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1. Documentation version history

The table below provides information on document version history:

Version	Date	Description
1.0.0	2022-12-05	Initial document version.
1.0.1	2022-12-05	<p>Implemented Object controller method:</p> <ul style="list-style-type: none"> • POST /gateway/third-party/object/all/active/list <p>Implemented Access right controller methods:</p> <ul style="list-style-type: none"> • POST /gateway/third-party/access-right/list • POST /gateway/third-party/access-right • POST /gateway/third-party/access-right/{accessRightId}/cancel <p>Implemented Order controller methods:</p> <ul style="list-style-type: none"> • POST/gateway/third-party/order/list • GET/gateway/third-party/order/{orderId}/count • POST/gateway/third-party/order/data-hr-15min-mtr-lvl-acr • POST/gateway/third-party/order/data-hr-15min-obj-lvl-acr • POST/gateway/third-party/order/data-sum-obj-lvl-acr • POST /gateway/third-party/order/report-obj-acr • GET /gateway/third-party/order/{orderId}/data-hr-15min-obj-lvl-acr • GET /gateway/third-party/order/{orderId}/data-hr-15min-mtr-lvl-acr • GET /gateway/third-party/order/{orderId}/report-obj-acr • GET /gateway/third-party/order/{orderId}/data-sum-obj-lvl-acr
1.0.2	2023-01-23	<p>Added new rule 2022 in method:</p> <ul style="list-style-type: none"> • GET/gateway/third-party/order/{orderId}/data-hr-15min-obj-lvl-acr • GET/gateway/third-party/order/{orderId}/data-hr-15min-mtr-lvl-acr
1.0.3	2023-03-03	<p>Added json field "valueType" in methods:</p> <ul style="list-style-type: none"> • GET /gateway/third-party/order/{orderId}/data-hr-15min-obj-lvl-acr • GET /gateway/third-party/order/{orderId}/data-hr-15min-mtr-lvl-acr

1.0.4	2023-04-06	Added new json response fields: <ul style="list-style-type: none"> • consumptionAverage • consumptionAverageCalculationDate • consumptionAverageCalculationMonthsCount in method GET /gateway/third-party/order/{orderId}/report-obj-acr
1.0.5	2023-05-04	Added recommendations for ASYNC API client.

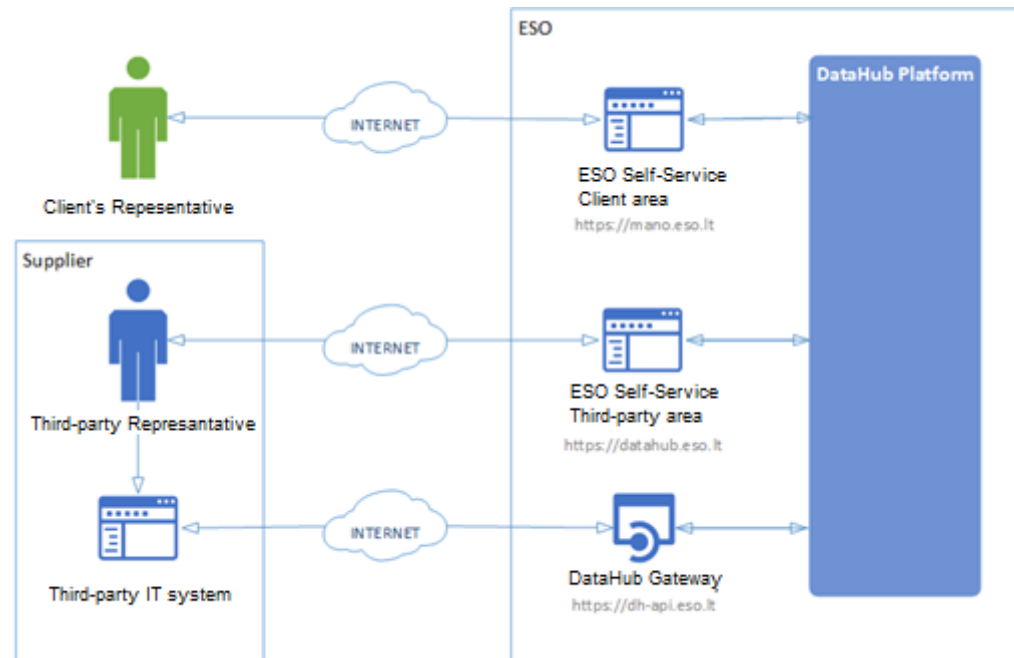
Note: Changes in table marked in white are already deployed, marked in green will be deployed in near future.

2. Preface

The Common Data Exchange Platform (hereinafter referred as DH Platform) Gateway is a component enabling third-party to directly access DH Platform from within their IT systems and thus helps perform their activities more efficiently.

DH Gateway provides open standards-based interfaces allowing third-party themselves (or with outside assistance) integrate their IT systems with DH Platform.

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



3. Definitions and abbreviations

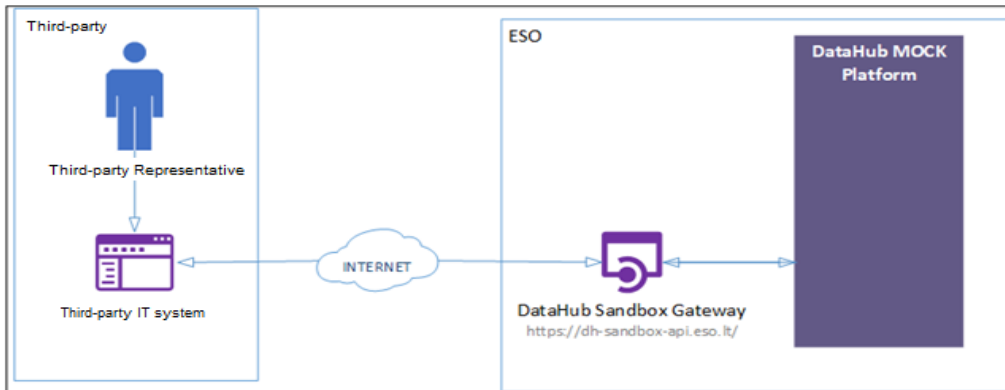
Definition / abbreviation	Description
DH Gateway	DH Platform component enabling third-party IT systems to directly access the platform and achieve a higher level degree of process automation.
DH, DH Platform	Common Data Exchange Platform.
Client	A household or legal person using electricity for the needs of the holding or business.
Client's Representative	A household person or his representative Representative of a legal entity (i.e. employee of a legal entity)
DSO, ESO	Distribution System Operator – AB „Energijos skirstymo operatorius“
Object	A site where electricity consumption takes place.
Third-party Representative	Third-party employee representing the third-party.

4. Environments

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

- “Sandbox” environment
- Production environment

DataHub Sandbox environment made of Mock API Gateway with mock requests and responses (scenarios). There are no connection to database or any data source, all possible requests and answers are hard-coded into mock API source code and has no any data selection logic or rules. This data is real depersonalized data from DSO customers. Sandbox requests and responses scenarios will be provided in additional document and it should be used just for preparation to integrate with DataHub production API environment or testing purposes.



DataHub platform also has WEB interface, which is connected to DataHub Production Gateway. All environments are provided in the table:

Environment	Link	Swagger Link	WEB Interface
Production	https://dh-api.eso.lt	https://dh-api.eso.lt/swagger-ui.html	https://datahub.eso.lt/
Sandbox	https://dh-sandbox-api.eso.lt	https://dh-sandbox-api.eso.lt/swagger-ui.html	-
Sandbox v2	https://dh-sandbox-api-v2.eso.lt/	https://dh-sandbox-api-v2.eso.lt/swagger-ui.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 DataHub Gateway API - the TOKEN submission in the case of cURL takes place.

