# ofgem

#### **DLS PRODUCT**

Title of Product/Paper	<i>Data Improvement - Address Database Remedy 1</i>				
PBS Reference	D-6.1 Date: 12-Feb-2018				
Version	1.0				

#### CONTENT

#### **1. Product Summary**

This product sets out the criteria for the procurement of an address data source which will be utilised with the CSS to derive an improved Retail Energy Location address data item for registered gas and electricity meter points. It also sets out the criteria for the data cleansing and migration mechanism which will improve address data prior to the launch of the CSS and as an ongoing steady state service.

### 2. Essential Background

Data quality is a significant cause of failed and delayed switches. Almost all switches are instigated using address data as a proxy to identify the correct meter point number(s) at the property to be switched for the consumer requesting a switch.

Our Blueprint Phase stakeholder engagement identified that roughly 80% of delayed or abandoned switches are due to issues with address data quality.

In order to improve industry data quality, we have proposed other data improvement remedies in order to reduce the number of outdated plot addresses and improve the quality of Meter Technical Details (MTDs). These remedies will not impact the development of the CSS and are therefore being progressed independently as near term improvements. We will work together with industry to take forward these data improvements before the implementation of the CSS.

Our key proposed remedy for improving address data quality is to introduce a requirement to procure a comprehensive external Address Service which can be utilised to derive a single, 'best match' Retail Energy Location address data set within the Central Switching Service (CSS). The aim of the proposal is to establish an enduring, high-quality source of address data within the CSS, enabling users to quickly identify the correct meter point numbers for a premises served by gas and electricity as appropriate from an address provided by the

customer. The database will form a link between gas and electricity meter points and reduce delays and failed switches caused by poor quality address data.

This will require a provider (assumed to be DCC) to procure the Address Service and for the Address Service Provider to undertake an initial cleanse and migration of industry held Meter Point Location address data with the aim of ensuring that the CSS contains a comprehensive database with a high-quality Retail Energy Location addresses identified for all premises served by gas and electricity, linked to the related Registered Meter Point (RMP) (where appropriate). The Address Service provider will then be responsible for ensuring that the Retail Energy Location address data remains accurate and up to date.

This Address Service and CSS data cleanse and migration mechanism will improve the quality of address data used in switching gas and electricity meter points, reducing the number of incomplete or erroneous Switch Requests when used to identify the RMPs to be switched for a particular consumer.

At present the quality of address data used in industry data sets currently required for switching is uneven as it is not necessarily designed and optimised for switching purposes, and existing industry codes governance arrangements do not provide the appropriate incentives for individuals or groups of industry participants to improve the quality of industry address data. This existing address data will still exist and may be used for other purposes, but the new 'best match' Retail Energy Location address data created and mastered within CSS will be the master data used for switching of RMPs. Without intervention and coordination by a central party with appropriate obligations and incentives, any changes made to address data are unlikely to be enduring.

#### Consultation and impact assessment

In our Impact Assessment published in September 2017, we estimate that 105,000 Switch Requests are delayed each year (based on analysis of industry data for 2016).<sup>1</sup> Our analysis suggests that a significant portion of these are caused by the need to verify data or gather further information regarding a consumer's address, meter point or meter type. In addition to the delayed Switch Request, this can create an additional burden for the customer who may be contacted to verify their address or meter point location. This does not include switches that may have been abandoned before they were even recorded, for example because consumers cannot find their correct address on a price comparison website (PCW).

Linking gas and electricity meter points to the same, single Retail Energy Location address, and improving the quality of this data would significantly reduce the number of Switch Requests that result in an erroneous switch or delay or fail. It may also reduce the number of consumers who do not switch because they are unable to correctly identify their address, for example via a PCW.

<sup>&</sup>lt;sup>1</sup> "Delivering Faster and More Reliable Switching: proposed new switching arrangements: Impact Assessment" at

https://www.ofgem.gov.uk/system/files/docs/2017/09/delivering\_faster\_and\_more\_reliable \_switching\_impact\_assessment.pdf

#### Related products

This document references the following DLS Phase products:

- D-4.1.2 (E2E Detailed design model)
- D-4.1.5 (E2E Solution architecture)
- D-4.3.1 (E2E Design and Build plan)
- D-4.3.2 (E2E Integration plan)
- D-4.3.3 (E2E Testing plan)
- D-4.3.4 (E2E Transition plan)
- D-4.3.6 (E2E Data migration plan)
- D-8.2 (Governance approach)

The document will provide input to the following products:

- Design specifications, planning and procurement of the Premises Address Served data source;
- D-7.1 Procurement Plan (and Procurement Packs);
- CSS Data Migration Plan (and Solution);
- CSS Delivery Plan(s);
- CSS Functional Specifications; and
- CSS Technical Specifications.

