DH API documentation for third party

Content

1. Documentation version history

The table below provides information on document version history:

Version	Date	Description
1.0.0	2024-11-29	Initial document version.
1.0.1	2025-01-17	Added new JSON response attribute 'usedPowerPlantTotalPower' and changed the filling algorithm for the attribute 'permitablePowerGeneration' in the following method: • GET /gateway/third-party/order/{orderId}/report-obj-acr
	2025-01-29	Added new JSON response attribute 'generatingObjectType' in the following methods: • GET /gateway/third-party/order/{orderId}/report-obj-acr

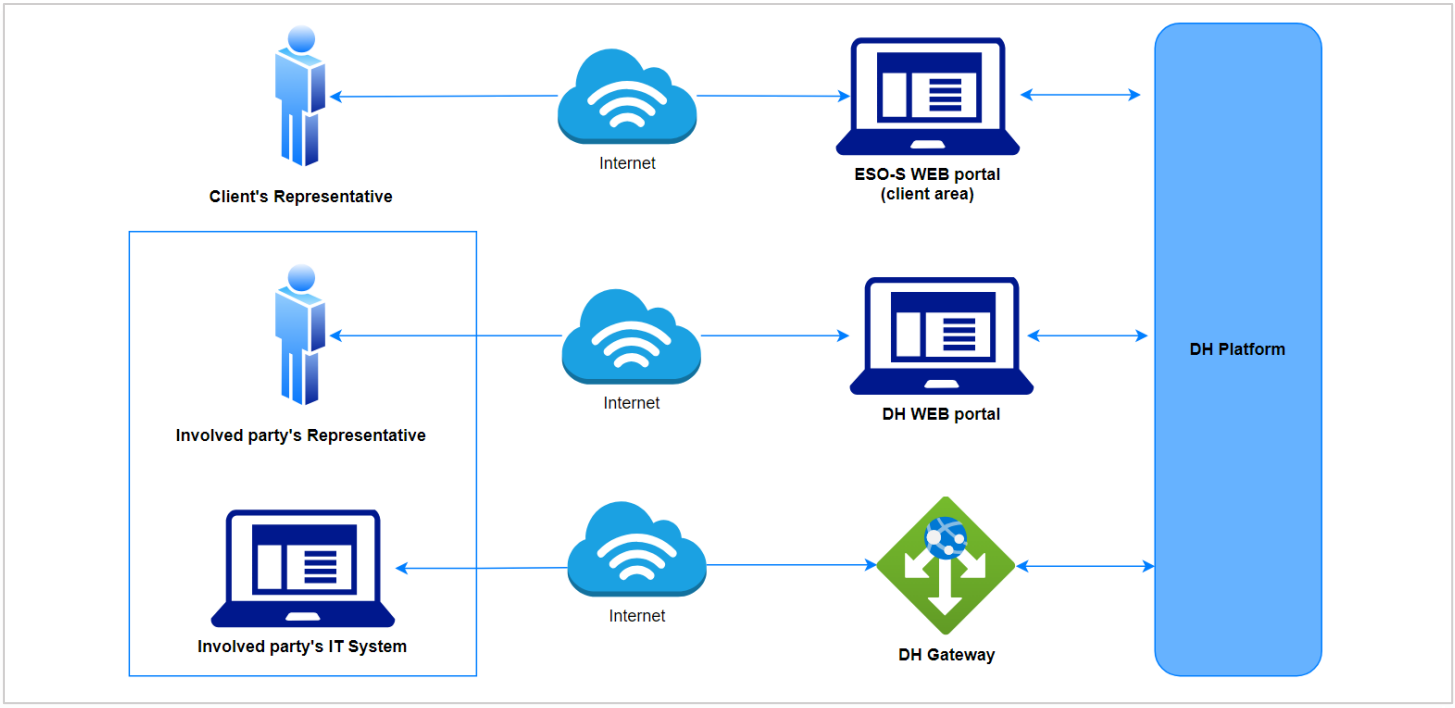
Note: *Changes in the table marked in white are already deployed, while those marked in green will be deployed soon.*

2. Preface

The Common Data Exchange Platform (hereinafter referred to as the DH Platform) Gateway is a component that enables third parties to directly access the DH Platform from within their IT systems, thereby helping them perform their activities more efficiently.

DH Gateway provides open standards-based interfaces, allowing third parties to integrate their IT systems with the DH Platform, either by themselves or with outside assistance.

This document provides the technical information on DH Gateway interfaces needed to integrate third-party information systems with the DH Platform.



3. Definitions and abbreviations

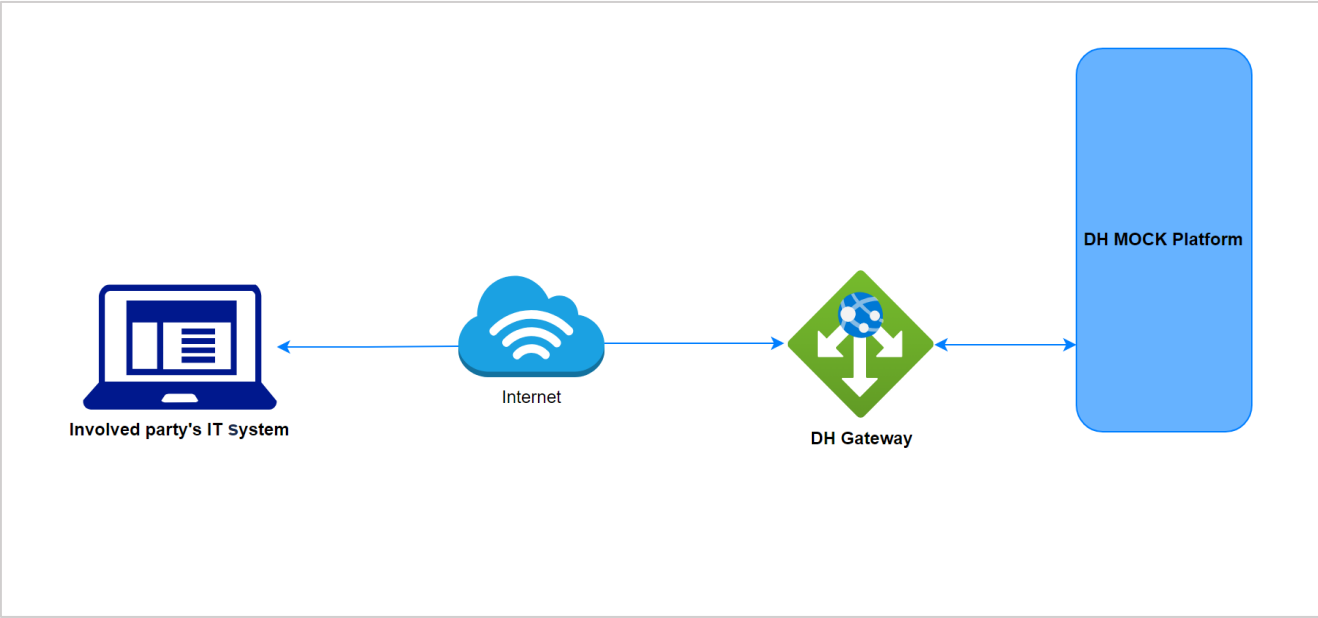
Definition / abbreviation	Description
DH Gateway	A component of the DH Platform that enables third-party IT systems to directly access the platform and achieve a higher degree of process automation
DH, DH Platform	Common Data Exchange Platform.
Client	A household or legal entity using electricity for the needs of the household or business
Client's Representative	A household person or their representative, or a representative of a legal entity (e.g., an employee of a legal entity)
DSO, ESO	Energy distribution system operator – AB „Energijos skirstymo operatorius“
Object	A site where electricity consumption takes place.
Third-party Representative	An employee representing the third party

4. Environments

There are two DH Gateway environments that the third-party might access:

- Sandbox environment
- Production environment

The DH Sandbox environment consists of a Mock API Gateway with mock requests and responses (scenarios). There is no connection to a database or any data source; all possible requests and responses are hard-coded into the mock API source code and do not have any data selection logic or rules. This data is real, depersonalized data from DSO customers. Sandbox request and response scenarios will be provided in an additional document and should be used solely for preparation to integrate with the DH production API environment or for testing purposes.



The DH platform also has a web interface, which is connected to the DH Production Gateway. All environments are provided in the table below:

Environment	Swagger Link	WEB Interface
Production	https://dh-api.eso.lt/swagger-ui/index.html	https://datahub.eso.lt/
Sandbox	https://dh-sandbox-api-v2.eso.lt/swagger-ui/index.html#/	-

5. Third-party digital certificates

In both the testing and production environments of the DH Gateway component, the identity of the third-party is established using a TOKEN, which the third-party information system must provide each time the DH Gateway network service is called.

To get started:

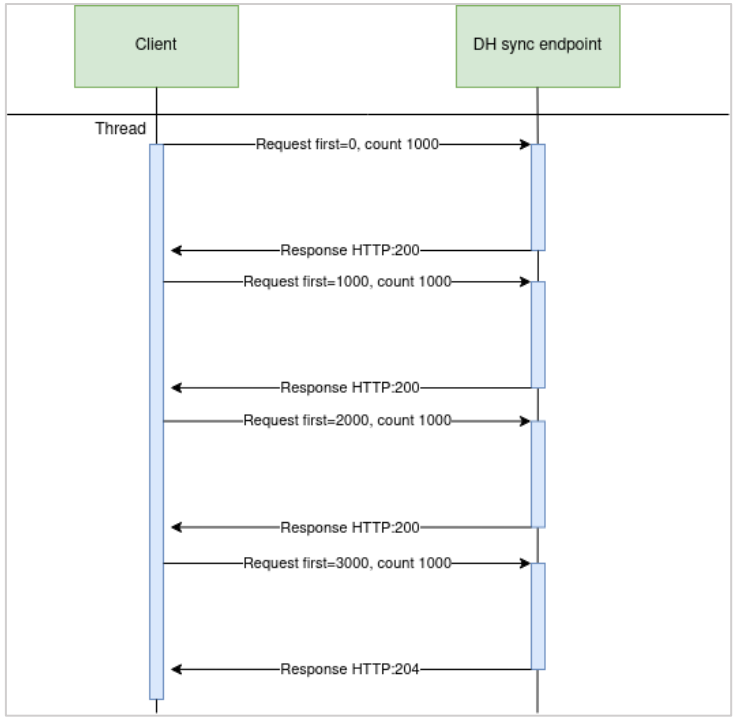
1. The DSO responsible person sends the JWT key (JSON Web Token) to be used with each request to the DH API.
2. To make requests to the DH Gateway API, the TOKEN submission takes place in the case of cURL.

