

PCW access to data

Solution description for Modification 0593 and 095 workgroups

This paper has been prepared at the request of joint Modification 0593 and 095 workgroup and DSC Change Committee members.

Parties have requested information on the technical solution for providing PCWs access to data, to enable support of permission Modifications 0593 and 095, which are being considered at iGT UNC Panel on 19th July 2017 and UNC Panel on 20th July 2017.

1. Introduction

The CMA Energy Market Investigation led to an Order on Xoserve to provide PCW with access to data.

The order states;

- 4.1. Xoserve must give PCWs access to DES upon written request, and subject to the satisfaction of reasonable access conditions.
- 4.2. Gas Transporters must not take any action that would prevent Xoserve from giving access to DES upon written request and subject to the satisfaction of reasonable access conditions.
- 4.3. Gas Transporters must use their best endeavors to ensure that a modification proposal concerning any necessary amendments to the UNC to reflect the obligation in Article 4.1 is approved and implemented as soon as reasonably practicable after the date of this Order.

PCW have outlined their requirement for a machine to machine service. Other solution options such as Data Enquiry Service are not viable without significant change to meet the Order requirements.

The CMA on 12th June 2017 confirmed an API service would meet the intent of the CMA DES order 2016.

UNC and iGT UNC modifications 0593 and 095 have been raised to create the permission in the codes for the release of data to PCW.

2. PCW access conditions

The Energy Market Investigation Explanatory note, sets out PCW access conditions to the service, the link can be found here;

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/585020/energy-market-ECOES-DES-order-explanatory-note.pdf

Note: as per the confirmation from the CMA on 12th June 2017, the provision of data via an API service meets the intent of the Order.

Relevant paragraphs are as below;

- 6. The DES Remedy involves (a) a requirement on Xoserve to give PCWs access to the gas Data Enquiry Service (DES)¹ upon written request, and subject to satisfaction of reasonable access conditions; and (b) a requirement on Gas Transporters not to take any action that would prevent Xoserve from giving such parties access to DES on reasonable access conditions

- 33...The CMA expects that, when assessing compliance with the requirement to give PCWs access on reasonable terms and subject to the satisfaction of reasonable access conditions, Xoserve will consider issues such as:
 - (a) Compliance with data protection legislation;
 - (b) The confidential nature of the information;
 - (c) restrictions concerning access and the use of DES by PCWs (e.g. requirements to use the data only for the purposes of customer switching, and restrictions so that access is only made on behalf of a current consumer that is using a PCW in relation to a switch being initiated via the PCW);
 - (d) The need to put in place appropriate audits to ensure that PCWs have appropriate organisational and technological processes and procedures in place to keep the data secure; and
 - (e) The need to ensure that any fees charged to PCWs are justified by incremental costs, and that any incremental costs incurred in providing PCWs access to ECOES are justified.

3. Service provision to PCW via an Application Programme Interface (API)service

Xoserve intends to provide the data provision service to PCWs via an API service.

The following API core principles and conditions will apply to any API design that will provide PCWs access to gas data.

3.1 Overview

An API is a set of requirements and specifications that governs how software programs can communicate with each another. An API connects business processes, services, content and data in an easy and secure way enabling companies to exchange data and build consistent cross-channel customer experiences, under a specific set of functions and variables.

A dataset will be prepared against which PCWs can make API calls. This dataset will comprise only of data PCWs are permitted to access.

This API will be set up to enable PCWs to make real time calls on Gas data as required during or following consumer contact on their website.

3.2 User Logins

Subject to a set of upfront validations each PCW will be provided a unique API key. The subscriber will be required to provide the unique API key within the header of each web method request. Upon receipt, the service will authenticate the API Key to an individual API key. If the key is not recognised it will respond with an error message.

Onboarding of consumers constitutes of following high level technical steps, in addition to process/commercial steps.

1. SAP standard S-user id is a pre-requisite. SAP standard S-user creation and deletion is completed on SAP market place website by SAP licenced users. Should a PCW not be licenced then Xoserve (supplier) can administrate SAP standard S-user id, for all potential consumers, either for trial or live consumption.
2. Xoserve (supplier) administrator will require to onboard the potential consumers (S-user id mandatory) on Gas API Platform by following technical steps (Please note this is actual database script execution rather than automated user interfaces).
3. Consumers (PCWs) are then authorised on the API Platform to create an Application and generate API Key (Mock API Key: 0KIHwW5RGkL45rLA1BsAi34YC06WY45I) for consumption.
4. APIs are inaccessible without an API Key in each request; failure of an API key will return the following error message “Application Key sent in API request is either empty or invalid.”
 - Below are test API URLs. These URLs will enable testing of API key that is either unauthentic or has been revoked – please test within a web browser.
 - <https://qaxoserve.apimanagement.hana.ondemand.com/v1/address.svc>
 - <https://qaxoserve.apimanagement.hana.ondemand.com/v1/switchdata.svc>

3.3 Data Partitioning

The API service works using bespoke service datasets.

A dataset will be created for PCW access services. The dataset will comprise of supply point data for domestic supply points only. The dataset will be sourced from the UK Link system and will use the Market Sector Code as the means of compiling the domestic supply point data. This meets the Order requirement of limiting PCW access to domestic consumer data only.