#### 3. Product Summary

#### Procurement and maintenance of a high-quality premises address data source

Procurement of a source of high-quality address data is a key pillar of how the Switching Programme will improve reliability. Procured address data together with data cleansing and migration mechanisms will form an integral part of the implementation of the CSS.

A CSS and SI Procurer will have responsibility for procuring the Address Service, a key component of which will be an external source of address data. This Address Service is expected to be procured in time for the commencement of the DBT phase. In the multi-stage approach to transition as outlined in the E2E Transition Plan, the Address Service will be incorporated into the first stage of transition. For this reason the address data source procurement and testing timescales will need to reflect this.

#### Suggested minimum criteria for address data procurement

The CSS and SI Procurer will run a procurement exercise, expected to be during the Enactment phase, to ensure that the Address Service which is procured best meets the requirements of the Switching Programme as reflected in the E2E and CSS Design specifications, CSS Data Migration Plan and CSS Delivery Plans developed in DLS. Suggested procurement criteria are outlined below.

**Compliance with relevant requirements**. Relevant requirements will be defined in the E2E Design, E2E Transition and E2E Data Migration plans, CSS Design Specifications, CSS

Delivery Plan(s) and CSS Data Migration Plan produced during DLS and will be extracted to produce the premises address data source requirements specification for procurement.

**Compatibility with wider solution architecture design and Architectural Design Principles.** The chosen data source should be able to operate effectively within the wider CSS and E2E architecture to provide data updates in the manner described in the E2E Solution Architecture, and CSS Detailed Design.

**Consistent with British and international address data standards.** The data source should provide address data in a standard format consistent with relevant British Standards and International standards, including BS 7666 and IS 19112 on address data formatting. The data should allow ease of comparison with other address data currently used within industry enabling data migration and cleansing. It should also facilitate data transformation (matching) into the prescribed data format for the Retail Energy Location address data (that should also correspond with relevant British and International standards).

**Granularity.** The address data source should have sufficient granularity to identify Basic Land and Property Units (BLPUs), as defined by BS 7666-2:2006. BLPUs should be identified using an identifier such as UPRN which allows the tracking of a property through its lifecycle.

A comprehensive listing of GB premises addresses. The data source should provide data on all addressable locations (premises) in Great Britain, with a level of detail consistent with British and international standards as outlined above. Where locations have no postal address but a signifier of location (for example a Unique Property Reference Number (UPRN)) this should also be included in the data wherever possible. The data source should be frequently and regularly updated with new addresses, and where necessary should contain transitional addresses (for example plot addresses for new-build properties). The data source should allow the Address Service provider to easily update Retail Energy Location addresses on a periodic basis, and to trace historic addresses for the same location (for example where a plot address has been replaced by a full postal address).

**Required levels of access for all market participants.** The Address Service provider will hold the primary licence for the procured premises address data source. However, the licensing arrangements will need to offer the required levels of access (including read-only access) to other parties. These will include:

- *Ownership.* The central contract for the externally sourced address data utilised within the CSS will be held by the Address Service provider.
- *Full access.* The premises data source will be accessible through ECOES and DES information systems (or in a MIS which is developed to replace these systems). Owners of these central data services will need full access to the address data source to enable them hold replicated address data in their systems.
- *Read-only access.* Addresses from the address data source will be replicated in the CSS as the Retail Energy Location, which will be subsequently copied to the ECOES and DES service. The licence will therefore need to allow this replication of data and be accessible to all parties using the data in that source (which will include suppliers, TPIs and other parties).

**Durability.** The procured address data source will need to be maintained and remain accurate for a considerable period. The Address Service provider must therefore be confident that their product or service will be available at a reasonable price for the foreseeable future. The data source will be regularly updated to maintain accuracy.

**Timeliness.** The provider of the address data source should be able to provide the product in time for commencement of the DBT phase and in line with the overall DBT and Transition Plan timescales.

