

API documentation 2020-09-07 release (ENG)

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Documentation version history

The table below provides information on document version history:

Version	Date	Description
0.1	2019-11-15	Initial document version.
0.2	2019-11-18	Updated bDH Gateway component internet addresses by adding ports.
0.3	2019-11-18	DataHub Sandbox and Production manual.
0.4	2020-01-04	API changes from XML to JSON.
0.5	2020-09-07	Existing documentation changed by adding information about request/response parameters, added fields types and description, explanations, etc.

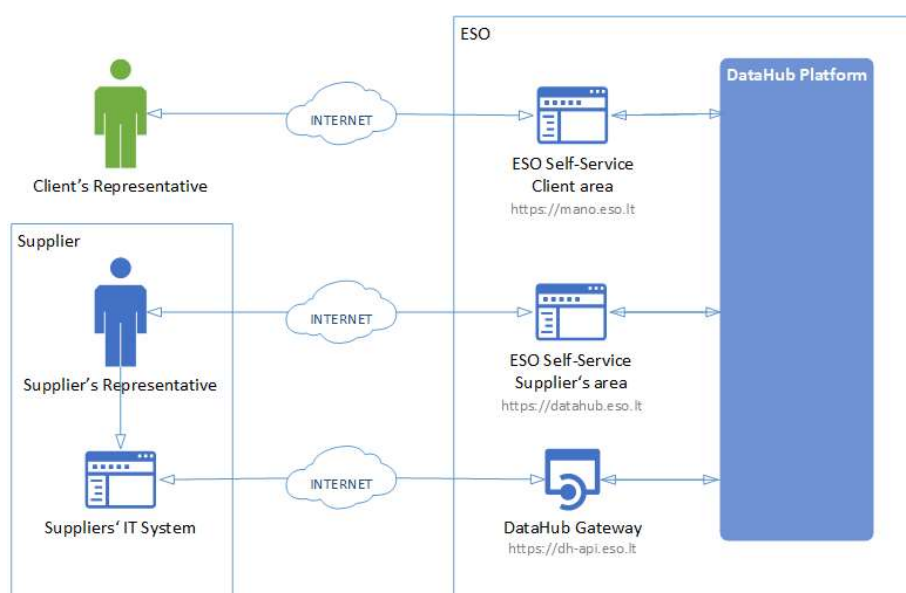
Preface

The Common Data Exchange Platform (hereinafter referred as *DH Platform*) Gateway is a component enabling independent electricity suppliers to directly access DH Platform from within their IT systems and thus helps automate the following business processes:

- Obtaining electricity consumption history data with the purpose of providing commercial proposals for the potential clients – residential and industrial electricity consumers
- Providing information to Distribution System Operator about the new contracts with the clients who have switched their supplier

DH Gateway provides open standards-based interfaces allowing independent suppliers 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 suppliers' information systems with DH Platform.



Definitions and abbreviations

Definition / abbreviation	Description
DH Gateway	DH Platform component enabling independent supplier's 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.

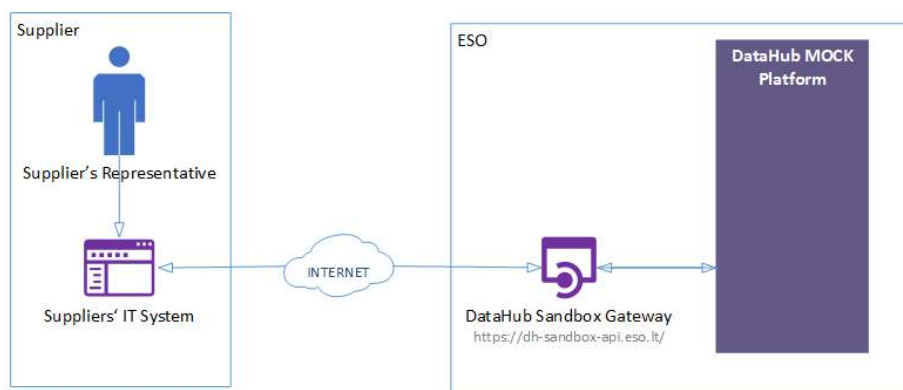
Client's Representative	<ul style="list-style-type: none"> • A household person or his representative • Representative of a legal entity (i.e. employee of a legal entity)
DSO, ESO	Distribution System Operator – AB „Energijos skirstymo operatorius“
Object	A site where electricity consumption takes place.
Supplier	Independent electricity supplier.
Supplier's Representative	Independent electricity supplier's employee representing the supplier.

