Technical Specification Document

Gas Enquiry Service (GES) Service Definition

Version: 0.2   Effective Date: TBC

Change History

Version Number	Implementation Date	Reason for Change
0.1	TBD	Initial Draft for November 2019 Technical Specification Approach consultation
0.2	TBD	Draft for Spring 2021 Switching Consultation

Contents Table

1   Description of Gas Enquiry Service

1.1   The Gas Enquiry Service (GES) allows GES Users to access gas market data where they are entitled to do so in accordance with the Data Access Matrix defined within the Data Access Schedule. Data is sourced from either the gas Central Data Service or the Central Switching Service (CSS).

1.2   The GES consists of:

(a)   an online portal to view data for all Supply Meter Points; and

(b)   an Application Programming Interface (API) service which allows GES Users to gather information from the service as detailed in the Data Specification.

1.3   The GES is a tool for viewing and accessing information sourced from Data Items already held in industry systems and does not prescribe any further validation of those Data Items.

1.4   The GES Provider takes no responsibility for the accuracy of data other than ensuring that it reflects the data received, in accordance with the Data Specification. Identified inaccuracies should be notified to the relevant Data Master identified within the Data Specification and corrected at source via standard industry processes.

1.5   This Service Definition should be read in conjunction with:

(a)   the Data Access Schedule which defines the governance rules relating to data access via the GES; and

(b)   the Data Specification (including the Data Access Matrix) which defines the Data Items accessible to each category of GES User, the means by which data is made available to users and the content and format of screens and API messages for the online portal and API service respectively.

1.6   The GES Provider shall produce and maintain a user guide which defines the lower level operational processes and articulates the functionality of the service to GES Users.

1.7   The following generic rules apply to the access of data across both the online portal and the API service, as further explained in the Data Access Schedule:

(a)   data shall be available to GES Users as defined in the Data Access Matrix. This is defined based on the GES User Market Participant Role, and in some instances, whether or not they are Registered or Appointed for the Supply Meter Point. For example, additional data may only be available to the current Registered Gas Supplier, as defined in the Data Access Matrix;

(b)   data item history will be accessible where specified in the Data Access Matrix. For example, the GES online service will show asset history to GES Users entitled to this data; and

(c)   unless specifically conducting a search for the Retail Energy Location Address, the address details provided via a search will be the Meter Point Location Address. GES Users will only be able to access the Retail Energy Location Address for the purpose of switching.

1.8   The GES Provider is one of a number of Switching Data Service Providers, and is therefore captured within the scope of the overall switching service management arrangements, as defined in the Switching Service Management Schedule.

2   Definition of GES Users

2.1   In this Service Definition, the term "**GES User**" refers to the organisation granted access to data in accordance with the Data Access Schedule; and the term "**Authorised Person**" refers to the individual representative of an GES User accessing the GES on behalf of the GES User.

2.2   The GES provides access to data to GES Users, in accordance with the process specified in the Data Access Schedule. The Data Items that each Authorised Person can access, and any conditions of access relating to specific Data Items, are defined by the access afforded to the GES User on behalf of which that Authorised Person is acting. The GES User access is set out in the Data Access Matrix which forms part of the Data Specification.

2.3   In addition, the GES interfaces with the following services:

(a)   data is provided by the gas Central Data Service Provider via a logical interface; and

(b)   data is provided by the Central Switching Service Provider to the GES via CSS APIs.

3   Service Functionality

Online Portal

3.1   The online portal is an interface designed to give Authorised Persons access to data. It is not to be used to support automatic extraction capability e.g. harvesting bots or scraping. GES Users must engage with the GES Provider where large scale data access is required.

3.2   Online portal users can search for data relating to a specific Supply Meter Point using Data Items specified in the Data Specification; for example:

(a)   Meter Point Reference Number;

(b)   Meter Point Location Address;

(c)   Retail Energy Location Address; or

(d)   Meter Serial Number.

3.3   Search results are provided where the search information matches the data associated with one or more Supply Meter Points within the GES. Where search information does not result in a match, the GES will return a message showing that no data was found. In limited circumstances, the Authorised Person may be advised to contact the GES Provider for details. The screens accessible to an Authorised Person, and the data populated therein, are specific to each GES User Category.

API Service

3.4   The API service is an interface designed to give machine-to-machine access to data.

3.5   An API service user can search for data relating to a specific Supply Meter Point based on the data defined in the Data Specification.

3.6   The Data Items returned in response to an API search are defined in the Data Specification.

4   System Access and User Management

4.1   Once a new GES User has been granted access to the GES in accordance with the Data Access Schedule and Qualification and Maintenance Schedule, the Code Manager will inform the GES Provider who will provide access within [5 Working Days] to the online portal and/or the API service (as specified by the Code Manager).