**Value for Money.** The address data source will need to deliver the best possible value for money for bill payers, subject to meeting the criteria as outlined above, both in terms of initial procurement and ongoing maintenance of the data. This should be considered alongside the requirements for stakeholder access as identified above.

#### <u>System change</u>

The End-to-End Solution Architecture product contains a detailed exposition of how the external Premises Address data source will be integrated into the CSS design (including a clear definition of the logical architecture required), and the business processes that will be developed to implement this change.<sup>2</sup>

#### Data cleansing, migration and matching mechanism

#### Process for the data cleanse, migration and data matching activity

The Address Service provider will be responsible for ensuring that address data is cleansed, migrated and transformed (through matching) to create the new Retail Energy Location address data to be included in the CSS at go-live and maintained thereafter. Successful procurement of an address data source is a prerequisite for cleansing, migration and transformation of address data.

Following creation of the CSS, UK Link and MPRS will continue to hold 'Meter Point Location Data', which will be mastered within UK Link and MPRS and reproduced in the CSS. However, the Retail Energy Location data item will be mastered within the CSS (and ultimately reproduced within ECOES and DES) will form the primary key for premises address data in both gas and electricity markets. This data item will link to both MPAN and MPRN within the CSS, forming a link between gas and electricity meter points, and will be the primary data item used by customers, PCWs, TPIs and suppliers in identifying meter points during a switch.

Data cleansing, migration and transformation activity will therefore have two distinct phases; an initial phase of activity to create the Retail Energy Location data set and match MPANs and MPRNs to high-quality premises data, and an enduring phase, to be undertaken as a businessas-usual activity, to maintain and improve the quality of this data set and to periodically update it with new meter point data.

Initial data cleansing, migration and transformation

<sup>&</sup>lt;sup>2</sup> These will be captured by Business Processes 1.1 and 2.6.

The outcomes that we expect to see from the *initial* cleansing, migration and transformation exercise are:

- Cleansing (as necessary) of Meter Point Location data held and mastered in MPRS and UK Link systems (undertaken by owners of those systems);
- Matching of cleansed Meter Point Location data in electricity and gas is matched to a single Retail Energy Location for each premises served by either or both services in Great Britain, forming a reliable and permanent link between electricity and gas meter points co-located at the same premises.

The outcomes above will be delivered by cleansing, migration and transformation activities performed by:

- the Address Service provider itself;
- a party working on behalf of the Address Service provider; or
- UK Link and MPRS providers, under contract or through a regulatory agreement with the Address Service provider.<sup>3</sup>

Stakeholder engagement in our Blueprint Phase identified that data cleansing is likely to require algorithmic (or machine) and also manual (where address data is verified by manual methods either remotely or through physical address verification) processes. Manual and algorithmic cleansing, migration and transformation activities may be provided by the same or separate providers. If different activities are procured separately the Address Service provider will need to ensure that services are complementary in timing and scope. In Appendix 1 we outline a possible approach to the initial data cleanse, based on stakeholder feedback from our Blueprint Phase work. However, prospective Address Service providers may hold the view that they are able to meet the objectives set out in this paper using other means.

#### Enduring requirements for data cleansing, migration and transformation

Following the initial data cleanse and data migration/transformation (matching) exercise, each RMP will be aligned with a Retail Energy Location address within the CSS or be identified as requiring a match in the future. The Retail Energy Location data held within the CSS, linked to the RMP, will be mastered in the CSS and stewarded by the CSS provider. Creation of new meter point locations, and changes to addresses of existing meter point locations, will be the responsibility of GTs and DNOs and will continue to be mastered in UK Link and MRPS systems.

This Retail Energy Location address data will be replicated within ECOES and DES, from where it will be accessible to third parties such as suppliers, PCWs and TPIs.

The Address Service provider will have an ongoing responsibility to maintain this Retail Energy Location address data and improve the quality of address data wherever possible (measured by the proportion of known meter points which are matched to a high-quality address in the REL database). This will require ongoing service provision as part of the steady state service management and operation of the central services.

<sup>&</sup>lt;sup>3</sup> The party undertaking cleansing, migration and transformation activities will depend on the preferred procured solution.