Environments

There are two DataHub Gateway environments the supplier 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	-

Suppliers' digital certificates

In both the testing and production environments of the DH Gateway component, the identity of the supplier is established using a TOKEN, which the supplier's 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
```

DataHub Gateway API documentation


This document section describes the technical DataHub api documentation, which provides descriptions of API methods, request and response JSON data model structure, data validation rules, error handling, and other related information.

Supplier change notification controller

Supplier shall notify DSO of the new electricity supply contracts signed with the clients who have switched supplier by submitting a special supplier change notifications (SCN's) to DataHub Gateway component.

The supplier's IT System creates and submits to DataHub Gateway supplier change notification request. A single request can contain one or more notifications. Upon receiving the request, DataHub Gateway validates the request, extracts notifications and submits them to DataHub Platform for further processing. In case of validation failure, DataHub Gateway responds with a list of errors and doesn't submit notifications to DataHub Platform – notification processing is performed on “all or nothing” basis.

URI	POST /supplier/supplier-change-notifications		
Description	The supplier submits notifications on the contracts concluded by the supplier with customers (when changing the supplier).		
Parameters	none		
Request Body	POST request structure provided in BODY		
Response	HTTP status code	Reason	Response 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.
Rules	No.	Rule description	Attributes
	1.	When submitting the notification, specifying consumerCode parameter, the supplier can specify all objects belonging to that person / company in the objects[] list for provided consumer code.	consumerCode, objects[]
	2.	If a contract is concluded with a household customer, the value of contractType can only be "TYPE_BSS".  Exclusively, farmers can also contract by choosing another model.	contractType
	3.	objects[] List is required element where supplier must provide objects codes and contractTypes which are included in new contract with customer.	

The table below describes the JSON structure and elements of the supplier change notification request:

JSON Request structure			
<pre>[{ "consumerCode": "string", "contractNo": "string", "contractStart": "date", "objects": [{ "code": "string", "contractType": "string", }], }]</pre>			
Attribute	type	obligation	description
consumerCode	string(32)	not required	User code of the contracted customer
contractNo	string(30)	required	Supplier contract number with the customer
contractStart	Date	required	<p>Date of entry into force of the contract to the nearest month. Format YYYY-MM-DD. Where</p> <ol style="list-style-type: none"> 1. YYYY – year, 2. MM – month, 3. DD – day <p>Regardless of which day component is specified on the date, it is assumed to be equal to the first day of the month.</p>
objects	List	required	List of object numbers. An element must consist of one or more code elements.
objects[].code	String(20)	required	code of the object for the supply of electricity in which the contract is concluded.

objects[].contractType	String(20)	required	Contract type. There are two possible meanings: 1. TYPE_BSS 2. TYPE_2S2S
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If the supplier change notification request is successful, method will not return any data model, but HTTP 201 Created status.

JSON Response structure			
If the request is successful, an HTTP 201 Created message is returned			
Attribute	type	obligation	description
-	-	-	-

Response Error codes

Below are the error codes and messages. Response codes and response content in case of error:

Code	Message	Explanation
2	"consumerCode could not be found".	Customer Code was not found DataHub Database.
112	The effective date of the contract must be equal to the first day of the month and must not be less than "<date>".	The date of entry into force of the contract must be equal to the first day of the month, and the contract award notice must be submitted no later than the 10th day of the previous month.
11	No supplier contract number with customer.	The notice of a new contract (when changing supplier) must include the number of the contract with the customer.

12	The length of the supplier's contract number with the customer exceeds the maximum allowed length (30).	The value of the number field of the supplier's contract with the customer must not exceed 30 characters.
21	The date of entry into force of the supplier's contract with the customer is not specified.	The notice of a new contract (change of supplier) must indicate the date of entry into force of the contract.
41	Object code not specified.	The object code must be indicated in the notification of the new contract (when changing the supplier).
51	Contract type not specified. Available types: 2S2S, BSS.	The correct contract type must be selected for the object
JSON Response example in case of error		
<pre>{ "errorMessages": [{ "code": 0, "text": "string" }] }</pre>		

URI	POST /supplier/cancel-supplier-change-notification		
Description	The supplier can cancel already submitted supplier change notification and in DataHub database message status become canceled.		
Parameters	none		
Request Body	POST request structure provided in BODY		
Response	HTTP status code	Reason	Response 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.
Rules	No.	Rule description	Attributes
	1.	Message can be canceled in 1 hour after submission. When 1 hour passes, supplier change notification message can not be canceled.	-

The table below describes the JSON structure and elements of the supplier change notification request:

JSON Request structure			
<pre>{ "id": 0 }</pre>			
Attribute	type	obligation	description
id	number(10)	required	Supplier change notification message ID number

If cancel supplier change notification request is successful, method will not return any data model, but HTTP 201 Created. In DataHub database message status become canceled.

JSON Response structure			
If the request is successful, an HTTP 201 Created message is returned			
Attribute	type	obligation	description
-	-	-	-

Data order controller

URI	POST /data/data-orders		
Description	The supplier can request the customer's historical object consumption data, which can consist of 4 files (objektai<...>.csv, suminiai<...>.csv, valandiniai<...>.csv ir sutikimai<...>.csv)		
Parameters	none		
Request Body	Data order must be submitted in HTTP request body in a form of JSON		
Response	HTTP status code	Reason	Response 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.

Rules	No.	Rule description	Attributes	
	1.	Supplier can get historical client information, only if has client permission.	-	
JSON Request structure				
