progress against the activities will be monitored and reported; and
- Details any Switching Operator identified risks, issues or constraints which may impact the successful delivery of the plan.

2.4.2. Out of Scope

This plan does not:

- Detail the internal processes of REC Parties required to support any investigation and correction of any address data quality issues. REC Parties should use their own systems, processes, data and contractual arrangements to facilitate and support the investigation and the correction of any address data quality issues;
- Describe the interfaces or processes used to update CSS with corrected data as the method of interfacing with CSS is described within the CSS Security and API Supporting Information (available from the REC Portal at recportal.co.uk);
- Provide estimated volumes of address data issues that will require investigation and correction by individual organisations during the period of validity of this plan;
- Provide estimates of resources required by REC Parties to support the investigation of any address data quality issues;
- Document verbatim each obligation within the REC Address Management Schedule in respect of REC Parties;
- Document compliance with any earlier version of the Address Quality Plan. Compliance against the initial Address Quality Plan will be documented within the

[4] This will include suggested relevant targets on REC Parties, as there will be dependencies on those parties for the successful execution of this plan.

annual report produced by the Switching Operator and made available to the REC PAB and Code Manager for publication on the REC Portal by 30 April 2024;

- Seek to provide an interpretation of how each organisation may interpret the term "reasonable steps" as stated within the REC Address Management Schedule. Instead, this plan sets out what outcomes the Switching Operator expects each organisation to achieve in supporting the CSS Provider and the Switching Operator investigations; or
- Seek to introduce penalties on parties for failure to achieve targets or seek to define aspects of the Performance Assurance Framework which are managed by the Code Manager and PAB.
- The terms of reference of the Supplier Operations Forum and invitee list are managed outside this AQP.

2.5. Validity Period

This plan, subject to the provisions in the Address Management Schedule (Schedule 29) of the REC, shall be valid for the period from 1 April 2024 to 31 March 2025. It is envisaged that the plan for subsequent years will continue to build on the approach developed and operated during this Financial Year and lead towards an enduring approach to meeting the Address Quality Objective. Once an enduring approach has been established, DCC will propose a Change to the Address Management Schedule of the REC to amend the period of validity for Address Quality Plans that are created in the future. This is to introduce the potential efficiency that, where the plan remains static from year to year, there will be no need to produce a separate document that is consulted upon.

2.6. Contact Details for Address Management within DCC

To contact DCC about address management activities please email smb-address-service@smartdcc.co.uk if your enquiry is of a general nature or raise an incident using ServiceNow where this relates to an activity that is the responsibility of DCC.

3. The Potential Impact on the End Consumer of Address Data Quality

3.1. Why Switch Energy Supplier?

Some of the factors which typical energy consumers may consider when switching their Energy Supplier are:

Lower energy bills:	Ethical Reasons	Improved customer service
• Consumers can save money on their your bills by finding a cheaper electricity or gas contract or a promotional offer from a new supplier.	• Eg. Green energy tariffs • Consumers also can choose a supplier that offers renewable or low-carbon energy sources, which can help reduce your environmental impact from the source of energy.	• Consumers can switch to a supplier that has better customer service, which can lead to a more pleasant and efficient experience.

Figure 1 – Factors impacting typical energy consumer's decision to switch Supplier

Consumer organisations and comparison sites will typically rate different Suppliers by some of these factors.

3.2. Typical Consumer Switch

Before we consider the impact of poor address data quality on the end consumer, let's look at the typical switch process. A typical energy switch can now happen on the next full Working Day, following the submission of a switch request. To switch energy Supplier a consumer will need to:

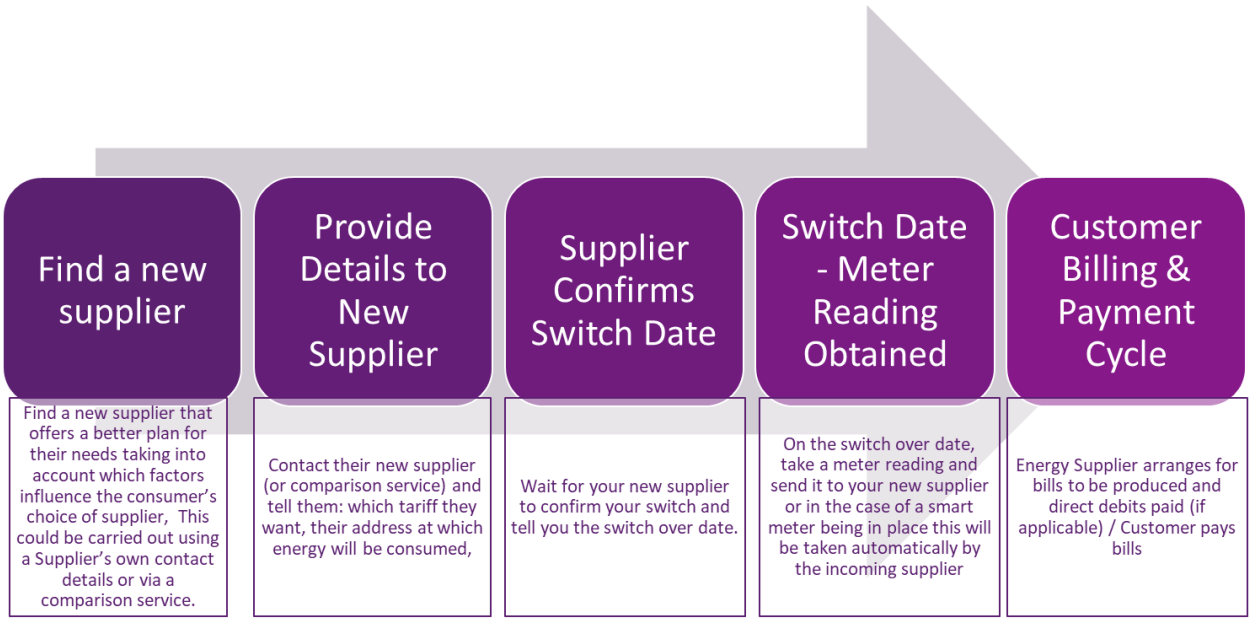

Figure 2 – Illustration of Consumer Switch Journey

3.3. Why is it Important to Provide an Accurate Address as Part of the Switch Process

Whilst a consumer may view a switch process as an "address" that switches Energy Supplier, it is the different energy services supplied to meters at a particular address that are, in fact, switched. Key to the switching process is the Meter Point Reference Number (MPRN) in gas or the Meter Point Administration Number (MPAN) in electricity. These reference numbers are often referred to as MPxN where the fuel type is unimportant in the context and are identified as part of the switching process by the Energy Supplier or comparison website as part of the customer engagement process. In practice this means taking the address supplied by the consumer, reviewing the data held on the relevant enquiry services as supplied from CSS and selecting the meter that is likely to be the subject of the switch request.

Providing an address as part of the switch process is important for several reasons:

- It helps the new Supplier or comparison service to identify the consumer's meter (ie MPxN) and current Supplier, so they can arrange the switch smoothly and accurately.
- It allows the new Supplier comparison service to check the availability and prices of different plans in the area, as prices will vary depending on your location.

- It enables the new Supplier to send the consumer welcome information and a contract (if that is not sent electronically), which may contain important information and terms and conditions that the consumer will need to be aware of before the switch is completed.

- It helps ensure that consumers receive accurate bills and statements from their new Supplier, based on your meter readings and energy usage.

Although most energy consumers who switch have historically done so without problems[5], occasionally consumers' switching experience is not what they should expect with issues occurring such as:

- An incorrect meter has been identified, sometimes as a result of an issue associated with an address that has been supplied. This has the potential for an incorrect consumer's meter to be switched;

- A switch may be rejected by your new / old Supplier for various reasons, such as incorrect meter information, address mismatch, or unsupported meter type or too large a debt existing with the old Supplier;

- A consumer may be switched to another Supplier without the consumer's permission;

- Credit balances may not be transferred from the Supplier as expected which means a consumer ends up paying for energy they have not used; and

- A consumer may experience delays in receiving their final bill from their old Supplier which can cause confusion and inconvenience.

These issues, when they do occur, can potentially be frustrating, time consuming and costly for the end consumer to resolve,

Where a switch completes but the incorrect meter is identified as part of that switch, it can take some time before either the Energy Supplier or the consumer notices an issue. This is, in part, because it is believed that more than half of UK energy consumers pay by direct debit and unless the bill is particularly at variance to expectations will not get queried. In some cases, this type of issue attracts media attention when an unsuspecting consumer receives a bill for one of the neighbours who has consumed a large amount of energy.

3.4. Where can issues with Address Data Occur?

DCC associates the Retail Energy Location Address to meters based on information supplied to it by DNOs, in electricity; and Xoserve in gas. Those organisations are obliged to provide the Meter Point Location Address i.e. the address at which the meter is physically located, rather than the address at which energy is consumed. Very often these will be the same address but there will be a difference in the case of properties where the Meter Point Location Address supplied:

[5] See source at https://www.which.co.uk/news/article/energy-Supplier-switching-problem-you-might-be-due-compensation-aG4E94B3j9ST

- Is an incorrect address for that meter, i.e. the address may be perfectly formed and available within the Ordnance Survey address data set but it is the incorrect address for the meter number supplied;
- Is out of date and has been replaced with more up-to-date information i.e. information about a building plot is provided with an energy supply but the property is subsequently completed and renamed with the data provided still referring to the historic plot address details;
- Contains ambiguous or contradictory information leading to the address:
    - not being identifiable on the Ordnance Survey address data set; or
    - incorrectly matched to a record on the Ordnance Survey address data set.
- Contains information not related to the address of the Meter Point Location for example, positional information indicating the location and its relative position to another address, e.g. North of 3, Acacia Avenue.
- Differs from the address at which energy is consumed by the end consumer. This is particularly prevalent with information relating to buildings that are sub-divided into sub-buildings or flats where the meter may be located in, for example, the basement of the shell property (which exists in the OS Address Data Set) and the property which is consuming the energy being separately identifiable as a flat within that building.

3.5. What is the Impact to the Consumer of Poor Quality Address Data?

Poor address data quality can lead to issues with the identification of the correct meter which is subject of a switch. In such case, it is possible that an incorrect meter is switched. Where this occurs, the consumer who attempted the switch may complete the switching process successfully but the meter readings on which it is billed by its new Supplier may be based on another consumer's energy consumption.

It is also possible that the consumer who was switched incorrectly, may find it difficult to switch Energy Supplier in the future as their meter may be associated with a different address.

3.5.1. An Example of Property Split into Flats and May Cause Consumer Issues

The example below illustrates a fictitious property that has been split into flats where the meters for a particular service are located in the basement.

Property where energy consumed	Meter Point Location information provided to CSS
Flat A, Chester Court, Acacia Avenue	Basement, Chester Court, 1 Acacia Avenue
Flat B, Chester Court, Acacia Avenue	Basement, Chester Court, 1 Acacia Avenue
Flat C, Chester Court, Acacia Avenue	Basement, Chester Court, 1 Acacia Avenue
Flat D, Chester Court, 1 Acacia Avenue	Basement, Chester Court, 1 Acacia Avenue
Chester Court, 1 Acacia Avenue	Communal Lighting, Basement, Chester Court, 1 Acacia Avenue

Addresses Available within OS data set	
UPRN	Address
1234	Flat A, Chester Court, Acacia Avenue
1235	Flat B, Chester Court, Acacia Avenue
1236	Flat C, Chester Court, Acacia Avenue
1237	Flat D, Chester Court, 1 Acacia Avenue
1238	Chester Court, 1 Acacia Avenue

Figure 3 – Illustration of Address Issues Associated with Multi-tenanted Buildings

Based on the information provided about the meter location, were a match to be found in the OS Address data set, it is highly likely that all meters in the above illustration would be matched to the shell of the property at Chester Court, 1 Acacia Avenue rather than to each individual flat.