We expect that the Address Service provider itself or a party working on behalf of the Address Service Provider will identify and perform appropriate activity to maintain the Retail Energy Location database. This requirement will be expressed within the relevant licence. Ongoing maintenance activity undertaken by the Address Service provider might include:

- Updating and improving the Retail Energy Location within the CSS using cyclically provided updates from the address data provider. This will include revising Retail Energy Locations when new data becomes available (for example, when a new plot receives a postal address from a local authority, or a street is renamed);
- Receiving data on new Meter Point Location data from GTs and DNOs and matching these connections to a Retail Energy Location, or linking them to an existing MPAN or MPRN. DNOs and GTs will be required to report new meter point numbers and associated meter point addresses to the CSS Provider upon registration.
- Using auxiliary sources of data (for instance supplier-provided address data,<sup>4</sup> data from communication hubs, or open source geographical data such Google Maps) which can be used to improve Retail Energy Location data wherever necessary and desirable;
- Reviewing the quality of data held within the Retail Energy Location database, identifying and resolving persistent areas of data weakness, including:
  - A regular review of meter points without premises addresses to ensure that all meter points relating to sites with postal addresses are linked wherever possible;
  - A review to ensure that all postal addresses are up to date (for example plot addresses are promptly replaced by postal addresses); and
- Providing regular updates of Retail Energy Location data to ECOES and DES.

In order to maintain the Retail Energy Location data at an appropriate quality in an enduring state, the Address Service Provider may need to make provision for both manual and algorithmic cleansing, migration and transformation activity.

#### <u>Procurement criteria for selecting address data cleansing, migration and transformation</u> <u>provider(s)</u>

In addition to achievement of the outcomes set out above, we expect that parties tendering for the address data cleansing, migration and transformation activity should be able to demonstrate adherence to the following criteria:

**Compliance with relevant requirements**. Relevant requirements will be defined in the E2E Design, E2E Transition and E2E Data Migration plans, CSS Design Specifications, CSS Delivery Plan(s) and CSS Data Migration Plan produced during DLS and will be extracted to produce the requirements specification for procurement in one or more lots for this service.

**Comprehensiveness.** Provider(s) of data cleanse and migration/transformation activities should be able to achieve a target level for the proportion of RMPs which are reconciled to high quality GB premises addresses. Our Blueprint Phase stakeholder engagement suggests that this should be within 80-85% for an algorithmic cleanse and between 95% and 99% in total for algorithmic and manual cleansing. When the initial exercise is in progress, the

<sup>&</sup>lt;sup>4</sup> This might include information provided to suppliers by customers, which would then be alerted to the CSS through an issue management process.

provider(s) should be able to demonstrate their progress against these targets to programme assurance function and the Core and CSS integration function. Prospective provider(s) should estimate the likely extent of coverage of their cleansing, migration and transformation mechanisms. If providers do not feel that they can achieve these targets, they should explain why in their submissions.

**Accuracy.** The provider(s) must be able to assess the level of confidence with which they are able to match RMPs to high-quality premises addresses. Where the provider is certain of an accurate match, they should indicate that this is the case. For meter points where this is not possible, the provider should be able to indicate the level of confidence in the match. Providers should be able to provide quantitative updates on the number of meter points where a high-quality address match is achieved to programme governance and assurance functions when data migration is ongoing.

**Value for Money.** Provider(s) of the cleansing, migration and transformation services should be able to provide the required service for the best value for consumers.

**Timeliness.** The provider(s) of the data cleanse, migration and transformation service should be able to complete the initial exercise during the DBT phase in line with the overall DBT and Transition Plan timescales.

**Security.** In addition to adherence with the security elements of the Switching Programme, the provider(s) of cleansing, migration and transformation services should ensure that the data interests of consumers are protected during the cleanse activity. All data should be processed in accordance with data protection law and good practice. Data should not be used for any purpose other than data cleansing and should not be retained after the cleansing and migration activity is completed. Data should be held securely at all times.

**Durability.** The provider(s) of the data cleanse, migration and transformation service should be able to indicate how they will maintain the Retail Energy Location database on an ongoing basis.

#### Likely transitional requirements

The creation of the Retail Energy Location address data in CSS will require the support of a number of providers. New transitional requirements to be placed on relevant providers will be developed during the Enactment phase. Table 1 below sets out at a high level the relationships to be created to enable smooth implementation of the address data source and data cleanse, migration and transformation activities.