6. Recommendation for API client

6.1 SYNC

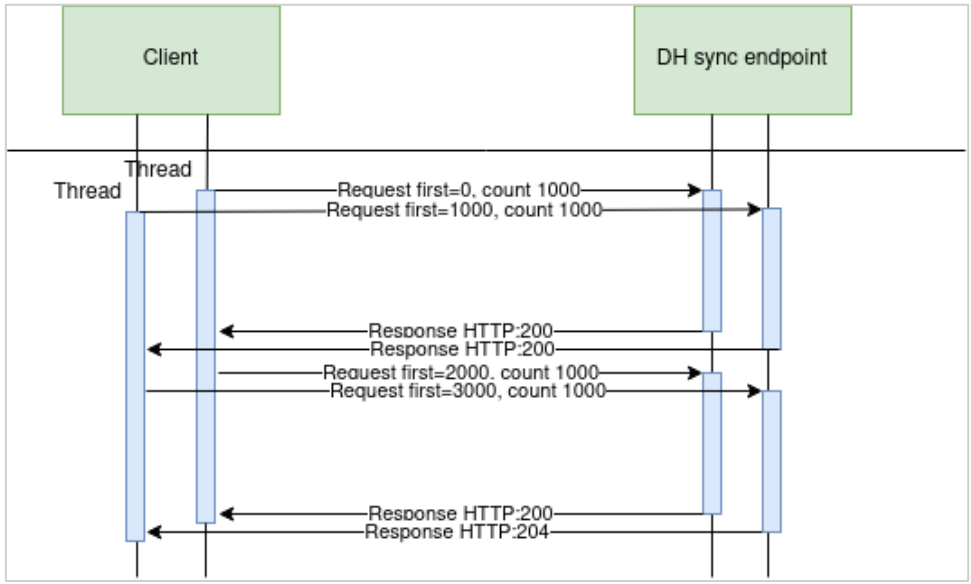
Sequential approach with pagination

Should be default option.



Parallel approach with pagination

This method can be used when the import time is not reasonable. However, parallel requests should be limited.



Recommendations for DH client:

1. Parameter for page size control
2. Parameter for parallel thread amount control
3. Sequential processing should be the default, but if import takes too much time, parallel processing can be used with a maximum of 3 threads.
4. Page size can be calculated by formula PS = PST/THRA, where PS is the page size, PST is the page size with which the request takes less than 15 seconds to execute, and THRA is the thread amount. However, the page size should not exceed 10,000 records.
5. Retry on HTTP statuses: 429, 5xx
6. Retry should restart the failed request only (not the whole import process)
7. Retry interval should be no less than 5 seconds.
8. The import process should be able to continue after a failure.

Motivation to have these features

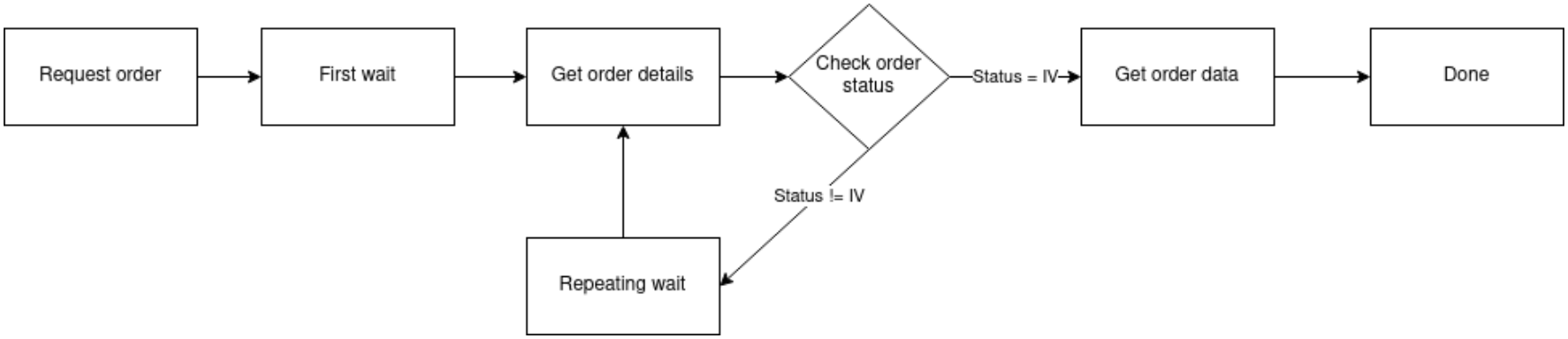
1. Performance issues can arise accidentally and solving them can take some time. During performance problems, controlling page size and thread amount can help.
2. DH has planned and unplanned deployments, and there can also be incidents during which DH services might be unavailable. In this case, it is beneficial for the client side to have a fallback process that retries failed requests and continues the process once the service becomes available again.

3. In the future, throttling by third parties will be introduced, and some requests could end up with HTTP status 429 (too many requests). Therefore, a retry process will also be helpful in this scenario.

6.2 ASYNC

Async pattern is mainly used for data orders: https://dh-api.eso.lt/swagger-ui/index.html?urls.primaryName=third-party#/third-party-order-controller

The client side should implement the following process with these steps:



Step descriptions

Step name	Description	End-point	Request example	Response example

Request order	Submit a new data order. The request will return an order ID, which will be used in subsequent steps to retrieve order details and order data.	POST /gateway/order/**yyyyyyyyyy**
		where **yyyyyyyyyy** is order type:
		• data-hr-15min-mtr-lvl-acr
		• data-hr-15min-obj-lvl-acr
		• data-sum-obj-lvl-acr
		• report-obj-acr
			POST /gateway/order/report-obj-acr
			Body:
			{
			"objectNumbers": ["11111111111", "2222222222"]
			}
				HTTP status 201
				{
				"orderId": 10000001
				}

First wait	Wait for a period of time after submitting the order. This step is necessary because the order			

	processing takes some time, and there is no reason to check the status immediately after submission. The initial wait duration depends on the order type and parameters. If the order collects more data, it can take several minutes to prepare. For duration recommendations, refer to section 6.2.3 Recommendations			

Get order details	Request the order details. This request is necessary to obtain the latest status of the order, which is stored in the “latestStatus” field.
	
	Posible values for "latestStatus":
	
	• P - Submitted order
	• V - Order in progress
	• IV - Order is finished and data are prepared
	• K - Order has errors
		POST /gateway/order/list	POST /gateway/order/list
			
			{
			
			"orderId": 10000001
			
			}
				HTTP status 200
				
				[
				
				{
				
				"orderId": 10000001,
				
				"auto": false,
				
				"dateFrom": "2023-04-17",
				
				"dateTo": "2023-04-17",
				
				"expireDate": "2023-04-18T14:31:27.990Z",
				
				"latestStatus": "V",
				
				"orderParameters": "{\"objectNumbers\":[\"11111111111\",\"2222222222\"]}",
				
				"orderType": "report-obj-acr",
				
				"statusDate": "2023-04-17T14:31:27.990Z",
				
				"submittedDate": "2023-04-17T14:31:27.990Z",
				
				"userName": "PUBLIC"
				
				}

				]
Check order status	Perform a logic operation to check the value of the “latestStatus” field. If the value equals “IV”, it means the order data is prepared. Otherwise, the order data is not ready, and the algorithm should proceed to the “Repeating wait” step			
Repeating wait	Wait for a period of time after checking the order status if the status is not equal to “IV”. This step is necessary to prevent unnecessary load on the DH system caused by repetitive status checks without waiting. For duration recommendations, refer to section 6.2.3 Recommendations			
Get order data	Get order data. Note: If the order contains too much data, pagination should be used. The default and maximum page size is 10,000 records (usually objects How to get data described in Sync (6.1 SYNC).	GET /gateway/order/**zzzzzzzz**/**yyyyyyyyyy?**first=**oooooo**&count=**ssssss** where **zzzzzzzz** is order Id **oooooo** is offset position **ssssss** is page size **yyyyyyyyyy** is order type: • data-hr-15min-mtr-lvl-acr • data-hr-15min-obj-lvl-acr • data-sum-obj-lvl-acr • report-obj-acr	GET /gateway/order/10000001/report-obj-acr?first=0&count=10000	HTTP status 200 with order data in JSON format. If order content is empty get method will return HTTP status 400 with message {"code": 2018, "text": "There is no data for the selected search parameters, the response is empty."}

6.2.1 DH order processing retry policy

If any issues arise during the order data processing stage, the process stops, and the order receives the status K. DH applies a retry policy for all orders with status K.

- Retries order process after 5 minutes.
- Retries order process 300 times.
- For failed orders, the retry policy will be active for a total of 25 hours (5 minutes * 300).
- The retry policy will stop working after 25 hours, and the order will remain with status K.

This is necessary because issues can arise during the data preparation stage for several reasons:

- DH technical problem – for example, one of the DH integrations was down, a contract was changed, data integrity violations occurred, etc.
- Incompatible business logic – for example, the order encountered an undefined use case, and the use case should be adapted to the order.

In most cases, the order processing retry will solve the problem. However, there are instances, such as “Incompatible business logic”, where additional human interaction is needed to complete the order. We are tracking such orders and fixing them, but this process might take several hours or even days. Therefore, some orders might not be completed and will remain in status K.

6.2.2 Order status flows

There are three possible order status flows:

Flow	Description
P → V → IV	This is normal status flow.
P → V → K → IV	This is the flow when issues appear during data preparation, but the problem was later fixed.
P → V → K	This is the flow when issues appear during data preparation and the problem was not fixed within the DH retry policy time

Order execution duration depends on multiple factors:

- Order type – different order types use different integration services; some are faster, while others are slower.
- Order parameters – order parameters describe how much data will be generated. Larger order periods and greater object quantities will take longer to generate.
- Order quantity in queue – if a third party creates too many orders, they will be generated in parallel and will take more time to complete.
- Failures – errors during order data preparation will trigger the retry policy, causing order generation to take longer than usual. Sometimes, the order may not be generated at all.

6.2.3 Recommendations

1. For better performance, the “Request order” can be implemented as a separate process that is capable of creating multiple orders.
2. For better performance, the “Get order details” can be implemented as a separate process capable of retrieving details for multiple orders.
3. For better performance, the “Get order data” can be implemented as a separate process capable of retrieving data for multiple orders.
4. For better performance, process parallelization can be used, but with a maximum of 3 threads.
5. Any HTTP request which returns 5xx status can be retried.
6. Any HTTP request which returns a 4xx status should stop the process because it indicates a business error that requires manual handling. An exception is the step “Get order data” with error “code”: 2018, “text”: “There is no data for the selected search parameters, the response is empty”. This means that order data preparation is finished, and the order is empty.
7. Step “Request order” and other steps should have separate retries. A failure in “Get order data” should not trigger “Request order” to be retried.
8. It is up to the client to decide the duration of the “First wait”, but it should not be less than 1 second.
9. It is up to the client to decide the duration of the “Repeating wait”, but it should not be less than 1 second.
10. Use a fixed number of attempts for status checks. After 25 hours, the DH order retry policy will stop working, and the order will remain in status K. Therefore, it is reasonable to set the number of attempts to ((25 hours) / ("Repeating wait" duration in hours)).
11. Do not recreate orders when an order has status K. The DH retry policy will attempt to generate it later, or a DH team member's interaction will be needed to complete the order. Client-side solutions will not resolve status K.
12. For the step "Get order data" use Sync (6.1 SYNC).