<pre> { "includeAllObjects": "boolean", "includeHourlyReadings": "boolean", "includeSummaryReadings": "boolean", "objects": [{ "code": "string", "consumerCode": "string" }], "periodEnd": "date", "periodStart": "date" } </pre>				
Attribute	type	obligation	description	
includeAllObjects	boolean	required	All objects data processing indicator: value true means that all objects that were granted to supplier at the moment of submission of order should be involved in data order processing; value false means that only objects that are explicitly listed in data order (see element Objects , below) should be involved in data order processing.	
includeHourlyReadings	boolean	required	Hourly readings indicator: value true means that hourly readings should be included in resulting data set; value false means that hourly readings should be omitted. Default value is false .	

includeSummaryReadings	boolean	required	Summary (monthly) readings indicator: value true means that summary (monthly) readings should be included in resulting data set; value false means that summary (monthly) readings should be omitted. Default value is true .
objects[]	List	required	<p>A list of objects that should be involved in data order processing.</p> <p>Note: supplier should have a valid permission to retrieve specified object data at the moment of data order submission. Otherwise DataHub Gateway will reject data order and issue an appropriate error message.</p> <p>Required only in case allObjectsInd attribute (see above) value is false. The element must contain one or more Object elements</p>
objects[].code	string(20)	required	ESO issued object code.
objects[].consumerCode	string(32)	required	ESO issued consumer code of the client owning an object.
periodEnd	date	required	<p>The end date of the period for which electricity consumption data needs to be collected in a format YYYY-MM-DD, where YYYY – year, MM – month, DD – day (i.e. 2020-12-01, 2021-01-01).</p> <p>Note: during data order processing, the period end date specified is always adjusted to the last day of month.</p>

periodStart	date	required	<p>The start date of the period for which electricity consumption data needs to be collected in a format YYYY-MM-DD, where YYYY – year, MM – month, DD – day (i.e. 2019-12-01, 2020-01-01).</p> <p>Note: during data order processing, the period start date is always truncated to the first day of month.</p>
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JSON Response structure

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


Attribute	type	obligation	description
orderId	number(10)	required	Unique data order identifier that should be used as a reference when downloading data collected during data order processing.
errorMessages	List	not required	List of errors, why message was rejected. If list is empty or null – then orderId should exist.
code	number(10)	not required	Error code
text	String (4000)	not required	Error text

Response Error codes

Below are the error codes and messages. Response codes and response content in case of error:

Code	Message	Explanation
1	-	-

URI	GET /data/data-orders/{orderId}/data		
Description	When calling POST /data/data-orders method, supplier get response with <i>orderId</i> which is used calling GET /data/data-orders/{orderId}/data method to download historical clients consumption data, objects information and consents in ZIP file format.		
Parameters	orderId - unique data order identifier which is provided calling POST /data/data-orders method.		
Request Body	none		
Response	HTTP status code	Reason	Response description
	200	Created	request successfully processed. HTTP response body contains ZIP format file containing collected data (see Contents of ZIP archive, below).
	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.
Rules	No.	Rule description	Attributes

	1.	before calling this method, Supplier has to be already called POST /data/data-orders method, which returns orderId.	orderId
JSON Request structure			
BODY - none			
URL - orderId			
Attribute	type	obligation	description
orderId (URL)	number(10)	required	URL attribute which is required.  This attribute value supplier gets calling POST /data/data-orders method.

JSON Response structure			
HTTP response body contains ZIP format file containing collected data (see <i>Contents of ZIP archive</i> , below).			
Attribute	type	obligation	description
-	-	-	-

Contents of ZIP archive

- **Objektai <order id> [<period start> - <period end>] <timestamp>.csv** – general information on objects listed in data order and referenced in files **Suminiai <...>.csv** ir **Valandiniai <...>.csv** (see below), in CSV format.
- **Suminiai <order id> [<period start> - <period end>] <timestamp>.csv** – summary (monthly) electricity consumption data, in CSV format. File is provided only in case summary (monthly) electricity consumption data is requested when submitting data order (see description of **inclSummaryReadings** data order attribute).
- **Valandiniai <order number> [<period start> - <period end>] <timestamp>.csv** – hourly electricity consumption data, in CSV format. File is provided only in case hourly electricity consumption data is requested when

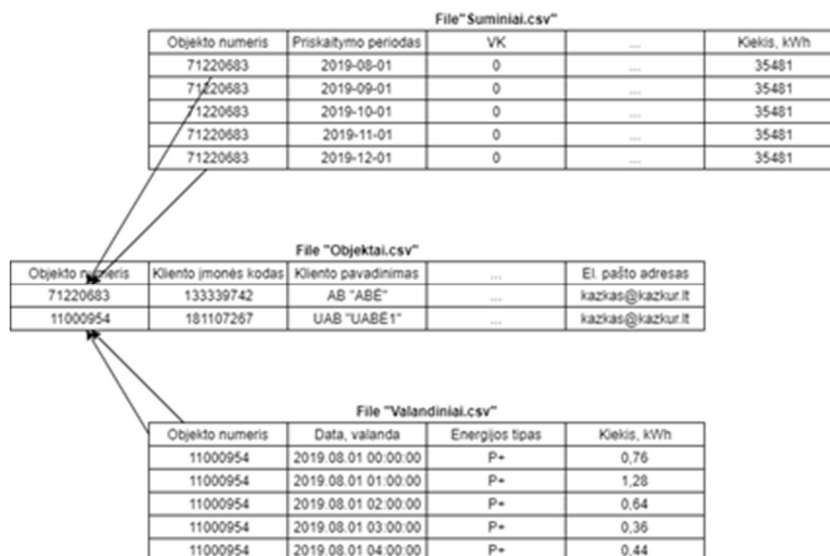
submitting data order (see description of **inclHourlyReadings** data order attribute).

- **Sutikimai** <order number> [<period start> - <period end>] <timestamp>.csv - file containing clients' consents giving supplier a limited right to process clients' data and conduct direct marketing – submit to clients commercial proposals on electricity supply. Consents are provided only in case the client is household person on one line per client basis.

The following is a list of markups used in above mentioned file names:

- **<order id>** – unique data order identifier (i.e., 1234569, 984785, etc.)
- **<period start>** – the start date of the period for which the electricity consumption data must be collected, truncated to months (i.e. 2018-09, 2018-10, etc.)
- **<period end>** – the end date of the period for which the electricity consumption data must be collected, truncated to months (i.e. 2019-11, 2019-12, etc.)
- **<timestamp>** – date and data time data order processing started (i.e., 2019-10-30 22:55:45, 2020-01-01 23:15:01, etc.)

The first field (**Objekto Numeris**) in each CSV file contains unique ESO issued object number which should be used to establish relationships between data rows in CSV files (see figure below):



All CSV files included in ZIP archive adheres the following rules:

1. The very first line of the file provides data record field headers. Data records follow header line.
2. In order to ensure compatibility with Microsoft Excel, both field headers and field values are separated by semicolons (ASCII decimal code 59).
3. Comma symbol (ASCII decimal code 44) is used as decimal point separator in number values.

- The contents of CSV files are provided in UTF-8. The first three bytes of the file are reserved for [Byte Order Mark](#).

File Objektai <...>.csv

The following table describes the structure of Objektai <...>.csv file:

No	Field Name	ANSI SQL Data Type	Description
