

Retailer Data Exchange (RDE)

Overview Document

Summary of key contents

- This is an overview document covering the background and technical information related to the retailer data exchange (RDE)
- By accessing the data through either the SFTP or the API you are accepting our “Terms and Conditions of Use”
- The retailer is responsible for collecting their own data from the sources supplied to satisfy theirs and their customer needs.
- There are two data source options: SFTP (option 1) and API (option 2). SFTP gives the retailer access to hourly/daily data sent weekly; API allows the retailer to call their data for up to 45 days.
- The SFTP option is in similar format to the way logger data is provided currently. Retailers log in to retrieve the data which will be available for 30 days. This could change as we explore the use of SharePoint.
- The API option, the Retailer searches specific data such as meter serial number, SPID, date range. It will go through validation checks and, if permitted, the data will be provided. Otherwise, it will produce a 'fail'.
- Both Anglian Water and retailers must remain compliant with data protection regulations.
- Anglian Water will only share data with the Retailer, not with third parties or non-household customers (NHH).
- RDE will not impact those Retailers on the Meter Reading Service but provides more granular data.
- Anglian Water have ensured GDPR compliance through validation checks in the process and are meeting our legal obligations in accordance with the Industry Act 1991.

Version Number	Date	Amendment	Consulted Parties
1.0	21/06/21	Overview document	WSC delivery team; D Maher
2.0	26/07/21	Technical Description added	WSC delivery team; Capgemini development team; L.Ding; W Thomas.
3.0	27/09/21	Access information for retailers and Terms and Conditions of Use added	WSC delivery team; Capgemini

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AMI Smart meter Data to Retailers - Retailer Data Exchange (RDE)

1. Background

We've started our programme to upgrade 1.1 million meters (domestic and non-household customers) over the next 5 years, replacing the current visual read meters with smarter ones that automatically supply meter readings.

This programme is part of our plan to tackle future water shortages by helping our customers use less water and drive down leakage further across the network. Working hand in hand with us, it will allow both domestic customers and Retailers to monitor usage in a smarter way.

We recognise the value collaboration plays in addressing the challenges of future water resources in our region and the need to work together with a wide variety of stakeholders, including our Retailers. We understand that the provision of reliable, easy to access consumption data is key to help unlock additional value for Business Customers.

This document is the next step in our journey to make AMI data available to our Retailers. It provides an overview of Retailer Data Exchange (RDE) and detail on the technical solution for each of the data access options.

2. Data Sharing

2.1 Retailers access to AMI Smart meter data

The basis of sharing AMI data with you from a GDPR perspective is described in section 6 below.

To provide clarity on how the data is expected to be used, and what you can expect from us in terms of RDE system performance, please refer to our 'Terms and Conditions of Use' provided in appendix 6 of this document.

For the SFTP (Option 1 described below), each Retailer will only be able to access AMI data for each SPID that belongs to them. When a SPID switches to a new Retailer, the AMI data will be 'pushed' to the new Retailer's folder in the SFTP. This means the 'new' retailer will build up AMI data from the effective date of the SPID switch. The 'old' retailer will retain the AMI data up to the date of the SPID switch.

For API (Option 2 described below), the same approach applies, and a 'new' Retailer will only be able to retrieve data from the date that they became the 'new' Retailer.

A meter is confirmed as “AMI Smart” when it has recorded a minimum of 22 reads per day over a consecutive 7-day period. You will be able to track which meters have been enabled as AMI Smart by the “Remote Read Type” (D3038) field in CMOS.

It should be noted that prior to the publication date of this Technical Document, MOSL have released a consultation to review the Remote Read Type Options CPW123 – Improved codes for “remote read type.” If there follow changes because of the consultation, this document will be updated.

2.2 Data protection

In relation to data protection, wholesaler and retailer must comply with:

(a) all relevant data protection legislation including (but not limited to) the Data Protection Act (2018) and the General Data Protection Regulations (2016); and,

(b) all codes of practice, guidance and standards issued by the Information Commissioner’s Office from time to time.

2.3 Third party access to AMI Smart meter data

Our position for AMI data access to third parties is that the third party would request this through the relevant Retailer. As Wholesaler, we do not have a direct relationship with NHH customers and are therefore not able to grant access to customer data for third parties.

3. The technology we are using to enable RDE

Data collection begins with the Arqiva Flexnet Fixed Radio Network. Meters communicate with network masts on 412MHz encrypted transfer. Transmitting every 4 hours, each data packet contains, on average the last 12 hourly reads, alongside an alarm message for parameters like leakage, empty pipe and backflow. The hourly data is then collated in the Arqiva RNI (Regional Network Interface) and transmitted to the AW OT (Operational Technology) Platform twice a day. We are looking to migrate to a web-based transfer platform (Multispeak) towards the end of 2021 and increase the number of daily transfers to 4.

SAP Cloud Platform (SCP) is a Platform as a Service, or PaaS, and enables the integration of data and business process. The SCP acts as an orchestration layer in the provision process, controlling the request coming in from the Retailer, calling the Validation control within SAP, then only calling meter reads API when appropriate and controlling the response data back to the Retailer.

This ensures that retailers are only able to access the correct level of data for their current customers.

For a full process flow please refer to Appendix 1

4. How to access the AMI data – Description and overview of the two data routes

4.1 Option 1: SFTP (Secure File Transfer Protocol)

The data delivered to the Retailer via this option is similar to how you receive it currently for logger and meter data.

Each retailer will receive a weekly CSV file either containing daily or hourly data for each of their customers, depending on GDPR requirements, with the previous 7 days of data. The file will be generated over the weekend and the exact time of this will be shared once available.

The file output will be in .CSV format and will contain the following data items:

- Retailer ID
- SPID
- AMRID (Automatic Meter Radio Identification)
- Meter Serial Number
- Consent
- Date/Time of Meter Read (DD/MM/YYYY MM:HH:SS)
- Meter index Read (Litres)

All timestamps are in UTC (Coordinated Universal Time). Retailers will be responsible for factoring in Day Light Saving Time when processing the data.

The way this is delivered internally to the SFTP is changing as it will be delivered via an API. This will not impact you as a retailer.

Retailers will be able to use the same login credentials to access the SFTP as currently with the only difference being a new sub folder added to the retailer folder called "Raw_Upgraded_Meter_Data".



Data will be held in this folder for a rolling 30 days, meaning any CSV file that has been in the folder for 31+ days will be removed.

It will be the retailers' responsibility to pick up the data required from the SFTP.

Retailers should note that while the use of the existing Anglian Water SFTP is the current offering, we are exploring the future use of SharePoint and the "AWS Retailer Information Hub" which retailers already have access to. This will form part of a wider strategy to transition everything from the SFTP to SharePoint and therefore we will be working with all retailers to assess the impact and opportunities of doing this. Further details to follow in due course.