6.3 JSON request logic

JSON field usage in requests by type:

Type	Example	Is value provided	Request result
integer	accessRightId: null	No	All access rights.
integer	accessRightId: 4587125	Yes	Access right with ID 4587125.
dateTime	accessRightValidFrom: null	No	All access rights.

Type	Example	Is value provided	Request result
dateTime	accessRightValidFrom: ""	Yes	Framework validation error because provided value is not matching date format.
datetime	accessRightValidFrom: "2023-01-01"	Yes	Access rights which valid date greater than 2023-01-01
string	personCode: null	No	All objects
string	personCode: ""	Yes	Empty list because person with empty person code does not exist
string	personCode: "37878787878"	Yes	Owner of the object with person code 37878787878
list	objectNumbers: null	No	All objects
list	objectNumbers: [ ]	Yes	The list is empty because the provided objectNumbers list does not match any object number.
list	objectNumbers: [""] or objectNumbers: ["", ""]	Yes	The list is empty because the provided objectNumbers list does not match any object number.
list	objectNumbers: [null] or objectNumbers: [null, null]	Yes	Empty list because provided objectNumbers list does not match any object number.
list	objectNumbers: ["56545654"] or objectNumbers: ["56545654", "76545654"]	Yes	Objects with numbers 56545654 or 76545654
boolean	hasAutoMeters: null	No	All objects, because no criteria were provided.
boolean	hasAutoMeters: ""	No	Validation error because an invalid Boolean value was provided.

Type	Example	Is value provided	Request result
boolean	hasAutoMeters: "NOT BOOLEAN"	No	Validation error because an invalid Boolean value was provided.
boolean	hasAutoMeters: true	Yes	Objects which have automated meters.

If a field value is not provided, then the field criteria should not be added to the query, and the entire list should be returned.

6.4 Access Rights

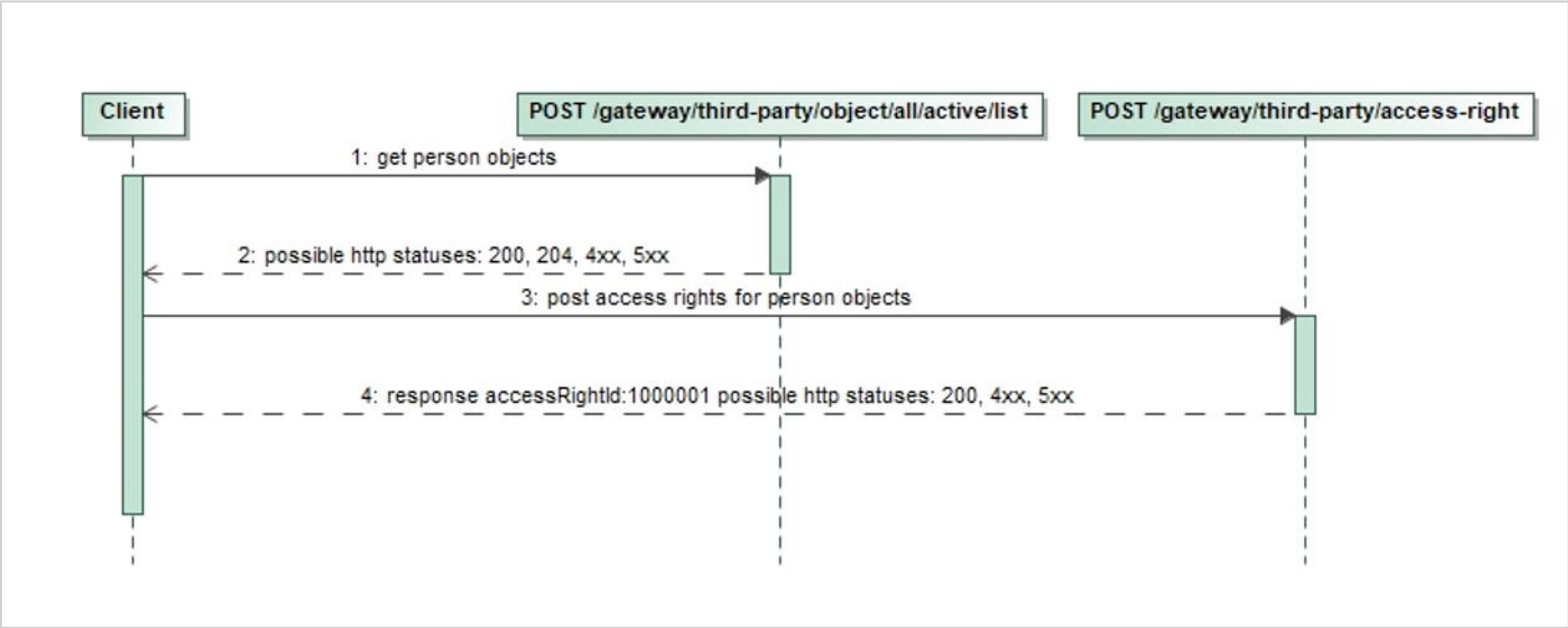
The access rights module is responsible for storing granted accesses to private data for involved parties (third parties, independent suppliers). An involved party that has obtained consent from a private person to access their private data should register this consent in the access rights module.

Activities that can be performed in the access rights module include:

- Registering access rights
- Retrieving list of all access rights
- Canceling access rights

6.4.1 Registering access right

Registering access rights for objects.

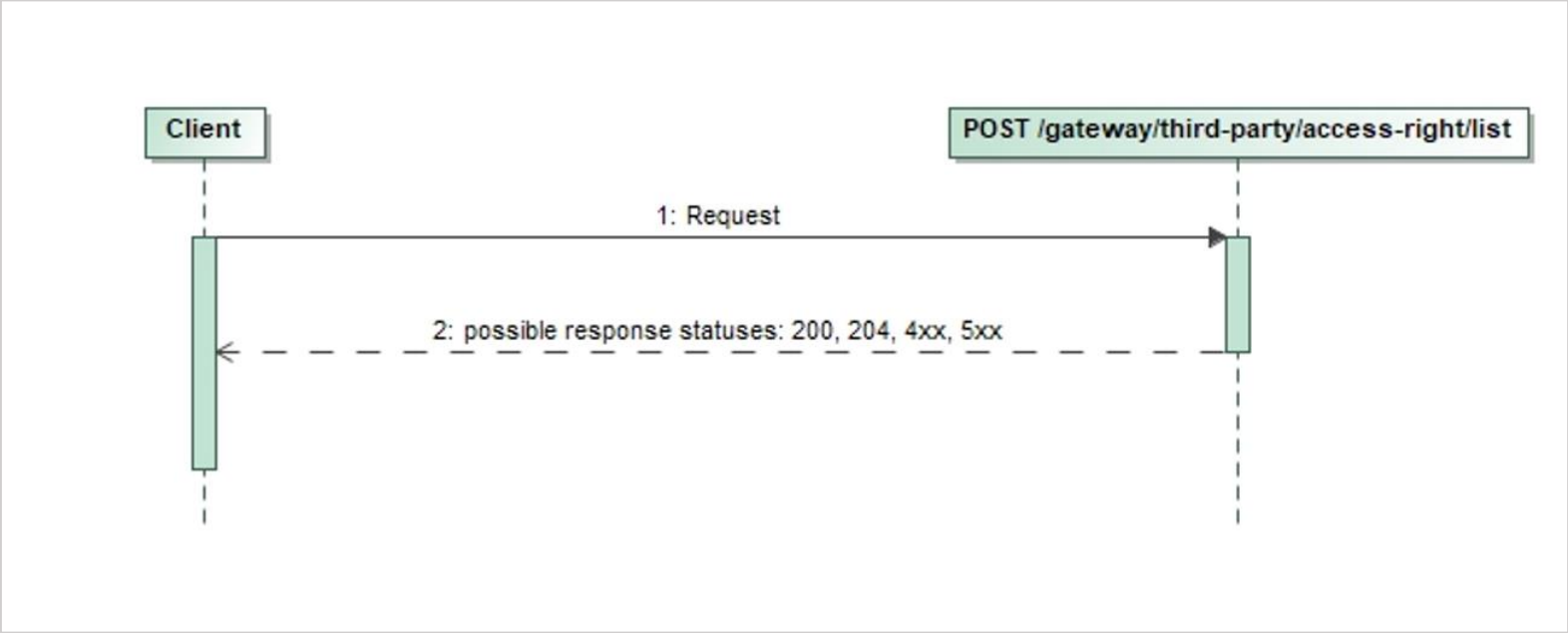


Notes:

- Access right is ordered at the person/company scope. With one request you can order access rights for multiple objects, but these objects must belong to same person/company.
- When posting access rights, some object information is needed. Object information can be obtained from **gateway/third-party/object/all/active/list** endpoints.
- Everyone can retrieve data from the **gateway/third-party/object/all/active/list**, but before accessing this data, the object owner's consent must be obtained.
- Access rights for private person data can be ordered for a maximum period of 1 year only.
- Before registering an access right, you should obtain consent for the access right from the object owner.
- Access rights to an involved party can be granted directly by the object owner via the ESO-S system. Such an access right record will have the source ESOS.
- If the object's owner is changed, the previous access rights are automatically deleted.
- In the access rights module, object information remains the same as it was at the time of access right registration.
- HTTP 200 status indicates that the registration was successful.
- HTTP 4xx status indicates that a business rule was violated.

- HTTP 5xx status indicates that an unexpected server-side error occurred.

6.4.2 Retrieving list of all access rights



Example of response structure

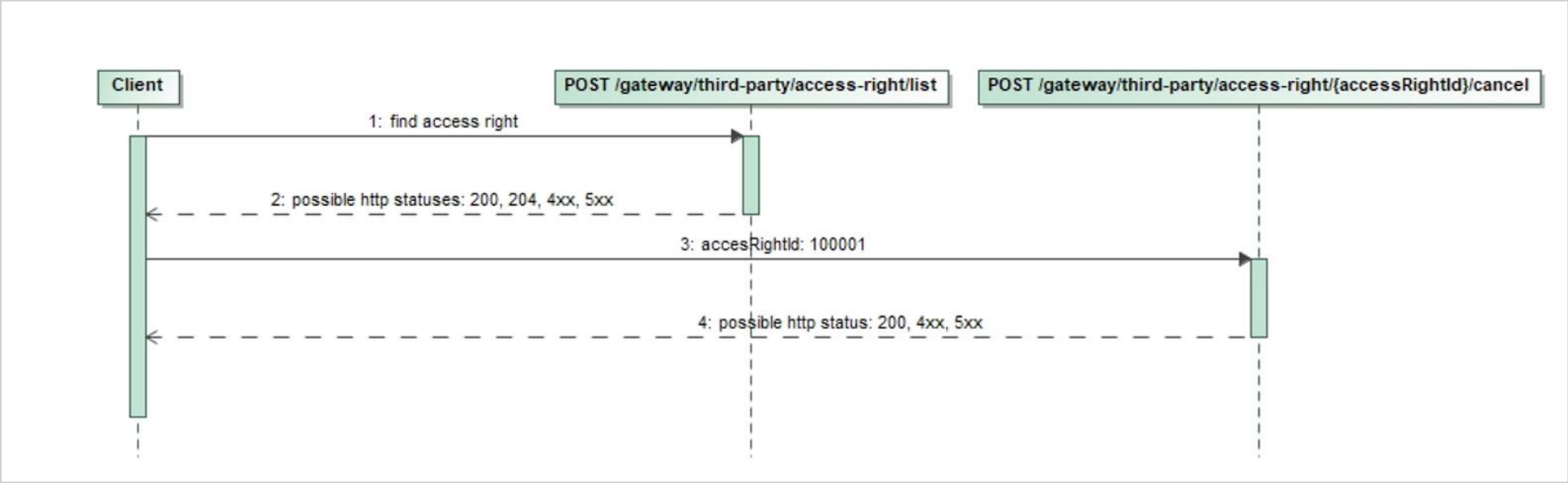

```
{
  "accessRightId": 0,
  "accessRightSource": "ESOS",
  "accessRightValidFrom": "2022-01-01",
  "accessRightValidTo": "2022-01-01",
  "consumerCode": "string",
  "contractModel": "BSS",
  "contractType": "SBTS",
  "generatingObjectType": "G",
  "objectAddressSearch": "string",
  "objectNumber": "string",
  "personCode": "string",
```

```
  "powerPlantType": "A",
  "supplierType": "VT",
  "userNameSearch": "string"
}
```