Table 1: Identification of expected transitional requirements for data cleanse, migration and transformation activity and address data procurement

Affected party	Activity during DBT phase	Enduring activity	Requirement/type of requirement
CSS and SI Procurer	Procurement of	None	Transitional requirement
and Manager	data source and		within DCC licence
(Assumed to be DCC)	initial data		(procurement)

	cleanse		Transitional requirement
	cleanse, migration and transformation Oversight of contracted providers. Procurement for the creation of the Retail Energy Location address database Procurement and definition for SI oversight for CSS and other Central		Transitional requirement within DCC licence (management)
	Data Systems		
Core and CSS System Integration function	during DBT Ensure that data source integration and testing and cleansing and migration activity is tested and takes place according to agreed requirements and plans	None	Contractual relationship with DCC
Address Service Provider(s) (One of CSS Component Providers)	Provision of the solution for the Retail Energy Location address database within CSS	Maintenance of address database, including updating of new meter points Enduring data cleanse activity	Contractual relationship with DCC
GTs DNOs	Provision of access to existing Meter Point Location data held within UK LINK/MPRS (via Xoserve/St Clements) for cleansing activity to DCC in role of procuring CRS provider	Provision of new meter point information to CSS Provider	Transitional licence condition Change to REC (Timing)

	Population of MPRS and UK LINK with MAP ID, etc. and creation of D/ND flag		
Suppliers and Supplier Agents	Provision of existing address data to inform cleanse and migration if required	None specific to data cleanse/data source procurement	Transitional licence condition Change to REC (Timing)
DCC (in role of DSP for SMETS II meters)	Provision of existing address data via communications hub data link to inform data cleanse and migration	None specific to data cleanse/database procurement	Transitional requirement within DCC licence (management)
Xoserve/St Clements	Delivery of Meter Point Location address data for cleansing and migration	None	Contractual relationship between Xoserve/St Clements with database provider – subsidiary to licence condition/code change on GTs/DNOs

## 4. Risks, Issues, Assumptions and Dependencies

In producing this product, we have highlighted the following <u>R</u>isks, <u>I</u>ssues, <u>A</u>ssumptions and <u>D</u>ependencies.

Table 2: RAID analysis

Address Data provision and/or Data Cleanse and Migration Activity Risk, Assumption or Dependency	Туре	Mitigation and Management Actions
No suitable provider of address database/data service or data cleanse and migration activities is willing to provide services to the project at required cost, time and quality		DCC to engage in market engagement during DLS phase. Ofgem market engagement during Blueprint phase has identified existing providers already active in energy industry.
Parties and providers will be sufficiently incentivised to resource and provide data for data cleanse and migration activity.	A	SI and/or Delivery Assurance functions to monitor progress and readiness to plan, and to ensure remedial action is taken if progression and readiness are not satisfactory.

		Transitional measures will be in place to ensure that stakeholders are suitably engaged.
UK Link and MPRS providers are willing and legally able to share existing address data with DCC for data cleansing.	A	Transitional measures will be in place to ensure that stakeholders are suitably engaged. Data will be shared as part of CSS build process.
CSS is built and tested during the DBT phase and includes functionality to incorporate a Retail Energy Location address data.	D	Capacity for a Retail Energy Location address data is included in Solution architecture design and CSS design specifications. SI and/or Delivery Assurance functions to monitor progress and readiness to plan, and to ensure remedial action is taken if progression and readiness are not satisfactory.

## 5. Forward work plan and recommendations

In the staged transition set out in the E2E Transition Plan product, we anticipate that initial population of the CSS with the Retail Energy Location address data utilising the cleansing and migration mechanisms and external source of premises address data, will be undertaken during the first Transition Stage. Interfaces between the externally sourced address data provider and the CSS and providers of legacy central data services (such as UK Link and MPRS) and the CSS will be established in this stage to enable the migration activities and creation of the initial Retail Energy Location address data within CSS to be completed and stable prior to the next stages of transition.

The detailed plan and timetable for these activities will be defined in the CSS Data Migration Plan aligned to the E2E Data Migration plan.

#### <u>Timetable for procurement of an address data source and data cleansing and migration</u> <u>exercise</u>

Table 3 below sets out a high-level illustrative timeline for address database procurement and Data Cleanse procurement and activity. This timeline will be updated ahead of Design Baseline 4 as we develop our expected timeline for activity in the DBT phase.

Table 3: Timetable for Address Database procurement and Data Cleanse procurement and activity.