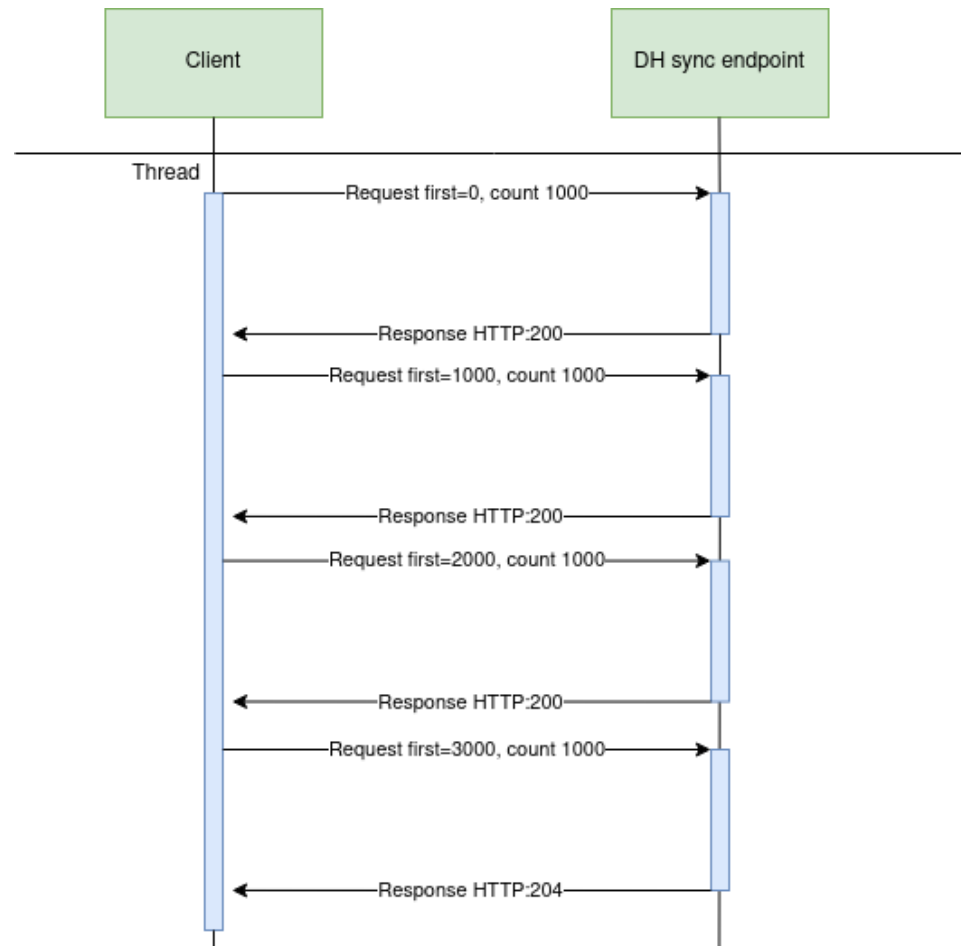
```
curl --header 'Authorization: Bearer key_received_from_DSO' https://dh-sandbox-api.eso.lt/data/data-orders/1/data
```

6. Recommendation for API client

6.1 SYNC

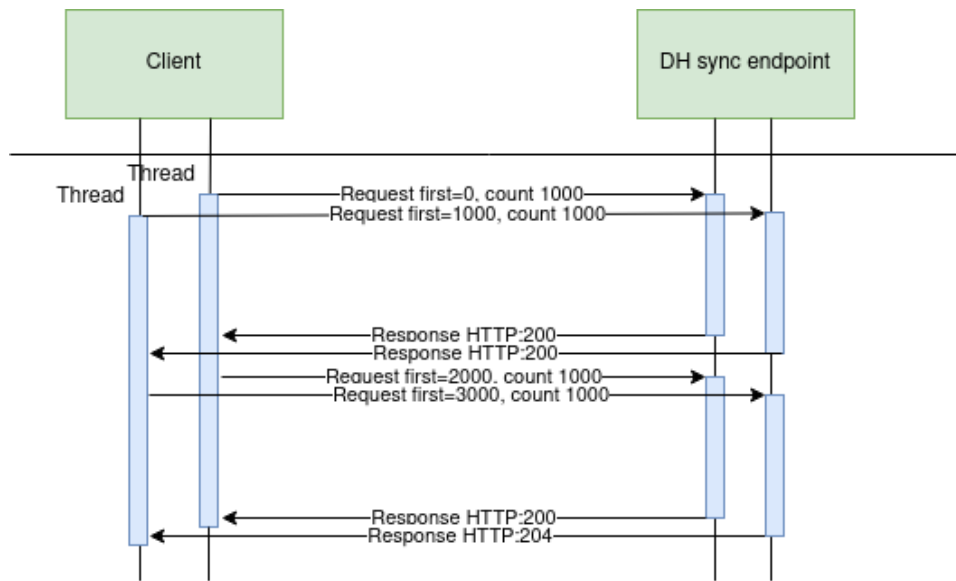
Sequential approach with pagination:

Should be default option



Parallel approach with pagination

Could be used than import time is not reasonable. But parallel requests should be limited.



Recommendations for datahub client:

1. Parameter for page size control
2. Parameter for parallel thread amount control
3. Sequentially process should be default, but if import takes too much time, parallel process could be used but with max 3 threads.
4. Page size can be calculated by formula $PS = PST/THRA$, where PS - page size, PST - page size with which request takes less than 15 seconds to execute, THRA - thread amount. But not more than 10 000 records.
5. Retry on HTTP statuses: 429, 5xx
6. Retry should restart failed request only (not whole import process)
7. Retry interval should be not less than 5 seconds.
8. Import process should be able to continue process after failure

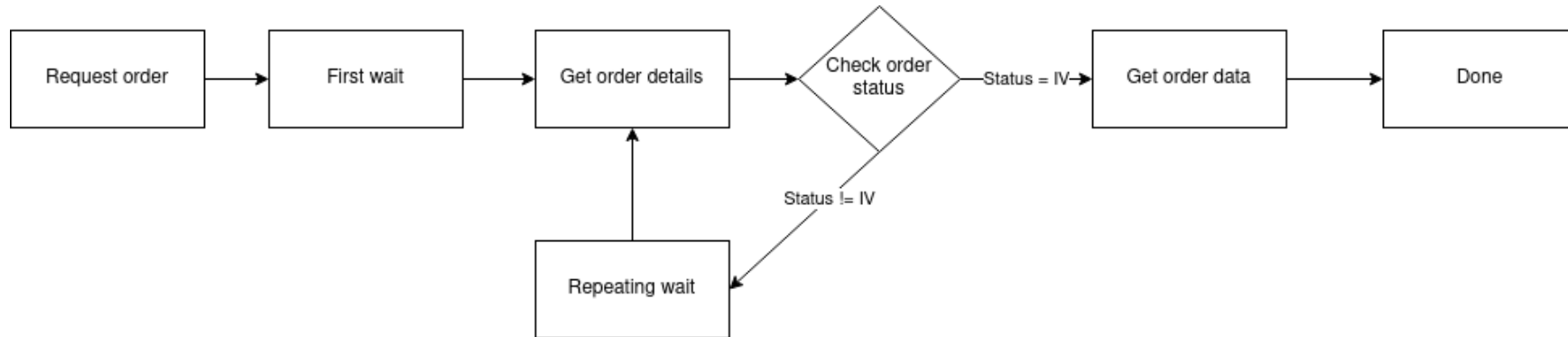
Motivation to have these features

1. Performance issues can arise accidentally and solving them can take some time. So, during performance problem page size and thread amount control could help.
2. Datahub has planned and unplanned deployments also can be incidents and during them datahub services might be unavailable. In this case from the client side is nice to have a fallback process which retries failed requests and continues the process after service becomes available again.
3. In the future throttling by third-party will be introduced and some of the requests could end up with http status 429 (too many requests) so retry process also will be helpful here.