1	Objekto numeris / Object Number	VARCHAR(20)	ESO issued unique object number.
2	Kliento įmonės kodas / Client Company Code	VARCHAR(20)	The registry code of client company owning the object.
3	Kliento pavadinimas . Client Name	VARCHAR(200)	The name of client company or, in case client is natural person, – client’s first and last names (space separated).
4	Objekto pavadinimas / Object Name	VARCHAR(200)	Object name.
5	Objekto tipas / Object Type	VARCHAR(200)	Object type.
6	Objekto adresas / Object Address	VARCHAR(4000)	Object address.
7	Leistinoji galia (kW) / Permitted Power (kW)	DECIMAL(10,3)	Permitted electrical power on object site, kW.
8	Viso skaitiklių / Total Number of Meters	DECIMAL(3)	Total number of electricity meters installed on object site.
9	Automatizuotų skaitiklių / Total Number of Smart Meters	DECIMAL(3)	Total number of smart electricity meters installed on object site.

10	Automatizacijos lygmuo / Automation Level	VARCHAR(7)	<p>Electricity consumption accounting automation level on object site. Allowable field values are as follows:</p> <ol style="list-style-type: none"> 1. Nėra – object site has no smart meters installed. 2. Dalinis – part of meters installed on object site are smart meters. 3. Pilnas – all meters installed on object site are smart meters.
11	Tarifo planas / Tariff plan	VARCHAR(255)	Tariff plan which is used at this moment by client
12	Galima tarifo plano keitimo data / Possible date of tariff plan change	TIMESTAMP	Date which describes when client can change his tariff plan at ESO
13	Įtampa / Voltage	FLOAT8	Voltage in client's object
14	Telefonas / Phone	VARCHAR(128)	Client contact phone number for communicating the details of commercial proposal.
15	El. pašto adresas / Email Address	VARCHAR(128)	Client contact email address for communicating the details of commercial proposal.
16	Pastabos / Notes	VARCHAR(4000)	Additional client information the supplier should consider while preparing the commercial proposal.
17	Teisė galioja iki / Access Rights Valid To	DATE	<p>Date the permission to access object site's consumption data expires.</p> <p>Field value format: YYYY-MM-DD, where:</p> <ol style="list-style-type: none"> 1. YYYY– year, 2. MM – month, 3. DD – day <p>(i.e., 2019-10-30, 2020-01-01, etc.).</p>

18	Paskutinį kartą duomenys gauti / Last Time Data Downloaded	TIMESTAMP	<p>Last date and time the supplier downloaded object site's consumption data.</p> <p>Field value format: YYYY-MM-DD HH:MI:SS, where:</p> <ol style="list-style-type: none"> 1. YYYY – year, 2. MM – month, 3. DD – day, 4. HH – hour (in 24 hours system), 5. MI – minutes, 6. SS – seconds <p>(i.e. 2019-10-30 23:59:01, 2020-01-01 11:05:59, etc.).</p>
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File Suminiai <...>.csv

The following table describes the structure of **Suminiai <...>.csv** file:

No	Field Name	ANSI SQL Data Type	Description
1	Objekto numeris / Object Number	VARCHAR(20)	ESO issued unique object number.
2	Priskaitymo periodas / Accounting Period	DATE	<p>Accounting month the amount of consumed electricity is allocated to.</p> <p>Field value format: YYYY-MM, where:</p> <ol style="list-style-type: none"> 1. YYYY – year, 2. MM – month.
3	VK	DECIMAL(12,2)	Amount of consumed single-priced electricity, kWh.
4	DD	DECIMAL(12,2)	Amount of consumed day-time electricity, kWh.

5	NK	DECIMAL(12,2)	Amount of consumed night-time and weekend electricity, kWh.
6	MA	DECIMAL(12,2)	Amount of consumed peak-load electricity, kWh.
7	VD	DECIMAL(12,2)	Amount of consumed average-load electricity, kWh.
8	SV	DECIMAL(12,2)	Amount of electricity consumed during holidays and day offs, kWh.
9	MI	DECIMAL(12,2)	Amount of consumed minimum-load electricity, kWh.
10	RV	DECIMAL(12,2)	Amount of consumed reactive electricity, kWh.
11	RG	DECIMAL(12,2)	Amount of generated reactive electricity, kWh.
12	Kiekis, kWh / Amount, kWh	DECIMAL(12,2)	Total amount of consumed electricity, kWh.

File Valandiniai <...>.csv

The following table describes the structure of **Valandiniai <...>.csv** file:

No	Field Name	ANSI SQL Data Type	Description
1	Objekto numeris / Object Number	VARCHAR(20)	ESO issued unique object number.
2	Data, valanda / Date, Hour	VARCHAR(13)	<p>Date and hour the readings were taken.</p> <p>Field value format: YYYY-MM-DD HH, where:</p> <ol style="list-style-type: none"> 1. YYYY – year, 2. MM – month, 3. DD – day, 4. HH – hour (in 24-hour system) <p>(i.e. 2019-10-30 13, 2020-01-01 23, etc.).</p>

3	Energijos tipas / Energy Type	VARCHAR(2)	Type of electricity consumed / generated. Allowable field values are as follows: 1. P+ – active P+ energy 2. P- – active P- energy Note: this software version only provides active P+ energy consumption data.
4	Kiekis, kWh / Amount, kWh	DECIMAL(13,3)	Amount of electricity consumed, or generated kWh.

File Sutikimai <...>.csv

The following table describes the structure of **Valandiniai <...>.csv** file:

No	Field Name	ANSI SQL Data Type	Description
1	KLIENTO_PAVADINIMAS/ CLIENT_NAME	VARCHAR(200)	Client name and surname (if household client), company name (if legal client) who gives consent
2	DATA/ DATE	VARCHAR(10)	Date when consent was given Field value format: YYYY-MM-DD , where: 1. YYYY – year, 2. MM – month, 3. DD – day, (i.e. 2019-10-30, 2020-01-01, etc.).

3	SUTIKIMAS / CONSENT	VARCHAR(5000)	<p>Consent content</p> <p>Note: earlier consent was in PDF format (one PDF per client), now all consent data will be provided in Sutikimai<...>.csv file (one line per client).</p>
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Below are the error codes and messages. Response codes and response content in case of error:

Response Error codes

Code	Message	Explanation
1	-	-
Response example in case of error		
<pre>{ "errorMessages": [{ "code": 0, "text": "string" }], "orderId": null }</pre>		

Reports controller

URI	POST /reports/accounting-data-pack-b2c
Description	Report which will return accounting data in meters level for Household customers. If household client object has two meters, this method will return list of two items.

Parameters	HEADER parameters: <ul style="list-style-type: none"> • 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 report rows in the return list. Optional. The default value is 30. 		
Request Body	Data order must be submitted in HTTP request body in a form of JSON		
Response	HTTP status code	Reason	Response 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.
Rules	No.	Rule description	Attributes

	1.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If only date fields are specified, then the report returns information about all objects in all customer contracts.	dateFrom, dateTo
	2.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If date fields and customerCode are specified, then the report returns information about all objects in provided customer contract.	dateFrom, dateTo, customerCode
	3.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If date fields, customerCode and objectNo are specified, then the report returns information about provided object in provided customer contract.	dateFrom, dateTo, customerCode, objectNo

JSON Request structure