Date	Activity	Activity Owner
Enactment Phase (April 2018 -	Establishment of lots for data	CSS and SI Procurer and
)	cleanse and migration and	Manager (assumed to be
	address data source	DCC)
	procurement	-
	Procurement of Address	CSS and SI Procurer and
	Service provider; agreement	Manager (assumed to be
	of commercial terms for	DCC)
	provision	

Commercial appointment of	CCC and CI Droguros and
	CSS and SI Procurer and Manager (assumed to be
····· ••• ••• ••• ••• •••	DCC), Address Service
	provider
Design, build, integration and	Address Service provider
	Other CSS Component
	Provider(s) SI
	Existing central data
,	service providers
Establishment of production	Address Service provider
	Other CSS Component
•	Provider(s) SI
	Existing central data
	service providers
Migration and cleansing/	Address Service provider
Provision of regular service to	Address Service provider
maintain and improve Retail	
-	
	testing of CSS, premises served address data source and data cleanse and migration mechanisms Establishment of production interfaces between CSS and premises address data source and with UK Link and MPRS (Transition Stage 1) Migration and cleansing/ transformation to populate CSS with initial Retail Energy Location address data (Transition stage 1) Provision of regular service to

# Appendices

# Appendix 1 – A possible step-by-step process for algorithmic and manual data cleanse and data matching exercises before CSS go-live

Table A1 below provides an illustrative step-by-step guide to the activities that will need to be undertaken to ensure that the Retail Energy Location dataset is populated with an adequately cleansed dataset. It is intended to be illustrative, and should not necessarily direct providers of cleansing services to provide services in this manner if they feel that the outcomes outlined above can be provided in a more efficient or effective manner.

# Table A1: Step-by-step process for algorithmic and manual data cleanse and datamatching exercises before CSS go-live

Stage	Activity	Parties involved
1	Identification of criteria for address data cleansing (e.g. address data formatting, absence of postcodes, etc.) and programming of algorithms to be used to affect cleanse activity.	Address Service provider; UK Link provider; MPRS provider
2	UK Link and MPRS owners provide cleansed Meter Point Location data to Address Service provider, to hold in location for data matching.	Address Service provider; UK Link provider; MPRS provider
3	Provision of procured GB address data set to location for data matching.	Address Service provider; UK Link provider; MPRS provider
4	Identification of separate meter points in gas and electricity sectors, respectively (from MPRS and UK Link databases) with existing Meter Point Location address data variables.	Address Service provider (or Algorithmic Data Cleanse Provider if procured separately by Address Service provider)
5	Identification of related MPANs/MPRNs (individual BLPUs with multiple meter points at the same location) (using data migrated from UK Link and MPRS).	Address Service Provider; UK Link provider; MPRS provider
6	Algorithmic data matching of MPRS and UK Link Meter Point Location data to procured GB address data in Retail Energy Location dataset.	Address Service provider (or Algorithmic Data Cleanse Provider if procured separately by Address Service provider)
7	Quality control review of algorithmic matching exercise, including identification of all meter point locations where cleansing need has been identified but algorithmic cleansing is not successful.	Address Service provider (or Algorithmic Data Cleanse Provider if procured separately by Address Service provider); CSS & Core System Integrator (if necessary)

8	Identification of population for manual data match and improvement activity (this should match the locations identified in Activity 7 above).	Address Service provider (or Algorithmic Data Cleanse Provider if procured separately by Address Service provider); Address Service provider (or Manual Data Cleanse Provider if procured separately by Address Service provider)
9	Establishment of methods to be used for manual data match and improvement exercise (this may include manual inspection of address data, matching to maps or other online resources, use of secondary data sets such as billing data if and where this is available, and physical location visits where necessary).	Address Service provider (or Manual Data Cleanse Provider if procured separately by Address Service provider); Providers of auxiliary data sets used for manual cleanse
10	Manual data match and improvement of Meter Point Location data to procured GB address data in Retail Energy Location dataset.	Address Service provider (or Manual Data Cleanse Provider if procured separately by Address Service provider)
11	Quality control review of manual match and improvement exercise, including identification of all meter point locations where cleansing need has been identified but manual cleanse is not successful.	Address Service provider (or Manual Data Cleanse Provider if procured separately by Address Service provider); CSS & Core System Integrator (if necessary)
13	Address Service provider, UK Link, and MPRS Providers ensure that meter point data sets are aligned between databases.	Address Service provider; UK Link provider; MPRS provider
12	Migration of Retail Energy Location dataset to CSS.	Address Service provider; Other CSS Component providers
14	Migration of cleansed Meter Point Location Data from MPRS and UK Link to CSS.	Address Service provider; Other CSS Component providers; UK Link provider; MPRS provider
20	Establishment of full functionality of Retail Energy Location dataset within CSS (creation of functionality for 'alias' addresses, identification of Grade 1 and Grade 2 addresses, etc.).	Address Service provider; Other CSS Component providers;
21	Duplication of Retail Energy Location dataset in ECOES and DES information services.	Address Service provider;; ECOES and DES provider

