



Le réseau
de transport
d'électricité

API GUIDE FOR THE GIPSE APPLICATION

Version 1.0

This GIPSE API guide applies to data exchanges with a validity date after 1 December 2021

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1 API for Distribution System Operators

1.1 Introduction

GIPSE makes available APIs so that DSOs can import their reference data (data transmitted by le DSO to RTE) and export the list of BEs/RPGs in "Machine to Machine" mode (data transmitted by RTE to the DSO).

The URL specified in this document is the GIPSE External Portal address.

Environment	GIPSE External Portal address
Generation	https://secure-apps.iservices.rte-france.com/gipse

1.1.1 Authentication

External GIPSE APIs require LDAP authentication.

A PKI certificate associated with the DSO's EIC code is required.

If there is an authentication issue (missing or invalid ID), an HTTP 401 (unauthorized) error will be returned.

1.1.2 Date format

All dates are in ISO 8601 format, with time and time zone specification.

1.1.3 Technical errors

Technical errors are indicated by HTTP codes:

- 400 Bad Request

Missing or invalid required parameters.

- 401 Unauthorized

Authentication error, missing or invalid credentials.

- 404 Not Found

Invalid URL.

- 500 Internal Server Error

Internal technical error on GIPSE servers.

1.1.4 Functional errors

In the event of a functional error, the HTTP status response code is 200. It is not a technical error.

The HTTP status response code 200 is also returned when processing has completed successfully.

1.1.5 Note:

In the response, NULL or EMPTY properties are ignored

1.2 DSO reference file import

1.2.1 Description of the API

This API allows you to import sites from a CSV file provided by the DSO.

There are a number of controls in place to validate the file in its global form, allowing it to be accepted or rejected. These relate to:

- The file name
- The data application date
- The DSO's EIC code
- The column headings
- The file extension
- The existence of a mandate if the EIC code in the file name is different from the EIC code of the DSO connecting
- ...

There are other controls for the detail lines (sites) to accept or reject the site. These relate to:

- The required fields
- The possible values
- The presence of entities (BEs/RPGs...) and contracts (BRP/Supplier) in the GIPSE repository
- ...

1.2.2 URL of the API:

POST /api/v1/grd/importCsv

1.2.3 URL parameters:

Name	Type	Requirements	Notes
file	Multipart/formData	Yes	Content-Type: text/csv

Example:

POST /api/v1/grd/importCsv HTTP/1.1

Host: URL

REMOTE-USER: uid=user.grd,uid=17X100CODEEICGRD,ou=Users,o=rte

Content-Length: 219

Content-Type: multipart/form-data; boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW

----WebKitFormBoundary7MA4YWxkTrZu0gW

Content-Disposition: form-data; name="file"; filename="SSY_REFST_GRD_202102_17X100CODEEICGRD_20201114050000.csv"

Content-Type: text/csv

(data)

---WebKitFormBoundary7MA4YWxkTrZu0gW

Response:

Import without errors

```
{
  "fileName": "SSY_REFST_GRD_202103_17X100CODEEICGRD_20210104050111.csv",
  "applicationDate": "2021-02-28T23:00:00Z",
  "grdEicCode": "17X100CODEEICGRD",
  "totalSites": 1000,
  "rejectedSites": 0,
  "acceptedSites": 1000,
  "executeTime": 339
}
```

Import with errors

```
{
  "fileName": "SSY_REFST_GRD_202103_17X100CODEEICGRD_20201114050009.csv", // The name of the imported file
  "applicationDate": "2021-02-28T23:00:00Z", // The application date of these data
  "grdEicCode": "17X100CODEEICGRD", // The DSO's EIC code
  "totalSites": 5000, // The number of imported sites
  "rejectedSites": 5000, //The number of rejected sites
  "acceptedSites": 0, // The number of accepted sites
  "executeTime": 2667, // The import execution time in milliseconds
  "errors": [ // the list of errors related to the file (File name, format ...) error = complete rejection of the file
    {
      "code": "ERR_00004" // The error code
    }
  ]
  "warnings": [ // The list of warnings related to the file (List of BEs to declare...)
```

```
{
  "code": "WARN_00003" // // The warning code

  "details": "EDA_1, EDA_2" (BE_1, BE_2)
}
]

"lines": [ // the list of errors and warning related to lines grouped by line (error on one line = line rejection)

{
  "lineNumber": 4, // The line number

  "errors": [

    {
      "code": "ERR_00032", // The error code

      "column": "CODE_EDR" // The column containing the error

    }

  ],

  "warnings": [

    {
      "code": "WARN_00001", // The warning code

      "column": "CODE_EDR" // The column containing the warning

    }

  ]

},

]
```

1.2.4 List of error codes

ERROR CODE	ERROR NAME	DETECTION	PROCESSING
ERR_00001	DSO data import processing cannot be performed outside the allowed time slot.	When a FULL file is transmitted during the 5 business days before end M	File rejection
ERR_00002	Error in the managing of mandates. You do not have permission for this type of data.	A DSO sends data from another DSO for which it is not mandated.	File rejection
ERR_00003	The file name is invalid.	Error in file name structure	File rejection
ERR_00004	The file name does not contain a valid month.	In the file name: File FULL: the month is different from M+1. Delta File: the month is not M or 000000	File rejection.