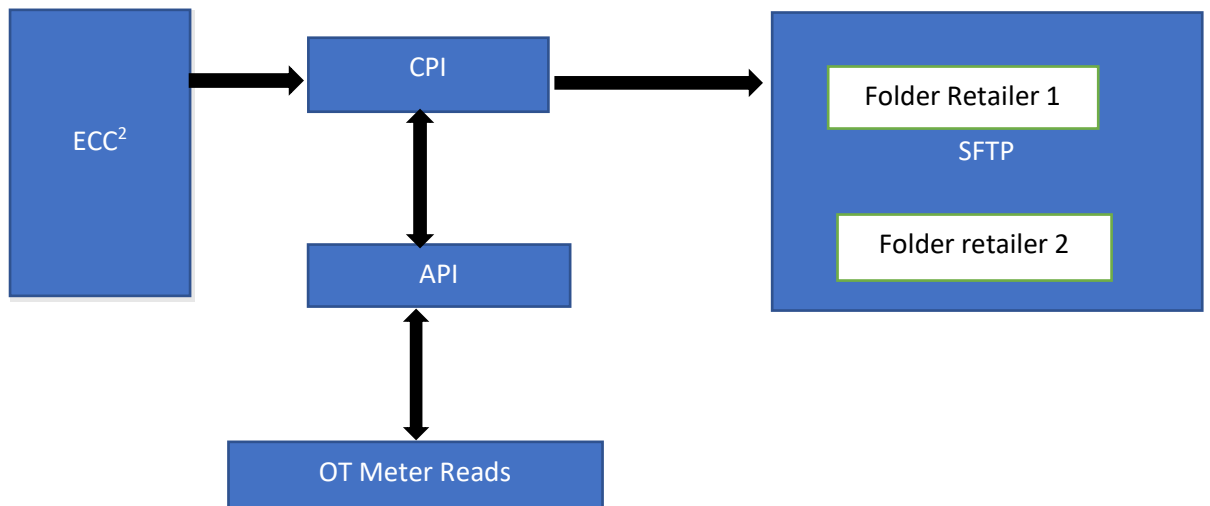
If data is not available for any reason (such as interrupted network coverage), the missing data will be backfilled as soon as it is available within the 45-day period.

Retailers need to be aware that raw meter data is being provided through the RDE solution and no analytics or interpolation will have been carried out by Anglian Water in advance of delivery. This will remain the responsibility of the retailer.

4.1.1 Technical Description

A SAP ABAP¹ program will select all the NHH AMI meters specific to SPID and call the existing OT API for meter reads on a routine weekly basis. This will generate a meter read file and passes all the hourly data into the correct retailer-ID directory in the SFTP server. This will provide full and timely info to Retailers, who access via the existing SFTP gateway.

Design Diagram:



¹ ABAP is Advanced Business Application Programming and is a general programme that prepares a report based on a specific set of parameters i.e SAP programme language.

² ECC stands for Enterprise Core Component and is the core SAP system which includes Finance, Logistics, Utilities Billing etc.

Process Steps:

Anglian Water Process:

SAP CPI design involves fetching the Meter reads from OT platform and transfer the meter reads files to the respective Retailer SFTP folders where retailers can access those and use for their further process.

Process Steps:

- SAP CPI will get the meter read request from SAP ECC with valid input values for retailer ID, AMRID, SPID, MSN , CONSENT Flag and data range.
- SAP CPI will the fetch the Meter reads from OT (via API) with reference of AMRID and date range.
- SAP CPI will consolidate the fields and send the Meter reads file to SFTP location.
- Meter read files transferred to the respective retailers SFTP folders

Retailer Process:

Each Retailer can access these meter read files from the existing Anglian Water SFTP and use it for their further processes.

See appendix 5 for full information of how to access the SFTP using an SFTP client. Retailers can get their usernames and passwords by contacting wsc@anglianwater.co.uk and their account managers.

Once access to the retailer SFTP directory is obtained the meter read files will be available in a folder called "Raw_Upgraded_Meter_Data"

Below is an extract of an example file.

	A	B	C	D	E	F	G	H
1	RETID	SPID	AMRID	MSN	CONSENT_FLAG	DATETIME	INDEX	
2	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.11 23:00:00	73189	
3	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.11 23:00:00	73189	
4	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.12 23:00:00	73200	
5	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.12 23:00:00	73200	
6	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.13 23:00:00	73212	
7	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.13 23:00:00	73212	
8	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.14 23:00:00	73223	
9	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.14 23:00:00	73223	
10	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.15 23:00:00	73235	
11	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.15 23:00:00	73235	
12	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.16 23:00:00	73310	
13	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.17 23:00:00	76397	
14	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.18 23:00:00	79889	
15	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.19 23:00:00	83714	
16	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.20 23:00:00	84568	
17	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.21 23:00:00	84579	
18	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.22 23:00:00	84591	
19	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.23 23:00:00	89127	
20	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.24 23:00:00	90336	
21	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.25 23:00:00	90347	
22	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.26 23:00:00	90358	
23	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.27 23:00:00	90370	
24	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.28 23:00:00	90380	
25	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.29 23:00:00	90391	
26	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.30 23:00:00	90402	
27	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.08.31 23:00:00	90440	
28	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.09.01 23:00:00	90458	
29	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.09.02 23:00:00	90469	
30	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.09.03 23:00:00	90479	
31	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.09.04 23:00:00	90490	
32	ANGLIAN-R	303123785XW1X	312345678	G12XU123450A		2021.09.05 23:00:00	90500	

4.2 Option 2: API (Application Programming Interface)

The retailer ‘calls’ the specific customer data required, by SPID, MSN and date. The request is validated automatically to ensure the retailer is requesting their customer data. A check is also done to see if they are requesting data for a smaller customer which falls in the scope of GDPR (see section 6 below)

If the request is validated and consent has been given (see section 6 below), the data returned can be based on the **hourly** data available through smart meters.



If the request is validated but consent has not been given the data returned will be based on **daily** data available through smart metering.