# **Appendix 2– RACI for address database procurement and data cleanse activities**

RACI for Address Data Source Procurement and DBT

Database Procurement Activities	R	A	С	I	When
Develop policy approach for address data source procurement	Ofgem	Ofgem	DCC		Before end of DLS
Set procurement criteria based on policy approach	CSS and SI Procurer and Manager (DCC)	CSS and SI Procurer and Manager (DCC)	Ofgem		During Enactment phase
Procurement of address data source (as part of Address Service)	CSS and SI Procurer and Manager (DCC)	CSS and SI Procurer and Manager (DCC)	Ofgem	Ofgem	By start of DBT
Undertake physical design activity to incorporate Retail Energy Location address database in CSS design	Address Service Provider	CSS and SI Procurer and Manager (DCC)	SI	Ofgem	Prior to start of DBT
Build interfaces to utilise address data in CSS design	Address Service Provider CSS Component Providers	CSS and SI Procurer and Manager (DCC)	SI	Ofgem	During DBT
Creation of Retail Energy Location address data in CSS	Address Service Provider; CSS Component Providers	CSS and SI Procurer and Manager (DCC)	SI	Ofgem	During DBT

make available Retail Energy Location address data from CSS to UK LINK/MPRS and DES ECOES	Address Service Provider UK LINK provider MPRS provider	CSS and SI Procurer and Manager (DCC)	SI	Ofgem	During DBT
Ongoing maintenance of Retail Energy Location address data	Address Service provider	DCC	UK LINK MPRS	Ofgem	After go- live

#### RACI for Data Cleanse, Migration and Transformation activity

Data Cleanse, Migration and Transformation (matching) Activities	R	A	С	I	When
Develop policy approach for data cleanse, migration and transformation service procurement	Ofgem	Ofgem	DCC		Before end of DLS
Set procurement criteria based on policy approach	CSS and SI Procurer and Manager (DCC)	CSS and SI Procurer and Manager (DCC)	Ofgem		During Enactment phase
Procurement of data cleanse, migration and transformation service	CSS and SI Procurer and Manager (DCC)	CSS and SI Procurer and Manager (DCC)	Ofgem	Ofgem	By start of DBT
Management of Address Service provider(s)	CSS and SI Procurer and Manager (DCC), Address Service Provider	CSS and SI Procurer and Manager (DCC)	Ofgem	UK LINK, MPRS providers	At start of DBT phase
Undertake design activity for data cleanse and migration service	Address Service Provider	CSS and SI Procurer and	SI	Ofgem,	Prior to start of DBT

		Manager (DCC)		UK LINK, MPRS providers		
Undertake design activity for data matching service	Address Service provider, DCC	CSS and SI Procurer and Manager (DCC)	SI	Ofgem, UK LINK, MPRS providers	Prior start DBT	to of
Provision of UK Link and MPRS Meter Point address data	UK LINK, MPRS providers	CSS and SI Procurer and Manager (DCC)	SI, Data Cleanse Provider	Ofgem	During DBT	
Data cleanse and migration activity	Address Service provider	CSS and SI Procurer and Manager (DCC)	SI, UK LINK, MPRS providers	Ofgem, auxiliary data providers	During DBT	
Migration of UK Link and MPRS Meter Point data into CSS	Address Service provider UK LINK, MPRS providers	CSS and SI Procurer and Manager (DCC)	SI	Ofgem	During DBT	
Data matching activity	Address Service provider	CSS and SI Procurer and Manager (DCC)	SI, UK LINK, MPRS providers	Ofgem	During DBT	
Enduring data cleanse and matching activity	Address Service provider	CSS and SI Procurer and Manager (DCC)	UK LINK MPRS	Ofgem	During DBT	