A consumer who resides at one of the flats may find:

- Difficulty in being able to switch the service at a particular property unless it is further able to identify the meter which is subject to the switch;
- The incorrect meter switched during the switching process;
- That energy consumption shown on the consumer bill is based on consumption of a different property; or
- Issues associated with incorrect billing may not be noticed by the consumer until some considerable time after the switch, or even after a subsequent switch has occurred.

This issue described in this example existed prior to the introduction of the CSS, however with CSS, it is possible to look at the information contained within CSS as it is the first time address data from different fuel types has been combined throughout Great Britain.

4. Switching Address Quality Plan

4.1. General Approach

The approach, planned to be adopted in the Financial Year covered by this plan, would continue to see the CSS Provider and the Switching Operator carry out a review of address data held within CSS in accordance with their respective obligations. This plan sets out the reasonable steps that the Switching Operator believes are required of Gas Transporters, DNOs and Energy Suppliers to reasonably improve REL Address Data Quality.

Where it is determined, as a direct result of those investigations, that amendments to REL Addresses can be identified by the CSS Provider, the CSS Provider will directly apply those changes within CSS. Where amendments are made directly to the REL Address relevant parties will be notified of these changes via messages from CSS.

There will be circumstances, however, after the investigation by the CSS Provider and the Switching Operator, where it is not possible for the CSS Provider to make changes directly without consultation with, and investigation by, REC Parties to:

- determine the most accurate REL Address to be used and where there is insufficient information within the MPL Address to enable it to be matched with certainty to the OS ABP data set; or
- identify where information held within CSS leads the CSS provider to believe there may be an issue with the accuracy of the MPL Address itself.

In such circumstances, data will continue to be made available by the CSS Provider for discussion within individual REC Parties (or nominated agents acting on behalf of REC Parties) through meetings or workshops with those REC Parties which will be managed by the Switching Operator. The purpose of these meetings or workshops would be to explain the results of any analysis undertaken by the CSS Provider and the Switching Operator and to outline the areas and particular addresses which require further investigation by that REC Party.

The approach to be adopted by the CSS Provider and the Switching Operator is summarised as:

- Undertake regular reviews of data held within CSS;
- Investigate any anomalies identified;
- Where possible, make corrections to REL Address data directly within CSS;
- Where insufficient certainty exists for the CSS Provider to make changes directly to the REL Address within CSS:
    - Hold meetings with the relevant REC Parties that may be able to help resolve any queries in respect of data within CSS
    - Provide, securely, any queries relating to Address Data to those REC Parties with whom the Switching Operator is seeking support in its investigations. The secure data transfer mechanism will be ServiceNow, unless otherwise agreed with the REC Party.

- Monitor and Track Progress of activities against data provided to REC Parties via regular meetings and progress reports either held or provided by the REC Parties to the Switching Operator.

In determining from which REC Party assistance should be sought in order to improve address quality, the CSS Provider and the Switching Operator will, in the first instance, seek to clarify information with the appropriate Data Masters who provided CSS with the relevant data and who are responsible for ensuring the accuracy of any data against which the Switching Operator has a query.

4.2. Accuracy of Meter Point Location Addresses

Gas Transporters and DNOs are the Data Masters [6]for the Meter Point Location (MPL) Address. Those organisations also have a responsibility to ensure the accuracy of MPL Addresses recorded for their metering points. The MPL Address is the **address of** a Supply Meter Point or the Metering Point's Location, as created and maintained by the SDPs for that Supply Meter Point or Metering Points. Although the responsibility for ensuring the accuracy of this data lies with the SDPs, they may be reliant on information from third parties, such as Suppliers. It should be noted however that the Supplier who may have commissioned the metering at a consumer's premises may not be the current Energy Supplier.

Analysis performed by DCC has identified that some addresses provided as part of an MPL Address may be correctly formatted by the SDP, however, a query may exist as to whether it is the correct address for that particular Supply Meter Point or Metering Points. In addition, there are a number of cases where the MPL Address has been provided to DCC with extraneous information which is not address related but contained within address fields. In this case, the SDPs, as organisations responsible for the accuracy of the MPL Address for a Supply Meter Point or Metering Points, will be asked, initially, to resolve any queries associated in the accuracy of the Address in relation to a particular Supply Meter Point or Metering Points. SDPs will be asked to check and confirm the accuracy of the address provided and its association with the relevant Supply Meter Point or Metering Points. The CSS Provider and the Switching Operator recognise that some SDPs may require input from other organisations in resolving their queries in relation to the accuracy of the MPL Address.

The Switching Operator does not seek, within this plan, to prescribe the method of interaction between SDPs and other organisations, such as Suppliers. However, for DNOs and the corresponding Suppliers which are responsible for registrations of the Metering Points, attention is drawn to the provisions within paragraph 4.6 of the Address Management Schedule in the REC, which states, that where an issue has been identified in the accuracy of the MPL Address, which it is not itself able to rectify, then the DNO shall contact the Registered Supplier to determine any further address information that the Supplier may hold. Suppliers should, in response, take all reasonable steps to provide the DNO with any address data it holds in respect of that Metering Point.

Where parties identify anomalies in the quality of MPL Addresses, as soon as corrections are made to the MPL Address, these are transmitted to CSS to ensure that

[6] See REC Schedule 24 – Switching Data Management and REC Schedule 29 – Address Management

CSS stores the correct MPL Address and that any impact on the REL Address can be dealt with.

4.2.1. Differences between REL Address and MPL Addresses

REL Addresses have been initially derived from the MPL Addresses provided during the data migration phase of the Switching Programme and augmented since Go Live by SDPs and Energy Suppliers.

It is possible, and sometimes desirable, for the REL Address to be different from the MPL Address where the premises served with energy is not the same as the address at which the meter resides. This can often be the case where meters are installed in a communal area of a large building which is sub-divided into sub-buildings. In this example, as illustrated in section 3.5 above, where the consumer is in receipt of both gas and electricity, it has been found that many of the meters are located in a communal area within the "shell" of the building and that the premises served address is one of the sub-buildings. Over time, this data will be "improved" to be more representative of the address at which energy is delivered to the consumer. In any event, where a REL Address is updated, CSS will continue to send out RELSynch messages to all parties that subscribe to those messages and wish to be notified of updates to the REL Addresses held within CSS.

4.2.2. Supplier Use of D0381 data flows within Electricity

Suppliers have the ability to update both the MPL Address and the REL Address. Where Suppliers identify a change to the REL address and in addition, believe a change is also required to the MPL Address, then they should follow the processes set out within the Address Management Schedule and update the MPL Address using the D0381 data flow.

Where either:

- Suppliers need to update the REL Address without making an amendment to the MPL Address, or
- the DNO has rejected a change to the MPL Address but where the REL Address needs amending

this should be done by creating a Manually Entered Address via the Switching Portal.

It should be noted that, in line with the baselined requirement for CSS, where a Manually Entered Address update to the REL Address is made in CSS, subsequent updates to the MPL will not trigger a redetermination of the appropriate REL Address.

4.2.3. Data Available to Source Data Providers

The Switching Operator will have already made available:

- A list of MPL Addresses that it was not possible to match to OS ABP data.

A list of MPL Addresses associated with Communication Hubs (CHs) where the addresses differ.

The Switching Operator will also make available to Source Data Providers:

- A list of possible causes for no match being found on an address;
- A list of post codes that are not yet available in OS ABP.

Additionally DCC will continue to make available to the Supplier Operations Forum details on volumes of matched and unmatched addresses. This information will also be provided to PAB at regular intervals.

4.2.4. Framework of Meetings with REC Parties

The Switching Operator will continue to build on the framework of meetings established during the execution of the initial AQP. Personal Data will only be shared with appropriate REC Parties in a secure manner using the Service Management System ServiceNow or other methods as agreed with that party. The data shared will give each party an insight into the areas that the CSS Provider and the Switching Operator have investigated, and the results of any investigations carried out to date which require further investigation by the REC Party.

The Switching Operator also recognises there are obligations on Suppliers to take reasonable steps to improve the REL Address data quality. It may, therefore, be necessary for DCC to hold additional sessions with certain Suppliers where there are address investigations which can only reasonably be resolved by those Suppliers and the Switching Operator would request that parties do accommodate those meetings where requested.

Where there are common issues which have the potential to impact the REL Address, DCC will run a collaborative session with industry. DCC has previously done this by utilising the Switching Operational Issues Forum as well as hosting a face-to-face Address Forum. In the Financial Year covered by this plan, industry forums will be held with parties. Where these forums have previously focussed on attendance by SDPs due to the nature of the investigations, as the scope of data issues broadens, Energy Suppliers will also be invited to participate. It is anticipated these will be run every three / four months, and can be used to discuss general trends observed in the data held within CSS and seek to agree a way forward. It is anticipated this forum would continue to be open to organisations from across the wider Switching Eco-system, such as Price Comparison Websites, in addition to REC Parties.

Figure 4 shows the proposed activity process and data flows for the interactions with REC Parties or their representatives.

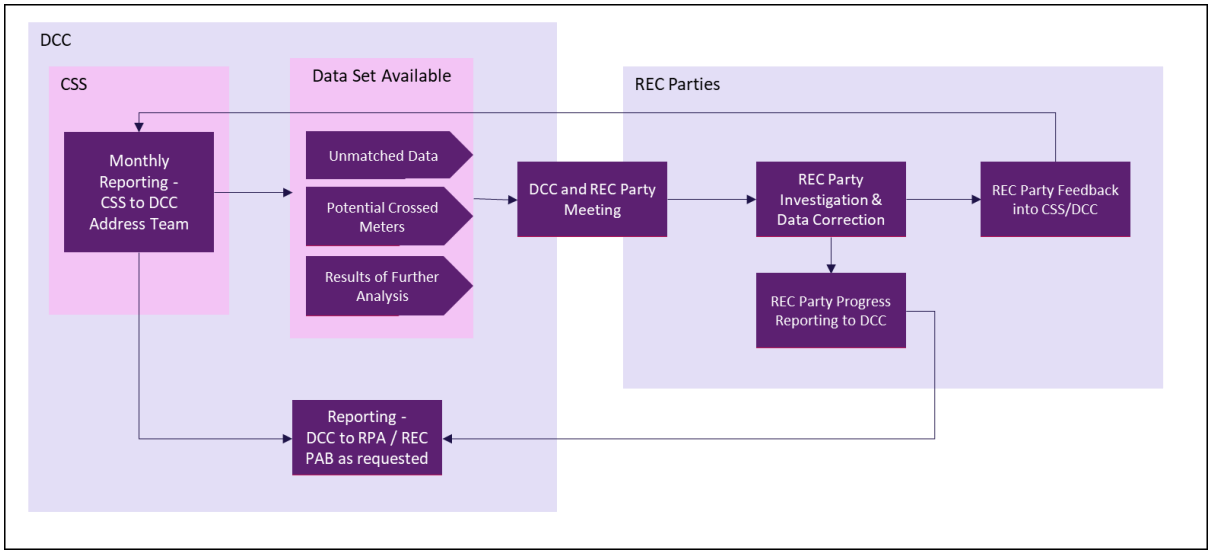

Figure 4 – High Level Address Quality Activity Process and Data Flow

In addition to any data already held by REC Parties, at the end of every session held with a particular REC Party, the Switching Operator will pass to them, a batch of address related information to be further investigated and addressed by that Party. For the purpose of tracking and audit, this information may also be logged within the Switching Service Management System, ServiceNow.