```
{
"customerCode": "string",
"dateFrom": "date",
"dateTo": "date",
"objectNo": "string"
}
```

Attribute	type	obligation	description
customerCode	String(32)	not required	User code of contracted customer
dateFrom	Date	required	Date from which data from DSO Billing system should be included into report
dateTo	Date	required	Date to which data from DSO Billing system should be included into report

objectNo	String(20)	not required	Object Number of the object for the supply of electricity in which the contract is concluded.
----------	------------	--------------	---

JSON Response structure

```
[
{
"AccumulatedBeginningConsumptionAmount": 0,
"AccumulatedEndConsumptionAmount": 0,
"AccumulatedTransferredConsumptionAmount": 0,
"AgreementFrom": "2020-08-31",
"AgreementModel": "string",
"AgreementTo": "2020-08-31",
"AgreementType": "string",
"AutoMetersAmount": 0,
"BillingPeriod": "2020-08-31",
"ClientAddress": "string",
"ClientGridElectricityConsumptionAmount": 0,
"ClientGridElectricityPercent": 0,
"ClientID": "string",
"ClientName": "string",
"ConsumedElectricityConsumptionAmount": 0,
"ConsumedElectricityReadingsFrom": 0,
"ConsumedElectricityReadingsTo": 0,
"ConsumptionConversionAct": true,
"ConsumptionState": "string",
"ConsumptionStateFrom": "2020-08-31",
"ConsumptionStateTo": "2020-08-31",
"CustomerID": "string",
"D1Amount": 0,
"D1AmountIncludedVAT": "string",
"D1AmountNoVAT": 0,
"D1ConsumptionAmount": 0,
"D1Discount": 0,
"D1PriceEur": 0,
"D1PriceEurVAT": 0,
"D1ReadingsFrom": 0,
"D1ReadingsTo": 0,
"D1Unit": "string",
"D1ViapAmount": 0,
"D1ViapAmountIncludedVAT": "string",
"D1ViapAmountNoVAT": 0,
"D1ViapConsumptionAmount": 0,
"D1ViapDiscount": 0,
"D1ViapPriceEur": 0,
"D1ViapPriceEurVAT": 0,
"D1ViapUnit": "string",
"D2Amount": 0,
"D2AmountIncludedVAT": "string",
"D2AmountNoVAT": 0,
"D2ConsumptionAmount": 0,
"D2Discount": 0,
"D2PriceEur": 0,
"D2PriceEurVAT": 0,
"D2ReadingsFrom": 0,
"D2ReadingsTo": 0,
"D2Unit": "string",
"D2ViapAmount": 0,
"D2ViapAmountIncludedVAT": "string",
"D2ViapAmountNoVAT": 0,
```