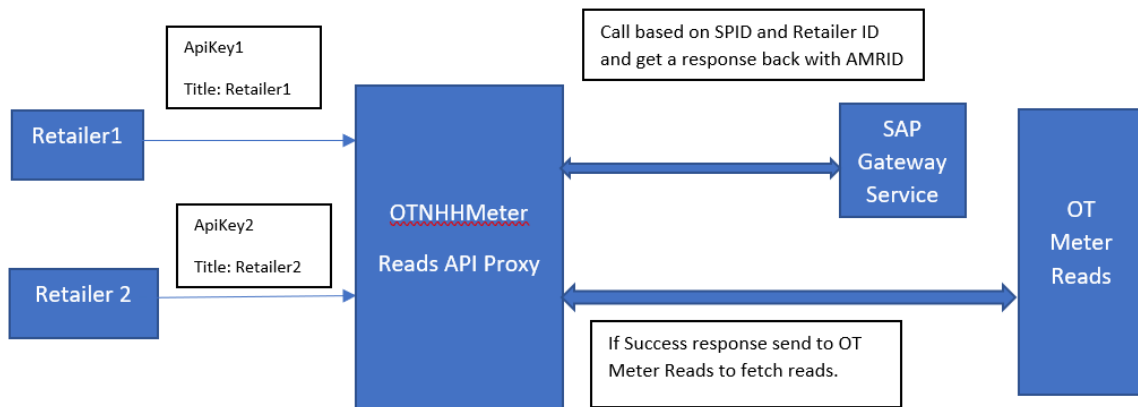
If the request is not validated, a 'fail' message is delivered to the requester.

The data is held in the Anglian Water OT platform and this holds up to the previous 45 days' data. It is up to retailers to request and store the data as they require.

4.2.1 Technical Description

In order for Retailers to call the existing OT API directly and pull meter read data themselves for a given SPID(s), we will utilise the SAP Cloud Platform (SCP) and introduce a Check/Validation API/GW³ service. Retailers will call an SCP API, pass their SPID, Retailer ID and data range. SCP will call the new SAP API/GW service to check the request is valid and if so call the existing OT API to retrieve meter reads.

Design Diagram:



- If AMRID is Valid for Non-Household Customers, Reads will be returned back to Retailer.
- If AMRID is found to be Invalid for Non-Household Customers, an error will be returned confirming error type.
- If calls are made more than 4 times for this RetailerID and SPID Combination, Quota Exceeded Error will be returned.

³ GW stands for Gateway and is an internal application that is used for developing and delivering API's

⁴ In box above the max number of calls is 4 times per day for the Retailer/Spid combination. This provides some level of throttling to ensure our systems are not adversely overloaded.

URL Formation

The API will be accessed via a URL link as per below:



URL Format example:

[https://awpro01.apimanagement.hana.ondemand.com:443/v1/NHHReads?SupplyPoint=3021504825W18&Retailerid=RETAILER-R&Validfrom=20201101&Validto=20201103&MSN=G16XU305241N&\\$format=json](https://awpro01.apimanagement.hana.ondemand.com:443/v1/NHHReads?SupplyPoint=3021504825W18&Retailerid=RETAILER-R&Validfrom=20201101&Validto=20201103&MSN=G16XU305241N&$format=json)

For each retailer the URL format remains the same, you will just need to substitute RETAILER-R with your own Retailer ID.

Operation: GET

apikey: As provided by API Team and provided in Header.

4.2.2 Business Context

- The sample URL above is referring to an Anglian Water Services Cloud Platform production environment ('awpro01') and provides an example of the URL structure to be called from the Retailers application (or test tool such as POSTMAN) in order to receive a response. For the sample URL you can see the SPID = '3021504825W18', the RetailerID = RETAILER-R and the meter date range requested is 01.11.2020 to 03.11.2020 for Meter Serial Number G16XU305241.
- URLs will be provided along with 'Authorisation key' to facilitate connectivity to these environments.
- Retailers may choose to enhance your applications to embed the logic to generate the URL automatically, submit and receive the response or you may choose to call the API outside of your application in a more native process.
- As mentioned previously a unique 'Authorisation key' will be provided to each Retailer so we can validate the source of any request, plus several validation checks will be performed on the provided data before any meter read information is fed back.
- Initially Retailers wanting to use this service will want to test the API to enhance your understanding. The below steps can be followed to test the API using the 'POSTMAN' API testing tool.

Testing process

For information purposes testing was completed using POSTMAN and following the below steps:

1. Trigger data using URL and API-Key from POSTMAN⁵. This will include Retailer ID, SPID, MSN and the To date and From Data for the call.

2. Once the correct data is triggered using POSTMAN, it will hit SCP API management Proxy.
3. API will validate the SPID to be existing in SAP Gateway Service where it validates SPID and Retailer and sends a Success or Error Response.
4. In case of Error Response, Error is returned to Retailer calling the API informing the reason of the error.
5. In case the GW Service is Validated, OT URL is called from the API to fetch Meter Reads based on amrid.

⁵ Postman is an interactive and automatic tool for verifying the APIs of your project. Postman is a Google Chrome app for interacting with HTTP APIs. It presents you with a friendly GUI for constructing requests and reading responses. Postman is the way to streamline the process of API testing. Postman is free to download and use for teams of any size.

The Retailer will be able to call the API only 4 time per day. This is controlled by Quota Traffic Management Policies and is a default feature of API Management based on a specific Identifier. The Identifier for our requirements will be Retailer ID and SPID.

Every Retailer will be provided with a different API key, based on which allowed SPID data will be returned.

A fault will be raised back to the retailer with Error if Retailer ID and SPID is not validated in GW.

Technical Requirements:

1. Each Retailer will be able to call a particular SPID up to a maximum of 4 times a day.
2. All Retailers will be kept separate and they will have their own apikey for Identification of Retailer.

Error Handling:

Sr.No	Condition	HTTP Code	Notes
1	AMRID found against SPID and RetailerID for Provided Dates	200	Success, Reads available in OT will be returned.
2	SPID and RetailerID combination has been called more than 4 times.	500	Internal server Error: Rate limit quota violation. Quota limit exceeded. Identifier : 'SPID'_RetailerID"
3	SAP Gateway does not recognise SPID and RetailerID Combination	404	SPID not connected to the Retailer ID.

4	APIKey and URL Combination is incorrect	401	Check you are supplying header apikey on the call.
5	Default fault.	405	Method not allowed

Appendix 4 of this document shows the expected Error responses.

4.2.3 How to access the API

To obtain access to the API please follow these steps:

1. Contact wsc@anglianwater.co.uk and your Wholesale account manager to request access. The request should contain the IP Addresses for the Retailer Application in order for Anglian Water to whitelist these to allow connectivity
2. Within 5 business days we will provide you with your unique retailer API key to use as part of the authentication when calling the API
3. Should you have any issues please contact wsc@anglianwater.co.uk and your Wholesale account manager

Please note that by accessing the data through either the SFTP or the API you are accepting our Terms and Conditions of Use as provided in appendix 6.