4.2.5. Meetings with Source Data Providers

Most issues within the CSS address data set, of which the Switching Operator is aware, relate to where a match to OS ABP data has not been possible. As in previous years, this continues to be the case and, therefore, meetings with SDPs are expected to be offered (approximately) every two to three months for electricity SDPs and more frequently for gas SDPs, since one organisation is representing all Gas Transporters. The exact frequency will depend on the volume of data issues identified by the Switching Operator as being associated with a particular SDP and the availability of that respective SDP.

It is not envisaged that this process will differ significantly from that undertaken during the Financial Year commencing April 2023 as the focus for SDPs will remain on unmatched address data. DCC will however keep under review the need for and frequency of these meetings to determine if there is a more appropriate cadence and make adjustments where appropriate with the agreement of the relevant party.

4.2.6. Meetings with Other REC Parties

Where meetings are necessary with other REC Parties, they will be held as required and their cadence will be dependent upon the nature of the issue identified which requires further investigation.

Following analysis and investigation by the Switching Operator, it is likely that data issues, not related to whether an address can be identified on the Ordnance Survey data set, will need further input from Energy Suppliers. This is particularly relevant in the area of potential crossed addresses, where DNOs, in particular, have stated it is not possible for them to determine the correct address for a particular meter without the involvement of Energy Suppliers (see section 4.3 for further information).

4.2.7. Matching Activities Undertaken by the CSS Provider

The Matching activities undertaken by the CSS Provider are described further in Appendix 1 – Matching Process Conducted by the Switching OperatorConducted by the Switching Operator.

4.3. Areas of Continued Investigation

Unmatched address data represents addresses which have been supplied to the CSS Provider where no obvious record exists within the Ordnance Survey address dataset available to CSS. Although progress continues to be made in this area through the regular bi-laterals with the SDPs, this will continue to be a focus during the execution of this plan.

Areas for continued investigation by the CSS Provider and Switching Operator include reviewing:

- Unmatched Address Data;
- Potential Crossed Addresses across fuel type;
- Review of anomalies relating to volume of meters at individual property addresses;
- Completeness of metering and address data within CSS in different geographical areas; and
- Review and Assurance of Existing Address Matches within CSS.

These areas are further described below, however it should be noted that the results of any data analysis may give rise to further areas of investigation by the Switching Operator and CSS Provider and that in turn may require additional support and investigation from parties.

Where parties have suggested that additional support may be required from DCC, then this will be discussed on an individual basis to determine what level of support can be made available over and above that specified within this plan.

4.3.1. Unmatched Data - Why Is It Important to Continue to Review These Address Records and Correct Unmatched Addresses?

In considering the options available at the time, Ofgem considered an appropriate option to be where a central address and registration service exists, which consolidates the addresses across both the electricity and gas industries. Furthermore, it suggested the quality of address data could be improved by a one-off review of data together with an ongoing review of the electricity and gas data against a common database. At the time of procurement of CSS, OS ABP was selected as the common database.

The Ofgem business case draws links between the overall quality of address data and the benefit to end consumers. Further information on the business case can be obtained from the Ofgem website at www.ofgem.gov.uk. The impact of not having addresses which match the standard address gazetteer supplied by OS, might result in a number of the benefits, set out in the Ofgem business case and relating to data improvements and a reduction in the number of failed, erroneous, delayed or abandoned switches, not being achieved. Whilst it is relatively straightforward to

discuss data in terms of numbers of failed, erroneous, delayed or abandoned switches, at the end of each one of those incidents lies a consumer who has experienced difficulty with the switching process.

A fundamental element of this plan is to bring about improvements in the experience of the end consumer by helping to ensure the industry has done its best to minimise the number of adverse occurrences on the consumer attempting to switch, by achieving a high standard of address data quality for use during the switching process.

Unmatched Addresses relate to addresses provided by SDPs within MPL Addresses where it has not been possible to match against a current OS ABP Address. This has the potential to directly affect a consumer's ability to switch and to adversely impact their experience of the switching arrangements. This AQP attempts to reduce the occurrence of unmatched data and thereby, provide a favourable impact to the switching experience. There might be several reasons which result in an inability to match data, such as insufficient or ambiguous address information being provided, and the Switching Operator has already provided a set of unmatched MPL Addresses to each SDP.

If, through the execution of the initial AQP, it has not already been agreed with the relevant SDP, the Switching Operator will seek to understand the activities and timescales which each SDP is willing to commit to, in order to fulfil its role, described within the Address Management Schedule of the REC, in relation to any investigation and subsequent cleanse of MPL address data.

Volumes of unmatched data as recorded within the CSS, and having been supplied by each SDP, will be available to the Switching Operator to include in reporting to the Code Manager / REC Performance Assurance Board (PAB) in aggregate, as requested.

The Switching Operator recognises there may be perfectly good reasons why any given address may not match against OS ABP data. Where these are identified, they will be discussed with the relevant organisation to help prioritise any investigations. The Switching Operator will also seek to discuss any issues as they arise, at the regular address forums which will be held with industry. Illustrative, rather than actual data examples, will be discussed where personal data is concerned.

It may also be possible for the Switching Operator and CSS Provider to determine if there are now more systematic ways in which matches can be made for the remaining unmatched data, e.g. use of UPRN data where the SDP has confirmed this is accurate (see later)[7].

By reducing the number of unmatched addresses, the experience of the consumer attempting a switch will be enhanced.

[7] During the Data Migration stage of the Switching Programme, it was agreed not to rely on any UPRN data supplied by the SDPs as not all SDPs were in a position to confirm the veracity of this information.

4.3.2. Potential Crossed Addresses[8] and Other Anomalies

When it envisaged the creation of the new switching arrangements, Ofgem recognised that being able to link gas and electricity meters to the same, single address and improving the quality of industry data would significantly reduce the number of switch attempts which result in an erroneous, delayed, abandoned or failed switch. This is particularly relevant in relation to dual fuel switches. Ofgem stated this would mean that consumers' overall experience of switching is more positive and would give the consumer greater confidence that they can switch both fuels reliably and at the same time. The Ofgem Business Case set further rationale for the benefits which would be realised by the end consumer.

With the data held within CSS, the Switching Operator and CSS Provider is able to investigate anomalies in the data which should not occur and may give rise to crossed addresses, where a consumer may be being billed for another consumer's energy consumption or where the address of a meter of one fuel type differs from the address of the other fuel type. The Switching Operator is able to check the data relating to which metering equipment resides at which property and identify anomalies. These anomalies may include the identification of data where:

- an abnormal / unexpected volume of meters is identified as being located at a single property where that property is not further sub-divided;
- multiple gas meters with the same property address; and
- meters that are physically connected to an individual CH where the address provided for each of the meters is different.

Based on the information available to the CSS Provider and the Switching Operator, it is, therefore, possible to identify anomalies in the MPL Address data where more than one Smart Meter is present at a given property or where there is an absence of metering at a property. Where this is the case, it is possible the MPL Address supplied for one or more of the meters is incorrect. The impact of this potential data misalignment to the end consumer during the switching process is the consumer may:

- be unable to locate its address (and consequently its meters which will be the subject of a switch) on available (price comparison or other Energy Supplier) websites; or
- be able to correctly identify its address but may Incorrectly switch another consumer's meter which may take some time to identify and resolve.

The Switching Operator believes it is important to investigate the potential issues with underlying MPL Address data to bring about an enhanced experience for the end consumer in line with the Ofgem Business Case. As part of its process for determining which organisation is responsible for dealing with any queries relating to the accuracy

[8] In previous iterations of this document, this category of anomaly was referred to as potential crossed meters. Through discussions at the Address Forum in January 2024 it was suggested this term could lead to confusion with actual crossed meters when the anomaly being investigated is where more than one address exists for meters that are physically connected to the same Communications Hub. The document has therefore been changed to correct this.

of MPL Addresses, the Switching Operator will first check to ensure the Smart Metering Systems are receiving data for both meters.

During the execution of the Address Quality Plan for the year commencing April 2023, a number of DNOs stated that it was not appropriate to contact the DNO where the information that gave rise to an investigation is as a result of Smart Metering Data. The DNOs have stated that they are not responsible for the location of the meter and that the organisation responsible for identification of the location of a meter is the Energy Supplier and that where DNOs have contacted Suppliers, they have not been able to obtain timely responses from those Energy Suppliers contacted.

The consultation responses on the previous iterations of the AQP, raised a question as to why parties were being asked to verify data which DCC holds. For the avoidance of doubt, parties are not being requested to verify DCC data. DCC will have already taken steps to verify that where it has used the Smart Metering Systems to identify potential crossed addresses in respect of metering that should reside at individual properties, it will have already confirmed that those meters are activity communicating with the Smart Metering Infrastructure through the same Communications Hub. DCC has previously asked DNOs to confirm if a meter **physically** resides at the address provided (i.e. the MPL Address includes the accurate address for that meter), however for the reasons specified above, the DNOs have indicated that it is not within the scope of the DNO's responsibility to verify this information. Although some SDPs are using this as part of their investigations, a key aspect of this year's plan will be to include Energy Suppliers in the investigation of potential crossed addresses.

The Switching Operator will make reports available to both SDPs and Suppliers, where the addresses of meters connected through the same Communications Hubs differ. The reports sent to Suppliers will include information where the supply is provided on a dual fuel basis. This will allow the REC Parties to confirm the veracity of the association between the identifier of a Meter and its location and to take necessary actions to correct data where appropriate. It could be:

- either the MPL Address is incorrect (i.e. the Meter resides at a different property), in which the SDP should correct it or liaise with other parties to ensure it is corrected automatically through existing messages to CSS; and/or
- provision of this information to Suppliers will indicate the accuracy of the REL Address for a particular RMP could be improved. In which case, the Supplier should submit a Manually Entered Address request to the CSS Provider. This process involves the Supplier creating a ticket for each individual REL Address which needs correcting and subsequent manual processing by the CSS Provider in response to that ticket.

This is consistent with the responsibilities of those respective organisations. Where the REL Address is updated directly by the Supplier, there is a risk of misalignment occurring between the address data held within the CSS and the SDP systems, unless the Supplier also updates its system. Through the consultation responses received on earlier iterations of the Address Quality Plan, industry expressed concern that multiple parties may be looking at similar address issues and this could result in a duplication of effort. It is for this very reason that focus will turn to energy Suppliers to correct potential crossed address issues

The potential crossed addresses will also be made available to SDPs as some of those organisations have found the reports useful in identifying the correct address for unmatched addresses.

4.3.3. Review of anomalies relating to volume of meters at individual property addresses

The Switching Operator and CSS Provider will analyse the volume of meters at individual properties and investigate where there are significant variations from expected volumes. For example, this analysis could identify where more than one gas meter is registered at a single address or linked to a single Communications Hub; or another example would be where there are significant numbers[9] of meters at a domestic property that is not sub-divided into flats.

4.3.4. Completeness of metering and address data within CSS in different geographical areas

The Switching Operator and CSS Provider will analyse different geographic areas to determine if there are properties within a particular area (post code area, street) where there is no metering for a particular fuel type when other properties within that area have metering registered. This will help identify the potential for crossed addresses where a meter may have been associated with the wrong address.