```
"D2ViapConsumptionAmount": 0,  
"D2ViapDiscount": 0,  
"D2ViapPriceEur": 0,  
"D2ViapPriceEurVAT": 0,  
"D2ViapUnit": "string",  
"DdAmount": 0,  
"DdAmountIncludedVAT": "string",  
"DdAmountNoVAT": 0,  
"DdConsumptionAmount": 0,  
"DdDiscount": 0,  
"DdPriceEur": 0,  
"DdPriceEurVAT": 0,  
"DdReadingsFrom": 0,  
"DdReadingsTo": 0,  
"DdUnit": "string",  
"DdViapAmount": 0,  
"DdViapAmountIncludedVAT": "string",  
"DdViapAmountNoVAT": 0,  
"DdViapConsumptionAmount": 0,  
"DdViapDiscount": 0,  
"DdViapPriceEur": 0,  
"DdViapPriceEurVAT": 0,  
"DdViapUnit": "string",  
"DeclarationReferenceNumber": 0,  
"DeclarationReferenceType": "string",  
"EnergyObtainedConsumptionAmount": 0,  
"EnergyObtainedDateFrom": "2020-08-31",  
"EnergyObtainedDateTo": "2020-08-31",  
"EnergyObtainedPowerKw": 0,  
"FixedFeeAmount": 0,  
"FixedFeeAmountNoVAT": 0,  
"FixedFeeIncludedVAT": "string",  
"GridSuppliedConsumptionAmount": 0,  
"GridSuppliedReadingsFrom": 0,  
"GridSuppliedReadingsTo": 0,  
"InstalledConsumptionPower": 0,  
"InstalledGeneratingPower": 0,  
"MetersAmount": 0,  
"MetersMalfunctionActCreateDate": "2020-08-31",  
"MetersMalfunctionActFrom": "2020-08-31",  
"MetersMalfunctionActNumber": 0,  
"MetersMalfunctionActTo": "2020-08-31",  
"MetersNumber": "string",  
"MissingEnergyAmount": 0,  
"MissingEnergyAmountIncludedVAT": "string",  
"MissingEnergyAmountNoVAT": 0,  
"MissingEnergyConsumptionAmount": 0,  
"MissingEnergyDiscount": 0,  
"MissingEnergyPriceEur": 0,  
"MissingEnergyPriceEurVAT": 0,  
"MissingEnergyUnit": "string",  
"MissingEnergyViapAmount": 0,  
"MissingEnergyViapAmountIncludedVAT": "string",  
"MissingEnergyViapAmountNoVAT": 0,  
"MissingEnergyViapConsumptionAmount": 0,
```