Notes:

- **Access right source** can be:
  - **ESOS**: When the access right was registered via the ESO-S system.
  - **DATAHUB**: When the access right was registered via the DH system.
- **Access right valid date from**: This is the time when the records were registered, with date and time precision.
- An object can have only one active access right record per involved party. If an attempt is made to register an access right for an object that already has a record, the active record will be updated.
- **Access right object data** is stored according to the newest owner. Therefore, a data search by the old owner will return an empty response.
- **HTTP Status Codes:**
  - 200: Status when the response was successfully generated.
  - 204: Status when the response was successfully generated, but the content is empty.
  - 4xx: Status when a business rule was violated.
  - 5xx: Status when an unexpected server-side error occurred.

6.4.3 Canceling access right



Notes:

- **Identify Access Right ID**: Before cancelling, you need to find the access right ID.
- **Single Request Cancellation**: Each cancellation request can handle only one access right.
- **Source Independence**: Cancellation can be done regardless of the source (DH or ESOS).
- **HTTP Status Codes:**
  - 200: Registration was successful.
  - 4xx: A business rule was violated.
  - 5xx: An unexpected server-side error occurred.

6.4.4 Access right integration with data order module

After access right registration, the involved party gains the ability to access private data. Private data can be accessed in the data order module, which is described in ASYNC.

Order types with the suffix "-acr" require access rights. Currently:

- data-hr-15min-mtr-lvl-acr
- data-hr-15min-obj-lvl-acr
- data-sum-obj-lvl-acr
- report-obj-acr

7. DH Gateway API documentation

This section of the document provides detailed information about the DataHub API, including descriptions of API methods, the structure of request and response JSON data models, data validation rules, error handling, and other related topics.

Standard HTTP response codes

HTTP response codes	Reason	Description
200	OK	The request has succeeded.
201	Created	The request was successful, and a new resource has been created.
204	No content	No data found according to the given parameters.
400	Bad Request	Request error. The HTTP response body provides a list of errors in JSON format.
401	Unauthorized	An attempt was made to connect to a non-public method that requires authentication, but no user credentials were provided.
403	Forbidden	According to the access control policy, the current user does not have access to perform the requested action.
404	Not Found	Either there is no API method associated with the request URL path, or the request contains one or more parameters that did not return the data.

JSON error response example

Error response

{
"errorMessages": [
{
"code": "integer",
"text": "string"
}
]
}

JSON error response description

The following table describes the JSON structure in the event of a response error:

Attribute	Type	Mandatory	Description
code	integer	Y	Error code
text	string (4000)	Y	Error message

7.1 Object controller

7.1.1 POST /gateway/third-party/object/all/active/list

URL	POST /gateway/third-party/object/all/active/list

Description	The method is designed to obtain a list of objects before assigning rights to them.
Parameter	URL parameters: *first, count, sort*
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	{ "personCode": "string", "consumerCode": "string", "objectNumber": "string", "objectDataConsentSign": boolean }
JSON response	[{ "personName": "string", "personSurname": "string", "personCode": "string", "consumerCode": "string", "objectNumber": "string", "objectAddress": "string", "powerPlantObjectType": "string", "automationLevel": "string", "contractType": "string", "supplierType": "string", "tariffPlan": "string", "timeZone": "string", "accountingType": "string", "usedPowerPlants": [{ "powerPlantObjectNumber": "string",

	"powerPlantType": "string",
	"generatingObjectType": "string",
	"generatingPower": number,
	"accountingScheme": "string",
	"accountingSchemeValidFrom": "date",
	"accountingSchemeValidTo": "date",
	"accountingSchemeChangeDate": "string",
	"payoffMethod": "string",
	"payoffMethodChangeDate": "date"
	}
	],
	"objectPowers": [
	{
	"powerType": "string",
	"power": number,
	"powerValidFrom": "date",
	"powerValidTo": "date"
	}
	],
	"generatingObjectGroup": {
	"generatingGroup": "number",
	"generatingObjectPriorityGroup": "number"
	}
	}
	]

JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
One or more request parameters are required.	1001	One or more request parameters are required.	personCode, consumerCode, objectNumber

7.1.1.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
first	integer	N	The index of the notification, which must be the first in the return list (starting from 0). The default value is 0.
count	integer	N	The number of notification rows in the return list. Optional. The default value is 30.
sort	string	N	Possible values ASC, DSC.

7.1.1.2 JSON Request structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
personCode	string (20)	N	Person / company code.
consumerCode	string	N	Contract owner / tenant consumer code.
objectNumber	string (8)	N	Object number.
objectDataConsentSign	boolean	N	Object data consent sign. True or False.

7.1.1.3 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
personName	string	Y	Contract owner / tenant name / company name.
personSurname	string	N	Contract owner / tenant surname.
personCode	string	N	Contract owner / tenant person / company code. If the subject is individual, that person code must be encrypted: [********] [person code's 3 last symbols].
consumerCode	string	Y	Contract owner / tenant consumer code.
objectNumber	string	Y	Object number.
objectAddress	string	Y	Full title of the object address.
powerPlantObjectType	string	N	The object's power plant type. Possible meanings: • A – Waste fuel • B – Biomass • H – Hydroelectric • K – Other • S – Solar • T – TEC • V – Wind • P – Storage device • I – Fossil • D – Biogas • R – Hybrid generation
automationLevel	string	N	Object accounting automation level.

Attribute	Type	Mandatory	Description
contractType	string	N	Contract type. Possible meanings: • SBTS - Household contract • SKMS - Commercial contract
supplierType	string	N	Supplier type. Possible meanings: • VT - public supplier • GT - warranty supplier • NT - independent supplier
tariffPlan	string	Y	Current tariff plan of the object.
timeZone	string	N	Current time zone of the object. Possible meanings: • 1 - One • 2 - Two • VR - One with reactive • 4 - Four (Smart) • DR - Differentiated with reactive • N - Not established
accountingType	string	Y	Object accounting type. Possible values: • NET_METERING – accumulates kwh • NET_BILLING – accumulates EUR • NET_METERING_NET_BILLING - accumulates kwh and EUR • POWER_PLANT - sells kwh • CONSUMER - only consuming • ENERGY_SHARER – sharing kw
usedPowerPlants: []			
powerPlantObjectNumber	string	N	Object number of used power plant.

Attribute	Type	Mandatory	Description
powerPlantType	string	N	Type of used power plant. Possible meanings: • A – Waste fuel • B – Biomass • H – Hydroelectric • K – Other • S – Solar • T – TEC • V – Wind • P – Storage device • I – Fossil • D – Biogas • R – Hybrid generation
generatingObjectType	string	N	Type of generating consumer of the used power plant. Possible meanings: • G - Generating consumer • N - Distant generating consumer
generatingPower	number	N	The power generated by assigned power plant.
accountingScheme	string	N	Generating consumer accounting scheme. Possible meanings: • NET_BILLING • NET_METERING
accountingSchemeValidFrom	date	N	Generating consumer accounting scheme valid from.
accountingSchemeValidTo	date	N	Generating consumer accounting scheme valid to.
accountingSchemeChangeDate	date	N	Accounting schemes change date.
payoffMethod	string	N	Generating consumer payoff method. Possible meanings: • E – kWh – Recovered el. energy

Attribute	Type	Mandatory	Description
			• G - kW – Power plant installed capacity • P - % - Payment percentage • S – kWh – PP recovered electricity
payoffMethodChangeDate	date	N	Payoff method change date.
objectPower: []			
powerType	string	N	Object power type. Possible meanings: • LOG - Permissible power consumption • LGG - Permissible power generation
power	number	N	Object power.
powerValidFrom	date	N	Object power valid from.
powerValidTo	date	N	Object power valid to.
generatingObjectGroup: {}			
generatingGroup	number	N	The group identifier of the generating user.
generatingObjectPriorityGroup	number	N	The priority of the generating user group object.

7.2 Access right controller

7.2.1 POST /gateway/third-party/access-right/list

URL	POST /gateway/third-party/access-right/list
Description	The method is designed to obtain information and a list of granted rights
Parameters	URL parameters: *first, count, sort, sortOrder*
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	{ "accessRightId": integer, "personCode": "string", "consumerCode": "string", "objectNumber": "string", "objectAddressSearch": "string", "powerPlantObjectType": "string", "accessRightValidFrom": "string", "accessRightValidTo": "string", "generatingObjectType": "string", "contractType": "string", "contractModel": "string", "supplierType": "string", "accountingType": "string", "powerPlantType": "string", "userNameSearch": "string" }

JSON response


```
[
  {
    "accessRightId": integer,
    "accessRightValidFrom": "string",
    "accessRightValidTo": "string",
    "daysLeft": integer,
    "accessRightSource": "string",
    "userName": "string",
    "objectNumber": "string",
    "generatingObjectType": "string",
    "objectAddress": "string",
    "powerPlantObjectType": "string",
    "contractModel": "string",
    "supplierType": "string",
    "tariffPlan": "string",
    "timeZone": "string",
    "accountingType": "string",
    "usedPowerPlants": [
      {
        "powerPlantObjectNumber": "string",
        "powerPlantType": "string",
        "accountingScheme": "string",
        "payoffMethod": "string",
        "generatingPower": number
      }
    ],
    "automationLevel": "string",
    "contractType": "string",
    "personName": "string",
    "personSurname": "string",
    "personCode": "string",
    "consumerCode": "string",
    "accessRightPhoneNo": "string",
    "accessRightEmailAddress": "string",
    "accessRightNote": "string"
  }
```

	]
JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
One or more request parameters are required.	1001	One or more request parameters are required.	
The date from cannot be later than the date to. Equal can be.	1002	Date from cannot be later than date to.	
Only valid, irrevocable access rights that have been granted must be included in the list.	-	-	

7.2.1.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
first	integer	N	The index of the notification, which must be the first in the return list (starting from 0). The default value is 0.
count	integer	N	Number of accesRightId in the return list. The default value is 30.
sort	string	N	The default value is accessRightId
sortOrder	string	N	Possible values ASC, DESC. The default value is ASC.