4.3.5. Review and Assurance of Existing Address Matches within CSS

As the switching processes rely on accurate REL Address information, the Switching Operator will carry out assurance on the matched records within CSS to ensure that the matching process operated by the CSS Provider remains of a high standard.

4.3.6. Identification of specific issues in unmatched addresses

As part of its analysis to date, the Switching Operator has identified that a significant amount of unmatched address data relates to 3 areas:

- Plot Data
- Flat Data
- Landlord's Suppliers

In addition, the following areas are also relevant:

- Use of UPRNs supplied by SDPs
- Use of location information in the MPL Address
- Use of positional information in the MPL Address
- Use of Electric Vehicle Charging Points
- Interchangability of Flat and Apartment Information

[9] This analysis would allow for situations were additional metering is installed for export purposes.

4.3.6.1. Plot Data

This is where a plot number is included within a property address and is not removed when an address is updated by the SDP. This type of issue means there may be ambiguity within the addresses provided by the SDP as too much information relating to historic plot information may be conflicting with a current address. In such cases an address might be provided with both historic and current information within it and as a result no match is found. For example, Plot 67, 9 Acacia Avenue. In this example there may be a conflict between the plot number and the building number as it is not possible to identify which number should be used or excluded.

The Switching Operator will work with SDPs to determine if any systematic approach can be developed for dealing with plot data in the remaining unmatched data set.

4.3.6.2. Flat Data

This is where Flat data is provided in different and inconsistent ways across the country. This is often because different local authorities have different flat naming conventions and some have none.

4.3.6.3. Landlord Supplies

The Switching Operator's analysis has confirmed that across the remaining unmatched data set, the MPL Addresses provided includes ~100 different ways of identifying the supply at a particular property as being related to a Landlord.

This could mean that a landlord or management company is responsible for the energy supply to a communal area of a sub-divided property or it could mean that a Landlord has taken over responsibility for a supply of a property that currently has no tenant.

The information relating to Landlord can also be part of the address fields provided by the SDP rather than in the Delivery Point Alias field. This can cause confusion as the word Landlord is not part of the valid address held within the OS database and when the data migration approach for data moving from source systems into CSS was developed, there were no requirements established for CSS to identify and treat Landlord supply information differently from other address information. The Switching Operator will work with industry and the CSS Provider to determine if there are any systematic ways of identifying Landlord Supplies and determine a rule set that can be used in the matching process where it relates to Landlords.

4.3.6.4. Use of UPRN provided by the SDP

Many SDPs have supplied UPRNs with the MPL Address data provided to CSS. During the Data Migration phase of the switching programme, it was stated that this data could not be relied on to identify the OS Address the property relates to. Since Go Live, discussions with certain SDPs have indicated that it may be possible to rely on the UPRNs for their MPL Address data for those SDPs.

The Switching Operator will continue to work with SDPs to determine if there are systematic ways of using the UPRN to help the matching process on an

4.3.6.5. Use of location information in the MPL Address

The definition of an MPL Address should have enabled addresses to be provided for the location of the meters by SDPs. i.e. an address is provided without any locational information within that address. However, many MPL Addresses are not confined to purely address information with the address only fields. Instead, in many cases the locational information is included within the address elements and it was not possible during the switching programme to develop standard, systematic ways of removing this consistently during the matching process. This is because there are many different combinations of how this information is provided to the Switching Operator and there was no consistent way of this information being included.

During the Financial Year commencing April 2024, the Switching Operator will work with SDPs to determine if there are any standard rules.

4.3.6.6. Use of positional information in the MPL Address

Some MPL Addresses contain positional information not related to the address of the meter / energy supply. E.g. "Building Behind 104 Acacia Avenue". Although these were relatively smaller in number, in terms of volumes of unmatched data. In this case, DCC in its role of data steward, will look to drive forward consensus across industry on dealing with positional information included within address information.

4.3.6.7. Use of Electric Vehicle Charging Points

With the move to net zero and the increase of electric vehicle charging points (EVCP), more meters will be associated EVCPs, it will become increasingly important to standardise the format of addresses associated with EVCPs. DCC as Switching Operator has a role of data stewardship around addresses. Accordingly, the Switching Operator will seek to gain industry consensus on the format of EVCP information so that it aligns to data held within OS address data set and provide information on any standards it becomes aware of during the execution of the plan.

4.3.6.8. Interchangeability of Flat and Apartment information

Currently there are inconsistencies with how different local authorities and building developers deal with flat naming conventions. It is sometimes recorded as flat and other times recorded as an apartment whereas in Scotland there are significantly more complications. The data held within OS can also be inconsistent to match that used by the different local authorities. During the Switching Programme Data Migration phase, the CSS Provider manipulated input data manually so that there was no distinction between flat's referenced as either apartments or flats. The Switching Operator will seek to introduce new processes to identify flats that are labelled as apartments and vice versa to avoid SDPs needing to differentiate between these.

4.3.6.9. Shell Property Information

The Switching Operator has identified a potential difference in approach related to the MPL Address information provided by the various SDPs. For some organisations, where a property is split into multiple dwellings, the meters are

sometimes located within a communal area of the shell of the building rather than within individual flats. This difference between organisations is highlighted when different fuel types are used as the rules relating to the position of gas and electricity metering may be different. In such cases, for two meters representing a service provided to the same property, for example, Flat 1, Acacia Court, which itself is in the building Acacia Court, the CSS Provider may often receive two addresses for the different fuel type is illustrated below:

Fuel Type 1 – Meter 12345, Flat 1 Acacia Court.

Fuel Type 2 – Meter 23456, Acacia Court

In the above example, assuming that both Acacia Court and Flat 1, Acacia Court exists on the OS ABP database then, although the meters are for use by the same customer at Flat 1, Acacia Court, they will not both be matched to this address with CSS. This issue with the source data and has existed since that data was created in the source systems.

In the above examples, the Switching Operator and CSS Provider will review the categories above and look to develop more tailored solutions to help ensure addresses can be matched in a higher volume of cases than at present.

4.2.6.10 Potentially Incomplete Address Data

The Switching Operator has identified a number of records which do not have sufficient fields populated in order to unambiguous identify an individual premises. For example, an MPL 'Acacia Avenue, Liverpool, L1 2AB' does not provide adequate information to determine the building name or number and any sub-building information if appropriate. Without the building information being supplied, a match to the Gazetteer is impossible.

4.3.7. Detailed Approach

Figure 5[10] illustrates the use of unmatched address data reports together with reports related to potential crossed addresses i.e. where meters which are physically located at the same property (as indicated by data from the Smart Metering Systems) which have conflicting addresses that are stored within CSS and made available to the SDPs or Suppliers as appropriate. Historically, DCC has requested that SDPs coordinate the update of the MPL Address with Energy Suppliers. However, the electricity SDPs do not believe it is their responsibility to do this. This information had originally been made available to all SDPs to avoid duplication of effort by the Suppliers updating the REL Address directly and recognising a situation with the potential to cause a misalignment between the address data held within SDP systems and the data held within CSS.

The data within the Unmatched Address Report is described further in Appendix 2 – Data Format for Unmatched REL Report and the data within the Potential MPL Address Issue Report is described further in Appendix 4 –Potential MPL Address Issue Report . The reports will be tailored to the relevant recipient. Both reports will be made available to relevant source data providers and the Potential MPL Address Issue

[10] Note that processes outside the direct management of the REC Address Management Schedule such as the UNC are not shown in this diagram

Report will be made available to Suppliers in respect of the meters to which they are responsible for supplying energy.

Figure 5 illustrates the flows, whereby the information available to REC Parties may result in a correction to the REL Address. Importantly, it also shows where MPL Address data is corrected at source, then the REL Address remains in step with the MPL Address. If the Supplier chooses to submit a Manually Entered Address without a corresponding update being applied to the MPL Address, then future updates to the MPL Address will not be used in the matching process and there is a risk, over time, for the MPL Address to become out of synch with the REL Address. Making this data available to both SDPs and Suppliers, should facilitate better responses by the Suppliers to any SDP queries relating to the accuracy of the MPL Addresses. SDPs may also wish to use this data when seeking to investigate MPL Addresses that are yet to be matched to OS ABP. The prospect of MPL Addresses and REL Addresses not being totally aligned was recognised and accepted at the commencement of the Switching Programme as a natural consequence of MPL Address data being the address of the Meter Point or Metering Point's location.

The Switching Operator will be unaware of which MPL Addresses can be corrected directly by the SDP or will require the support of a Supplier. Information is being made available to the Supplier in respect of the Potential MPL Address Issue Report to ease any investigation activities of the Supplier. The desired outcome would be for the MPL Address to be corrected, if appropriate, and for the CSS to be updated through that route. In the event the MPL Address is correct but, for some reason the REL Address will need to be different, then the Supplier has information available to it that would allow it to undertake a further investigation.

4.3.8. Process Flow for Correcting MPL and REL Addresses

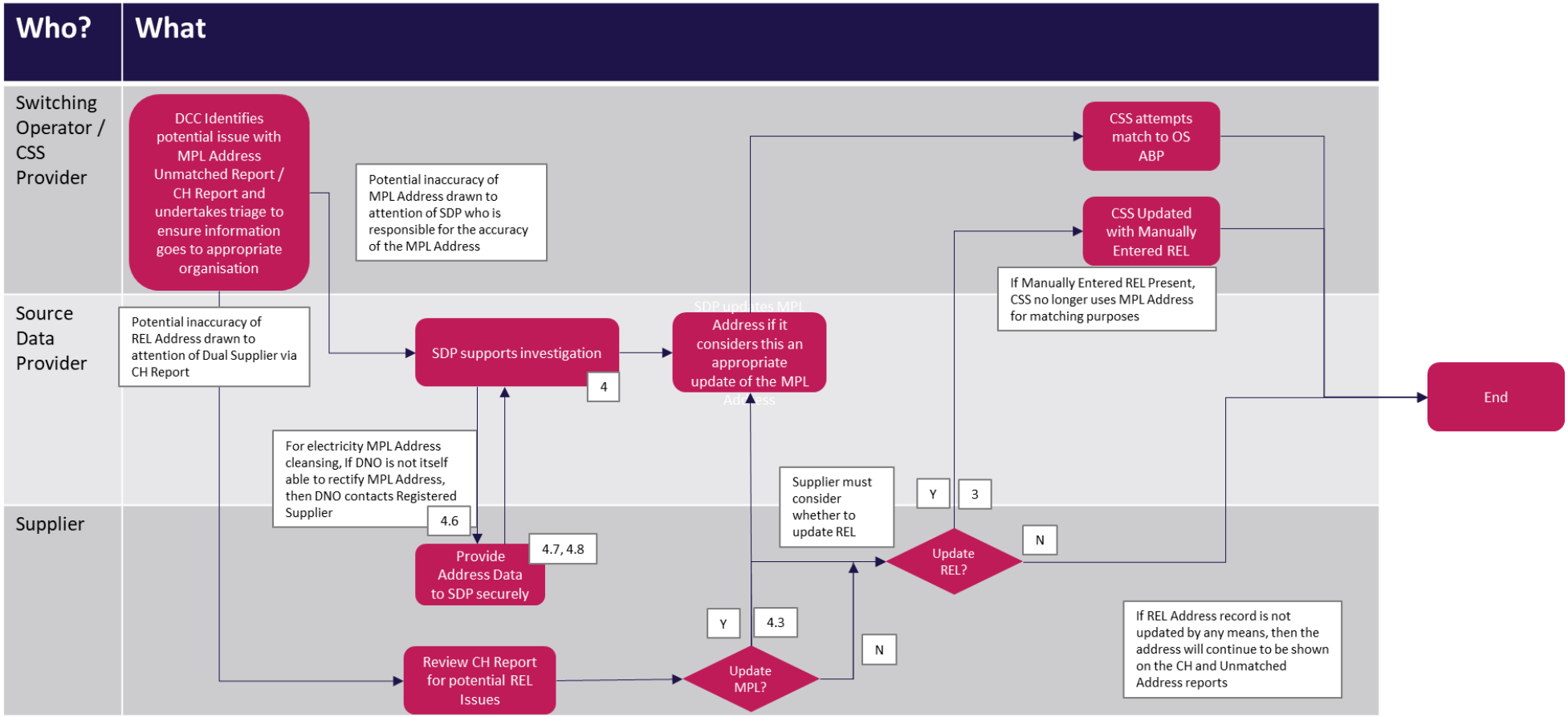

Figure 5 - Process Flow for Correcting MPL and REL Addresses

4.4. Proof of Concept Activity with REC Parties

During the period of validity of this plan and following feedback from REC Parties, the Switching Operator may seek for REC Parties to participate in small scale trials to assess the feasibility of new approaches to investigate data anomalies that are identified during the year. Where this is the case, the Switching Operator will seek agreement by those REC Parties to participate in any such trials. This could include Supplier involvement in potential crossed address investigations or working with SDPs to look at individual categories of unmatched data.