6.2 ASYNC

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

Client side should implement following process with steps:



Step descriptions

Step name	Description	End-point	Request example	Response example
Request order	Submit new data order. Request will return order id which will be used in other steps for getting order details and order data.	POST /gateway/order/ yyyyyyyyyy where yyyyyyyyyy is order type: <ul style="list-style-type: none"> • 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 some period of time after order submission. This step is needed because after order request it takes some time to process it and there is no reason to try get status			

	<p>immediately after order submission.</p> <p>First wait duration depends on order type and parameters. If order collects more data it can take minutes to prepare data.</p> <p>For duration recommendations look at 6.2.3 Recommendations.</p>			
Get order details	<p>Request to get order details. This request is needed to get order latest status which is stored in field "latestStatus".</p> <p>Possible values for "latestStatus":</p> <ul style="list-style-type: none"> • P - Submitted order • V - Order in progress • IV - Order is finished and data are prepared • K - Order has errors 	POST /gateway/order/list	<pre>POST /gateway/order/list { "orderId": 10000001 }</pre>	<p>HTTP status 200</p> <pre>[{ "orderId": 10000001, "auto": false, "dateFrom": "2023-04-17", "dateTo": "2023-04-17", "expireDate": "2023-04-18T14:31:27.990Z", "latestStatus": "V", "orderParameters": {"objectNumbers":["111111111111", "222222222222"]}, "orderType": "report-obj-acr", "statusDate": "2023-04-17T14:31:27.990Z", "submittedDate": "2023-04-17T14:31:27.990Z", "userName": "PUBLIC" }]</pre>

]
Check order status	Logic operation to check order "latestStatus" field value. If value equals to "IV" it means that order data is prepared. Otherwise order data is not ready algorithm should go to step "Repeating wait".			
Repeating wait	Wait for some period of time after order status check when status was not equal to "IV". This step is needed because repetitive status check without wait can do unneeded load to DataHub system. For duration recommendations look at 6.2.3 Recommendations.			
Get order data	Get order data. Note: If order has too many data then pagination should be used. Default and max page size is 10 000 records (usually it's objects). How to get data described in Sync (6.1 SYNC).	GET /gateway/order/ zzzzzzzz / yyyyyyyyyy y?first=oooooo&count=ssssss where zzzzzzzz is order Id oooooo is offset position ssssss is page size yyyyyyyyyy is order type: <ul style="list-style-type: none"> • 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 DataHub order processing retry policy

If any issues appears during order data processing stage the process stops and order gets status K. DataHub uses retry policy for all orders with status K.

- Retries order process after 5 minutes
- Retries order process 300 times
- For failed orders retry policy will be working in total 25 hours (5 min * 300).
- Retry policy will stop work after 25 hours and order will be left with status K.

This is needed because issues can appear in data preparation stage of couple reasons:

- Datahub techical problem - For example one of datahub integrations was down or contract was changed, data integrity violations and etc
- Incomptable buisness logic - For example order got into not defined use case and use case should be adopted to order.

In most cases order processing retry will solve problem. But there are cases like "Incompatible business logic" when additional human interaction is needed to finish order job. We are tracking such an orders and fix'ing them, but fix'ing might take some some hours or even days. So some orders might not be completed and left 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 flow when issues appear during data preparation, but later problem was fixed.
P → V → K	This is flow when issues appear during data preparation and problem was not fixed during datahub retry policy time.

Order execution duration depends on mutiPLY factors:

- Order type - different order types uses different integration services some of them are faster some of them are slower.
- Order parameters - order parameters describes how much data will be generated. Bigger order periods and bigger object quantity will be generated longer.
- Order quantity in queue. If independent supplier creates too much orders they will be generated parallely and will take more time to finish them all.
- Failures - Errors during order data preperation will trigger retry policy so order generation will take more time as usually. Some times it will be not generated at all.

6.2.3 Recommendations

1. For better performance "Request order" can be implemented as separate process which is able to create multiple orders.
2. For better performance "Get order details" can be implemented as separate process which is able to get details of multiple orders.
3. For better performance "Get order data" can be implemented as separate process which is able to get order data of multiple orders.
4. For better performance process parallelization could be used but with max 3 threads.
5. Any HTTP request which returns 5xx status can be retried.
6. Any HTTP request which returns 4xx status should stop process because where are business error and manual handling should be used. Except for the step "Get order data" and error "code": 2018, "text": "There is no data for the selected search parameters, the response is empty." It means that order data preparation is finished and order is empty.
7. Step "Request order" and others steps should have separate retries. Get order data on failure should not trigger Request order one more time.
8. It's up to client to decide how long the "First wait" duration can be but it shouldn't be less than 1 second.
9. It's up to client to decide how long the "Repeating wait" duration can be but it shouldn't be less than 1 second.
10. Use fixed number of times for status check. After 25 hours datahub order retry policy will stop working and order will be left in status K. So it reasonable to have number of times equal ((25 hours) / ("Repeating wait" duration in hours)).
11. Do not recreate orders when order got status K. Datahub retry policy will try to regenerate it later or DataHub team member interaction is needed to finish order. Client side solutions will not help to solve status K.
12. For the step "Get order data" use Sync (6.1 SYNC).

7. DataHub Gateway API documentation

7.1 Object controller

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

URL	POST /gateway/third-party/object/all/active/list?first={integer}&count={integer}&sortKey={string}&sortOrder={ASC/DSC}
Description	The method is designed to obtain a list of objects before assigning rights to the objects.
Parameter	URL parameter: <ul style="list-style-type: none">• first - index (starting from 0) of the object that must be presented first in the return list. Optional. The default value is 0.• count - number of objects in the return list. Optional. The default value is 30.• sort - possible values ASC, DSC.

	The data of the JSON form request are presented in the HTTP request body (BODY) (Query JSON structure, below).		
Request	<pre>{ "personCode": "string" "objectDataConsentSign": "boolean" }</pre>		
Response HTTP code	HTTP status code	Reason	Description
	200	OK	Request completed successfully.
	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. (<i>Error response of the JSON structure below</i>).
	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.
Response	<pre>[{ "personName": "string", "personSurname": "string", "personCode": "string", "consumerCode": "string", "generatingObjectType": "string", "objectNumber": "string", "objectAddress": "string", }]</pre>		

	<pre> "automationLevel": "string", "contractType": "string", "supplierType": "string", "tariffPlan": "string", "timeZone": "string", "powerPlantType": "string" }] </pre>				
Error response	<pre> { "errorMessages": [{ "code": 0, "text": "string" }] } </pre>				
Rules	No.	Rule description	Error code	Error	Attributes
	1.	One or more request parameters are required.	1001	One or more request parameters are required.	personCode, consumerCode, objectNumber, meterNumber

7.1.1.1 JSON Request structure

The table below describes the structure of the JSON response:

No.	Attribute	Type	Obligation	Description
1.	personCode	String(20)	not required	Person / company code.
2.	objectDataConsentSign	Boolean	not required	Object data consent sign. True or False.