```
"MissingEnergyViapDiscount": 0,  
"MissingEnergyViapPriceEur": 0,  
"MissingEnergyViapPriceEurVAT": 0,  
"MissingEnergyViapUnit": "string",  
"N1Amount": 0,  
"N1AmountIncludedVAT": "string",  
"N1AmountNoVAT": 0,  
"N1ConsumptionAmount": 0,  
"N1Discount": 0,  
"N1PriceEur": 0,  
"N1PriceEurVAT": 0,  
"N1ReadingsFrom": 0,  
"N1ReadingsTo": 0,  
"N1Unit": "string",  
"N1ViapAmount": 0,  
"N1ViapAmountIncludedVAT": "string",  
"N1ViapAmountNoVAT": 0,  
"N1ViapConsumptionAmount": 0,  
"N1ViapDiscount": 0,  
"N1ViapPriceEur": 0,  
"N1ViapPriceEurVAT": 0,  
"N1ViapUnit": "string",  
"N2Amount": 0,  
"N2AmountIncludedVAT": "string",  
"N2AmountNoVAT": 0,  
"N2ConsumptionAmount": 0,  
"N2Discount": 0,  
"N2PriceEur": 0,  
"N2PriceEurVAT": 0,  
"N2ReadingsFrom": 0,  
"N2ReadingsTo": 0,  
"N2Unit": "string",  
"N2ViapAmount": 0,  
"N2ViapAmountIncludedVAT": "string",  
"N2ViapAmountNoVAT": 0,  
"N2ViapConsumptionAmount": 0,  
"N2ViapDiscount": 0,  
"N2ViapPriceEur": 0,  
"N2ViapPriceEurVAT": 0,  
"N2ViapUnit": "string",  
"NkAmount": 0,  
"NkAmountIncludedVAT": "string",  
"NkAmountNoVAT": 0,  
"NkConsumptionAmount": 0,  
"NkDiscount": 0,  
"NkPriceEur": 0,  
"NkPriceEurVAT": 0,  
"NkReadingsFrom": 0,  
"NkReadingsTo": 0,  
"NkUnit": "string",  
"NkViapAmount": 0,  
"NkViapAmountIncludedVAT": "string",  
"NkViapAmountNoVAT": 0,  
"NkViapConsumptionAmount": 0,  
"NkViapDiscount": 0,
```