ERR_00005	The file name does not contain a known EIC code.	In the file name: The EIC code is not that of a known DSO	File rejection
ERR_00006	The file extension is not valid, it must be .csv.	In the file name: The extension is not .csv	File rejection
ERR_00007	The EIC code of the DSO is different from the EIC code of the file name.	In the header (line no. 2): The EIC code of the DSO is different from the one in the file name	File rejection
ERR_00008	The month of validity of the perimeters is different from the month of validity of the file name.	In the header (line no. 2): The month is different from the one in the file name	File rejection
ERR_00009	The header of the file (line no. 3) is not the expected header.	In the header (line no. 3): incorrect header	File rejection
ERR_00010	The end tag of the <EOF> file is missing or wrong.	In the file: No <EOF> tag	File rejection
ERR_00012	The file does not contain any site(s).	In the body of the file: The file does not contain any lines.	File rejection
ERR_00013	The field is empty.	In the line: A required field is empty.	Line rejection
ERR_00014	The EIC code of the DSO associated with the site is different from the EIC code of the file name.	In the line: The EIC code of the DSO is different from the EIC code of the file name.	Line rejection
ERR_00015	The site type is wrong.	In the line: Site type is not equal to one of the values: PRM (reference measuring point), PDL (delivery point) or CARD.	Line rejection
ERR_00016	The site identifier is wrong. Verify that it is not in the scientific format and that it is in accordance with the implementation guide.	In the line: Site ID is wrong.	Line rejection
ERR_00017	The nature of the site is wrong.	In the line: The nature of the site is not equal to "SOUTIRAGE" (consumption) or "INJECTION" (generation) or "STOCKAGE" (storage)	Line rejection
ERR_00018	The site's maximum upward FCR capacity is not a 6-digit max integer, positive or zero.	In the line: An integer with 6 digits max, positive or zero is expected.	Line rejection
ERR_00019	The site's maximum upward balancing capacity is not a 6-digit maximum integer, strictly greater than zero.	In the line: An integer with 6 digits max, strictly positive is expected.	Line rejection
ERR_00020	The site's minimum upward balancing capacity is not a 6-digit maximum integer, positive or zero.	In the line: An integer with 6 digits max, positive or zero is expected.	Line rejection

ERR_00021	The subscribed power of the site is not a 6-digit maximum integer, strictly greater than zero.	In the line: An integer with 6 digits max, strictly positive is expected.	Line rejection
ERR_00022	The BRP of the site does not exist in our repository: The EIC code of the BRP is incorrect or does not have a single valid BRP participation agreement contract.	In the line: the BRP's EIC code is unknown or it does not have a single valid PL-BRP contract	Line rejection
ERR_00023	The supplier of the site does not exist in our repository: The supplier's EIC code is incorrect or does not have a valid CONTRAT-OF (supplier contract).	In the line: the Supplier's EIC code is unknown or it does not have a single valid CONTRAT-OF (supplier contract).	Line rejection
ERR_00024	The site's pricing model is wrong.	In the line: Wrong pricing model	Line rejection
ERR_00025	The site's load reduction category is wrong.	In the line: Load reduction category is wrong	Line rejection
ERR_00026	The site's load curve type is wrong.	In the line: Wrong load curve type	Line rejection
ERR_00027	The site data source field is incorrect.	In the line: The site data source field is incorrect.	Line rejection
ERR_00028	The site measurement subject field is incorrect.	In the line: The site measurement subject field is incorrect.	Line rejection
ERR_00029	The site contract type field is incorrect.	In the line: The site contract type field is incorrect.	Line rejection
ERR_00030	The site is present several times in the file.	In the body of the file: Several lines for the same site	Rejection of all affected lines
ERR_00031	The DSO was not declared by the reserve provider for the RPG.	In the file: DSO not declared for RPG	Rejection of all lines of the DSO's RPG.
WARN_00001	You are declared as being required to send data for the following RPGs: [code EDR] (RPG code)	In the body of the file: DSO declared for RPG but RPG not in file	Escalation of an alert?
ERR_00032	The RPG is not a CONSUMPTION type.	In the file: The CodeEDR (RPG code) is not that of a consumption RPG.	Rejection of all lines of the DSO's RPG.
ERR_00033	The RPG code [EDR code] does not exist in our repository.	In the file: The codeEDR (RPG code) is not one of the known RPG codes.	Rejection of all lines of the DSO's RPG.
WARN_00002	RTE has received different characteristics for the site on several mechanisms. RTE is dealing with the issue and does not expect a correction from you.	In the line: file FULL: The M+1 import on the BM took place. The intrinsic data are different Updated file: The site participates in the BM on M. The intrinsic characteristics must not be updated on M	Line accepted but intrinsic characteristics are not read.