7.1.1.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	Type	Obligation	Description
1.	personName	String(200)	required	Contract owner / tenant name / company name.
2.	personSurname	String(50)	required	Contract owner / tenant surname.
3.	personCode	String(20)	not required	Contract owner / tenant person / company code. If the subject is individual, that person code must be encrypted: [*****][person code's 3 last symbols]
4.	consumerCode	String(20)	required	Contract owner / tenant consumer code.
5.	generatingObjectType	String(1)	not required	Generating consumer type. Possible meanings: <ul style="list-style-type: none"> • G – GV (Generating consumer); • N – NGV (Distant generating consumer).
6.	objectNumber	String(20)	required	Object number.
7.	objectAddress	String(4000)	required	Full title of the object address.
8.	automationLevel	String(7)	not required	Object accounting automation level.
9.	contractType	String(10)	not required	Contract type. Possible meanings: <ul style="list-style-type: none"> • SBTS - Household contract; • SKMS - Commercial contract;
10.	supplierType	String(2)	not required	Supplier type. Possible meanings:

No.	Attribute	Type	Obligation	Description
				<ul style="list-style-type: none"> • VT - public supplier; • GT - warranty supplier; • NT - independent supplier;
11.	tariffPlan	String(200)	required	Current tariff plan of the object.
12.	timeZone	String(2)	not required	<p>Current time zone of the object. Possible meanings:</p> <ul style="list-style-type: none"> • 1 - One; • 2 - Two; • VR - One with reactive; • 4 - Four (Smart); • DR - Differentiated with reactive; • N - Not established.
13.	powerPlantType	String(1)	not required	<p>Type of the power plant. Possible meanings:</p> <ul style="list-style-type: none"> • A – Waist • B – Biomass • H – Hydroelectric • K – Other • S – Solar • T – TEC • V - Wind

7.1.1.3 Error Response structure

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

No.	Attribute	Type	Obligation	Description
1.	code	number	required	Error code.
2.	text	String(4000)	required	Error message.

7.2 Access right controller

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

URI	POST /gateway/third-party/access-right/list?first={integer}&count={integer}&sortKey={string}&sortOrder={ASC/DSC}
Description	The method to obtain information and a list of granted rights.
Parameters	<p>URL:</p> <ul style="list-style-type: none"> • first - index (starting from 0) of accessRightId that must be presented first in the return list. Optional. The default value is 0. • count - number of accesRightUuid in the return list. Optional. The default value is 30. • sort - optional. The default value is accessRightId • sortOrder - possible values ASD,DSC. Optional. The default value is ASD. <p>The data of the JSON form request are presented in the HTTP request body (BODY) (Query JSON structure, below).</p>
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.
JSON request	<pre>{ "accessRightId":"number" "personCode":"string", "consumerCode":"string", "objectNumber":"string", "objectAddressSearch":"string", "accessRightValidFrom":"date", "accessRightValidTo":"date", "generatingObjectType":"string",</pre>

	<pre>"contractType":"string", "contractModel":"string", "supplierType":"string", "powerPlantType":"string", "userNameSearch":"string" }</pre>		
Response HTTP code	HTTP status code	Reason	Description
	200	OK	Request completed successfully
	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 response	<pre>[{ "accessRightId":"number", "accessRightValidFrom":"datetime", "accessRightValidTo":"datetime", "daysLeft":"number", "accessRightSource":"string", "userName":"string",</pre>		

	<pre>"objectNumber":"string", "generatingObjectType":"string", "objectAddress":"string", "contractModel":"string", "supplierType":"string", "tariffPlan":"string", "timeZone":"string", "powerPlantType":"string", "automationLevel":"string", "contractType":"string", "personName":"string", "personSurname":"string", "personCode":"string", "consumerCode":"string", "accessRightPhoneNo":"string", "accessRightEmailAddress":"string", "accessRightNote":"string" }]</pre>
JSON error response	<pre>{ "errorMessages": [{ "code": 0, "text": "string" }] }</pre>

Rules	No.	Rule description	Error code	Error message	Attributes
	1.	One or more request parameters are required..	1001	One or more request parameters are required.	-
	2.	DateFrom cannot be later than DateTo. Equal can be.	1002	DateFrom cannot be later than DateTo.	-
	3.	Only valid, irrevocable access rights granted must be included in the list.	-	-	-

7.2.1.1 JSON Request structure

The table below describes the structure of the JSON request:

No.	Attribute	type	obligation	description
1.	accessRightId	number	not required	Access right number (ID).
2.	personCode	string(20)	not required	Person code.
3.	consumerCode	string(20)	not required	Consumer code.
4.	objectNumber	string(20)	not required	Object number.

No.	Attribute	type	obligation	description
5.	objectAddressSearch	string(4000)	not required	Object address search.
6.	accessRightValidFrom	date	not required	Access right valid date From.
7.	accessRightValidTo	date	not required	Access right valid date To.
8.	generatingObjectType	string(1)	not required	Generating object type. Possible meanings: <ul style="list-style-type: none"> • G – GV (Gaminantis vartotojas); • N – NGV (Nutoles gaminantis vartotojas).
9.	contractType	string(10)	not required	Contract type. Possible meanings: <ul style="list-style-type: none"> • SBTS - Buitinė sutartis; • SKMS - Komercinė sutartis.
10.	contractModel	string(10)	not required	Contract model. Possible meanings: <ul style="list-style-type: none"> • BSS - Bendra sutartis ir sąskaita; • 2S2S - Dvi sutartys – dvi sąskaitos.
11.	supplierType	string(2)	not required	Supplier type. Possible meanings: <ul style="list-style-type: none"> • VT - visuomeninis tiekėjas; • GT - garantinis tiekėjas; • NT - nepriklausomas tiekėjas.
12.	powerPlantType	string(1)	not required	Power plant type. Possible meanings: <ul style="list-style-type: none"> • A – Atliekų; • B – Biomasės; • H – Hidroelektrinė; • K – Kita;

No.	Attribute	type	obligation	description
				<ul style="list-style-type: none"> • S – Saulés; • T – TEC; • V – Véjo.
13.	userNameSearch	string(240)	not required	User name search.

7.2.1.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	accessRightId	number	required	Access right number (ID).
2.	accessRightValidFrom	datetime	required	Access right valid date From.
3.	accessRightValidTo	datetime	required	Access right valid date To.
4.	daysLeft	number	required	Number of days, how long the access right is still valid.
5.	accessRightSource	string(1)	required	Access right source. Possible meanings: <ul style="list-style-type: none"> • ESOS – Per ESO-S; • DATAHUB – Per DATA HUB;
6.	userName	string(240)	required	The user who added the granted right.
7.	objectNumber	string(20)	required	Object number.