4.2.4 How a Retailer can request data from multiple SPIDS

As and when the Retailer has tested the API call successfully you may wish to build a program/process within your application to allow your agents to call the API more easily. For example, you could embed the API call into the Account Reference area of your application such that the API parameters can be automatically determined and the relevant results returned. Or you may want to write a programme that sequentially calls and retrieves Smart meter read data for a number of your customers in one step.

5. Existing Meter Reading Services

There will be no change to the file provided for those Retailers who use the Meter Reading Service. The reads obtained by either visual or AMI will still be provided within the existing file. The new RDE solutions will provide greater granularity of AMI reads.

6. GDPR considerations for Non-Household Smart Metering

As part of sharing even more data with our retailers, we have been taking steps to ensure the data we share is still safe, legitimate and essential to the running of our businesses. Though most non-household customers are not protected under general data protection regulations (GDPR), there are some customers that will fall within the scope of GDPR, and these are identified as a “natural person.” We need to ensure data belonging to “natural persons” is protected according to these specific guidelines. As such, affected customers will get daily meter read data as standard, as opposed to hourly, unless we receive specific consent from the customer through our retailers that they agree to have hourly meter read data. We have created a process to identify “natural persons” that is explained below and with fuller details in appendices 2 and 3.

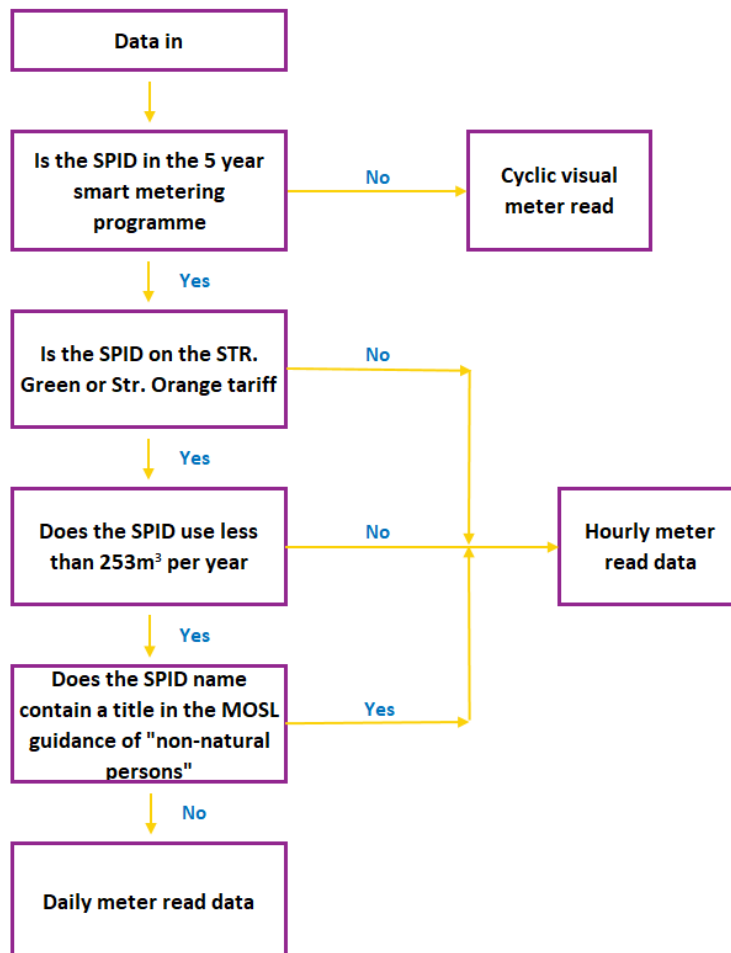
6.1 The “natural persons” identification process

Below is our “natural persons” identification process, and the outcome of this process will determine if a retailer receives daily or hourly meter reading data for a customer. To create this process, we have used guidelines from MOSL that outline how to identify a “natural person” (see Appendix 3).

The MOSL guidelines use a naming convention to identify a “natural person,” their guidelines outline that we need to identify any business that is a sole trader. Sole traders are forbidden to use certain naming titles such as LTD (or variations of), PLC (or variations of) and CIC (or variations of). See Appendix 3 for the full list.

This filtering process uses the naming convention guidelines from MOSL that identify "natural persons". To further safeguard the data we send to you, we are taking extra steps before analysing the SPID name for one of the "non-natural persons" identifying names/acronyms. The extra measures will analyse the SPID's tariff and usage, to best capture any SPIDS that are potentially "natural persons" and therefore need to receive only daily data.

To identify the frequency of data a retailer will receive, the following filtering process will be followed. For a full explanation of each step, please refer to Appendix 2



6.2 Privacy Impact Assessment

To ensure this process protects your customers' data correctly and that it follows GDPR requirements we have completed a privacy impact assessment (PIA).

The PIA identifies that Anglian Water are data controller with specific legitimate use of meter read data and will be sharing this data with our retailers, as per our market obligations. Within this process of sharing the data with retailers, retailers are also identified as data controllers.

6.3 Public Interest

Anglian Water are collecting this data within the public interest – leak detection, protecting water resource and protecting customers' costs.