Online Portal

4.2   Each Authorised Person shall have an individual user account, which shall only be accessed via entry of the correct username and password. Access to the online service is provided via the UK Link Portal.

4.3   The GES Provider shall create for each GES User a single 'Master Admin User' (MAU). For some GES User Categories the GES Provider can perform the role of MAU for the GES User.

4.4   The MAU shall have the ability to:

(a)   create more Authorised Persons;

(b)   grant privileges associated with other Authorised Persons e.g. allowing them to reset passwords, enable and disable accounts and create new Authorised Persons;

(c)   search for Authorised Persons;

(d)   arrange the resetting of passwords, disabling, re-enabling, deleting[1] or reinstating accounts, and controlling the functionality to which Authorised Persons have access.

4.5   Each Authorised Person's credentials will be system generated based on the individual's first and last names. If there is already an Authorised Person within the system with the same first and last name, the system will automatically generate a number against the user identity e.g. JohnSmith1. This number will increment by one for every Authorised Person in the system with the same first and last name.

4.6   The system will generate an initial password for new Authorised Persons and a replacement password for any forgotten passwords. The first time an Authorised Person logs in with a generated password they will be prompted to change it and set security questions (to be used in the password reset procedure).

API Service

4.7   To enable GES Users of the API service to authenticate themselves with the service, the request for all web service methods must contain a service subscription licence key provided by the GES Provider to determine:

(a)   the web service methods that are available to the GES User;

(b)   the request limits of the web service and web service methods for the GES User;

(c)   the response limits of the web service and web service methods for the GES User; and

(d)   the Data Items that are available to the GES User.

---

[1] Deleted accounts will not be visible to Authorised Persons or user-run reports; however, they will continue to be recorded by the GES for audit purposes.

4.8   The API service can be accessed <u>via</u> endpoints detailed in the [GES API Technical Specification]

5   User Limits

Online Portal Access

5.1   The online portal is intended to be accessed by individual Authorised Persons. It has not been designed for interaction with systems / automated data extraction (such as harvesting bots or scraping). Where the GES Service Provider identifies that a GES User or Authorised Persons account is accessing data in this manner this will be discussed with the Code Manager. The GES Service Provider may suspend such accounts if necessary while these investigations are conducted by the Code Manager.

API Access

5.2   GES Users need to specify expected usage volumes with the Code Manager, and access to the GES API will be granted on this basis.

5.3   Each GES User may exceed its expected usage volume determined by the service plan associated with the subscription licence key. . The GES Service will not constrain a GES User from doing so. [Where a GES User exceeds the service plan message volume, any additional requests will be charged in accordance with the GES User's Access Agreement]..

5.4   The API service counts all requests made to each accessible web service method, per calendar month, for each GES User. Where a web service method allows multiple requests to be made through a single request transaction, the web service will count each individually requested item as a request.

6   Service Availability

6.1   The GES online portal and API services shall have 99.75% availability outside of the daily scheduled maintenance periods of 05:00 to 07:00 hours.

6.2   The GES online portal and API services shall be made available 24hrs a day 7 days a week, except during scheduled maintenance periods (05:00 to 07:00 hours) and unplanned outages.

6.3   The GES Provider shall provide a minimum [5] days notice to the Code Manager of a scheduled maintenance periods, where reasonably possible. Where a scheduled maintenance periods has been notified this will not contribute to failure of the availability provided it occurs within period of 05.00-07.00 hours.

6.4   In the event of scheduled maintenance, the GES Provider shall provide notice to the Switching Operator for inclusion in the forward schedule of change, in accordance with the Switching Service Management Schedule.

6.5   In the event of an unplanned outage (e.g. to fix a priority incident), the notice and means will be specified in the Service Management Schedule.

7   User Support

7.1   The GES Provider will provide a service desk to provide technical support. This service desk will manage all GES User service contacts such as reporting issues and queries.

7.2   The GES Provider service desk shall be made available 24hrs a day, 7 days a week to enable GES Users and Authorised Persons to raise service desk tickets. The GES Service Provider's issue

resolution team will be available during working hours (09.00 to 17.00 hours on Working Days). In the event of a service contact during non–working hours affecting individual Authorised Persons, contact resolution timescales will begin at the first working hour.

7.3   If Authorised Persons experience issues accessing data, they may raise an incident to the GES Provider's service desk via telephone, email or online portal. The GES Provider will provide an initial response to all enquiries within [1 Working Day]. The initial response will include an estimate on the timescale for full resolution of the query. [2]

7.4   Any Switching Incidents and Switching Service Requests shall be raised via the Switching Portal. The GES Provider shall provide second line support in accordance with this Paragraph 7 and the Switching Service Management Schedule.

