Technical Specification Document

Gas Enquiry Service (GES) Service Definition

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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
1.0	18 July 2022	Switching SCR Modification R0041

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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). The GES is the only means by which GES Users can access information relating to Supply Meter Points that are not part of their portfolio and can also be used by GES Users to access information relating to Supply Meter Points that are part of their portfolio. Some GES Users have rights to access portfolio data through other industry arrangements.

1.2 The GES Provider is not a Party under this Code. Where the GES Provider is referenced within this Code, RECCo is obliged to ensure that the services are provided in line with this Code.

1.3 The GES consists of:

(a) an online portal to view data for all Supply Meter Points excluding Twinstream Meter Points, Shared Supply Meter Points and Gas Interconnectors;

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

(c) a reporting function enabling defined data sets to be provided to individual GES Users.

1.4 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.

1.5 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.

1.6 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 of API messages and relevant reports

1.7 The GES Provider shall produce and maintain a user guide which will assist GES Users to access the service and articulates the functionality of the service to GES Users.

1.8 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 Category, 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 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

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(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 shall only access the Retail Energy Location Address for the purpose of switching.

1.9 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. The scope of the Switching Service Management arrangements is limited to the primary interface between the GES Provider (or its contracted CSS Interface Provider) and the CSS Provider.

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 CDSP via a logical interface; and

(b) data is provided by the CSS 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 In accordance with the GES user guide, online portal users can search for data relating to a specific Supply Meter Point using one or more of the following:

(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 by a system prompt 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.

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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 available web service methods and the Data Items returned are detailed in the GES API Technical Specification.

3.7 GES Users will be required to select a usage level, with an annual lookup limit linked to a service charge. GES Users can change usage levels prospectively. If a GES User exceeds its usage level a default charge may be applied.

4 System Access and GES User Management

4.1 Once a new GES User has been Qualified as a GES User 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 five Working Days to the online portal and / or the API service (as specified by the Code Manager).

4.2 In order to access the online portal and API service, GES Users must employ transport layer security v1.2 or higher.

Online Portal

4.3 Each Authorised Person shall have an individual user account, which shall only be accessed via entry of the correct user credentials,. Access to the online service is provided via the UK Link Portal. In order to access the online portal, Authorised Persons must use a compatible browser at a satisfactorily supported version. Compatible browsers and relevant supported versions are specified in the Gas Enquiry Service user guide.

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

4.5 The MAU shall have the ability to:

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

(b) search for Authorised Persons;

(c) arrange the resetting of credentials, disabling, re-enabling, deleting or reinstating accounts, and controlling the functionality to which Authorised Persons have access. 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.

API Service

4.6 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;

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(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.

4.7 The API service can be accessed via 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 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 Provider may be instructed to 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 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 REC Charging Statement.

5.4 The API service counts all requests made to each accessible web service method, per calendar month, for each GES User.

6 Service Availability

6.1 The GES online portal and API services shall be provided 24hrs a day, seven days a week, except during Scheduled Maintenance periods and unplanned outages.

6.2 The GES online portal and API services shall have 99.75% availability for each calendar month (excluding Scheduled Maintenance). .

6.3 Any unplanned outage of the services shall be notified by the GES Provider to:

(a) the Code Manager as soon as is practicable. Such notification shall also include an estimate for the restoration of services, with further confirmation provided when services are restored.

(b) the Switching Operator, in accordance with the Switching Service Management Schedule.

6.4 In the event of an unplanned outage, the System shall resume operation within one hour.

6.5 During the service outage, online portal and API requests will not be fulfilled i.e. the GES User will not be able to access the online portal and specific requests will not be responded to during the outage. If an Authorised Person tries to access the API service when the service is not available, the Authorised Person will be notified that the service is not available. Any such API requests will not be counted towards a GES User's usage volume.

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6.6 Scheduled Maintenance shall not occur between 16:00 and 01:00 hours. In the event of Scheduled Maintenance that impacts the service that the GES Provider is providing under this Code,

(a) the GES Provider shall notify the Code Manager with a minimum 10 Working Days' notice of Scheduled Maintence. The Code Manager will notify GES Users as soon as reasonably practicable.