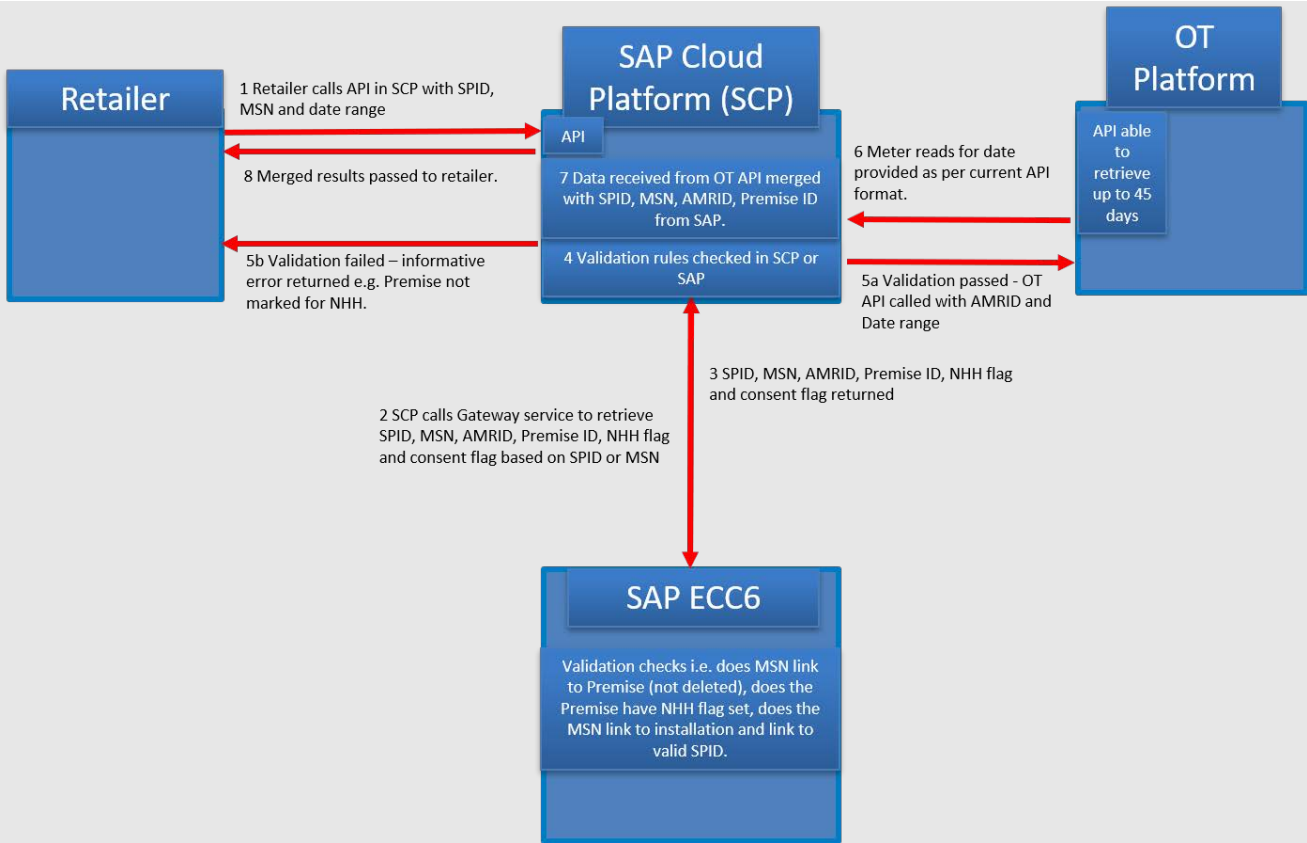
7. Questions?

If you have any questions relating to the contents of this document, please contact your Wholesale Service Centre Account Manager using the email address below:

wsc@anglianwater.co.uk

Appendices

Appendix 1 – Diagram showing RDE technology process flow



Appendix 2 – Natural Persons Identification Process

A detailed guide to the process

Step 1

All SPIDs will go through this filtering process.

Step 2

Any SPIDs not in our 5-year plan will continue to receive their cyclic visual meter reads as per the meter reading contract.

Step 3

All SPIDs in the 5-year plan will then be analysed for their tariff, all SPIDs not on the Streamline Green or Streamline Orange tariff will be processed for hourly data. All SPIDs on the Streamline Green and Streamline Orange tariff will continue through the filtering process.

Step 4

All SPIDs within the 5-year plan and on Streamline Green or Orange will then have their usage analysed. Any SPIDs using over 253m³ per year will be processed for hourly meter data. This usage figure is calculated by taking an average domestic consumption for the average household of c. 2.334 plus the average value for customer supply pipe leakage (CSPL) of 9.5 litres/property/day, giving 118m³ for the FY 19/20 and 135m³ for the FY 20/21. Due to the unprecedented nature of the FY 20/21 due to the impacts of COVID19, we have taken an average between the two figures, equalling 126.5m³ for household usage plus leakage allowance. We then multiplied 126.5m³ by 2, so replicate a family of 4, meaning the figure we would expect high "household" usage to be 253m³ per year. So, we deem any usage above 253m³ to be reflective of non-household usage. Any SPIDs using below 253m³ per year will continue through the filtering process.

Step 5

All SPIDs within the 5-year plan, on the Streamline Green tariff and using below 253m³ per year will have the name checked, if the name does not contain one of the MOSL guided "non-natural persons" titles (not case sensitive), it will be processed for daily meter reads. If the name does contain one of the "non-natural persons" titles, it will be processed for hourly meter read data.

Retailers can then request consent from any customers who have daily data and this consent will then allow them to receive hourly smart meter reads. Consent for hourly meter reads will be able to be given via the Wholesale Service Centre.

Natural Persons (Personal Data) Classification Guidance Document for GDPR Compliance

1. Purpose of this document

This document is intended to support Trading Parties with identifying personal data (which would mean such data falls within the scope of the General Data Protection Regulation and the Data Protection Act 2018).

Related Documents:

- [Market Arrangements Code](#)
- [CSD0301 – Data Catalogue](#)

2. Identifying Personal Data

The Data Protection Act 2018 defines 'Personal Data' as information relating to 'an identified or identifiable living individual'. For example, a person's name, an identification number, location data or an online identifier, such as a cookie or an IP address.

Data relating to businesses will only be Personal Data if the identity of the business is intrinsically linked to the data of a living individual. The most obvious example of this is a sole trader, who may, or may not, use their own name as their trading name, such as John Smith Water. A sole trader is a person who is running a business that has not been incorporated. Legally, there is no distinction between the liabilities/assets of the individual and those of their business. Therefore, any water and/or sewerage bill payable by the business is payable by the individual. Data relating to a sole trader business (e.g. name and address) is likely to be data relating to the individual owner, which constitutes Personal Data.

As we move further along the corporate spectrum, the larger a business is, the more likely it is that the business has a legal identity distinct to that of its owners, in which case data relating to that company will not constitute Personal Data. However, data that specifically identifies a living person, which would include a work email, such as john.smith@waterworld.co.uk, would always constitute Personal Data.

Small companies are incorporated, usually with a single shareholder (the business owner), company secretary and a director. Legally, the company has a separate identity to the shareholder, company secretary and director. The company's assets/liabilities belong to the company – not its owner. The company will be liable to pay for water and/or sewerage services, not the shareholder. In that case, data relating to the company will not constitute Personal Data (again, unless it specifically identifies a living person). So, the company's address will not be Personal Data, but a sole trader's address will be, whether it's their home or business address.

The larger the business is, the less likely that it will be a 'natural person', as the corporate identity becomes distinct from the personal identity of its owners/directors. Small and, so called, 'Microbusinesses', may well not be incorporated. Entities which will fall within the definition of 'natural person' are:

- Sole traders (whether or not they employ staff)
- Unincorporated partnerships (these are increasingly rare) such as where two, or more, people go into business together but not as a company or a limited liability partnership.

2.1 Identifying Non-Household (NHH) customers who are not sole traders

Customers who are not sole traders can be identified through their names, which are required by law to end in a certain way. If a customer has a name ending with any of the following it will not be a sole trader (sole traders are forbidden from using these endings):

- LIMITED;
- L.T.D (with or without full stops);
- COMMUNITY INTEREST COMPANY
- C.I.C (with or without full stops);
- COMMUNITY INTEREST PUBLIC LIMITED COMPANY;
- COMMUNITY INTEREST P.L.C (with or without full stops);
- PUBLIC LIMITED COMPANY;
- P.L.C (with or without full stops);
- LP;
- PC;
- LLP;
- PAC;
- CIO; and
- SEC.