No.	Attribute	type	obligation	description
8.	generatingObjectType	string(1)	not required	Generating object type. Possible meanings: <ul style="list-style-type: none"> • G – GV (Gaminantis vartotojas); • N – NGV (Nutoles gaminantis vartotojas).
9.	objectAddress	string(4000)	required	Object address.
10.	contractModel	String(10)	required	Contract model. Possible meanings: <ul style="list-style-type: none"> • BSS - Bendra sutartis ir sąskaita; • 2S2S - Dvi sutartys – dvi sąskaitos.
11.	supplierType	string(2)	required	Supplier type. Possible meanings: <ul style="list-style-type: none"> • VT - visuomeninis tiekėjas; • GT - garantinis tiekėjas; • NT - nepriklausomas tiekėjas.
12.	tariffPlan	String(200)	not required	Tariff plan of object.
13.	timeZone	String(2)	not required	Time zone of object. Possible meanings: <ul style="list-style-type: none"> • 1 - One; • 2 - Two; • VR - One with reactive; • 4 - Four (Smart); • DR - Differentiated with reactive; • N - Not established.
14.	powerPlantType	string(1)	not required	Power plant type. Possible meanings: <ul style="list-style-type: none"> • A – Atlieky; • B – Biomasės; • H – Hidroelektrinė; • K – Kita;

No.	Attribute	type	obligation	description
				<ul style="list-style-type: none"> • S – Saulés; • T – TEC; • V – Vêjo.
15.	automationLevel	string(1)	required	Automation level. Possible meanings: <ul style="list-style-type: none"> • FULL - Pilna; • PARTIAL - Daliné; • NONE - Néra.
16.	contractType	String(10)	required	Contract type. Possible meanings: <ul style="list-style-type: none"> • SBTS - Buitiné sutartis; • SKMS - Komerčiné sutartis.
17.	personName	string(200)	required	Contract owner name / company name.
18.	personSurname	string(50)	not required	Contract owner surname.
19.	personCode	string(20)	required	Person code.
20.	consumerCode	string(20)	required	Consumer code
21.	accessRightPhoneNo	string(12)	not required	Access right phone number.
22.	accessRightEmailAddress	string(100)	not required	Access right phone email address.
23.	accessRightNote	string(4000)	not required	Notes.

7.2.1.3 Error Response structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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	URL: The data of the JSON form request are presented in the HTTP request body (BODY) (Query JSON structure, below).
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.
JSON request	<pre>{ "consentSign": "boolean", "personName": "string", "personSurname": "string", "personCode": "string", "personBirthDate": "date", "accessRightInformation": [{ "objectNumber": "string", "accessRightValidTo": "date", "accessRightPhoneNo": "string", "accessRightEmailAddress": "string", "accessRightNote": "string" }] }</pre>

	<pre>] }</pre>		
Response HTTP code	HTTP status code	Reason	Description
	201	Created	Request completed successfully
	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 response	<pre>[{ "accessRightId":"number" }]</pre>		
JSON error response	<pre>{ "errorMessages": [{ "code": 0, "text": "string" }]</pre>		

	<pre>] } </pre>				
Rules	No.	Rule description	Error code	Error message	Attributes
	1.	The types of existing contracts for the objects must be the same.	3001	Access right assign is not possible. Different contract types of objects.	objectNumber
	2.	The attribute [objectNumber] is mandatory.	-	-	objectNumber
	3.	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)] not found in the system.	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 attribute [personBirthDate] format must be: yyyy-mm-dd. yyyy - year; mm - month; dd - day.	-	-	personBirthDate
		The attribute [personName] is mandatory.	-	-	personName

	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] format must be: yyyy-mm-dd. yyyy - year; mm - month; dd - day.	-	-	accessRightValidTo
	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,	3005	Phone no. incorrect format.	accessRightPhoneNo

	X - an integer (0 must be included).			
	The format of the attribute [accessRightEmailAddress] must be [text][@][text][.domain], letters in the text must be Latin.	3006	Email address incorrect format.	accessRightEmailAddress
	If a record has been created for the interested party (independent supplier) and the object and person, it is updated, otherwise a new access right is inserted.	-	-	objectNumber accessRightValidTo
	The meaning of the [consentSign] must be: <ul style="list-style-type: none"> • True or • False. 	-	-	consentSign
	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:

No.	Attribute	type	obligation	description
1.	consentSign	boolean	required	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 /

No.	Attribute	type	obligation	description
				company name, person / company code, address, contact details, facility and electricity consumption data).
2.	personName	string(200)	required	Person name.
3.	personSurname	string(50)	not required	Person surname.
4.	personCode	string(20)	not required	Person code.
5	personBirthDate	date	not required	Person birth date.
accessRightInformation:[]				
6.	objectNumber	string(20)	required	Object number.
7.	accessRightValidTo	date	required	Access right valid date To.
8.	accessRightPhoneNo	string(12)	not required	Access right phone number.
9.	accessRightEmailAddress	string(100)	not required	Access right phone email address.
10.	accessRightNote	string(4000)	not required	Notes.

7.2.2.2 JSON Request structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	accessRightId	number	required	Access right number (ID).

7.2.2.3 Error Response structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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: <ul style="list-style-type: none"> accessRightId - access right number (ID). Required 		
Header	After decrypting the supplier authentication key, the thirdParty ID is used to select the data.		
JSON request			
Response HTTP code	HTTP status code	Reason	Description

	200	OK	Request completed successfully
	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.
	423	Locked	The source or destination resource of a method is locked. This response SHOULD contain an appropriate precondition or postcondition code, such as 'lock-token-submitted' or 'no-conflicting-lock'.
JSON response			
JSON error response	<pre>{ "errorMessages": [{ "code": 0, "text": "string" }] }</pre>		

	<pre>] } </pre>				
Rules	No.	Rule description	Error code	Error message	Attributes
	1.	It must be checked that the access right according to the provided accessRightId exists, is valid at the moment and is not 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
	2.	Upon successful revocation, a revocation sign must be affixed.	-	-	-

7.2.3.1 Error Response structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

7.3 Order controller

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

URI	POST/gateway/third-party/order/list?first={integer}&count={integer}&sortKey={string}&sortOrder={ASC/DSC}
Description	Method will return list of the orders.

Parameters	<p>URL parameters:</p> <p>first - the index of the report line, which must be the first in the return list (starting from 0). Optional. The default value is 0. count - the number of order's rows in the return list. Optional. The default value is 30. If no count value is given, the default value count will be 30. sort – ASC, DSC sorting. -By default, the reports' orders list must be sorted by the orderId;</p>		
Header	<p>After decrypting the third-party authentication key, the third-party ID is used to select the data.</p>		
JSON request	<pre>{ "orderId": "number", "orderTypes": ["string"], "submittedDateFrom": "date", "submittedDateTo": "date", "dateFrom": "date", "dateTo": "date", "status": "string", "auto": "boolean", "userNameSearch": "string", "orderParametersSearch": "string" }</pre>		
Response	HTTP status code	Reason	Response description
	200	OK	Request completed successfully
	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 Response	<pre>[{ "orderId": "number", "orderType": "string", "submittedDate": "datetime", "dateFrom": "date", "dateTo": "date", "orderParameters": "string", "latestStatus": "string", "statusDate": "datetime", "expireDate": "datetime", "auto": "boolean", "userName": "string" }]</pre>				
JSON error response	<pre>{ "errorMessages": [{ "code": 0, "text": "string" }] }</pre>				
Rules	No.	Rule description	Error code	Error message	Attribute
	0.	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.
	1.	DateFrom cannot be later than DateTo. Equal can be.	1002	DateFrom cannot be later than DateTo.	dateFrom

	2.	Submitted date cannot be later than the current date but can be equal.	2004	Submitted date cannot be later than the current date.	submittedDateTo
	3.	Submitted date from cannot be later than the submitted date to, but can be equal.	2005	Submitted date from cannot be later than submitted date to.	submittedDateFrom submittedDateTo
	4.	Date format is incorrect.	-	-	dateFrom dateTo submittedDateFrom submittedDateTo