4.5. Ordnance Survey Data Updates

OS ABP is currently updated approximately every six weeks and new addresses are published and made available to users of OS Data. The periodic updates to OS ABP Data are referred to by OS as an Epoch. CSS will be updated with the latest Epoch by the CSS Provider within three Working Days of the updated data being made available by OS. This is to comply with the requirements applicable to currency of data within CSS. This means that CSS will be working on the most up to date address information available.

A schedule of planned and historic OS Epoch Updates can currently[11] be found at the following web address location:

https://www.ordnancesurvey.co.uk/business-government/tools-support/addressbase-epoch-dates

It is possible that other REC Parties, who use OS ABP or other address data sets, may not have as regular an update cycle for the address data used in their systems. During the CSS Epoch update process, a further attempt to match any unmatched data already held in CSS is made. Where REC Parties are using a data source reliant on an older OS ABP data set, it is possible for the CSS to find a match which the SDP will not, themselves, have identified within their systems. Therefore, there is no issue from a CSS perspective if REC Parties are using older versions of OS ABP as the matches within CSS are not prevented by that data being out of step.

Any reports issued by the Switching Operator containing REL Address information will be based on the current version of the OS ABP Epoch held within CSS. Please note, CSS will always apply new OS ABP updates within 3 Working Days of their release. To identify the Epoch version by CSS at the time of production of the report, all reports contain the date on which the report has been prepared. This date can be compared with the dates available from the OS website to determine the appropriate Epoch version.

[11] As at the date of publication of this Address Quality Plan. Please note that this link is to an external website managed by OS and the Switching Operator has no control over the currency and content of this page.

4.6. Additional Activities of the Switching Operator and the CSS Provider

The CSS Provider and Switching Operator have already carried out significant analysis in matching the 55.6million addresses to OS ABP. Although some of the activities carried out by the CSS Provider rely on proprietary technology and processes, a high-level overview is provided in Appendix 1 – Matching Process Conducted by the Switching Operator of the matching process.

In addition, the CSS Provider has a small team in place to deal with issues associated with the remaining unmatched data set, thus helping to improve the overall quality of addresses and deal with queries as they arise. During the course of the year, the CSS Provider will continue to identify additional matched RELs through its more manual investigation activities. Any matches identified through this process will be applied directly to CSS.

The CSS Provider and the Switching Operator will continue to monitor and report upon the quality of new addresses being provided to CSS. Reporting back on any anomalies identified within new addresses, may help the SDPs amend their processes to ensure only the highest quality addresses are stored in CSS.

The CSS Provider will make available an analysis of all unmatched MPL Address Data. Attempts have already been made to match each of these address within CSS but a 'Gold Standard' match for these addresses has not yet been identified. Therefore, the Switching Operator will need the collaboration of SDPs to help review and correct the address where appropriate. The output of this analysis is further described in Appendix 2 – Data Format for Unmatched REL Report and Appendix 3 – Additional Information to be Provided on Unmatched REL Addresses and it is intended this may provide SDPs with additional information which could help MPL addresses to be more accurately matched to OS ABP by the CSS Provider. Such information is provided for guidance only but may indicate some of the reasons why matches to OS ABP may not be being made e.g., Missing Postcode or Building Number. In addition, as any new issues are detected, a generic resolution path for impacted records will be documented and shared with the relevant parties through the execution of the plan.

Where this analysis has been completed for any SDP, the reports will be provided at the next following meeting between the Switching Operator and the relevant SDP.

The Switching Operator will also investigate whether additional categorisation over and above that specified within this plan is possible in respect of unmatched addresses and provide this to parties as and when this is available.

Should the investigations of the Switching Operator / CSS Provider lead to changes being required to the matching processes or algorithms, these will be assessed and made using appropriate change control and through the operational change process.

Following each OS Epoch update, an additional activity will be undertaken by the CSS Provider to attempt to re-match any unmatched addresses to the latest available data from OS.

4.7. Responsibilities on REC Parties in relation to this Plan

It is anticipated that REC Parties (or their representatives) will need to:

- Commit to a regular cadence of meetings depending on organisation type no more frequently than:
  - (i)DNOs approximately every two months
  - Xoserve on behalf of Gas Transporters and Independent Gas Transporters every month
  - Suppliers as requested to deal with specific issues such as potential crossed addresses.

DCC will establish these meetings at the appropriate frequency in anticipation that parties will continue to support address investigations. It is likely that the generic issue will be discussed at an address forum with individual meetings with parties to share data as it applies to that party;

- Attend the scheduled meetings with the Switching Operator;
- Continue with ongoing investigations on data issues from the commencement of the Financial Year;
- Make corrections to data if the data relates to a REC Party mastered data item and apply those updates to CSS;
- In the case of a Supplier, submit a Manually Entered Address request to the CSS Provider where an energy Supplier is in possession of information that indicates the accuracy of the REL address could reasonably be improved; and
- Correct source data and supply it to CSS using the approved interfaces.

To help ensure the success of this plan, REC Parties should also consider:

- Establishing appropriate skilled resources within their organisation or sub-contractors to support the handling of address data investigations which the Switching Operator may instigate;
- Reporting progress in respect of any investigations it conducts at the request of the Switching Operator at each bilateral meetings. It is anticipated this reporting provided by the Switching Operator will be at an aggregate level rather than reporting on the performance of individual REC Parties. Further information on the likely format of reporting available to parties to help investigations can be found in Appendix 5;
- Liaise with other parties to resolve any address anomalies which relate to data provided to an organisation supporting the Switching by another party

The Switching Operator does not plan to directly interact with or involve Meter Equipment Managers in the correction of address data. It is noted that it is possible Gas Transporters, or DNOs may need to get the Supplier to liaise with MEMs.

With respect to Gas Transporters, liaison will be initially with Xoserve as it is the provider of data on behalf of Gas Transporters.

In respect of Supplier involvement, the Switching Operator's approach during the next year focusses on investigating source data queries initially with the SDPs rather than directly with Suppliers. However, it is becoming increasingly apparent from discussions SDPs (DNOs in particular) that there is a need for additional coordination activities with energy Suppliers.

Information such as that provided in the Potential MPL Address Misalignment Report will be available to the Suppliers as this may identify potential crossed addresses to those Suppliers. This information will allow Suppliers to investigate issues where there may be address discrepancies across their portfolio and will provide Suppliers with additional information to assist them to respond to any queries from SDPs.

The Switching Operator will make available data so that parties are aware of what information may need investigating, e.g., a list of unmatched addresses, but will not prescribe the method that each party determines to investigate that data. This recognises that each party may have existing processes in place for dealing with Address data related queries.

4.7.1. Organisations Representing REC Parties

It is possible that a number of REC Parties may choose to use one or more third parties who are more appropriate to deal with the initial requests for investigations. Where this is the case, REC Parties should ensure they have secured sufficient resource from that third party to properly represent them in any investigation activities and provided appropriate access to the REC Party's systems and data.

4.8. Progress Reporting to the Performance Assurance Board

By 30 April each year, the Switching Operator must produce an annual report on how it has complied with the plan developed for the previous year, or part year in the case of the initial Address Quality Plan.

It is also the intention of the Switching Operator to provide the REC Performance Assurer and PAB, if requested, with ongoing quarterly updates indicating the progress of the execution of the Address Management Plan for that year. These updates are likely to include:

- Summary of meetings held with REC Parties;
- Volume of address data associated with requests made to Parties;
- Effectiveness of DCC's identification of the relevant party to investigate and resolve a particular address query; and
- Progress of investigations, including data relating to correction of addresses.

Other data may be supplied upon request and if available.

4.9. Basis for Requesting Support from REC Parties

The investigation of address anomalies by the Switching Operator will require resolution, in many cases, by organisations outside of the Switching Operator's contractual control. As such, the Switching Operator is reliant on the REC Parties to take reasonable steps, as identified within the Address Management Schedule of the REC, to help with the investigation of address data issues and their correction, where appropriate.

This Address Quality Plan identifies high level expectations on REC Parties, their agents and service providers. Where a request is made of a REC Party, it is requested on the basis of the obligations already set out in the REC Address Management Schedule to help support the Switching Operator's achievement of the Address Quality Objective.

4.9.1. Responsibilities of Gas Transporters (GTs) or DNOs to Ensure Accurate MPL Addresses

The responsibilities of GTs and DNOs (including their independent counterparts) include ensuring the accuracy of MPL Addresses recorded for its Supply Metering Points and Metering Points respectively are set out in paragraph 4 of the Address Management Schedule of the REC.

Where the Switching Operator identifies an MPL Address which requires further investigation, it will be provided to the (i)GT and (i)DNO along with any supporting information following investigation by the Switching Operator.

This data will be exchanged securely through the use of Secure File Transfer Protocol (SFTP), ServiceNow or SharePoint depending upon the preference of the individual organisation. All relevant reports from CSS will be made available via ServiceNow. This approach allows for those organisations which have decommissioned the SFTP service used during DBT to use an alternative method for data transfer.

The Switching Operator recognises that SDPs regularly review and update their MPL Addresses as part of their business-as-usual activities and they also review and validate address data following contact with customers or instructions received from Suppliers. Some SDPs' business processes also include attempts to match the address elements of the MPL Address to a UPRN held within OS ABP. Where an update is made to the MPL Address, this should trigger an update message to CSS to help maintain alignment between systems. Once identified, the process for correction of MPL Addresses by source data providers will happen independently of the meetings themselves, however progress can be discussed within the bi-lateral meetings.

4.10. Responsibilities on Suppliers

It is also possible that during the investigations carried out by the CSS Provider and the Switching Operator, information will come to light which calls into question the accuracy of the REL address data.

Where a Supplier holds any information in respect of a REL address for a Registrable Metering Point which could be improved, it should submit a Manually Entered Address update.

During the course of the execution of this plan, Suppliers may come across such information either by activities undertaken by them, via the SDPs through their investigation of MPL Addresses or directly from the provision of information by the Switching Operator. It is also possible that requests issued by DNOs via the Secure Data Exchange Portal (SDEP) may also give Suppliers reason to believe the REL Address could be improved. In such cases the Supplier will be expected to promptly submit Manually Entered Address to CSS.