This means that where a customer name contains the above ending, it can be assumed that it is not a sole trader and its CMOS data will not be Personal Data unless there are indications to the contrary, i.e. an individual has improperly used a company designation, but business information and operations all point to an individual, or again, where they hold data that specifically identifies a living person.

Please note:

1) due to a few exceptions to company naming rules, even if a customer name does not contain one of the endings listed above it may still in fact be a limited company;

2) customers who are companies may be entitled to use one of the above endings but may not always or consistently do so. In these circumstances, extra vigilance may be required.



Appendix 4 - Error Handling

Case 1: Success

[https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFOSet?SupplyPoint='3200029966W15'&Retailerid='ANGLIAN-R'&Validfrom='20200305'&Validto='20200306'&MSN='86492311'&\\$format=json](https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFOSet?SupplyPoint='3200029966W15'&Retailerid='ANGLIAN-R'&Validfrom='20200305'&Validto='20200306'&MSN='86492311'&$format=json)

The screenshot shows a Postman interface for a GET request. The URL is `https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFOSet?SupplyPoint='3200029966W15'&Retailerid='ANGLIAN-R'&Validfrom='20200305'&Validto='20200306'&MSN='86492311'&$format=json`. The request headers include Postman-Token, Host, User-Agent, Accept, Accept-Encoding, Connection, and an apikey. The response status is 200 OK with a time of 1474 ms and a size of 2.17 KB. The response body is a JSON array of meter reads.

```
1  {
2    "reads": [
3      {
4        "date": "2020-03-05T00:00:00Z",
5        "index": 272900
6      },
7      {
8        "date": "2020-03-05T01:00:00Z",
9        "index": 272900
10     },
11     ...
12  ]
13 }
```



Case 2: Quota is exceeded for the day. One SPID, Retailer combination can only be called maximum 4 times.

[https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFOSet?RetailerID='ANGLIAN-R'&Validfrom='20200305'&Validto='20200306'&MSN='86492311'&\\$format=json](https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFOSet?RetailerID='ANGLIAN-R'&Validfrom='20200305'&Validto='20200306'&MSN='86492311'&$format=json)

https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFO...

GET https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFOSet?RetailerID='ANGLIAN-R'&Validfrom='20200305'&Validto='20200306'&MSN='86492311'&\$format=json

Host <calculated when request is sent>
User-Agent PostmanRuntime/7.28.2

500 Internal Server Error 239 ms 331 B

```

1 {
2   "fault": {
3     "faultstring": "Rate limit quota violation. Quota limit exceeded. Identifier :
4     '3200029966W15_'_ANGLIAN-R",
5     "detail": {
6       "errorcode": "policies.ratelimit.QuotaViolation"
7     }
8   }
}

```

Case 3: SPID and RetailerID combination is not valid

https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFO...

GET https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFOSet?RetailerID='ANGLIAN-R'&Validfrom='20200305'&Validto='20200306'&MSN='86492311'&\$format=json

Host <calculated when request is sent>
User-Agent PostmanRuntime/7.28.2

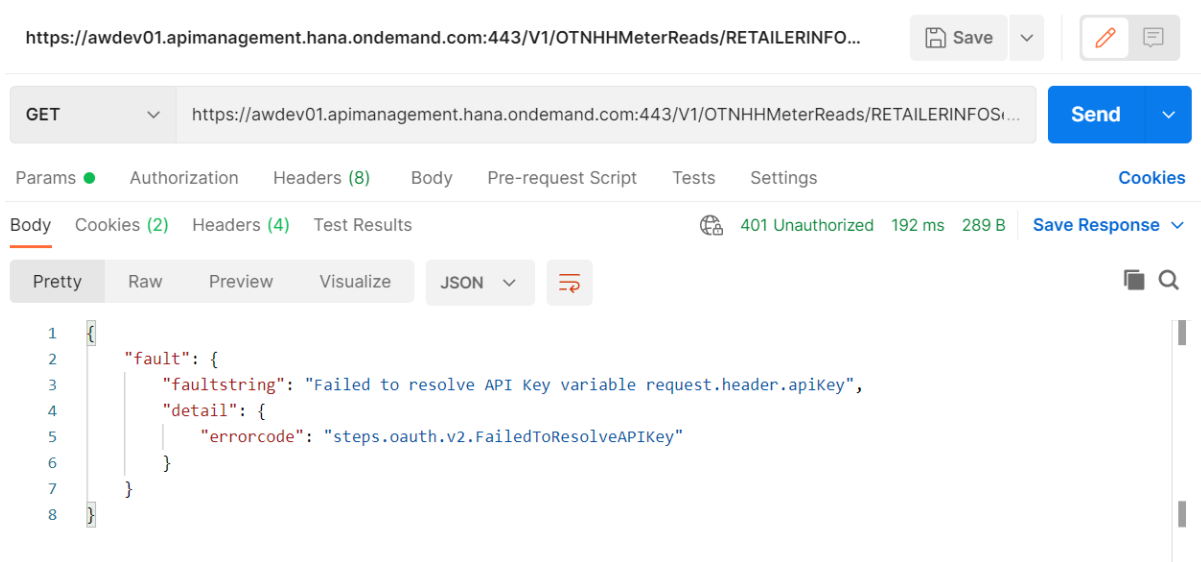
404 Not Found 1979 ms 561 B

```

1 {
2   "error": {
3     "code": "SY/530",
4     "message": {
5       "lang": "en",
6       "value": "SPID not connected to the Retailer ID."
7     }
8   },
9   "innererror": {
10    "transactionid": "60FE03A230520C90E1008000AC1D2AE",
11    "errordetails": [
12      {
13        "code": "/IWBEP/CX_MGW_BUSI_EXCEPTION",

```

Case 4: URL and API Key Does not match required one.