7.2.1.2 JSON Request structure

The table below describes the structure of the JSON request:

Attribute	Type	Mandatory	Description
accessRightId	integer	N	Access right number (ID).
personCode	string (20)	N	Person code.
consumerCode	string (20)	N	Consumer code.
objectNumber	string (20)	N	Object number.
objectAddressSearch	string (4000)	N	Object address search.
powerPlantObjectType	string (1)	N	The object's power plant type. Possible meanings: • A – Waste fuel • B – Biomass • H – Hydroelectric • K – Other • S – Solar • T – TEC • V – Wind • P – Storage device • I – Fossil • D – Biogas • R – Hybrid generation
accessRightValidFrom	string (datetime)	N	Access right valid date From.

Attribute	Type	Mandatory	Description
accessRightValidTo	string (datetime)	N	Access right valid date To.
generatingObjectType	string	N	Type of generating consumer of the used power plant. Possible meanings: • G - Generating consumer • N - Distant generating consumer
contractType	string	N	Contract type. Possible meanings: • SBTS - Household contract • SKMS - Commercial contract
contractModel	string (10)	N	Contract model. Possible meanings: • BSS - General contract bills • 2S2S - Two contracts – Two bills
supplierType	string (2)	N	Supplier type. Possible meanings: • VT - public supplier • GT - warranty supplier • NT - independent supplier
accountingType	string	Y	Object accounting type. Possible values: • NET_METERING – accumulates kwh • NET_BILLING – accumulates EUR • NET_METERING_NET_BILLING - accumulates kwh and EUR • POWER_PLANT - sells kwh • CONSUMER - only consuming • ENERGY_SHARER – sharing kw

Attribute	Type	Mandatory	Description
powerPlantType	string (1)	N	Type of used power plant. Possible meanings: • A – Waste fuel • B – Biomass • H – hydroelectric • K – Other • S – Solar • T – TEC • V – Wind • P – Storage device • I – Fossil • D – Biogas • R – Hybrid generation
userNameSearch	string (240)	N	Username search.

7.2.1.3 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
accessRightId	integer	Y	Access right number (ID).
accessRightValidFrom	string (datetime)	Y	Access right valid date From.
accessRightValidTo	string (datetime)	Y	Access right valid date To.
daysLeft	integer	Y	Number of days, how long the access right is still valid.

Attribute	Type	Mandatory	Description
accessRightSource	string	Y	Access right source. Possible meanings: • ESOS – through the ESO-S system • DATAHUB – through the ESO-S system
userName	string	Y	The user who added the granted right.
objectNumber	string	Y	Object number.
objectAddress	string	Y	Object address.
powerPlantObjectType	string	N	The object's power plant type. Possible meanings: • A – Waste fuel • B – Biomass • H – Hydroelectric • K – Other • S – Solar • T – TEC • V – Wind • P – Storage device • I – Fossil • D – Biogas • R – Hybrid generation
contractModel	string	Y	Contract model. Possible meanings: • BSS - General contract bills • 2S2S - Two contracts – Two bills
supplierType	string	Y	Supplier type. Possible meanings: • VT - public supplier • GT - warranty supplier

Attribute	Type	Mandatory	Description
			• NT - independent supplier
tariffPlan	string	N	Tariff plan of object.
timeZone	string	N	Time zone of object. Possible meanings: • 1 - One • 2 - Two • VR - One with reactive • 4 - Four (Smart) • DR - Differentiated with reactive • N - Not established
accountingType	string	Y	Object accounting type. Possible values: • NET_METERING – accumulates kwh • NET_BILLING – accumulates EUR • NET_METERING_NET_BILLING - accumulates kwh and EUR • POWER_PLANT - sells kwh • CONSUMER - only consuming • ENERGY_SHARER – sharing kw
usedPowerPlants: []			
powerPlantObjectNumber	string	N	Object number of used power plant.
powerPlantType	string	N	Type of used power plant. Possible meanings: • A – Waste fuel • B – Biomass • H – Hydroelectric • K – Other • S – Solar • T – TEC • V – Wind • P – Storage device

Attribute	Type	Mandatory	Description
			• I – Fossil • D – Biogas • R – Hybrid generation
generatingObjectType	string	N	Type of generating consumer of the used power plant. Possible meanings: • G - Generating consumer • N - Distant generating consumer
accountingScheme	string	N	Generating consumer accounting scheme. Possible meanings: • NET_BILLING • NET_METERING
payoffMethod	string	N	Generating consumer payoff method. Possible meanings: • E – kWh – Recovered el. energy • G - kW – Power plant installed capacity • P - % - Payment percentage • S – kWh – PP recovered electricity
generatingPower	number	N	The power generated by assigned power plant.
automationLevel	string	Y	Automation level. Possible meanings: • FULL – full automation • PARTIAL - partial automation • NONE – no automation
contractType	string	Y	Contract type. Possible meanings: • SBTS - Household contract • SKMS - Commercial contract

Attribute	Type	Mandatory	Description
personName	string	Y	Contract owner name / company name.
personSurname	string	N	Contract owner surname.
personCode	string	Y	Person code.
consumerCode	string	Y	Consumer code
accessRightPhoneNo	string	N	Access right phone number.
accessRightEmailAddress	string	N	Access right phone email address.
accessRightNote	string	N	Notes.

7.2.2 POST /gateway/third-party/access-right

URI	POST /gateway/third-party/access-right
Description	The method is for assigning a right to an object to a third party.
Parameters	-
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes

JSON request	<pre>{
	  "consentSign": boolean,
	  "personName": "string",
	  "personSurname": "string",
	  "personCode": "string",
	  "personBirthDate": "string",
	  "accessRightInformation": [
	  {
	  "objectNumber": "string",
	  "accessRightValidTo": "string",
	  "accessRightPhoneNo": "string",
	  "accessRightEmailAddress": "string",
	  "accessRightNote": "string"
	  }
	  ]
	}</pre>

JSON response	<pre>[
	  {
	  "accessRightId": integer
	  }
	]</pre>

JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
The meaning of the [objectNumber] cannot be repeated.	7	The object: [objectNumber (if there is more than one object, objects must be separated by the semicolon)] is repeating.	objectNumber
Must be specified valid object.	8	The object: [objectNumber (if there is more than one object, objects must be separated by the semicolon)] is not valid.	objectNumber

All objects specified in the request must belong to the owner specified in the request, the owner's contract must be valid and signed.	3007	The object: [objectNumber (if there is more than one object, objects must be separated by the semicolon)] does not belong to the specified owner / object does not have a valid contract.	personCode, personSurname, personName, personBirthDate, objectNumber
The attributes [personSurname] and [personCode] or [personBirthDate] are mandatory if the object's existing contract type is SBTS.	3008	Person surname and personal code or date of birth are required if the contract type is SBTS.	personSurname, personCode, personBirthDate
The attribute [personCode] is required if the object's existing contract type is SKMS.	3009	The company code must be provided if the contract type is SKMS.	personCode
The attribute [accessRightValidTo] can not be equal to the past date.	3003	Access right expire date can not be equal to the past date.	accessRightValidTo
If the object of the existing contract type is SKMS, then the access right can be granted without restriction to the future.	-	-	accessRightValidTo
If the object of the existing contract type is SBTS, then the maximum access right can be granted for one year, calculated from the current inclusive.	3004	If the contract type is SBTS, the maximum access right can be granted for one year.	accessRightValidTo
The format of the attribute [accessRightPhoneNo] must be: +370XXXXXXXX, X - an integer (0 must be included).	3005	Phone no. incorrect format.	accessRightPhoneNo
The format of the attribute [accessRightEmailAddress] must be [text][@][text][.domain], letters in the text must be Latin.	3006	Email address incorrect format.	accessRightEmailAddress
An object can have only one active access right record per involved party. If an attempt is made to register an access right for an object that already has a record, the active record will be updated.	-	-	objectNumber accessRightValidTo
If the attribute [consentSign] = False, then the creation must be disabled.	3010	It is necessary to confirm that the data provided is correct and the consent of the owner of the object has been obtained.	consentSign

7.2.2.1 JSON Request structure

The table below describes the structure of the JSON request:

Attribute	Type	Mandatory	Description
consentSign	boolean	Y	Consent sign. I confirm that the consent of the specified person / company and / or legal basis to receive and process personal / company data has been obtained (person's name, surname / company name, person / company code, address, contact details, facility and electricity consumption data).
personName	string(200)	Y	Person name.
personSurname	string(50)	N	Person surname.
personCode	string(20)	N	Person code.
personBirthDate	string (date)	N	Person birth date. The format: YYYY-MM-DD
accessRightInformation: []			
objectNumber	string(20)	Y	Object number.
accessRightValidTo	string (date)	Y	Access right valid date To. The format: YYYY-MM-DD.
accessRightPhoneNo	string(12)	N	Access right phone number.
accessRightEmailAddress	string(100)	N	Access right phone email address.
accessRightNote	string(4000)	N	Notes.

7.2.2.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
accessRightId	integer	Y	Access right number (ID).

7.2.3 POST /gateway/third-party/access-right/{accessRightId}/cancel

URI	POST /gateway/third-party/access-right/{accessRightId}/cancel
Description	The method is for revoking a granted right.
Parameters	URL parameters: *accessRightId*
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	
JSON response	
JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
It must be verified that the access right, according to the provided accessRightId, exists, is currently valid, and has not been revoked.	3011	The access right was not found in the system / it is not valid / is revoked / the right does not belong to the user initiating the action.	accessRightId
Upon successful revocation, a revocation sign must be affixed.	-	-	-

7.2.3.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
accessRightId	integer	Y	Access right number (ID).

7.3 Order controller

7.3.1 POST /gateway/third-party/order/list

URL	POST /gateway/third-party/order/list
Description	Method will return a list of the orders.
Parameters	URL parameters: *first, count, sort* • By default, the reports' orders list must be sorted by the orderId.

Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	{ "orderId": integer, "orderTypes": ["string"], "submittedDateFrom": "string", "submittedDateTo": "string", "dateFrom": "string", "dateTo": "string", "latesStatuses": ["string"], "auto": boolean, "userNameSearch": "string", "orderParametersSearch": "string" }
JSON response	[{ "orderId": integer, "orderType": "string", "submittedDate": "string", "dateFrom": "string", "dateTo": "string", "orderParameters": "string", "latestStatus": "string", "statusDate": "string", "expireDate": "string", "auto": boolean, "userName": "string" }]

JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
If an attribute has defined possible values, the value index can be specified by specifying the value of the attribute in the request. Indices of all possible values start from 0.	-	-	All attributes with specified values.
The date from cannot be later than the date to. Equal can be.	1002	Date from cannot be later than date to.	dateFrom, dateTo, submittedDateFrom, submittedDateTo
Submitted date from cannot be later than the submitted date to but can be equal.	1010	Submitted date from cannot be later than submitted date to.	submittedDateFrom, submittedDateTo

7.3.1.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
first	integer	N	the index of the report line, which must be the first in the return list (starting from 0). The default value is 0.
count	integer	N	the number of order's rows in the return list. The default value is 30. If no count value is given, the default value count will be 30.
sort	string	N	ASC, DESC sorting.