SwitchData API will not provide requested switching data if Market Sector Code and Annual Quantity conditions for domestic consumers are not met; such requests will only return the following error message “Requested address has non domestic meter device. You are not authorised to view this data.”.

Market Sector Code is assumed to be as accurate - this data is provided via Industry participants.

Meter Point Reference Number 93316***** (masked in this document) within the test environment is an example.

3.4 API tracking

For monitoring and auditing of PCW usage of the API service, every PCW enquiry of an; MPRN, address, date & time will be captured and held by the system. This information will be utilised to select calls for the purpose of PCW audits. Information on PCW volumes will also be tracked for monitoring purposes.

Following tables shows the data captured for a test case within the test environment; certain data has been masked in this document.

The 'USER_NAME' field shows the organisation/group, which the configured individual SAP S-user id user belongs to (e.g. PCW, Supplier etc.).

For the combined Gas and Electricity API service, aggregate service provider will capture audit information pertaining to the PCWs with date and time, and Xoserve will capture audit information as follows with a single USER_NAME provided for the aggregator. The aggregator will supply audit reports to Xoserve on a regular basis for review and entailed action. Hence an end to end traceability of audit information can be achieved using date and timestamp.

RECORD_ID	ADDRESS_ID	MPRN	POSTCODE	SUB_BUILDING_NAME	HOUSE_NAME	HOUSE_NO	USER_NAME	TIMESTAMP
10645212	60017*****	91397*****	M7 2AU			3	XoserveXXX	Thu Nov 09 2017 GMT+0000 (UTC

4. PCW access controls and conditions for an API service

4.1 Management of data accessible by PCWs

PCWs as per the CMA order are able to access data for the specific purpose of retrieving supply point information for a domestic consumer who has consented to the access of their data by a PCW in the act of seeking to effect a switch of provider (**“Specific Purpose”**).

The contractual and technical arrangements, for the Xoserve API service, have been scoped to meet the PCW access conditions.

Please note Xoserve will monitor contracts, for renewal of contracts or to seize existing access to the service as a result of contract completion. Where contracts are to be renewed, the validations as listed below will be completed again and the relevant parties will be notified of the outcomes.

Consumers (PCWs) can offboard themselves by deleting the Application created.

Alternatively Xoserve (supplier) administrator can suspend by de-linking S-user to the API

Platform or terminate by deleting the SAP S-user id. (Please note this is actual database script execution rather than automated user interfaces).

4.2 Controls

4.2.1 Validations

PCWs may have access to an API service, subject to compliance with the following upfront physical, manual validations undertaken by Xoserve;

- Being a registered company under Companies House or registered with the HMRC as a Sole Trader
- Registered with the ICO as a data controller, with appropriate storage, retention and deletion policies demonstrating organisational and technological processes and procedures are in place to keep the data secure
- Demonstrate they serve the domestic market and an 'opt in' clear statement of consent on the PCWs website (Xoserve will complete physical checks on PCW websites to ensure a tick box is available for consumers to actively tick), to satisfy the 'Specific purpose' for which data is accessed i.e. for a Domestic Customer who has consented to the access of their data
- Being ISO27001 compliant or demonstrate they have equivalent accredited protections in place to ensure appropriate levels of security for data being accessed and stored.

For the avoidance of doubt, if a PCW fails any of these validations then they would not be permitted access to an API service, as they would not satisfy reasonable access conditions.

4.2.2 Access limitations

Data will be securely accessed by users, over a secure API channel (HTTPS). Access to the API product will only be available via a unique API key, provided as part of the user login process (as described above).

The API solution is also able to limit API calls in pre-configured bands. This capability would allow for set limits of access to be defined and PCW user performance monitored in accordance with contracts and pre-configured bands, which will enable individual accounts to be suspended when inappropriate activity is detected.

The API Platform has functionality to easily configure monthly quota allowance and sudden spike denial on need basis. If the allowed quota is breached the following error message is provided to the Consumer (PCW) "Number of API requests for [product] has exceeded the allowed quota limit of [X_] per month."

Suspension of accounts is as per: Section 4.1.

4.2.3 Audits

The API tracking functionality captures every API enquiry made by a PCW. Retaining detail of the; enquiring PCW, enquired supply point and the date and time of the enquiry.

The API service enables reporting functionality of this data. This will facilitate audits to;

- Ensure PCWs are complying with principles of the CMA order and contractual arrangements by obtaining consent from the customer to; use the data only for the purposes of customer switching.
- PCW continues to have appropriate organisational and technological processes and procedures in place to comply with contractual arrangements and keep the data secure, including measures to ensure data accessed is not shared.

The API service has functionality for the immediate termination of PCW access to the API query, should there be a requirement to do so.

Audit functionality is as: [Section 3.4](#). Suspension of accounts is as per: [Section 4.1](#).

4.3 General Data Protection Regulation (GDPR)

The General Data Protection Regulation (GDPR) is European legislation which will come into force on 25th May 2018.

Accountability is an integral part of GDPR. Strongly linked to accountability is the requirement to show the legal basis for processing of each piece of personal data.

4.3.1 API solution - compliance with GDPR

The API service will be developed to ensure compliance with the GDPR. For example, the functionality will enable auditing and documenting consent for all personal data, with easy review of where it comes from and who we give it to and recording the legal basis for which we do so. This functionality as scoped will enable compliance with the GDPR requirements.