7.5   The GES Provider shall support the response and resolution times for the following Switching Incident categories.

(a)   Priority 1 – for Switching Incidents causing critical impact and significant financial loss / disruption - 10 mins response with a 1 - 4 hours resolution time;

(b)   Priority 2 – for Switching Incidents causing non-critical impact with non-significant financial loss / disruption - 20 mins response with a 24 hours resolution time;

(c)   Priority 3 – for Switching Incidents causing adverse impact but can be reduced to moderate adverse impact - 45 mins response with a 72 hours resolution time;

(d)   Priority 4 – for Switching Incidents causing minimal impact - 1 day response with a 10 day resolution time.[3]

8   Service Levels

8.1   The GES shall respond to Market Messages received from the CSS Provider at Gate Closure (from the point at which the system receives the first message to the point at which it sends the acknowledgement of receipt for the last message) within the following times[4]:

Performance Parameter	Performance Level
Processing of data received from the CSS relating to Secured Active Switches during Gate Closure period	
Average daily volume	mean time of 20 minutes or less
Average daily volume	90th percentile time of 25 minutes or less
Peak daily volume	mean response time of 35 minutes or less
Peak daily volume	90th percentile time of 40 minutes or less

---

[2] [Ongoing discussions between RECCo and the GES Provider to determine the approach to delivering the service desk including the notification in Para 6.3]

[3] [These SLAs reflect the overall switching service management priority levels – DCC is considering application of these SLAs across each Switching Data Service].

[4] [This reflects the non functional requirements specified in the DB4 Baseline. Service levels for making data available to GES Users are currently missing, to be determined.]

8.2   The GES shall process each Market Message from the CSS Provider, other than at Gate Closure (from receipt of the message in the system to the sending out of a response from the system) within the following times[5]:

Performance Parameter	Performance Level
Processing of data received from the CSS outside of the Gate Closure period	
Average hourly volume	mean time of 6 seconds or less
Average hourly volume	90th percentile time of 10 seconds or less
Peak hourly volume	mean time of 10 seconds or less
Peak hourly volume	90th percentile time of 15 seconds or less

Online portal

8.3   The online portal will provide the following response times to an enquiry:

Performance Parameter	Performance Level
Responding to an enquiry from a GES User	
Average hourly volume	mean time of 3 seconds or less
Average hourly volume	90th percentile time of 6 seconds or less
Peak hourly volume	mean time of 5 seconds or less
Peak hourly volume	90th percentile time of 8 seconds or less

GES API

8.4   GES API Service will provide the following response times to an enquiry:

Performance Parameter	Performance Level
Responding to an API Call from a GES User	
Average hourly volume	mean time of [2 seconds] or less
Average hourly volume	90th percentile time of [4 seconds] or less
Peak hourly volume	mean time of [3 seconds] or less
Peak hourly volume	90th percentile time of [6 seconds] or less

9   Maximum Design Volumes

9.1   The GES has been designed based on the requirements set out below. Where the values are breached, the service received by the GES User may not be subject to the expected service levels. This will not constitute a breach by the GES Provider.

9.2   Where Maximum Design Volumes are breached within a given month the GES Provider shall report the breach incident to the REC Performance Assurance Board, and any impacts reported against the service. The Code Manager may initiate a Change Proposal to increase the Maximum Design Volumes.

Receipt of Data from the CSS Provider

9.3   The GES shall have the capability to process, as a minimum, Energy Market Messages relating to the following volume of successful Switch Requests:

(a)   average daily volume of 42,300;

---

[5] [This reflects the non functional requirements specified in the DB4 Baseline. Service levels for making data available to GES Users are currently missing, to be determined.]

(b)   a peak daily volume of 281,600;

(c)   an average hourly volume of 3,500;

(d)   a peak hourly volume of 25,300; and

(e)   an annual volume of 15,450,000.

9.4   In addition, the GES shall be capable of processing Market Messages relating to an annual volume of 375,800 Initial Registrations.

9.5   In exceptional circumstances, the GES shall be capable of processing Market Messages relating to 250,000 Switch Requests in addition to the average daily volume.

Receipt of Data from Gas Central Data Service

9.6   The GES provisions data from the gas Central Data Service. Since this is a logical interface and there is no specific storage within the GES, no constraints are identified with receipt of this data from this source.

Receipt of Enquiries from GES Users

9.7   The GES shall be capable of processing enquiries at volumes of 3 times those of Switch Requests, i.e.:

(a)   average daily volume 127,000;

(b)   peak daily volume 845,000;

(c)   average hourly volume 10,500;

(d)   peak hourly volume 76,000; and

(e)   annual volume 46,350,000.