In addition, during the course of the execution of this plan, organisations may make suggestions where Suppliers might be able to better assist in achieving improvements to the quality of REL Addresses held within CSS. Where ideas are developed during the execution of the plan, the Switching Operator may, after assessing the viability of the suggestion, seek to enlist Suppliers in small trials which test the feasibility of any such ideas. It is not possible, at this stage, to pre-determine the ideas which may emerge to tackle address related issues

during the execution of the plan. The process for Suppliers identifying and correcting address anomalies will need to be undertaken in accordance with rules set out within Schedule 29 – Address Management of the Retail Energy Code. Nothing within this plan should prevent Suppliers identifying and correcting addresses independently of the meetings established by the Switching Operator.

4.11. Suggested Targets for Correcting Data Anomalies

The number of address data investigations required of each party will differ and will depend on the result of analysis, some of which is yet to be undertaken.

The Switching Operator is not proposing that service management tickets are raised for each address anomaly that results from its investigations into improvements which could be made to achieve the Address Quality Objective. Raising individual tickets could overwhelm all parties where there may be significant volumes of data issues relating to address data.

In addition, if Service Management Tickets had been raised for each address issue, they would have been raised at [Priority 4] which would have resulted in REC Parties having a [10] Working Day service level to resolve each ticket. Given certain organisations may have significantly more data investigations to support than others owing to volume of anomalies identified which may be both impossible to manage and difficult to achieve for any organisation.

It is proposed that each REC Party requested to carry out investigations of its address anomalies, agrees the activity it will undertake at each bi-lateral meeting.

This approach of allowing each REC Party to operate at its own pace and dependent on its resourcing levels, allows for the elongation of what would otherwise be a 10-day Service Level. The Switching Operator believes this to be a reasonable compromise, if supported by the REC Party, which could help achieve the Address Quality Objective as well as improve the reliability of switching.

DCC will provide where appropriate updates to the Code Manager on the progress of the execution of the plan.

5. Relevant Targets

The Switching Operator considers any relevant targets for the execution of the activities from April 2024 until March 2025 will continue to be process based. Where parties are requested to undertake investigative work, the Switching Operator requests the party agree at the relevant bi-lateral meeting the activities that will be undertaken over the period until the next bi-lateral meeting. DCC is aware of the view expressed by some industry parties which indicates that additional targets should be set which do not self-limit the ambition of this plan. The Switching Operator has agreed with the Code Manager that it may be possible for additional targets to be set during the year on activities such as processing activity. DCC has found that, given that each organisation operates in different ways with different resource levels, it is not appropriate to set blanket targets on the processing ability of each organisation.

Description	Target (Unless otherwise agreed)
Meeting Organisation: Agendas to be issued for meetings and invites sent.	Where practicable 5 Working Days in advance of the meeting.
REC Party Attendance at Meetings: REC Parties to provide suitably qualified, empowered and skilled resources for each meeting arranged by the Switching Operator.	No confirmed meetings cancelled owing to lack of skilled resources. No confirmed meetings postponed owing to queries resulting from the execution of this plan.
Making Data Available for Investigation The Switching Operator will make relevant data available to REC Parties.	Reports relating to Unmatched Data to be provided at the end of every month and reports relating to CH Data anomalies to be provided within 10 Working Days of any meeting with a REC Party
REC Party Investigations and Corrections: Carry out investigations in respect of addresses provided by DCC following any meetings with the party.	Each REC Party will then be monitored against the capacity information provided by it throughout the year. This is to ensure that activities are progress as predicted or whether an adjustment in the capacity forecast is required.
Data Correction: Correct data where appropriate and provide these corrections to CSS.	Within the bi-lateral meeting cycle carry out the activities agreed with the Switching Operator at the previous bi-lateral or set out issues encountered.
Categorisation of Unmatched Records Categorisation ensures effort is targeted on meters more likely to be the subject of Switch Requests within CSS. It drives efficiencies in the realisation of data quality improvements since corrections required for neighbouring premises and premises of the same category can be identified and actioned in a timely manner.	Within the period of the plan, categorise at least 80% of unmatched records in terms of the premises type (Landlord, Flat, Non-Addressable etc).

Description	Target (Unless otherwise agreed)
Unmatched Records with Null or Invalid Postcodes Unmatched records often contain invalid and/or incomplete postcodes. The Postcode field is a significant element in the calculation of the Confidence Score and, as a consequence, null or invalid postcodes prevent a 'Gold Standard' being achieved and an address being matched. Identification and resolution of these postcodes, at source, will enable a re-match to be conducted.	Review postcodes for all unmatched address records and quantify the percentage with valid postcodes. Ensure >80% of records with invalid postcodes are identified and returned to SDPs for resolution providing an explanation of the issue identified.
Incomplete Address Records Some unmatched address records are incomplete and lack information such as thoroughfare or building number. These are key components used in the matching process. Identifying such records, batching them and informing each SDP of their complement of incomplete records means the organisations can target their correction with appropriate prioritisation.	Identify at least 80% of the address records with incomplete data and return them to SDP for correction.
Reporting to PAB	Provision of a progress report on a Quarterly basis by the Switching Operator.

Table 1 - Relevant Targets

In setting targets around the framework for meetings and organisation of those meetings, the Switching Operator accepts that it may be necessary to reschedule meetings at short notice owing to business-critical activities.

The Switching Operator believes that parties supporting the investigation of anomalies with address data as requested and achievement of the above targets will lead to an improvement in address data quality. The discussions at the various meetings will assist parties' understanding of the issues within the addresses subject to investigation. As set out in the Ofgem Switching Business Case, improved address quality will lead to an improvement in the consumer experience and switch outcomes by a reduction of failed, erroneous, delayed or abandoned switches.

In addition, a number of parties have suggested during the consultation process, that additional targets may be appropriate to be added to the plan without being specific as to what those targets might be. Additional targets on the Switching Operator are included in this plan and further dialogue will commence once the plan has become effective with the Code Manager and industry parties to establish and agree any additional suggested targets which could be monitored if required.

6. Success Factors

The Switching Operator considers that the execution of this plan will be successful when:

- Meetings are regularly held with each SDP and Suppliers;
- SDPs and other REC Parties have undertaken investigations and corrections of address data, where discussed and agreed with the Switching Operator.
- The CSS Provider and Switching Operator have carried out their regular reviews of address data and made corrections where appropriate;
- Monitoring and reporting are in place to identify progress being made and areas for improvement which is then made available to the appropriate governance body where appropriate;
- Switching has been positively impacted by the data analysis and correction which has led to an improvement in address data quality.
- Continued timely data reporting to source data providers.

7. Progress Reporting

At the regular meetings with REC Parties, activities to be undertaken by the next meeting will be agreed.

Progress against activities will be reviewed at the next subsequent bi-lateral meeting with that REC Party. Where a forecast has been provided by a REC Party assisting with any address investigations, a monthly update on progress will be requested. Information may then be made available to the Code Manager and REC PAB, as appropriate, if requested. It is expected that aggregate totals of matched and unmatched addresses across the market will be provided to REC PAB through regular reporting together with this information being provided to the Supplier Operations Forum.

Where categories of address anomaly have been corrected by the REC Party, the Switching Operator will make available any reporting it has in order to demonstrate the impact of changes.

Reporting of progress against the plan will enable the Switching Operator to understand the degree to which anomalous data is being investigated and, where applicable corrected.

8. Statement of Compliance

The requirements for the content of this Address Quality Plan are set out in the Address Management Schedule. Table 2 below identifies each requirement set out in the Address Management Schedule and where within this Address Quality Plan the compliance can be found.

Reference	Requirement	Where set out in this Address Quality Plan
The plans developed by the Switching Operator in accordance with Paragraphs 2.6 [*of the Address Management Schedule*] shall include but not be limited to, the following aspects:		
2.7a	the activities that will be undertaken by the CSS Provider together with timelines for completion, relevant targets and other success factors and any identified risks and their mitigations;	4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 7, 8, 9 11
2.7b	details of any activities that will be required of other REC Parties to support the address quality activity undertaken by the CSS Provider, together with timelines for completion, relevant targets and other success factors and any identified risks and their mitigations;	4.2, 4.4, 4.7, 4.10, 4.11, 5
2.7c	details of how progress against the activities as well as interim targets will be monitored and reported;	4, 5
2.7d	details of any other risks and issues or any other constraints that may impact the successful delivery of the plan.	10

Table 2 - Statement of Compliance

9. High Level Plan

Figure 6 shows an illustration of the key activities that will be undertaken during the period of validity of this plan. With each proposed cycle the CSS Provider and Switching Operator will be preparing reports and undertaking analysis of the data within CSS. Note that each proposed cycle will begin at a different point for each relevant SDP due to available of meeting slots with the Switching Operator. The progress reports should still be prepared by month end. The Switching Operator will review the cadence of these meetings to ensure efficiency across the plan duration. This cadence is supported by the source data providers.

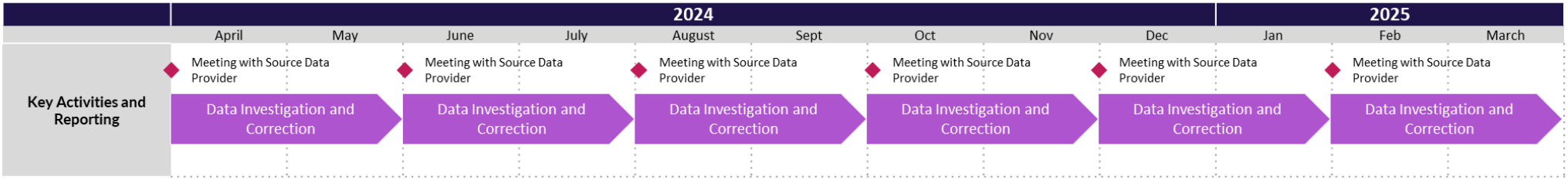

Figure 6 - High Level Plan

10. RAID which May Impact the Successful Delivery of the Plan

10.1. Risks

As part of its obligations, the Switching Operator should identify any risks it sees with the successful delivery of the plan. Some of those risks may be associated with parties other than the Switching Operator or its sub-contractors. Table 3 below shows the risks that DCC has identified in the preparation of this plan.

ID	Risk Title	Risk Description	Impact	Mitigation
R01	REC Parties' Resources	There is a risk that REC Parties may be unable to provide sufficient resource to support the REC Obligations it has in respect of Address Management.	This would impact the rate at which the reliability of Switching will be improved.	Monitor progress against agreed activity.
R02	Volume of source data issues exceeds capacity to investigate and correct	There is a risk that some REC Parties may have significantly more erroneous or ambiguous data to investigate and correct than other REC Parties and that this exceeds the capacity of that party.	REC Parties would need to consider whether to dedicate more resources to support the investigation and correction of source data address issues.	Monitor progress against agreed activity.
R03	Common Service Providers for REC Parties may not be sufficiently resourced	There is a risk that where REC Parties have relied on a small set of core service providers that those service providers may be insufficiently	This might mean that different REC Parties make improvements at different rates due to the focus of the third party.	Organisations engaging common service providers to consider impact of other customers on those organisations ability to respond and agree appropriate.