7.3.1.1 JSON Request structure

The table below describes the structure of the JSON response:

Attribute	type	obligation	description
orderId	Integer	Not required	Order ID.
orderTypes	String	Not required	The short name of the order type. Possible meanings: <ul style="list-style-type: none"> • data-hr-15min-mtr-lvl - Automated quantities at the meter level (Automatizuoti kiekiai skaitiklio lygyje); • data-hr-15min-obj-lvl - Automated quantities at the object level (Automatizuoti kiekiai objekto lygyje); • bill-2s2s-b2b - Billing report for 2S2S model B2B (Sąskaitybos ataskaita 2S2S modeliui B2B); • bill-bss-b2b - Billing report for BSS model B2B (Sąskaitybos ataskaita BSS modeliui B2B); • bill-bss-b2c - Billing report for BSS model B2C (Sąskaitybos ataskaita BSS modeliui B2C); • report-obj - Objects report (Objektų ataskaita).
submittedDateFrom	Date	Not required	Order's submission date from. <ul style="list-style-type: none"> • The format of the date: YYYY-MM-DD.
submittedDateTo	Date	Not required	Order's submission date to.

dateFrom	Date	Not required	The beginning of the reporting period: <ul style="list-style-type: none"> • The format: YYYY-MM-DD; • The reporting period start date is the first day of the month.
dateTo	Date	Not required	The end of the reporting period: <ul style="list-style-type: none"> • The format: YYYY-MM-DD; • The reporting period end date is the last day of the month.
status	String(20)	Not required	The status of the order. Possible meanings: <ul style="list-style-type: none"> • IV – Completed; • V – In progress; • P – Submitted; • K – Error.
auto	Boolean	Not required	Indication that the order was ordered automatically.
userNameSearch	String(240)	Not required	The user who ordered the order.
orderParametersSearch	String	Not required	The order parameters.

7.3.1.2 JSON Response structure

The table below describes the structure of the JSON response:

Attribute	type	obligation	description
orderId	Integer	required	Order ID.
orderType	String(100)	required	The short name of the order type. Possible meanings: <ul style="list-style-type: none"> • data-hr-15min-mtr-lvl - Automated quantities at the meter level (Automatizuoti kiekiai skaitiklio lygyje); • data-hr-15min-obj-lvl - Automated quantities at the object level (Automatizuoti kiekiai objekto lygyje); • bill-2s2s-b2b - Billing report for 2S2S model B2B (Sąskaitybos ataskaita 2S2S modeliui B2B); • bill-bss-b2b - Billing report for BSS model B2B (Sąskaitybos ataskaita BSS modeliui B2B); • bill-bss-b2c - Billing report for BSS model B2C (Sąskaitybos ataskaita BSS modeliui B2C); • report-obj - Objects report (Objektų ataskaita).

submittedDate	Datetime	required	The date of the order submission.
dateFrom	Date	required	The beginning of the reporting period: <ul style="list-style-type: none"> • 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	Date	required	The end of the reporting period: <ul style="list-style-type: none"> • 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(4000)	required	The search parameters by which the data in the ordered order was filtered.
latestStatus	String(20)	required	The current status of the order.
statusDate	Datetime	required	The latest status date.
expireDate	Datetime	required	Date of validity of the order. <ul style="list-style-type: none"> • 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	required	Indication that the report order was ordered automatically.
userName	String(240)	required	The user who ordered the order.

7.3.1.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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

URI	GET/gateway/third-party/order/{orderId}/count		
Description	Method which will return count (number), how many items third party will get in ordered report (reports could have more than 1 item, so it is List). It should be used when third party need to split data in few portions. This response should be used in reports' GET methods request, where third party can provide method parameters information.		
Parameters	URL parameters: orderId – order identification number		
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.		
JSON request	GET request does not have the BODY part.		
Response	HTTP status code	Reason	Response description
	200	OK	Request completed successfully
	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.
	423	Locked	The source or destination resource of a method is locked. This response SHOULD contain an appropriate precondition or postcondition code, such as 'lock-token-submitted' or 'no-conflicting-lock'.

JSON Response	<pre>{ "count": "number" }</pre>				
JSON error response	<pre>{ "errorMessages": [{ "code": 0, "text": "string" }] }</pre>				
Rules	No.	Rule description	Error code	Error message	Attribute
	1.	The order status must be Completed.	2010	Invalid report order status.	orderId
	2.	According to the submitted order number: [orderId], the order does not exist.	2016	Report order doesn't exist in the system.	orderId
	3.	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
	4.	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 JSON Request structure

The table below describes the structure of the JSON request:

Attribute	type	obligation	description

7.3.2.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	count	Number(10)	required	Number of rows, objects, accounts, depending on the selected report.

7.3.2.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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

URI	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 rights granted.
Parameters	URL: The JSON data is contained in the HTTP request (BODY) (<i>see JSON structure, below</i>).
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.
JSON request	<pre>{ "dateFrom": "date", "dateTo": "date", "consumptionCategories": [string, string], "objectNumbers": [string, string],</pre>

	<pre>"interval": "string" } </pre>				
Response HTTP code	HTTP status code	Reason	Description		
	201	Created	The request has been successfully completed.		
	400	Bad Request	Request error. The HTTP response body provides a list of errors in JSON format. (<i>Error response of the JSON structure below</i>).		
	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 response	<pre>{ "orderId": "number" } </pre>				
JSON error response	<pre>{ "errorMessages": [{ "code": 0, "text": "string" }] } </pre>				
Rules	No.	Rule description	Error code	Error message	Attributes
	1.	If an attribute has defined possible values, the value index can be specified by specifying the	-	-	All attributes with specified values.

	value of the attribute in the request. Indices of all possible values start from 0.			
2.	Date format is incorrect.	-	-	dateFrom dateTo
3.	The date from cannot be later than the date to, but can be equal.	1002	Date from cannot be later than date to.	dateFrom dateTo
4.	The date from and date to cannot be later than the current date, but can be equal.	1008	Date from and date to cannot be later than the current date.	dateFrom
5.	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
6.	Data cannot be older than 36 months old.	2012	Date from date cannot be older than 36 months old.	dateFrom
7.	Report can be ordered maximum for 12 months.	2013	The report can only be ordered for 12 months or less.	dateFrom dateTo
8.	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
9.	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

10.	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
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7.3.3.1 JSON Request structure

The table below describes the structure of the JSON request:

No.	Attribute	type	obligation	description
1.	dateFrom	Date	required	The beginning of the reporting period: <ul style="list-style-type: none"> The format: YYYY-MM-DD; The reporting period start date is the first day of the month.
2.	dateTo	Date	required	The end of the reporting period: <ul style="list-style-type: none"> The format: YYYY-MM-DD; The reporting period end date is the last day of the month.
3.	consumptionCategory	String(20)	required	The consumption category. Possible meanings: <ul style="list-style-type: none"> P+; P-; Q+; Q-;
4.	objectNumbers	String	required	Object number.
5.	interval	String	required	Consumption interval. Possible meanings: <ul style="list-style-type: none"> - HOUR - QUARTER

7.3.3.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	orderId	Integer	required	The report ordering primary surrogate key.

7.3.3.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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

URI	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) (<i>see JSON structure, below</i>).		
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.		
JSON request	<pre>{ "dateFrom": "date", "dateTo": "date", "consumptionCategories":[string, string], "objectNumbers":[string, string], "interval":"string" }</pre>		
Response HTTP code	HTTP status code	Reason	Description
	201	Created	The request has been successfully completed.
	400	Bad Request	Request error. The HTTP response body provides a list of errors in JSON format. (<i>Error response of the JSON structure below</i>).