7.3.1.2 JSON Request structure

The table below describes the structure of the JSON request:

Attribute	Type	Mandatory	Description
orderId	integer	N	Order ID.
orderTypes	string	N	The short name of the order type. Possible meanings: • data-hr-15min-mtr-lvl - Automated quantities at the meter level; • data-hr-15min-obj-lvl - Automated quantities at the object; • report-obj-acr - Report of objects by granted rights.
submittedDateFrom	string (datetime)	N	Order’s submission date from.
submittedDateTo	string (datetime)	N	Order’s submission date to.
dateFrom	string (date)	N	The beginning of the reporting period: • The format: YYYY-MM-DD; • The reporting period start date is the first day of the month.
dateTo	string (date)	N	The end of the reporting period: • The format: YYYY-MM-DD; • The reporting period end date is the last day of the month.
latestStatuses	[“string(20)”]	N	The status of the order. Possible meanings: • IV – Completed; • V – In progress; • P – Submitted; • K – Error. More than one type can be submitted.
auto	boolean	N	Indication that the order was ordered automatically.
userNameSearch	string(240)	N	The user who ordered the order.
orderParametersSearch	string	N	The order parameters.

7.3.1.3 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
orderId	integer	Y	Order ID.
orderType	string	Y	The short name of the order type. Possible meanings: • data-hr-15min-mtr-lvl - Automated quantities at the meter level • data-hr-15min-obj-lvl - Automated quantities at the object level • report-obj - report-obj-acr - Report of objects by granted rights.
submittedDate	string (datetime)	Y	The date of the order submission.
dateFrom	string (date)	Y	The beginning of the reporting period: • The format: YYYY-MM-DD • The reporting period start date is the first day of the month • If the ordered report is Object Automated Consumptions, dateFrom can be not only the first day of the month.
dateTo	string (date)	Y	The end of the reporting period: • The format: YYYY-MM-DD; • The reporting period end date is the last day of the month; • If the ordered report is Object Automated Consumptions, dateTo can be not only the last day of the month.
orderParameters	string	Y	The search parameters by which the data in the ordered order was filtered.
latestStatus	string	Y	The current status of the order.
statusDate	string (datetime)	Y	The latest status date.
expireDate	string (datetime)	Y	Date of validity of the order.

			• The ordered report with **status = Completed** by default, is available only for 24 hours • The report, which was generated automatically by default, is available for 12 months
auto	boolean	Y	Indication that the report order was ordered automatically.
userName	string	Y	The user who ordered the order.

7.3.2 GET /gateway/third-party/order/{orderId}/count

URL	GET /gateway/third-party/order/{orderId}/count
Description	The method will return the count (number) of items that a third party will receive in an ordered report. Since reports can contain more than one item, the result is a list. This method should be used when a third party needs to split data into several portions. This response should be used in the reports' GET methods request, where the third party can provide method parameters information.
Parameters	URL parameters: *orderId* – order identification number**.**
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	

JSON response	{
	"count": integer
	}

JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
The order status must be Completed.	2010	Invalid report order status.	orderId
According to the submitted order number: [orderId], the order does not exist.	2016	Report order doesn't exist in the system.	orderId
Invalid method selected or parameter specified incorrectly. According to the submitted order number: [orderId] report type is: [orderType]	2017	Invalid method selected for report data or incorrect parameter.	orderId orderType
No data found based on the search parameters submitted in the POST method.	2018	There is no data for the selected search parameters, the response is empty.	orderId

7.3.2.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
first	integer	N	the index of the report line, which must be the first in the return list (starting from 0). The default value is 0.

7.3.2.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
count	integer	Y	Number of rows, objects, accounts, depending on the selected report.

7.3.3 POST /gateway/third-party/order/data-hr-15min-mtr-lvl-acr

URL	POST /gateway/third-party/order/data-hr-15min-mtr-lvl-acr
Description	The method is designed for ordering data for automated quantities at the counter level according to the granted rights.
Parameters	URL: The JSON data is contained in the HTTP request (BODY) (*see JSON structure, below*).
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	{ "dateFrom": "string", "dateTo": "string", "consumptionCategories": ["string", "string"], "objectNumbers": ["string", "string"], "interval": "string" }
JSON response	{ "orderId": integer }
JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
If an attribute has defined possible values, the value index can be specified by specifying the value of the attribute in the request. Indices of all possible values start from 0.	-	-	All attributes with specified values.
The date from cannot be later than the date to. Equal can be.	1002	Date from cannot be later than date to.	dateFrom dateTo
The date from and / or date to cannot be later than the current date but can be equal.	1008	Date from and / or date to cannot be later than the current date.	dateFrom, dateTo
Object meter must be automated.	2007	The submitted object number: [objectNumber (if there is more than one object, objects must be separated by the semicolon)], was not found or the meter of object is not automated.	objectNumbers
Data cannot be older than 36 months old.	2012	Date from date cannot be older than 36 months old.	dateFrom
Report can be ordered maximum for 12 months.	2013	The report can only be ordered for 12 months or less.	dateFrom dateTo
The period date from and date to must be less than date from configurable parameter.	2015	Data is not currently available for the selected reporting period.	dateFrom dateTo
The object must have a valid access right.	2020	Object [objectNumber (if there is more than one object, objects must be separated by the semicolon)] does not have access right or access right is expired.	objectNumbers
A maximum of 500 objects can be submitted in a report order	2021	A maximum of 500 objects can be submitted in a report order	objectNumbers
If **objectNumbers[null]**, then the report can be ordered for a maximum of 1 month period.	2023	The report without specifying the objects can only be ordered for 1 month or less.	objectNumbers dateFrom dateTo
A report can be ordered only if an order limit has been set	3400	Failed to order the report due to an unset limit	
A report can be ordered only if the remaining object quantity is sufficient	3401	Failed to order the report due to exceeding the object quantity limit	

A report can only be ordered if the order limit is activated	3403	Failed to order the report due to a deactivated limit	
When recording the report order, the value of the remaining object quantity should decrease by the same number of objects provided in the request	3301	The data has been modified in another session. Please try again.	

7.3.3.1 JSON Request structure

The table below describes the structure of the JSON request:

Attribute	Type	Mandatory	Description
dateFrom	string (date)	Y	The beginning of the reporting period: • The format: YYYY-MM-DD The reporting period start date is the first day of the month.
dateTo	string (date)	Y	The end of the reporting period: • The format: YYYY-MM-DD The reporting period end date is the last day of the month.
consumptionCategory	string	Y	The consumption category. Possible meanings: • P+ • P- • Q+ • Q-
objectNumbers	string	Y	Object number.
interval	string	Y	Consumption interval. Possible meanings: • HOUR • QUARTER

7.3.3.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
orderId	integer	Y	The report ordering primary surrogate key.

7.3.4 GET /gateway/third-party/order/{orderId}/data-hr-15min-mtr-lvl-acr

URL	GET /gateway/third-party/order/{orderId}/data-hr-15min-mtr-lvl-acr
Description	The method is designed to receive the order report "Automated quantities at the meter level based on granted rights."
Parameters	URL parameters: *orderId, first, count*
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	
JSON response	[{ "personCode": "string", "personName": "string", "personSurname": "string", "objectId": integer, "objectNumber": "string", "meters": [{ "meterNumber": "string", "categories": [{ "consumptionCategory": "string", "consumptions": [{ "consumptionTime": "string",

	"amount": "number", "valueType": "string" }] }] }] }]
JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
The order status must be Completed.	2010	Invalid report order status.	orderId
According to the submitted order number: [orderId], the order does not exist.	2016	Report order doesn't exist in the system.	orderId
Invalid method selected or parameter specified incorrectly. According to the submitted order number: [orderId] report type is: [orderType]	2017	Invalid method selected for report data or incorrect parameter.	orderId orderType
No data found based on the search parameters submitted in the POST method.	2018	There is no data for the selected search parameters, the response is empty.	orderId
The number of objects in the return list must be less than or equal to 10000.	2022	The number of objects on the list has been exceeded.	count

7.3.4.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
orderId	integer	Y	order identification number
first	integer	N	the index of the object, which must be the first in the return list (starting from 0). The default value is 0.
count	integer	N	The number of objects in the return list. The default value is 10000. If no count value is given, the default value count will be 10000.

7.3.4.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
personCode	string	Y	Person code.
personName	string	Y	Person name / company name
personSurname	string	N	Person surname
objectId	integer	Y	Object ID
objectNumber	string	Y	Object number
meters: []			
meterNumber	string	Y	Meter number of the object
categories: []			
consumptionCategory	string	Y	Consumption category. Possible meanings: • P+ • P- • Q+

			• Q-
consumptions: []			
consumptionTime	string (datetime)	Y	Consumption time. Example of consumptionTime format: 2022-06-07T00:00:00+02:00 2022-06-07T00:00:00+03:00
amount	number	Y	Consumption amount in kWh/kVArh.
valueType	string	Y	Consumption value type. Possible meanings: • EST – estimated • VAL – validated

7.3.5 POST /gateway/third-party/order/data-hr-15min-obj-lvl-acr

URL	POST /gateway/third-party/order/data-hr-15min-obj-lvl-acr
Description	The method is designed for ordering data for automated quantities at the object level according to the rights granted.
Parameters	URL: The JSON data is contained in the HTTP request (BODY) (*see JSON structure, below*).
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	{ "dateFrom": "string", "dateTo": "string", "consumptionCategories": ["string",

	"string"
	],
	"objectNumbers": [
	"string",
	"string"
	],
	"interval": "string",
	"netBilling": {
	"intervalData": boolean,
	"intervalDataDetailed": boolean
	}
	}

JSON response	{
	"orderId": integer
	}

JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
If an attribute has defined possible values, the value index can be specified by specifying the value of the attribute in the request. Indices of all possible values start from 0.	-	-	All attributes with specified values.
The date from cannot be later than the date to. Equal can be.	1002	Date from cannot be later than date to.	dateFrom dateTo
The date from and / or date to cannot be later than the current date but can be equal.	1008	Date from and / or date to cannot be later than the current date.	dateFrom, dateTo
Object meter must be automated.	2007	The submitted object number: [**objectNumber (if there is more than one object, objects must be separated by the**	objectNumbers

		semicolon)], was not found or the meter of object is not automated.	
Data cannot be older than 36 months old.	2012	Date from date cannot be older than 36 months old.	dateFrom
Report can be ordered maximum for 12 months.	2013	The report can only be ordered for 12 months or less.	dateFrom dateTo
The period date from and date to must be less than date from configurable parameter.	2015	Data is not currently available for the selected reporting period.	dateFrom dateTo
The object must have a valid access right.	2020	Object [objectNumber (if there is more than one object, objects must be separated by the semicolon)] does not have a access right or access right is expired.	objectNumbers
A maximum of 500 objects can be submitted in a report order	2021	A maximum of 500 objects can be submitted in a report order	objectNumbers
If **objectNumbers[null]**, then the report can be ordered for a maximum of 1 month period.	2023	The report without specifying the objects can only be ordered for 1 month or less.	objectNumbers dateFrom dateTo
The meaning of the **[ObjectNumber]** cannot be repeated.	2028	The object: [**objectNumber (if there is more than one object, objects must be separated by the semicolon)**] is repeating.	objectNumber
Parameter below can only be specified, if netBilling **intervalData=TRUE**: • intervalDataDetailed Note: Without specifying parameter, i.e. specifying NULL will treat as FALSE.	2029	An option to choose the type of power plant data view is only possible if the order is submitted for the object, which has "Net billing" accounting scheme.	netBilling, intervalData, intervalDataDetailed
A report can be ordered only if an order limit has been set	3400	Failed to order the report due to an unset limit	
A report can be ordered only if the remaining object quantity is sufficient	3401	Failed to order the report due to exceeding the object quantity limit	
A report can only be ordered if the order limit is activated	3403	Failed to order the report due to a deactivated limit	
When recording the report order, the value of the remaining object quantity should decrease by the same number of objects provided in the request	3301	The data has been modified in another session. Please try again.	