ID	Risk Title	Risk Description	Impact	Mitigation
		resourced to meet the demands of their customers i.e., the REC Parties.	This would impact the rate at which the reliability of Switching will be improved as there may be a bottle neck.	mitigating actions which may be organisation specific.
R04	Investigation may be required by multiple REC Parties simultaneous	There is a risk that owing to the nature of the issue, no single organisation can be identified to undertake the analysis and correction activities alone and may require duplicate effort across multiple parties to achieve a resolution of certain issues.	This would result in less progress to correct data issues being made and this would impact the rate at which the reliability of Switching will be improved.	Seek to identify lead organisation for investigations as best as possible. Cooperation between parties to ensure appropriate action is taken to investigate issues.
R05	Supplier Support to DNOs	There is a risk that Suppliers do not respond to requests for support from DNOs in accordance with paragraph 4 of the REC.	This could impact the rate at which the reliability of Switching will be improved.	Monitor effectiveness of requests to Suppliers and escalate if not fulfilling relevant obligation.
R06	Poor Address Quality for New Registerable Meter Points (RMP)	There is a risk that parties may apply appropriate standards for the creation of new addresses.	If MPL Addresses are not matchable to OS ABP, this would reduce the match rate and require follow up investigation and correction activity.	REC Parties who create new addresses will need to continually monitor the quality of new RMP addresses. Possibility to consider reporting on quality of new address records and how that differs from the quality of established address data.

ID	Risk Title	Risk Description	Impact	Mitigation
R07	Compliance with General Data Protection Regulations (GDPR)	There is a risk that GDPR may limit the information that can be shared across parties.	This may inhibit REC Parties' ability to analyse and correct data.	Educate staff on what is deemed within the switching eco-system as personal data (i.e., Address Data and meter point identifiers (Meter Point Administration Number and Meter Point Reference Number). Stress importance of not including customer name information within address data. Consider updating the Data Protection Impact Assessment where relevant. All parties are responsible for their own GDPR compliance. Guidance can be found on the REC Portal relating to data protection.
R08	Older versions of OS ABP in use across the industry	There is a risk that REC Parties may be trying to associate addresses with older versions of OS ABP than that used by CSS	This will mean that REC Parties will be unable to identify the latest available data as stored within OS ABP. CSS will however be on the latest version of OS ABP Data.	Parties wishing to check data against OS ABP in advance of creating data to update systems with latest version of OS data.
R09	Risk of Duplication of Effort	There is a risk that different parties may review the same addresses simultaneously as a direct result of being in possession of the Potential MPL Address Issue Report.	This could result in a duplication of effort across parties (ie SDPs and Suppliers)	Prioritise activities of the SDPs to review MPL Address data accuracy in the first instance allowing the SDPs to request support from the Suppliers as appropriate to avoid duplication of effort.

ID	Risk Title	Risk Description	Impact	Mitigation
R10	Risk of Misalignment between SDP Systems and CSS	There is a risk that where an Energy Supplier seeks a Manually Entered REL Address update misalignments may occur between CSS and the SDP systems.	The MPL Address in the SDP systems could be significantly different to that held within CSS. Note this risk exists under the current rules within the REC and it has not been introduced by this plan.	Prioritise activities of the SDPs to review MPL Address data accuracy in the first instance allowing the SDPs to request support from the Suppliers as appropriate. SDPs to review updates to REL Addresses that have occurred and carry out alignment activity to bring their systems up to date if relevant.

Table 3 - Risks

10.2. Issues

ID	Issue Title	Issue Description	Impact
I01	Potential Crossed Addresses	The Switching Operator has identified 700k+ meters where the address differs between fuel types for the same customer.	It is important to note that this issue already exists within source data and the advantage of CSS is that it can be looked at in one single place. While it is not possible to quantify in detail the exact impact of every potential crossed address are: • Effort will be required by REC Parties to investigate potential crossed addresses and correct the address where appropriate. • Suppliers may end up paying out guaranteed standards of performance payments. For the end consumer: • Issues may experience issues during the switching process where an incorrect meter became the subject of a switch. • Customers who had not expected to carry out a switch activity may have their meters switched (with all correspondence going to the customer undertaking the switching as that customer expects) with that customer being totally unaware their meter has been switched. • Issues may be experienced when attempting to switch meters through price comparison websites or energy Suppliers websites.

Table 4 - Issues

10.3. Assumptions

ID	Assumption Description
A01	It is assumed that SDPs may require additional information from Suppliers to support the investigation and correction of some data issues.

A02	REC Parties shall support DCC in attending regular meetings and performing investigation and correction activities.
A03	It assumed that the DCC will need to coordinate the investigation and correction activities of REC Parties as part of its Address Data Stewardship role.
A04	It is assumed that REC Parties will be able to support the execution of this plan in accordance with their respective REC Obligations.
A05	It is assumed that SDPs will manage any downstream activities to support their own investigations into the accuracy of the MPL Address data subject to any necessary regulatory code modifications being implemented where appropriate.
A06	It is assumed that REC Parties will be mobilised following year 1 activities, to commence the operation of this plan in April 2023.

Table 5 - Assumptions

10.4. Dependencies

ID	Dependency Description
D01	For the Switching Operator to support regular reporting that may be required, there is a dependency on REC Parties to report progress of their investigation and correction activities to the Switching Operator.

Table 6 - Dependencies

11. Appendix 1 – Matching Process Conducted by the Switching Operator

11.1. Overview

The CSS Provider undertakes a series of attempts to match any addresses that are sent to it over the interfaces to CSS. A high-level view of that process is shown in Figure 7.

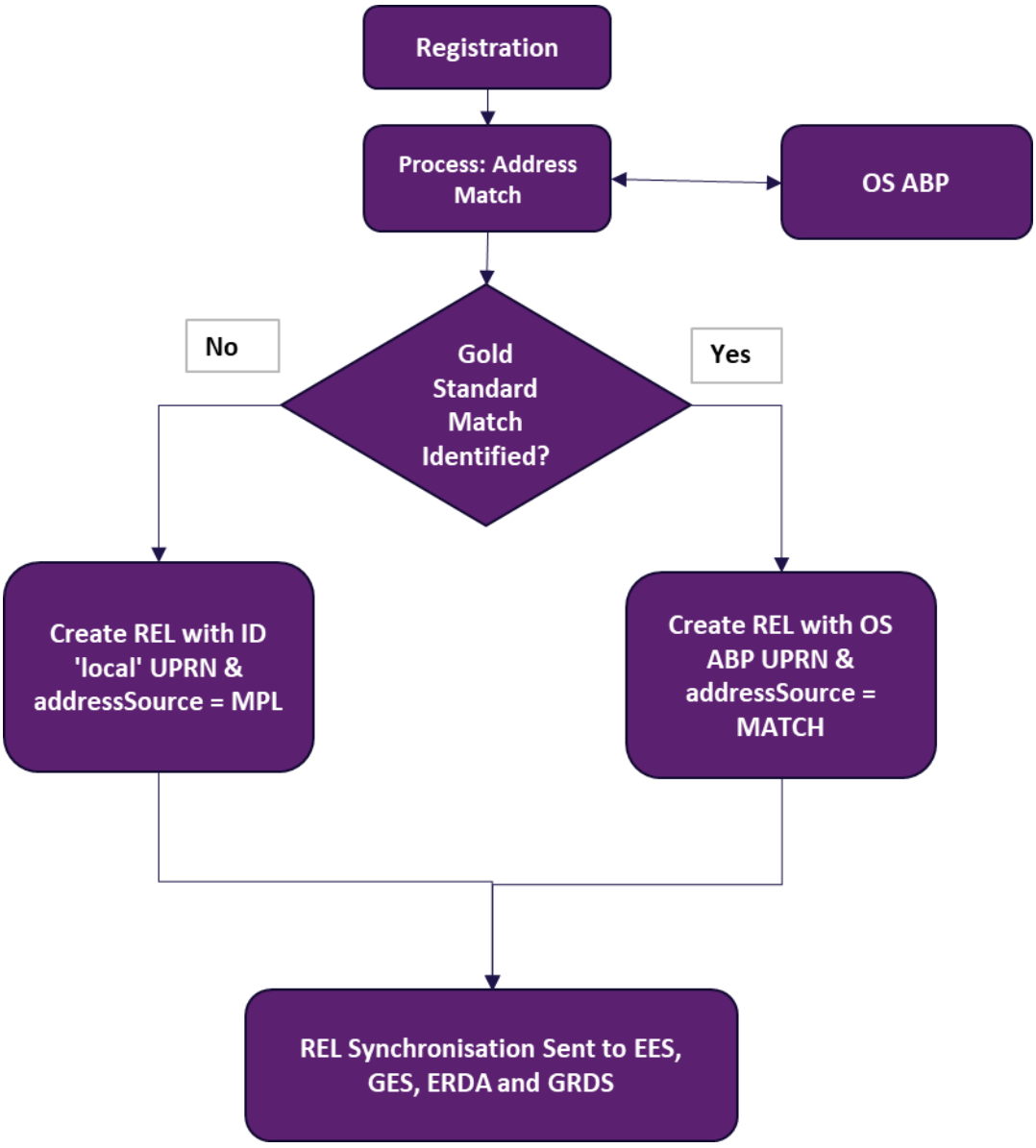

Figure 7 - High Level Matching Process

Figure 7shows the following steps:

1. The CSS Provider receives details of an Active Registration for an RMP. The RMP is supplied with an MPL Address.

2. The CSS Provider then undertakes 18 match attempts using different elements of the address provided. In this step, the CSS Provider uses proprietary, complex logic to attempt to match various combinations of the address fields to the respective fields in

OS ABP. Different combinations of address fields and the application of 'Weightings' and 'Match Multipliers' are used to determine the maximum score an address field can contribute towards the overall confidence score. This matching process has been developed over many years with different utilities. The detailed weighting and information about each attempt is not described within this document but is illustrated below.

3. The CSS Provider then calculates the Confidence Score (CS) for each match attempt. This represents the degree of correlation between the MPL Address fields that are matched to OS ABP 'Candidate' Address(es).

4. A source address is only accepted as 'matched' by the CSS Provider, where certain criteria are met. These criteria were agreed with Ofgem during the Design, Build and Test phases of the Switching Programme and are commonly referred to in programme literature as the 'Gold Standard'.

5. This 'Gold Standard' is defined as an address which meets the following criteria:

   - The calculated Confidence Score for the address match must be greater than or equal to 90 (out of a possible 100); AND
   - it is the ONLY candidate address AND
   - it 'stands clear' of other addresses with a confidence score close to the threshold.

     OR

   - Confidence Score => 90 (out of a possible 100) AND
   - The address has been manually assured to be the correct property where one or more candidate addresses exist.

     OR

   - Where manual address matching has determined an appropriate match against the BS7666 address database.

6. If the 'Gold Standard' criteria for matching an address are met by the CSS Provider, the REL Address is created using the OS Unique Property Reference Number (UPRN) as the REL ID and indicating that the source of the address "addressSource" is set to "Match".

7. If the 'Gold Standard' is not met, a local value is assigned as the REL ID and the addressSource is assigned a value of "MPL". The address fields within the REL Address are then populated with the address fields from the MPL Address.

8. Once the matching process has concluded and the REL Address has been created, messages are sent to the enquiry services and respective source data providers to allow synchronisation of data with that held within CSS.

The execution of this process i.e. matching to a 'Gold Standard' will, according to the Ofgem Business Case, bring about benefits for the end consumer by reducing the volume of failed, delayed, abandoned and erroneous transfers.

11.2. Further Details on the Address Matching Algorithm

The CSS Provider uses a proprietary solution to carry out the detailed matching activities with OS ABP data. The process uses 18 attempts (or passes) to try to match different combinations of address field elements from the source MPL Addresses to the address held within OS ABP.