	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 response	<pre>{ "orderId": "number" }</pre>				
JSON error response	<pre>{ "errorMessages": [{ "code": 0, "text": "string" }] }</pre>				
Rules	No.	Rule description	Error code	Error message	Attributes
	1.	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.
	2.	Date format is incorrect.	-	-	dateFrom dateTo
	3.	The date from cannot be later than the date to, but can be equal.	1002	Date from cannot be later than date to.	dateFrom dateTo

4.	The date from and date to cannot be later than the current date, but can be equal.	1008	Date from and date to cannot be later than the current date.	dateFrom
5.	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
6.	Data cannot be older than 36 months old.	2012	Date from date cannot be older than 36 months old.	dateFrom
7.	Report can be ordered maximum for 12 months.	2013	The report can only be ordered for 12 months or less.	dateFrom dateTo
8.	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
9.	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
10.	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

7.3.4.1 JSON Request structure

The table below describes the structure of the JSON request:

No.	Attribute	type	obligation	description
1.	dateFrom	Date	required	The beginning of the reporting period: <ul style="list-style-type: none"> The format: YYYY-MM-DD; The reporting period start date is the first day of the month.

2.	dateTo	Date	required	The end of the reporting period: <ul style="list-style-type: none"> The format: YYYY-MM-DD; The reporting period end date is the last day of the month.
3.	consumptionCategory	String(20)	required	The consumption category. Possible meanings: <ul style="list-style-type: none"> P+; P-; Q+; Q-;
4.	objectNumbers	String	required	Object number.
5.	interval	String	required	Consumption interval. Possible meanings: <ul style="list-style-type: none"> - HOUR - QUARTER

7.3.4.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	orderId	Integer	required	The report ordering primary surrogate key.

7.3.4.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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

URI	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 <i>JSON structure, below</i>).		
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.		
JSON request	<pre>{ "dateFrom": "date", "dateTo": "date", "objectNumbers": ["string"] }</pre>		
Response HTTP code	HTTP status code	Reason	Description
	201	Created	The request has been successfully completed.
	400	Bad Request	Request error. The HTTP response body provides a list of errors in JSON format. (<i>Error response of the JSON structure below</i>).
	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 response	<pre>{ "orderId": "number" }</pre>		
JSON error response	<pre>{ "errorMessages": [{ "code": 0, </pre>		

	<pre> "text": "string" }] } </pre>				
Rules	No.	Rule description	Error code	Error message	Attributes
	1.	Date format is incorrect.	-	-	dateFrom dateTo
	2.	The date from cannot be later than the date to, but can be equal.	1002	Date from cannot be later than date to.	dateFrom dateTo
	3.	Data cannot be older than 36 months old.	2012	Date from date cannot be older than 36 months old.	dateFrom
	5.	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
	6.	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
	7.	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
	8.	The date from and date to cannot be later than the current date, but can be equal.	1008	Date from and date to cannot be later than the current date.	dateFrom dateTo
	9.	dateFrom - must be the first day of the month;	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

		dateTo - must be the last day of the month, unless dateTo coincides with the current month, then must be currentDate			
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7.3.5.1 JSON Request structure

The table below describes the structure of the JSON request:

No.	Attribute	type	obligation	description
1.	dateFrom	Date	required	The beginning of the reporting period: <ul style="list-style-type: none"> The format: YYYY-MM-DD; The reporting period start date is the first day of the month.
2.	dateTo	Date	required	The end of the reporting period: <ul style="list-style-type: none"> The format: YYYY-MM-DD; The reporting period end date is the last day of the month.
4.	objectNumbers	String	required	Object numbers.

7.3.5.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	orderId	Integer	required	The report ordering primary surrogate key.

7.3.5.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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

URI	POST /gateway/third-party/order/report-obj-acr		
Description	The method is for order a report of objects according to the granted rights.		
Parameters	URL: The JSON data is contained in the HTTP request (BODY) (see <i>JSON structure, below</i>).		
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.		
JSON request	<pre>{ "objectNumbers":["string"] }</pre>		
Response HTTP code	HTTP status code	Reason	Description
	201	Created	The request has been successfully completed.
	400	Bad Request	Request error. The HTTP response body provides a list of errors in JSON format. (<i>Error response of the JSON structure below</i>).
	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 response	<pre>{ "orderId": "number" }</pre>		
JSON error response	<pre>{ "errorMessages": [{ "code": 0,</pre>		

	<pre> "text": "string" }] } </pre>				
Rules	No.	Rule description	Error code	Error message	Attributes
	1.	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
	2.	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

7.3.6.1 JSON Request structure

The table below describes the structure of the JSON request:

No.	Attribute	type	obligation	description
1.	objectNumbers	String	required	Object numbers.

7.3.6.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	orderId	Integer	required	The report ordering primary surrogate key.

7.3.6.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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

URI	GET /gateway/third-party/order/{orderId}/data-hr-15min-obj-lvl-acr?first={integer}&count={integer}		
Description	The method for receive the order report "Automated quantities at the object level according to the granted rights".		
Parameters	<p>URL parameters:</p> <p>orderId – order identification number</p> <p>first - the index of the object, which must be the first in the return list (starting from 0). Optional. The default value is 0.</p> <p>count - 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.</p>		
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.		
JSON request			
Response HTTP code	HTTP status code	Reason	Description
	200	OK	Request completed successfully.
	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. (<i>Error response of the JSON structure below</i>).
	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 response	<pre> { "personCode": "string", "personName": "string", "personSurname": "string", "objectId": number, "objectNumber": "string", "consumptionCategories": [{ "consumptionCategory": "string", "consumptions": [{ "consumptionTime": "datetime", "amount": number, "valueType": "string" }] }] } </pre>		

	<pre>] } </pre>				
JSON error response	<pre> { "errorMessages": [{ "code": 0, "text": "string" }] } </pre>				
Rules	No.	Rule description	Error code	Error message	Attributes
	1.	The order status must be Completed.	2010	Invalid report order status.	orderId
	2.	According to the submitted order number: [orderId], the order does not exist.	2016	Report order doesn't exist in the system.	orderId
	3.	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
	4.	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
	5.	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

7.3.7.1 JSON Request structure

The table below describes the structure of the JSON request:

No.	Attribute	type	obligation	description
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7.3.7.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	personCode	String(20)	required	Person code.
2.	personName	String(200)	required	Person name / company name.
3.	personSurname	String(50)	required	Person surname.
4.	objectId	Integer	required	Object ID.
5.	objectNumber	String(20)	required	Object number.
consumptionCategories:[]				
8.	consumptionCategory	String(2)	required	Consumption category. Possible meanings: <ul style="list-style-type: none"> • P+; • P-; • Q+; • Q-.
consumptions:[]				
	consumptionTime	datetime	required	Consumption time. Example of consumptionTime format: 2022-06-07T00:00:00+02:00 2022-06-07T00:00:00+03:00
9.	amount	number	required	Consumption amount.
10.	valueType	String(3)	required	Consumption value type. Possible meanings: <ul style="list-style-type: none"> • EST – estimated; • VAL – validated.