(b) 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.

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, seven days a week to enable GES Users and Authorised Persons to raise service desk tickets.

7.3 The GES Provider shall provide support in accordance with this Paragraph 7 and the Switching Service Management Schedule.

7.4 The GES Provider shall support the response and resolution times for the following categories.

(a) Priority 1 – for incidents causing critical impact and significant financial loss / disruption - 30 minute response with a four hour resolution time;

(b) Priority 2 – for incidents causing non-critical impact with non-significant financial loss / disruption - one hour response with a 24 hour resolution time;

(c) Priority 3 – for incidents causing adverse impact but can be reduced to moderate adverse impact - three Working Hour response with a three Working Day resolution time;

(d) Priority 4 – for incidents causing minimal impact – one Working Day response with a 10 Working Day resolution time.

8 Service Levels

8.1 The GES Provider shall respond to Market Messages relating to secured Switches 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:

Performance Parameter	*Performance Level*
Processing of data received from the CSS relating to Secured Active Switches during Gate Closure period	
Up to and including average daily volume	mean response time of 20 minutes or less
Up to and including average daily volume	90th percentile response time of 25 minutes or less

Above average daily volume and up to and including peak daily volume	mean response time of 35 minutes or less
Above average daily volume and up to and including peak daily volume	90th percentile response time of 40 minutes or less

8.2 The GES Provider shall respond to Market Messages from the CSS Provider, other thanwithin the Gate Closure periodas follows:

Performance Parameter	*Performance Level*
Processing of data received from the CSS outside of the Gate Closure period	
Up to and including average hourly volume	mean response time of six seconds or less
Up to and including average hourly volume	90th percentile response time of 10 seconds or less
Above average hourly volume and up to and including peak hourly volume	mean response time of 10 seconds or less
Above average hourly volume and up to and including peak hourly volume	90th percentile response time of 15 seconds or less

8.3 The GES Provider shall make data updates from CSS available to Authorised Persons within the 15 minutes from the point that the response has been sent to the CSS Provider in Paragraphs 8.1 and 8.2.

8.4 The GES shall respond to an enquiry from a GES User (from the point at which GES receives the request to the point at which GES sends the response) as follows:

Performance Parameter	*Performance Level*
Responding to a query from a GES User	
Up to and including average hourly volume	mean response time of three seconds or less
Up to and including average hourly volume	90th percentile response time of six seconds or less
Above average hourly volume and up to and including peak hourly volume	mean response time of five seconds or less
Above average hourly volume and up to and including peak hourly volume	90th percentile response time of eight seconds or less

Processing of data from the CDSP

8.5 The GES shall process data received from the CDSP in accordance with the following Service Levels:

(a) data required within the Supply Point Switching API (as defined in the GES API Technical Specification) shall be available to Authorised Persons within 2 hours of an update being accepted from the relevant Shipper; and

(b) data not required within the Supply Point Switching API (as defined in the GES API Technical Specification) accepted by the CDSP before 04:00 hours shall be available to Authorised Persons by 09:00 hours on the same day.

Management of BCDR events

8.6 Where a BCDR event is invoked, the Recovery Time Objective for the GES will be:

(a) four hours target time; and

(b) eight hours maximum time.

8.7 Where a BCDR event is invoked, the Recovery Point Objective for the GES will be 30 minutes.

9 Maximum Demand 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. Any such failure to meet the expected service levels will not constitute a breach by the GES Provider.

9.2 Where maximum demand 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 demand volumes.

9.3 The GES online portal can support 750 concurrent Authorised Persons.

9.4 The GES API service is designed to a maximum of 120 concurrent connected machine to machine interfaces.

Receipt of Data from the CSS Provider

9.5 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 17,766;

(b) a peak daily volume of 118,272;

(c) an average hourly volume of 1,470;

(d) a peak hourly volume of 10,626; and

(e) an annual volume of 6,489,000.

9.6 In addition, the GES shall be capable of processing Market Messages from the CSS Provider relating to an annual volume of 157,836 Initial Registrations Requests.