7.3.5.1 JSON Request structure

The table below describes the structure of the JSON request:

Attribute	Type	Mandatory	Description
dateFrom	string (date)	Y	The beginning of the reporting period: • The format: YYYY-MM-DD; The reporting period start date is the first day of the month.
dateTo	string (date)	Y	The end of the reporting period: • The format: YYYY-MM-DD; The reporting period end date is the last day of the month.
consumptionCategory	string(20)	Y	The consumption category. Possible meanings: • P+; • P-; • Q+; • Q-;
objectNumbers	string	Y	Object number.
interval	string	Y	Consumption interval. Possible meanings: • HOUR • QUARTER
netBilling: {}			
intervalData	boolean	N	Indication that the object is in "Net billing" accounting scheme. Possible meanings: • TRUE • FALSE • NULL Default value is NULL. NULL is treated as False.
intervalDataDetailed	boolean	N	Indication of whether object in "Net billing" accounting scheme detailed information should be retrieved. Possible meanings:

			• TRUE – a detailed view will be returned (the consumption object and all its power plant objects); • FALSE – a aggregated view will be returned (the consumption object without power plant objects); • NULL. Default value is NULL. NULL is treated as False.

7.3.5.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
orderId	integer	Y	The report ordering primary surrogate key.

7.3.6 GET /gateway/third-party/order/{orderId}/data-hr-15min-obj-lvl-acr

URL	GET /gateway/third-party/order/{orderId}/data-hr-15min-obj-lvl-acr
Description	The method is designed to receive the order report "Automated quantities at the object level according to the granted rights”.
Parameters	URL parameters: *orderId, first, count*
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	
JSON response	{

	"personCode": "string",
	"personName": "string",
	"personSurname": "string",
	"objectId": integer,
	"objectNumber": "string",
	"consumptionCategories": [
	{
	"consumptionCategory": "string",
	"powerPlantObjectNumber": "string",
	"powerPlantType": "string",
	"consumptions": [
	{
	"consumptionTime": "string",
	"amount": number,
	"valueType": "string",
	"usageType": "string",
	"graphVersion": "string"
	}
	]
	}
	]
	}

JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
The order status must be Completed.	2010	Invalid report order status.	orderId
According to the submitted order number: [orderId], the order does not exist.	2016	Report order doesn't exist in the system.	orderId
Invalid method selected or parameter specified incorrectly. According to the submitted order number: [orderId] report type is: [orderType]	2017	Invalid method selected for report data or incorrect parameter.	orderId orderType
No data found based on the search parameters submitted in the POST method.	2018	There is no data for the selected search parameters, the response is empty.	orderId
The number of objects in the return list must be less than or equal to 10000.	2022	The number of objects on the list has been exceeded.	count

7.3.6.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
orderId	integer	Y	Order identification number
first	integer	N	The index of the object, which must be the first in the return list (starting from 0). Optional. The default value is 0.
count	integer	N	The number of objects in the return list. Optional. The default value is 10000. If no count value is given, the default value count will be 10000.

7.3.6.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
personCode	string	Y	Person code.
personName	string	Y	Person name / company name.
personSurname	string	N	Person surname.
objectId	integer	Y	Object ID.
objectNumber	string	Y	Object number.
consumptionCategories: []			
consumptionCategory	string	Y	Consumption category. Possible meanings: • P+; • P-; • Q+; • Q-.
powerPlantObjectNumber	string(	N	Power plant object number, which has "Net billing" accounting scheme. Note: Filled in if attributes were selected when ordering the report: intervalData: **true** AND intervalDataDetailed: **true**.
powerPlantType	string	N	Type of the power plant. Possible meanings: • A – Waste fuel. • B – Biomass. • H – Hydroelectric. • K – Other. • S – Solar. • T – TEC. • V – Wind. • P – Storage device.

			• I – Fossil. • D – Biogas. • R – Hybrid generation. Note: Filled in if attributes were selected when ordering the report: intervalData: **true** AND intervalDataDetailed: **true**.
consumptions: []			
consumptionTime	string (datetime)	Y	Consumption time. Example of consumptionTime format: 2022-06-07T00:00:00+02:00 2022-06-07T00:00:00+03:00
amount	number	Y	Consumption amount in kWh/kVArh.
valueType	string	Y	Consumption value type. Possible meanings: • EST – estimated; • VAL – validated.
usageType	string	N	Reading usage type (only for object, which has "Net billing" accounting scheme). Possible field values are: • B – Billing; • D – Daily Note: Filled in if attributes were selected when ordering the report: intervalData: **true**.
graphVersion	string (datetime)	N	Calculated version of the "Net billing" accounting scheme graph. Note: Filled in if attributes were selected when ordering the report: intervalData: **true**.

7.3.7 POST /gateway/third-party/order/data-sum-obj-lvl-acr

URL	POST /gateway/third-party/order/data-sum-obj-lvl-acr
Description	The method is for order a report of total quantities according to the granted rights.
Parameters	URL: The JSON data is contained in the HTTP request (BODY) (*see JSON structure, below*).
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes

JSON request	{
	"dateFrom": "string",
	"dateTo": "string",
	"objectNumbers": [
	"string"
	]
	}

JSON response	{
	"orderId": integer
	}

JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
The date from cannot be later than the date to. Equal can be.	1002	Date from cannot be later than date to.	dateFrom dateTo

Data cannot be older than 36 months old.	2012	Date from date cannot be older than 36 months old.	dateFrom
The period date from and date to must be less than date from configurable parameter.	2015	Data is not currently available for the selected reporting period.	dateFrom dateTo
The object must have a valid access right.	2020	Object [objectNumbers (if there is more than one object, objects must be separated by the semicolon)] does not have a access right or access right is expired.	objectNumbers
A maximum of 500 objects can be submitted in a report order.	2021	A maximum of 500 objects can be submitted in a report order.	objectNumbers
The date from and / or date to cannot be later than the current date but can be equal.	1008	Date from and / or date to cannot be later than the current date.	dateFrom, dateTo
dateFrom - must be the first day of the month; dateTo - must be the last day of the month, unless dateTo coincides with the current month, then must be currentDate	2009	Date from must be the first day of the month. Date to must be the last day of the month unless date to coincides with the current day.	dateFrom dateTo
A report can be ordered only if an order limit has been set	3400	Failed to order the report due to an unset limit	
A report can be ordered only if the remaining object quantity is sufficient	3401	Failed to order the report due to exceeding the object quantity limit	
A report can only be ordered if the order limit is activated	3403	Failed to order the report due to a deactivated limit	
When recording the report order, the value of the remaining object quantity should decrease by the same number of objects provided in the request	3301	The data has been modified in another session. Please try again.	

7.3.7.1 JSON Request structure

The table below describes the structure of the JSON request:

Attribute	Type	Mandatory	Description
dateFrom	string (date)	Y	The beginning of the reporting period: • The format: YYYY-MM-DD; The reporting period start date is the first day of the month.
dateTo	string (date)	Y	The end of the reporting period:

			• The format: YYYY-MM-DD; The reporting period end date is the last day of the month.
objectNumbers	string	Y	Object numbers.

7.3.7.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
orderId	integer	Y	The report ordering primary surrogate key.

7.3.8 GET /gateway/third-party/order/{orderId}/data-sum-obj-lvl-acr

URL	GET /gateway/third-party/order/{orderId}/data-sum-obj-lvl-acr
Description	The method is used to obtain the requested "Aggregate quantities by entitlement" report.
Parameters	URL parameters: *orderId, first, count*
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	
JSON response	[{ "personCode": "string",

	<pre>"personName": "string",
	"personSurname": "string",
	"objectId": integer,
	"objectNumber": "string",
	"products": [
	{
	"productCode": "string",
	"productName": "string",
	"productType": "string",
	"unit": "string",
	"consumptionCategories": [
	{
	"category": "string",
	"consumptions": [
	{
	"billingPeriod": "string",
	"consumptionAmount": "number",
	"productConsumptionType": "string"
	}
	]
	}
	]
	}
	]
	}
	]</pre>

JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
The order status must be Completed.	2010	Invalid report order status.	orderId

According to the submitted order number: [**orderId**], the order does not exist.	2016	Report order doesn't exist in the system.	orderId
Invalid method selected or parameter specified incorrectly. According to the submitted order number: [orderId] report type is: [**orderType**].	2017	Invalid method selected for report data or incorrect parameter.	orderId orderType
No data found based on the search parameters submitted in the POST method.	2018	There is no data for the selected search parameters, the response is empty.	orderId

7.3.8.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
orderId	integer	Y	order identification number
first	integer	N	the index of the object, which must be the first in the return list (starting from 0). Optional. The default value is 0.
count	integer	N	The number of objects in the return list. Optional. The default value is 10000. If no count value is given, the default value count will be 10000.

7.3.8.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
personCode	string	Y	Person code.
personName	string	Y	Person name.

personSurname	string	N	Person surname.
objectId	number	Y	Object ID.
objectNumber	string	Y	Object number.
products: []			
productCode	string	N	Product code.
productName	string	N	Product name.
productType	string	N	Product type.
unit	string	N	The unit of the product.
consumptionCategories: []			
category	string	Y	Consumption category.
consumptions: []			
billingPeriod	string (datetime)	Y	Month in which electricity consumption is recorded.
consumptionAmount	number	Y	The amount of the consumption
productConsumptionType	string	N	Type of the product consumption. Possible meanings: • AMS - Subscription fee.

7.3.9 POST /gateway/third-party/order/report-obj-acr

URL	POST /gateway/third-party/order/report-obj-acr
Description	This method is used to order a report of objects based on the granted rights.
Parameters	URL: The JSON data is contained in the HTTP request (BODY) (*see JSON structure, below*).
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes

JSON request	{
	"objectNumbers": [
	"string"
	]
	}

JSON response	{
	"orderId": integer
	}

Error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
The object must have a valid access right.	2020	Object [objectNumbers (if there is more than one object, objects must be separated by the semicolon)] does not have an access right or access right is expired.	objectNumbers
A maximum of 500 objects can be submitted in a report order.	2021	A maximum of 500 objects can be submitted in a report order.	objectNumbers
Data for selected report can be ordered if report is not locked	2031	Data is not currently available for the selected report.	