The screenshot shows a REST client interface with the following details:

- URL: `https://awdev01.apimanagement.hana.ondemand.com:443/V1/OTNHHMeterReads/RETAILERINFO...`
- Method: GET
- Status: 401 Unauthorized
- Response Time: 192 ms
- Response Size: 289 B
- Response Body (JSON):

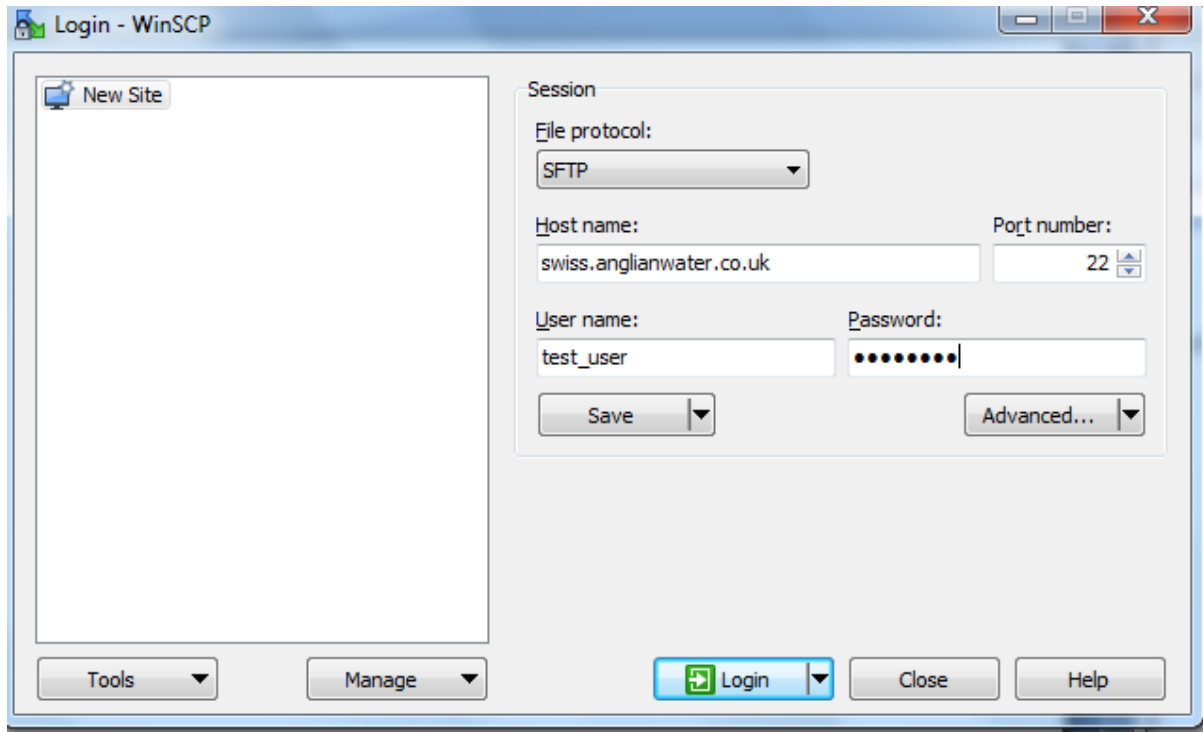
```
1 {
2   "fault": {
3     "faultstring": "Failed to resolve API Key variable request.header.apiKey",
4     "detail": {
5       "errorcode": "steps.oauth.v2.FailedToResolveAPIKey"
6     }
7   }
8 }
```

Case 5: Method not allowed.

Default in case of any errors except above.

Appendix 5 – SFTP access

- (1) Download an SFTP client such as WINSCP - <https://winscp.net/eng/index.php>
- (2) Login to WINSCP using the details shown below and the username and password provided



Once logged to WINSCP you can see FTP directory on left side.

WinSCP - test_user@swiss.anglianwater.co.uk - WinSCP

Local Mark Files Commands Session Options Remote Help

Synchronize Queue Transfer Settings Default

test_user@swiss.anglianwater.co.uk New Session

C:\System / <root>

Upload Edit Properties Download Edit Properties Find Files

C:\Program Files (x86)\WinSCP /

Name	Size	Type	Changed	Name	Size	Changed	Rights	Owner
		Parent directory	8/17/2016 10:55:25 PM	jdk-7u13-windows-x6...	3,429 KB	8/17/2016 11:44:02 PM	rw-rw-rw-	user
PutTY		File folder	8/17/2016 5:24:00 PM	WinSCP.exe	11,814 KB	6/17/2015 8:23:40 AM	rw-rw-rw-	user
DragExt64.dll	203 KB	Application extens...	6/17/2015 8:23:44 AM					
license.txt	37 KB	Text Document	6/17/2015 8:11:04 AM					
unins000.dat	54 KB	DAT File	8/17/2016 5:24:04 PM					
unins000.exe	1,200 KB	Application	8/17/2016 5:23:28 PM					

Appendix 6 – Terms and Conditions of Use

Terms and Conditions of Use

These Terms and Conditions of Use constitute a legally binding agreement made between you, whether personally or on behalf of an entity and Anglian Water Services Limited (Company Number 2366656) and whose registered office is at Lancaster House, Lancaster Way, Huntingdon, Cambs, PE29 6XU (“we” or “AWS” or “our”).

Terms and Conditions

If you do not agree with these Terms and Conditions, you are prohibited from using the Site and the services it provides and you must discontinue use immediately.

Reference to “Site” refers to the Retailer Data Exchange Service (RDE) provided by AWS.

Your use of the Site constitutes acceptance of these Terms and Conditions at the date you first use the Site.

We may make changes to these Terms and Conditions at any time. The updated version will be indicated by an updated “Revised” date and the updated version will be effective immediately. You are responsible for reviewing these Terms and Conditions to stay informed of updates. Your continued use of the Site represents that you have accepted such changes.

You are responsible for ensuring that all persons who access the Site through your internet connection are aware of these Terms and Conditions of Use and that they comply with them.

Availability of the Site

2.1 We try to make sure that the Site is accurate, up-to-date and free from bugs, but we cannot promise that it will be. Furthermore, we cannot promise that the Site will be fit or suitable for any purpose. Any reliance that you may place on the information on / through the Site is at your own risk.

2.2 We may suspend or terminate access or operation of the Site at any time as we see fit.

2.3 Any Content is provided for your general information purposes. It does not constitute technical, financial or legal advice or any other type of advice and should not be relied on for any purposes. You should always use your own independent judgment when using our Site and its Content.

2.4 While we try to make sure that the Site is available for your use, we do not promise that the Site will be available at all times or that your use of the Site will be uninterrupted.

3. Use of the Site

3.1 In accessing the Site and using the Retailer Data Exchange Service, you agree to use it only for lawful purposes such as leakage detection and water efficiency for your non household customers, and in a manner, which does not infringe the rights, or restrict, or inhibit the use and

enjoyment of the Site by any third party. We do not guarantee the accuracy or completeness of the data provided through the Site / Service and you use the Site / services at your own risk.

3.2 You may not access or use the Site for any purpose other than that for which we make the Site and its services available.