9.7 In exceptional circumstances, the GES shall be capable of processing Market Messages from the CSS Provider relating to 105,000 Switch Requests in addition to the average daily volume.

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Receipt of Data from Gas Central Data Service

9.8 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

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

(a) average daily volume 53,298;

(b) peak daily volume 354,816;

(c) average hourly volume 4,410;

(d) peak hourly volume 31,878; and

(e) annual volume 19,467,000.

10 Reporting

10.1 The following reports will be generated by the GES and provided to the recipient on request, or as part of a defined schedule.

Report Name	Timescale	Description
Performance Reporting	Monthly	The GES Provider shall provide data relating to the use of the service for consideration by the REC Performance Assurance Board.
User Detail Report	Where required	The MAU of a GES User can 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.
SoLR Portfolio Report	Where required	The Replacement Supplier (appointed as a result of a Last Resort Supplier Direction) can request a report detailing Supply Meter Point and Metering Asset details for all Supply Meter Points within the failed Energy Supplier portfolio.
Supplier Registration Report (MEM)	Annually	A report provided annually to each MEM, specifying the Registered Supplier for all Supply Meter Points where the MEM is recorded within the Central Gas Register.

Report Name	Timescale	Description
		Further reports available on request, subject to a separate charge.
Portfolio Data (MEM)	Annually	A report provided annually to each MEM, detailing Supply Meter Point and Metering Asset details for all Supply Meter Points where the MEM is recorded within the Central Gas Register. Further reports available on request, subject to a separate charge.
Supplier Registration Report (MAP)	On request	A report provided on request to the relevant MAP, specifying the Registered Supplier and Metering Asset details for all Supply Meter Points where the MAP is recorded within the Central Gas Register.
Portfolio Data (MAP)	On request	A report provided on request to the relevant MEM detailing Supply Meter Point and Meter Asset details for all Supply Meter Points where the MAP is recorded within the Central Gas Register.
Supplier Registration Report (PPMIP)	On request	A report provided on request to the PPMIP, specifying the Registered Supplier againt Supply Meter Points specified by the PPMIP.
Housing Association Report	Where required	A report provided on request to a Housing Association confirming if there is a live gas supply at a property.
AltHAN Co Report	Where required	A report provided to AltHan Co to assess solutions for premises that require an altenative home area network in order for a Smart Metering System to be effective.

11 Additional Services

11.1 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.

11.2 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.

11.3 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.

11.4 Paragraph 11.3 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.

12 System Audit

12.1 For the purposes of audit management, the following data shall be available:

(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.

12.2 The system must be capable of accommodating the scrutiny of formal and informal audits by RECCo (or its agent), or any other person legally entitled to carry out such an audit.

13 Data Handling

13.1 The GES shall be capable of storing information related to all Supply Meter Points in Great Britain, excluding Twinstream Meter Points, Shared Supply Meter Points and Gas Interconnectors.

13.2 The GES shall be capable of expansion to support a 157,836 increase in the number of Supply Meter Points in the first year of the CSS's operation.

13.3 The GES shall be capable of holding five years' worth of CSS Market Messages online.

Receipt of Gas Central Data Service data

13.4 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.

13.5 Data received from the CDSP will be available via the online portal and API service within the timescales set out in Paragraph Error! Reference source not found..

Receipt of CSS Data

13.6 The GES Provider shall receive data from the CSS Provider and provide an initial response within the timescales set out in Paragraph 8. Data received from CSS will be available via the online portal and API service within the timescales set out in Paragraph Error! Reference source not found..

13.7 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.

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

14 Security

GES API

14.1 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.

14.2 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.

14.3 Penetration testing of the GES infrastructure shall be undertaken at least once in each calendar year, and a report provided to the Code Manager regarding the outcomes of this test, to include any observations or findings, and recommendations for any required remedial actions.

14.4 In the event that the GES Provider detects a potential or suspected security breach impacting switching related Systems, it shall raise a Switching Incident (in accordance with the Switching Service Management Schedule).

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