7.3.7.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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

URI	GET /gateway/third-party/order/{orderId}/data-hr-15min-mtr-lvl-acr?first={integer}&count={integer}		
Description	The method for receive the order report " Automated quantities at the meter level based on granted rights".		
Parameters	<p>URL parameters:</p> <p>orderId – order identification number</p> <p>first - the index of the object, which must be the first in the return list (starting from 0). Optional. The default value is 0.</p> <p>count - 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.</p>		
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.		
JSON request			
Response HTTP code	HTTP status code	Reason	Description
	200	OK	Request completed successfully.
	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. (<i>Error response of the JSON structure below</i>).
	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 response

```
[
  {
    "personCode":"string",
    "personName":"string",
    "personSurname":"string",
    "objectId":number,
    "objectNumber":"string",
    "meters":[
      {
        "meterNumber":"string",
        "categories":[
          {
            "consumptionCategory":"string",
            "consumptions":[
              {
                "consumptionTime":"datetime",
                "amount":number,
                "valueType":"string"
              }
            ]
          }
        ]
      }
    ]
  }
]
```

						<pre>] }] }] }] }] </pre>
JSON error response						<pre> { "errorMessages": [{ "code": 0, "text": "string" }] } </pre>
Rules	No.	Rule description	Error code	Error message	Attributes	
	1.	The order status must be Completed.	2010	Invalid report order status.	orderId	
	2.	According to the submitted order number: [orderId], the order does not exist.	2016	Report order doesn't exist in the system.	orderId	
	3.	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	
	4.	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	

	5.	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
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7.3.8.1 JSON Request structure

The table below describes the structure of the JSON request:

No.	Attribute	type	obligation	description

7.3.8.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	personCode	String(20)	required	Person code.
2.	personName	String(200)	required	Person name / company name.
3.	personSurname	String(50)	required	Person surname.
4.	objectId	Integer	required	Object ID.
5.	objectNumber	String(20)	required	Object number.
meters:[]				
6.	meterNumber	String(20)	required	Meter number of the object.
categories:[]				
7.	consumptionCategory	String(2)	required	Consumption category. Possible meanings: <ul style="list-style-type: none"> • P+; • P-; • Q+; • Q-.
consumptions:[]				
8.	consumptionTime	Datetime	required	Consumption time.

				Example of consumptionTime format: 2022-06-07T00:00:00+02:00 2022-06-07T00:00:00+03:00
9.	amount	Number	required	Consumption amount.
10.	valueType	String(3)	required	Consumption value type. Possible meanings: <ul style="list-style-type: none"> • EST – estimated; • VAL – validated.

7.3.8.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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

URI	GET /gateway/third-party/order/{orderId}/report-obj-acr?first={integer}&count={integer}
Description	The method for used to the order report "Report of objects by granted rights".
Parameters	URL parameters: orderId – order identification number first - the index of the object, which must be the first in the return list (starting from 0). Optional. The default value is 0. count - 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.
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.
JSON request	

Response HTTP code	HTTP status code	Reason	Description
	200	OK	Request completed successfully.
	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. (<i>Error response of the JSON structure below</i>).
	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 response	<pre>[{ "consumerCode":"string", "personCode":"string", "personName":"string", "personSurname":"string", "objectId":"number", "objectNumber":"string", "objectName":"string", "objectType":"string", "objectAddress":"string", "contractType":"string", "contractModel":"string", "permissiblePowerConsumption":"number", "permissiblePowerGeneration":"number", "metersAmount":"number", "autoMetersAmount":"number", "smartMeterInstallationDate":"date", "supplyState":"string", "supplyStateFrom":"date", "supplyStateTo":"date",</pre>		

	<pre> "consumptionState": "string", "consumptionStateFrom": "date", "consumptionStateTo": "date", "productsAmount": "number", "scalesAmount": "number", "technologicalCosts": "boolean", "payoffMethod": "string", "generatingObjectType": "string", "generatingObjectTypeFrom": "date", "generatingObjectTypeTo": "date", "powerPlantType": "string", "voltage": "number", "tariffPlan": "string", "tariffPlanChangeDate": "date", "timeZone": "string", "consumptionAverage": "double", "consumptionAverageCalculationDate": "datetime", "consumptionAverageCalculationMonthsCount": "integer" }] </pre>				
JSON error response	<pre> { "errorMessages": [{ "code": 0, "text": "string" }] } </pre>				
Rules	No.	Rule description	Error code	Error message	Attributes
	1.	The order status must be Completed.	2010	Invalid report order status.	orderId
	2.	According to the submitted order number: [orderId], the order does not exist.	2016	Report order doesn't exist in the system.	orderId

	3.	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
	4.	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

7.3.9.1 JSON Request structure

The table below describes the structure of the JSON request:

No.	Attribute	type	obligation	description

7.3.9.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	-	-	-	Response description are provided in https://datahub.eso.lt/dokumentacija . In next document version, all fields description will be provided here.

7.3.9.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.
2.	text	string(4000)	required	Error message.

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

URI	GET /gateway/third-party/order/{orderId}/data-sum-obj-lvl-acr?first={integer}&count={integer}		
Description	The method is used to obtain the requested "Aggregate quantities by entitlement" report.		
Parameters	<p>URL parameters:</p> <p>orderId – order identification number</p> <p>first - the index of the object, which must be the first in the return list (starting from 0). Optional. The default value is 0.</p> <p>count - 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.</p>		
Header	After decrypting the third-party authentication key, the third-party ID is used to select the data.		
JSON request			
Response HTTP code	HTTP status code	Reason	Description
	200	OK	Request completed successfully.
	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. (<i>Error response of the JSON structure below</i>).
	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 response	<pre>[{ "personCode":"string",</pre>		

```
"personName":"string",
"personSurname":"string",
"objectId":"number",
"objectNumber":"string",
"products":[
  {
    "productCode":"string",
    "productName":"string",
    "productType":"string",
    "unit":"string",
    "consumptionCategories": [
      {
        "category":"string",
        "consumptions":[
          {
            "billingPeriod":"date",
            "consumptionAmount":"number",
            "productConsumptionType":"string"
          }
        ]
      }
    ]
  }
]
```

JSON error response

```
{
  "errorMessages": [
    {
      "code": 0,
      "text": "string"
    }
  ]
}
```

	<pre>] } </pre>				
Rules	No.	Rule description	Error code	Error message	Attributes
	1.	The order status must be Completed.	2010	Invalid report order status.	orderId
	2.	According to the submitted order number: [orderId], the order does not exist.	2016	Report order doesn't exist in the system.	orderId
	3.	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
	4.	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 JSON Request structure

The table below describes the structure of the JSON request:

No.	Attribute	type	obligation	description

7.3.10.2 JSON Response structure

The table below describes the structure of the JSON response:

No.	Attribute	type	obligation	description
1.	personCode	String(20)	required	Person code.
2.	personName	String(20)	required	Person name.

3.	personSurname	String(50)	not required	Person surname.
4.	objectId	number	required	Object ID.
5.	objectNumber	String	required	Object number.
Products:[]				
6.	productCode	String(20)	not required	Product code.
7.	productName	String(4000)	not required	Product name.
8.	productType	String(5)	required	Product type.
9.	unit	String(255)	not required	The unit of the product.
consumptionCategories:[]				
10.	category	String(2)	required	Consumption category.
Consumptions:[]				
11.	billingPeriod	Datetime	required	Month in which electricity consumption is recorded.
12.	consumptionAmount	number	required	The amount of the consumption
13.	productConsumptionType	String(20)	not required	Type of the product consumption. Possible meanings: - AMS - Abonentinis mok. (Subscription fee)

7.3.10.3 Error Response Structure

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

No.	Attribute	type	obligation	description
1.	code	number	required	Error code.

No.	Attribute	type	obligation	description
2.	text	string(4000)	required	Error message.