3.3 As a user of the Site you agree not to: -

3.3.1 Make any unauthorised use of the Site, including creating user accounts under false pretences;

3.3.2 Circumvent, disable or otherwise interfere with security-related features of the Site,

3.3.3 Interfere with, disrupt, or create an undue burden on the Site or the networks and services connected to the Site,

3.3.4 Attempt to impersonate another user or person, or use the username of another user,

3.3.5 Decipher, decompile, disassemble, or reverse engineer any of the software comprising or in any way making up a part of the Site

3.3.6 Attempt to access any portions of the Site that you are restricted from accessing;

3.3.7 Delete the copyright or other proprietary rights notices from any of the content;

3.3.8 Copy or adapt the Site's software;

3.3.9 Upload or transmit (or attempt to upload or to transmit) viruses, Trojan horses, Malware or other material that interferes with any party's uninterrupted use and enjoyment of the Site, or any material that acts as a passive or active information collection or transmission mechanism;

3.3.10 Disparage, tarnish or otherwise harm, in our opinion, us and/or the Site

3.3.11 Use the Site in a manner inconsistent with any applicable laws or regulations;

3.3.12 Use the data in any manner which is inconsistent with the proper performance of your business activities.

3.3.13 Use the data or the Service in any manner which damages our reputation or brings us into disrepute.

3.4 You agree that you are solely responsible for all costs and expenses you may incur in relation to your use of the Site.

3.5 We make no promise that the Site is appropriate or available for use in locations outside of the UK. If you choose to access the Site from locations outside the UK, you acknowledge you do so at your own initiative and are responsible for compliance with local laws where they apply.

4. **Registration and password security**

4.1 Use of the Site may require registration, particularly in order to access restricted areas of the Site.



4.2 We are not obliged to permit anyone to register with the Site and we may refuse, terminate or suspend registration to anyone at any time.

4.3 You are responsible for making sure that your access, password and any other account details are kept secure and confidential.

4.4 If we have reason to believe there is likely to be a breach of security or misuse of the Site through your account or the use of your password, we may notify you and require you to change your password, or we may suspend or terminate your account.

4.5 Any personal information you provide to us as part of the registration process or through your use of the Site will be processed in accordance with our Privacy Policy available at <https://www.anglianwater.co.uk/about-us/legal/privacy-notice/>.

5. **Content**

5.1 Although care has been taken to ensure the availability, completeness, accuracy and electronic integrity of the Site and its content, we accept no liability for loss of any kind incurred as a result of reliance on any information or opinions provided within the Site, even if the information is wrong or inaccurate, or arising from your inability to use the Site or any material contained in it or from any action or decision taken as a result of using the Site.

5.2 We can accept no responsibility for any damage caused to you or to any third parties by any material which you download from this Site or use for any purpose whatsoever.

5.3 The data provided is given without warranty, and the accuracy cannot be guaranteed. No liability of any kind whatsoever is accepted by AWS for any error or omission.

6. **Intellectual Property Rights**

6.1 The intellectual property rights in the Site and in any text, data, software or other information or material submitted to or accessible from the Site (Content) are owned by us and our licensors.

6.2 We and our licensors reserve all our intellectual property rights (including, but not limited to, all copyright, trade marks, domain names, design rights, database rights, patents and all other intellectual property rights of any kind) whether registered or unregistered anywhere in the world. This means, for example, that we remain owners of them and are free to use them as we see fit.

6.3 Nothing in these Terms and Conditions grants you any legal rights in the Site or the Content other than as necessary for you to access it. You agree not to adjust, try to circumvent or delete any notices contained on the Site or the Content (including any intellectual property notices) and in particular, in any digital rights or other security technology embedded or contained within the Site or the Content.

6.4 Trademarks and trade names may be used on the Site or in the Content. Use by you of any trade marks on the Site or in the Content is strictly prohibited unless you have our prior written permission

7. **Liability**

7.1 The Site and the service is provided free of charge. Except for any legal responsibility that we cannot exclude in law (such as for death or personal injury) or arising under applicable laws relating to the protection of your personal information, we will not be liable to you for any loss or damage, whether in contract, tort (including negligence) breach of statutory duty or otherwise, even if foreseeable, arising under or in connection with:

- 7.1.1 Use of or inability to use the Site or the services or any business interruption; or
- 7.1.2 Use of or reliance on any content displayed or made available on / through our Site; or
- 7.1.3 Loss of business, profits, sales, contracts and/or any other economic loss; or
- 7.1.4 Loss of anticipated savings; or
- 7.1.5 Loss of business opportunity, goodwill or reputation or
- 7.1.6 Any indirect or consequential loss or damage.

8. Law and Contact

8.1 This Site and these Terms and Conditions are governed by and construed in accordance with the laws of England. Any disputes arising shall be submitted to the exclusive jurisdiction of the English courts.

8.2 All enquiries should be addressed to our wholesale service centre at the above address, or via email at: wsc@anglianwater.co.uk

9. Site Management

9.1 We reserve the right at our sole discretion to:

- 9.1.1 monitor the Site for breaches of these Terms and Conditions;
- 9.1.2 take appropriate legal action against anyone in breach of applicable laws or these Terms and Conditions;
- 9.1.3 remove from the Site, disable access to the Site / services or otherwise disable any user where there is a breach of these Terms and Conditions; and
- 9.1.4 otherwise manage the Site in a manner designed to protect our rights and property and to facilitate the proper functioning of the Site and the services.

10. Term and Termination

10.1 These Terms and Conditions shall remain in full force and effect whilst you use the Site and or the RDE services or are otherwise a user of the Site, as applicable. You may terminate your use at any time.

10.2 Without limiting any other provision of these Terms and Conditions, we reserve the right to, in our sole discretion and without notice or liability, deny access to and use of the Site and the services to any person for any reason including without limitation for breach of any representation, warranty or covenant contained in these Terms and Conditions or of any applicable law or regulation.

10.3 If we determine, in our sole discretion, that your use of the Site/services is in breach of these Terms and Conditions or of any applicable law or regulation, we may suspend and or terminate your use or participation in the Site and the services without notice.

10.4 If we terminate or suspend your use, we reserve the right to take appropriate legal action, including without limitation pursuing civil, criminal and injunctive redress.

11. General

11.1 These Terms and Conditions and any policies or operating rules posted by us on the Site or in respect of the services constitute the entire agreement and understanding between us.

11.2 No one other than a party to these Terms and Conditions has any right to enforce any of these Terms and Conditions

11.3 Our failure to exercise or enforce any right or provision of these Terms and Conditions shall not operate as a waiver of such right or provision.

11.4 If any provision or part of a provision of these Terms and Conditions is unlawful, void or unenforceable, that provision or part of the provision is deemed severable from these Terms and Conditions and does not affect the validity and enforceability of any remaining provisions.

Last Updated: 1st October 2021