A report can be ordered only if an order limit has been set	3400	Failed to order the report due to an unset limit	
A report can be ordered only if the remaining object quantity is sufficient	3401	Failed to order the report due to exceeding the object quantity limit	
A report can only be ordered if the order limit is activated	3403	Failed to order the report due to a deactivated limit	
When recording the report order, the value of the remaining object quantity should decrease by the same number of objects provided in the request	3301	The data has been modified in another session. Please try again.	

7.3.9.1 JSON Request structure

The table below describes the structure of the JSON request:

Attribute	Type	Mandatory	Description
objectNumbers	string	Y	Object numbers.

7.3.9.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
orderId	integer	Y	The report ordering primary surrogate key.

7.3.10 GET /gateway/third-party/order/{orderId}/report-obj-acr

URL	GET /gateway/third-party/order/{orderId}/report-obj-acr
Description	The method is used to retrieve the order report “Report of Objects by Granted Rights”.
Parameters	URL parameters: *orderId, first, count.*
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	

JSON response	[
	{
	"consumerCode": "string",
	"personCode": "string",
	"personName": "string",
	"personSurname": "string",
	"objectNumber": "string",
	"objectName": "string",
	"objectType": "string",
	"objectAddress": "string",
	"contractType": "string",
	"contractModel": "string",
	"permitablePowerConsumption": number,
	"permitablePowerGeneration": number,
	"usedPowerPlantTotalPower": number,
	"installedGeneratingPower": "number",
	"powerPlantObject": {
	"powerPlantValidFrom": "string",
	"powerPlantValidTo": "string",
	"powerPlantObjectType": "string"
	},
	"metersAmount": integer,
	"autoMetersAmount": integer,

```
"smartMeterInstallationDate": "string",
"supplyState": "string",
"supplyStateFrom": "string",
"supplyStateTo": "string",
"consumptionState": "string",
"consumptionStateFrom": "string",
"consumptionStateTo": "string",
"productsAmount": integer,
"scalesAmount": integer,
"technologicalCosts": boolean,
"accountingType": "string",
"generatingGroup": integer,
"generatingObjectPriorityGroup": integer,
"generatingObjectType": "string",
"powerPlantObjects": [
   {
      "powerPlantObjectNumber": "string",
      "powerPlantType": "string",
      "generatingObjectType": "string",
      "generatingPower": "string",
      "generatingObjectTypeFrom": "string",
      "generatingObjectTypeTo": "string",
      "accountingScheme": "string",
      "accountingSchemeValidFrom": "string",
      "accountingSchemeValidTo": "string",
      "accountingSchemeChangeDate": "string",
      "payoffMethod": "string",
      "payoffMethodchangeDate": "string"
   }
],
"voltage": number,
"tariffPlan": "string",
"tariffPlanChangeDate": "string",
"timeZone": "string",
"consumptionAverage": number,
"consumptionAverageCalculationDate": "string",
```

	"consumptionAverageCalculationMonthsCount": integer }]
JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

The table below describes rules:

Rule description	Error code	Error message	Attributes
The order status must be Completed.	2010	Invalid report order status.	orderId
According to the submitted order number: [**orderId]**, the order does not exist.	2016	Report order doesn't exist in the system.	orderId
Invalid method selected or parameter specified incorrectly. According to the submitted order number: [**orderId**] report type is: [**orderType**].	2017	Invalid method selected for report data or incorrect parameter.	orderId orderType
No data found based on the search parameters submitted in the POST method.	2018	There is no data for the selected search parameters, the response is empty.	orderId

7.3.10.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
orderId	integer	Y	Order identification number.
first	integer	N	the index of the object, which must be the first in the return list (starting from 0). The default value is 0.
count	integer	N	The number of objects in the return list. The default value is 10000. If no count value is given, the default value count will be 10000.

7.3.10.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
consumerCode	string	Y	Contract owner consumer code.
personCode	string	Y	Person / company code.
personName	string	Y	Contract owner name / company name.
personSurname	string	N	Contract owner surname.
objectNumber	string	Y	Object number.
objectName	string	N	Object name.
objectType	string	Y	Object type.
objectAddress	string	Y	Object address.
contractType	string	Y	Contract type. Possible meanings: • SBTS - Household contract • SKMS - Commercial contract
contractModel	string	Y	Contract model of the current object at a supplier. Possible meanings: • BSS - General contract bills • 2S2S - Two contracts – Two bills
permitablePowerConsumption	number	N	Permittable power consumption in the object, kW.

permitablePowerGeneration	number	N	Permittable power generation in the object, kW. The permittable power generation value is the sum of the object's power with the value LGG.
usedPowerPlantTotalPower	number	N	Total permittable power generation of the object, kW. Total permittable power generation value is the sum of the generating powers of the used power plants.
installedGeneratingPower	number	N	Installed generating power in the object, kW.
powerPlantObject: {}			
powerPlantValidFrom	string (date)	N	The object’s power plant valid from date.
powerPlantValidTo	string (date)	N	The object’s power plant valid to date.
powerPlantObjectType	string	N	The object's power plant type. Possible meanings: • A – Waste fuel • B – Biomass • H – Hydroelectric • K – Other • S – Solar • T – TEC • V – Wind • P – Storage device • I – Fossil • D – Biogas • R – Hybrid generation
metersAmount	integer	N	Meters' amounts are counted at the level of the object.

autoMetersAmount	integer	N	Total number of remotely readable or smart metering devices installed at the object.
smartMeterInstallationDate	string (date)	N	Date of installation of the object`s smart meter.
supplyState	string	N	Power supply state of the object. Possible meanings: • T – Supply • P – Disconnected on request • A – Disconnected under sanction • R – Limited by sanction
supplyStateFrom	string (date)	N	The object's electricity supply status is valid from.
supplyStateTo	string (date)	N	The object's electricity supply status is valid to.
consumptionState	string	N	Object power consumption status code. Possible values: • N - Temporarily not used • V – Consuming • A – Alleged.
consumptionStateFrom	string (date)	N	The object's electricity consumption status is valid from.
consumptionStateTo	string (date)	N	The object's electricity consumption status is valid to.
productsAmount	integer	N	Products' amounts are counted at the level of the object.
scalesAmount	integer	N	Scales' amounts are counted at the level of the object.
technologicalCosts	boolean	N	Indicator or object according to the latest data is accounted for technological costs.
accountingType	string	Y	Object accounting type. Possible values: • NET_METERING – accumulates kwh

			• NET_BILLING – accumulates EUR • NET_METERING_NET_BILLING - accumulates kwh and EUR • POWER_PLANT - sells kwh • CONSUMER - only consuming • ENERGY_SHARER – sharing kw
generatingGroup	integer	N	The group identifier of the generating user.
generatingObjectPriorityGroup	integer	N	The priority of the generating user group object.
generatingObjectType	string	N	Generating object type. Possible meanings: • G - Generating consumer • N - Distant generating consumer The generating object type value is calculated based on the used power plants' generating consumer type values ('powerPlantObjects.generatingObjectType'): • If the generating consumer type of the used power plant is G, the calculated value is G. • If the generating consumer type of the used power plant is N, the calculated value is N. • If the generating consumer type of the used power plant is G and N, the calculated value is G. If the object does not have any power plants in use, but the accounting type is 'ENERGY_SHARER,' the calculated value is G.
powerPlantObjects: []			
powerPlantObjectNumber	string	N	Power plant object number.
powerPlantType	string	N	Type of the power plant. Possible meanings: • A – Waste fuel • B – Biomass • H – Hydroelectric

			• K – Other • S – Solar • T – TEC • V – Wind • P – Storage device • I – Fossil • D – Biogas • R – Hybrid generation
generatingObjectType	string	N	Type of generating consumer of the used power plant. Possible meanings: • G – Generating consumer • N – Distant generating consumer
generatingPower	number	N	The power generated by assigned power plant.
powerPlantValidFrom	string (date)	N	Generating consumer type valid from.
powerPlantValidTo	string (date)	N	Generating consumer type valid to.
accountingScheme	string	N	Generating consumer accounting scheme. Possible meanings: • NET_BILLING • NET_METERING
accountingSchemeValidFrom	string (date)	N	Generating consumer accounting scheme valid from.
accountingSchemeValidTo	string (date)	N	Generating consumer accounting scheme valid to.
accountingSchemeChangeDate	string (date)	N	Accounting schemes change date.
payoffMethod	string	N	Generating consumer payoff method. Possible meanings: • E – kWh – Recovered el. energy • G - kW – Power plant installed capacity • P - % - Payment percentage

			• S – kWh – PP recovered electricity
payoffMethodChangeDate	string (date)	N	Payoff method change date.
voltage	number	N	Object voltage, kV.
tariffPlan	string	N	Tariff plan name.
tariffPlanChangeDate	string (date)	N	Date of the tariff plan change.
timeZone	string	N	Object time zone. Possible meaning: • 1 - One • 2 - Two • VR - One with reactive • 4 - Four (Smart) • DR - Differentiated with reactive • N - Not established
consumptionAverage	string	N	Consumption average.
consumptionAverageCalculationDate	string (dateTime)	N	Date of consumption average calculation.
consumptionAverageCalculationMonthsCount	count	N	Months count of consumption average calculation.

7.3.11 GET /gateway/third-party/order/limits

URL	GET /gateway/third-party/order/limits
Description	The method is designed to obtain the order limits
Parameters	URL parameters: *orderType*, *period*
Header	After decrypting the involved party authentication key, the involved party ID is used to select the data.
HTTP response codes	Standard HTTP response codes should be applied. The list of codes can be found at the following source: Standard HTTP response codes
JSON request	

JSON response	[
	{
	"objectQuantityLimit": integer,
	"objectRemainingQuantity": integer,
	"orderType": "string",
	"period": "string"
	}
	]

JSON error response	Example and description of JSON error response can be found at the following source: JSON error response

7.3.11.1 Parameters

The table below describes the parameters:

Attribute	Type	Mandatory	Description
orderType	string	N	The type of order to which the limit applies. Possible values: • data-hr-15min-mtr-lvl-acr • data-hr-15min-obj-lvl-acr • data-sum-obj-lvl-acr • report-obj-acr
period	string (date)	N	The period during which the limit is applied (format: YYYY-MM-DD, the first day of the month)

7.3.11.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	Type	Mandatory	Description
objectQuantityLimit	integer	Y	The value of the limit for the number of objects in ordered reports.
objectRemainingQuantity	integer	Y	Remaining quantity of objects in ordered reports
orderType	string	Y	Order types to which the limit applies. Possible values: • data-hr-15min-mtr-lvl-acr • data-hr-15min-obj-lvl-acr • data-sum-obj-lvl-acr • report-obj-acr
period	string (date)	Y	• The period during which the limit is applied. • Format: YYYY-MM-DD (the first day of the month). • The limit is valid for the entire calendar month.