10   Business Continuity

10.1   In the event of an unplanned outage, the system shall resume operation within 1 hour.

10.2   In the event of failure of the GES, the Recovery Point Objective will be:

(a)   the latest extract from the gas Central Data Service, for data provided from the Central Data Service Provider; and

(b)   the loading of Market Messages received since the last backup of data provided from CSS Provider.

10.3   During the service outage online portal and API requests will be rejected. Any such API requests will not be counted towards a GES User's usage volume.

11   Reporting

11.1   The reports described in this Paragraph 11 will be generated by the GES and provided to the GES User on request, or as part of a defined schedule.

Performance Reporting

11.2   The GES online portal shall monitor utilisation. Where the GES Provider identifies unusual usage activity, it shall contact the GES User. This report shall identify:

(a)   utilisation by GES User;

(b)   utilisation by Authorised Person; and

(c)   monthly usage.

11.3   The GES API service will monitor utilisation against the expected usage volumes. Where the actual usage exceeds the maximum usage in a given period as defined within the GES User service plan, the GES Provider shall inform RECCo.

User Reports

11.4   The MAU of a GES Usercan request various reports containing data about its Authorised Persons and status. These reports contain:

(a)   Authorised Person name;

(b)   Authorised Person status; and

(c)   Authorised Person provisioning activity by GES User e.g. deletions.

Switching Service Management Reports

11.5   The GES Provider shall provide a monthly performance report to the Switching Operator, providing details of overall service performance.[6]

12   Additional Services

12.1   In addition to the standard service defined in Paragraphs 1 to 10, the GES Provider may agree to provide additional services to GES Users, based on data received in its role as GES Provider.

12.2   Additional services may include the provision of reports and API services to individual GES Users on a bilateral basis. Reports may be made available to the Authorised Person via secure FTP or other secure method as agreed with the GES User.

12.3   The data and reports made available via such additional services must only contain GES provisioned data that is accessible by the relevant category of GES User, as defined in the Data Access Matrix.

12.4   Paragraph 12.3 does not prevent the use of data provided by the GES User, or other publicly available data, from being used as part of any such additional services.

13   System Audit

13.1   For the purposes of audit management, the following date shall be available:

---

[6] [Further work being progressed by DCC to define the reporting requirements, specifically the contents of the monthly performance report]

      (a)   GES online portal will record the:

            (i)   identity of the GES User;

            (ii)   identity of the Authorised Person; and

            (iii)   time and date of the session.

      (b)   GES API service will record the:

            (i)   identity of the GES User; and

            (ii)   time and date of the transaction.

13.2   The data to support the system audit report should be retained for at least [12 months].

14   Data Handling

14.1   The GES shall be capable of storing information related to 25 million Supply Meter Points.

14.2   The GES shall be capable of expansion to support a 375,800 increase in the number of Supply Meter Points in the first year of the CSS's operation.

14.3   The GES shall hold the most recent 5 years' worth of historic data, unless specified to the contrary in the Data Access Matrix.

14.4   The GES shall be capable of detecting loss and duplication[7] of messages transferred to it and shall have facilities for rectification.

14.5   The GES shall be able to detect mis-alignment of data between itself and other systems with which it exchanges synchronisations and shall have facilities for rectifications.

Receipt of Gas Central Data Service data

14.6   Data will be provided to GES from the gas Central Data Service. This logical interface is within the CDSP estate and is not therefore defined in this Code.

14.7   [Data populated in the UK Link system will be available in GES typically within 24 hours after acceptance to the gas Central Data Service, but can be up to 48 hours after acceptance. The online portal will display the latest refresh date and time[8].]

Receipt of CSS Data

14.8   The GES shall receive data from the CSS in 'real time' and provide an initial acceptance / rejection within the timescales set out in Paragraph 8.

14.9   Data will be received from the CSS Provider via Market Messages using an interface which is based on a Microsoft Azure cloud environment. The interface will provide information via specific Market Messages, based on the event type.

14.10   When incoming updates to the GES are processed on a chronological basis, Market Messages from the CSS Provider shall be processed before updates originating from the gas Central Data Service.

---

[7] [Clarification regarding the design is required to determine how lost messages are to be identified.]

[8] [Timescales to be confirmed by Xoserve]

15   Security

GES API

15.1   The RESTful endpoints of the API service are available over HTTPS only, thereby ensuring that all communication between the web service and the client is secured at the transport level.

15.2   The SSL certificate issued for this service is 2048bit SHA2 256 encrypted and as such any server communicating with the GES API must be capable of understanding this higher-level type of certificate. In order to support this level of certificate GES Users may need to patch the server making the request, or any intermediary proxy, to include any relevant hot fixes.