ERR_00035	The DSO was not declared by the balancing service provider for the BE.	In the file: DSO not declared for BE	Rejection of all lines in the DSO's BE.
WARN_00003	You are declared as being required to send data for the following BEs:	In the body of the file: DSO declared for BE but BE not present in file.	Escalation of an alert?
ERR_00036	The BE is not a Remotely-Read Consumption type.	In the file: The CodeEDA (BE code) is not that of a Remotely-Read Consumption BE.	Rejection of all lines in the DSO's BE
ERR_00037	The BE is not a Profiled Consumption type.	In the file: The CodeEDA (BE code) is not that of a Profiled Consumption BE.	Rejection of all lines in the DSO's BE
ERR_00038	The BE code does not exist in our repository.	In the file: The codeEDA (BE code) is not one of the known BE codes.	Rejection of all lines in the DSO's BE
ERR_00040	The BE is not a PDS Generation type.	In the file: The CodeEDA (BE code) is not that of a PDS Generation BE.	Rejection of all lines in the DSO's BE
WARN_00004	The supplier of the site does not exist in our repository: The supplier's EIC code is incorrect or does not have a valid CONTRAT-OF (supplier contract).	In the line: the Supplier's EIC code is unknown or it does not have a single valid CONTRAT-OF (supplier contract).	Line accepted
ERR_00041	The subscribed power of the site must be less than or equal to 250 kW.	In the line: The subscribed power field must be less than or equal to 250 kW.	Line rejection
ERR_00042	The site is attached to another BE for the same period.	In the line: The site is connected to another BE for the same period.	Line rejection

1.3 Export list of active BEs/RPGs

1.3.1 Description of the API

This API is used to generate the list of active BEs/RPGs for DSOs. The type of file generated (DECLARATIF (declaration) or FINAL) depends on the month selected by the DSO:

- If the DSO selects "next Month" then a DECLARATIF type file is generated for month M+1.
- If the DSO selects "current Month" then a FINAL type file is generated for month M.

1.3.2 URL of the API:

GET /api/v1/grd/exportEntityList

1.3.3 URL parameters:

Name	Type	Requirements	Possible values
periodValidity	String	Yes	CURRENT_MONTH NEXT_MONTH
entity	String	Yes	BE EDR (RPG)

Example:

GET /api/v1/grd/exportEntityList?periodValidity=CURRENT_MONTH&entity=EDA HTTP/1.1

Host: URL

REMOTE-USER: uid=user.grd,uid=17X100CODEEICGRD,ou=Users,o=rte

Content-Length: 37

Content-Type: multipart/form-data; boundary=----WebKitFormBoundary7MA4YWxkTrZu0gW

----WebKitFormBoundary7MA4YWxkTrZu0gW

Response:

The list of BEs/RPGs is sent as a CSV file and the detailed description is given below.

Content-Type: *application/octet-stream*

Name of file

The CSV file is generated with the following name:

LISTE_[EDA/EDR]_GRD_[Mois]_[FINAL/DECLARATIF]_AAAAMMJJhhmmss.csv

where:

- [Mois] is the month M or M + 1 in the format "YYYYMM" where M is the current month;
- [time stamp of creation] is the date and time the file was created in the format "YYYYMMDDhhmmss".

Contents of the file

The CSV file consists of:

- a first line with the month M or M+ 1 in the format "YYYYMM" and the FINAL or DECLARATIF character string.
- a second line of column headings with the following titles:
BE case: CODE_EDA, TYPE_EDA and METHODE.

RPG case: CODE_EDR.

- lines of data.
- An end of file tag <EOF>

Notes

The separator between columns is ";"

The separator between the lines is "\n"

The encoding of the CSV file is Unicode (**UTF-8**)

Example

The name of the BE file in Final mode

LISTE_EDA_GRD_202106_FINAL_20210602143029

Contents of the BE file in Final mode

```
202106;FINAL;  
  
CODE_EDA;TYPE_EDA;METHODE;  
  
01AGRTC3;EDA Soutirage Télérelevée;RECTANGLE;  
01SGETC5;EDA Soutirage Télérelevée;RECTANGLE;  
SGE86TC5;EDA Injection RPD;RECTANGLE;  
SGE87TC5;EDA Soutirage Télérelevée;RECTANGLE;  
SMAR5TC5;EDA Injection RPD;RECTANGLE;  
SMAR6TC5;EDA Soutirage Télérelevée;RECTANGLE;  
SMG01TC5;EDA Injection RPD;;  
SMG06TC5;EDA Soutirage Télérelevée;RECTANGLE;  
SMG12TC5;EDA Injection RPD;;  
SMG20TC5;EDA Injection RPD;RECTANGLE;  
VOLT3TC8;EDA Soutirage Télérelevée;RECTANGLE;  
VOLT6TC8;EDA Soutirage Profilée;RECTANGLE;  
  
<EOF>
```