A direct mapping of the ABP Address Fields to the MPL Address Fields is shown in Table 7 below:

ABP Address Field	MPL Address Field
secondaryName	deliveryPointAlias;subBuildingNameOrNumber
primaryName	buildingName;buildingNumber
street1	thoroughfare
street2	dependantThoroughfare
locality1	dependantLocality
locality2	doubleDependantLocality
Town	postTown
postcode	postcode

Table 7 - ABP to MPL Address Field Mapping

Address data is passed to and from CSS using the format of messages described within the CSS Interface Specification and information is exchanged with non-CSS systems using JavaScript Object Notation (JSON Format messages).

When the CSS Provider attempts to match data to OS ABP, it will use different combinations of address fields shown above in an iterative manner. This helps ensure that spurious data provided in any one field does not always prevent a match to OS Data being achieved.

11.3. Information Relating to the Confidence Score of a REL Address

As part of that iterative matching process each address field is assigned a weighting and when certain combinations of address fields are used in the attempt to match, the weighting helps determine the Confidence Score or Quality Indicator for that address match. It is important to note, the Confidence Score or Quality Indicator represents the correlation between the address data provided, as part of the MPL Address, and the address found in OS ABP. When users of the enquiry services enter a search criteria for an address, the Confidence Score returned by that search is the Confidence Score as stored within CSS and not the degree of correlation between the search string used to make an enquiry on the enquiry services.

An illustration of how a confidence score may be made up is shown in Table 8 (weightings are illustrative and the exact weightings, as used in CSS, are not provided).

Address Field Name	Illustrative Maximum Contribution to Confidence Score by Address Field
Sub Building Name or Number	**5**
Building Name	**5**

Table 8 - Illustrative Confidence Score Weighting

Building Number	**19.5**
Thoroughfare	**15**
Dependent Locality	**5**
Post Town	**10**
County	**0.5**
Postcode	**40**
Total	**100**

Table 8 shows that if all address fields were relevant to the attempt (pass), the maximum contribution made to the confidence score by, say the Postcode, would be 40 and this would only be achieved where the post code supplied matched exactly OS APB. If there was nothing in common between the Post Code supplied and the candidate address within OS ABP, i.e. no correlation whatsoever, then the contribution to the Confidence Score of the postcode would be zero.

12. Appendix 2 – Data Format for Unmatched REL Report

The purpose of providing unmatched data to each SDP is to allow these SDPs to focus their address cleansing activities where it is likely to have the greatest impact on the end consumer in respect to their ability to switch energy Suppliers. As stated in the Ofgem Business case, an improvement in the quality of addresses should lead to improved outcomes for those consumers involved in the switching process. Appendix 2 sets out the information provided to SDPs on a monthly basis which includes a list of Meter Point Locations where a centrally achieved match to OS ABP data has not proved possible. The information provided within this report (where available) is shown in Table 9.

MPID	SDP Market Participant User ID
MPxN	Either the Meter Point Administration Number or the Meter Point Reference Number for a meter as applicable to the fuel type of that meter.
UPRN	Unique Property Reference Number (or a local UPRN assigned to this address if it is not matched).
Confidence Score	Represents the degree of correlation between the original source address and the most appropriate candidate address found within OS ABP. It is provided to allow categorisation of addresses into different confidence score bands which may help with the prioritisation of work relating to address investigation and correction.
Address Source	Will be MPL indicating that the address has not been matched and the REL address has been formed from the MPL Address.
REL Address attributes as stored within CSS are: MatchSource, PrimaryName, SecondaryName, Street1, Street2, Locality1 Locality2, Town, Postcode, Organisation, AddressType, LogicalStatus, Language, Latitude, Longitude, Classification.	

Table 9 - Unmatched REL Report Format

To enable the delivery against REC obligations, data within this report will represent the current status of address data within CSS on the date the report is produced.

Where SDPs use this report to focus their attention on cleansing MPL Addresses where it has not been possible to match to OS ABP, the work will need to be managed to avoid the SDP checking data already provided on previous months' reports. The Switching Operator is not attempting to prescribe how each party carries out that work, as it recognises that each party's processes for data cleansing may differ.

13. Appendix 3 – Additional Information to be Provided on Unmatched REL Addresses

To help bring about the realisation of the benefits articulated in the Ofgem Business Case, to improve the overall number of addresses matched to OS ABP, and in addition to the monthly Unmatched REL Report, there is the intention that during the year, an additional report will be developed which provides characteristics of addresses which cannot be automatically matched to OS ABP by the CSS Provider for each unmatched address. This is expected to aid investigations carried out by Parties on unmatched addresses and improves the efficiency at which records with similar issues can be identified and the issues resolved by following a consistent resolution process. The result would then be a reduction in poor switching experiences for end consumers where an attempt is made to switch one of the addresses on the list of unmatched addresses.

Table 10 shows the data contained in the report, together with the MPL Address, where applicable to each unmatched address:

Characteristic of Address Supplied by SDP	Meaning	Value in the Report
Invalid Postcode	An invalid Post Code has been supplied.	In all cases the field will contain a value of 1 if the condition applies and otherwise a zero.
Invalid Post Town	An invalid Postal Town has been supplied.	
Invalid Street	An invalid Street has been provided.	
ONLY BuildingName	Building Name is supplied but little additional information to identify the location of the property.	
ONLY BuildingNumber	Building Number is supplied but little additional information to identify the location of the property.	
ONLY DPA	Delivery Point Alias is supplied but little additional information to identify the location of the property.	
Only SubBuildingNameOrNumber	Sub Building Name is supplied but little additional information to identify the location of the property.	
NO Building info	There is no building information provided to identify the property.	
NOT Add BuildingName	There is data within the Building Name field which does not represent addressable data and *may* be the cause of the inability to match the address to OS ABP.	

NOT Add DPA	There is data within the Building Name field which does not represent addressable data.	
Invalid Add info in Building fields	There is invalid data in the building fields which does not constitute part of an address.	
Duplicate Add Info across fields	The same address data is incorrectly contained in multiple address fields.	
NULL DPA	DPA field is empty.	
NULL SubBuildingNameorNumber	Sub-building fields are empty but *may* be necessary to achieve an OS ABP Match.	
Stop word	The address contains a keyword which suggests the location may be out of scope for inclusion within OS ABP.	

Table 10 - Additional Information for Unmatched REL Addresses

Note: an individual, unmatched address record may have more than one of the above issues or characteristics associated with it.

It may also be the case, that certain combinations of address fields are invalid, for example, where the thoroughfare does not exist within the postcode provided.

14. Appendix 4 –Potential MPL Address Issue Report

The Potential MPL Address Issue Report identifies meters which are connected to the same communications hub whose addresses have been matched to different OS ABP addresses, based on the matching process or where a Manually Entered Address results in a difference.

The CSS Provider and the Switching Operator will tailor this report to the relevant audience to ensure parties see information pertinent to the address investigation being undertaken by that party. REC Parties will see the data related to the REL Address they are responsible for or where they are responsible for an MPL Address, the addresses where there is a potential mismatch.

Information within the report sent to REC parties will provide the information below for which they have a degree of responsibility and where a different address exists for any of the other meters connected to the same CH. It should be noted that data items within this report are the responsibility of different organisation to master and maintain.

Information within the report sent to Suppliers will detail Communications Hubs which include a meter(s) for which the Supplier is responsible and where at least one meter has a REL Address inconsistent with the others linked through the same Communications Hub.

The purpose of this report is to allow investigations into potential MPL Address issues with the report being prepared on the basis that the Switching Operator has already identified a potential impact to an end consumer's switching activity. This is an existing issue within the industry and its identification has only made been possible through the amalgamation of the addresses associated with different fuels across the energy industry. Investing and correcting these known anomalies will help reduce the occurrence of potential MPL Address issues wherever they exist and the transmission of the updated data to CSS will improve Switch Outcomes for consumers should they wish to switch in future.

It is important to note that SDPs should prioritise the investigations into unmatched data above any queries relating to the information within this report. This report may however provide useful information to SDPs in trying to resolve existing unmatched data.

The data items contained within the report are shown in Table 11.

Data Item	Description
CH Link ID	The identification number assigned to the Communications Hub which uniquely defines it.
MPxN1	MPRN (Gas) or MPAN (electricity).
Fuel Type (of MPxN1)	G (Gas) or E (Electricity).
REL Address (concatenated)	The Retail Energy Location Address assigned to the meter within CSS. This will either be a matched address from OS ABP, the MPL if a match is yet to be made or a Manually Entered address where one has been provided.
MPL Address (concatenated)	The Meter Point Location Address provided at source (i.e., upon registration of the meter)
UPRN	The Unique Property Reference Number is a 12 digit number, assigned by Ordnance Survey, which uniquely identifies a premises.

MPID (SDP)	The Market Participant Identifier of the Source Data Supplier is a unique identifier indicating the source of the address data received.
MPID (Supplier)	The Market Participant Identifier of the Supplier is a unique identifier indicating the Supplier of gas or electricity to the meter.
Confidence Score	A measure of the correlation between the MPL and either the matched OS ABP Address or the best available candidate match if unmatched (i.e. where the 'Gold Standard' has not been met).
Date Record Last Updated	The date on which any field within the REL Address record was last updated.
REL Address (by address field)	The REL Address with a column for each address field, irrespective of whether or not it is populated.
MPL Address (by address field)	The MPL Address with a column for each address field, irrespective of whether or not it is populated.

Table 11 - Communications Hub Report Format

15. Appendix 5 – Determining Which REC Party to Assist the Switching Operator in Its Address Investigations

Of the 58.2 million addresses received, approximately 55.6 million of them have been matched by the CSS Provider and require no further action at this time by REC Parties.

As part of its investigation activities, the CSS Provider and the Switching Operator will also undertake a regular review of REL Addresses to determine if and where they can be improved. Where additional information is required to improve an address which the Switching Operator or CSS Provider does not hold, then support will be sought from REC Parties as explained within this plan.

The Switching Operator intends to adopt the principle of seeking information from the "data masters" of the information being queried. In respect of queries relating to MPL Addresses, the initial organisation to be contacted to assist in the investigation will be the SDPs, as they are the organisations with responsibility under the Address Management Schedule for ensuring the accuracy of the MPL Address data. Where information relates to the veracity of Smart Metering data, then the Switching Operator will first look to verify this data with the Smart Metering Infrastructure Provider prior to contacting other REC parties.

From a gas perspective, all queries relating to the gas industry will be forwarded to Xoserve as it is the organisation carrying out this work on behalf of Gas Transporters.

In respect of CH data, the following process will be applied:

a) If the Gas address and Electricity address are matched to the same UPRN then no investigation is necessary

b) If it is clear to the DNO, the Gas address does not sit within the DNO area, then it should be rejected by that DNO and subject to further investigation by the gas industry. It should be noted, CSS does not contain information relating to the geographical boundaries of each DNO region.

c) For any pairs of addresses where one address record is unmatched, that record will be dealt with as part of the unmatched address set investigated by the relevant SDP and will not be further investigated as part of the CH investigations.

Energy Suppliers will also be provided with information and need to participate in areas of investigation that include potential crossed addresses.

16. Appendix 6 –Additional Reporting Provided by the CSS Provider

DCC will provide additional reports, detailing unmatched records by category, where categories currently identified include:

- MPL Addresses with malformed, invalid or null postcodes
- MPL Addresses related to Landlord Supplies, Flats (including Scottish flats), ambiguous data and addresses covering multiple properties (e.g. 5-11 Acacia Avenue)
- Records which include potential alignment and sequencing issues or ambiguous or incomplete address fields.

In addition, DCC will provide regular updates to the Supplier Operations Forum and the REC Performance Assurance Board on the volume of matched addresses and unmatched addresses held in CSS.