```
"NkViapPriceEur": 0,
"NkViapPriceEurVAT": 0,
"NkViapUnit": "string",
"ObjectAddress": "string",
"ObjectID": 0,
"ObjectName": "string",
"ObjectNumber": "string",
"ObjectType": "string",
"OperatorGridElectricityConsumptionAmount": 0,
"OperatorGridElectricityPercent": 0,
"PayingRecoveredEnergyAmount": 0,
"PayingRecoveredEnergyAmountIncludedVAT": "string",
"PayingRecoveredEnergyAmountNoVAT": 0,
"PayingRecoveredEnergyConsumptionAmount": 0,
"PayingRecoveredEnergyDiscount": 0,
"PayingRecoveredEnergyPriceEur": 0,
"PayingRecoveredEnergyPriceEurVAT": 0,
"PayingRecoveredEnergyUnit": "string",
"PayingRecoveredMixedAmount": 0,
"PayingRecoveredMixedAmountIncludedVAT": "string",
"PayingRecoveredMixedAmountNoVAT": 0,
"PayingRecoveredMixedConsumptionAmount": 0,
"PayingRecoveredMixedDiscount": 0,
"PayingRecoveredMixedPriceEur": 0,
"PayingRecoveredMixedPriceEurVAT": 0,
"PayingRecoveredMixedUnit": "string",
"PayingRecoveredPercentConsumptionAmount": 0,
"PayingRecoveredPercentUnit": "string",
"PayingRecoveredPowerConsumptionAmount": 0,
"PayingRecoveredPowerUnit": "string",
"PaymentType": "string",
"PermittablePowerConsumption": 0,
"PermittablePowerGeneration": 0,
"PowerPlantCapacityAmount": 0,
"PowerPlantCapacityAmountNoVAT": 0,
"PowerPlantCapacityConsumptionAmount": 0,
"PowerPlantCapacityDateFrom": "2020-08-31",
"PowerPlantCapacityDateTo": "2020-08-31",
"PowerPlantCapacityIncludedVAT": "string",
"PowerPlantCapacityPriceEur": 0,
"PowerPlantCapacityPriceEurVAT": 0,
"ReadingsReceiveDate": "2020-08-31",
"ReadingsSource": "string",
"ReadingsSubmitDate": "2020-08-31",
"ReferenceSubmitDate": "2020-08-31",
"ReportingPeriod": "2020-08-31",
"Service": "string",
"SupplyState": "string",
"SupplyStateFrom": "2020-08-31",
"SupplyStateTo": "2020-08-31",
"TariffPlan": "string",
"TariffPlanChangeDate": "2020-08-31",
"UnaccountedConsumptionActCreateDate": "2020-08-31",
"UnaccountedConsumptionActFrom": "2020-08-31",
"UnaccountedConsumptionActNumber": 0,
```


<pre>"UnaccountedConsumptionActTo": "2020-08-31", "VkAmount": 0, "VkAmountIncludedVAT": "string", "VkAmountNoVAT": 0, "VkConsumptionAmount": 0, "VkDiscount": 0, "VkPriceEur": 0, "VkPriceEurVAT": 0, "VkReadingsFrom": 0, "VkReadingsTo": 0, "VkUnit": "string", "VkViapAmount": 0, "VkViapAmountIncludedVAT": "string", "VkViapAmountNoVAT": 0, "VkViapConsumptionAmount": 0, "VkViapDiscount": 0, "VkViapPriceEur": 0, "VkViapPriceEurVAT": 0, "VkViapUnit": "string" }]</pre>			
Attribute	type	obligation	description
-	-	-	Response description are provided in additional documentation . In next document version, all fields description will be provided here.

Below are the error codes and messages. Response codes and response content in case of error:

Response Error codes

Code	Message	Explanation
1	-	No error codes should be provided. Only blank response or response with data inside.

URI	POST /reports/accounting-data-pack-b2c-count
-----	---

Description	Method which will return count (number), how many items Supplier will get in „POST /reports/accounting-data-pack-b2c“ report (reports could have more than 1 item, so it is List). It should be used when supplier need to split data in few portions. This response should be used in „POST /reports/accounting-data-pack-b2c“ method request, where Supplier can provide method header information.		
Parameters	none		
Request Body	Data order must be submitted in HTTP request body in a form of JSON		
Response	HTTP status code	Reason	Response 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.
Rules	No.	Rule description	Attributes
	1.	Counts report list items and return SUM of all report lines	-

JSON Request structure			
<pre>{ "customerCode": "string", "dateFrom": "date", "dateTo": "date", "objectNo": "string" }</pre>			
Attribute	type	obligation	description
customerCode	String(32)	not required	User code of contracted customer
dateFrom	Date	required	Date from which data from DSO Billing system should be included into report
dateTo	Date	required	Date to which data from DSO Billing system should be included into report
objectNo	String(20)	not required	Object Number of the object for the supply of electricity in which the contract is concluded.
JSON Response structure			
<pre>{ "count": "number" }</pre>			
Attribute	type	obligation	description
count	number(10)	required	Returns number, how many items are in report items list. This response can be used in accounting-data-pack-b2c report Header parameters to split data in few response portions (if need pagination)

Below are the error codes and messages. Response codes and response content in case of error:

Response Error codes

Code	Message	Explanation
------	---------	-------------

1	-	No error codes should be provided. Only blank response or response with data inside.	
URI	POST /reports/accounting-data-pack-b2b		
Description	Report which will return accounting data in object level for Business clients. If object has 2 meters, this report will return counted data (sum of meters information which includes sum of scale consumption amounts and sum of amounts to pay for).		
Parameters	HEADER parameters: <ul style="list-style-type: none"> • 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 report rows in the return list. Optional. The default value is 30. 		
Request Body	Data order must be submitted in HTTP request body in a form of JSON		
Response	HTTP status code	Reason	Response 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.
Rules	No.	Rule description	Attributes
	1.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If only date fields are specified, then the report returns information about all objects in all customer contracts.	dateFrom, dateTo
	2.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If date fields and customerCode are specified, then the report returns information about all objects in provided customer contract.	dateFrom, dateTo, customerCode
	3.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If date fields, customerCode and objectNo are specified, then the report returns information about provided object in provided customer contract.	dateFrom, dateTo, customerCode, objectNo

JSON Request structure

<pre>{ "customerCode": "string", "dateFrom": "date", "dateTo": "date", "objectNo": "string" }</pre>			
Attribute	type	obligation	description
customerCode	String(32)	not required	User code of contracted customer
dateFrom	Date	required	Date from which data from DSO Billing system should be included into report
dateTo	Date	required	Date to which data from DSO Billing system should be included into report
objectNo	String(20)	not required	Object Number of the object for the supply of electricity in which the contract is concluded.

JSON Response structure

```
[
{
"AccumulatedTransferredConsumptionAmount": 0,
"AgreementFrom": "2020-09-02",
"AgreementModel": "string",
"AgreementTo": "2020-09-02",
"AgreementType": "string",
"AutoMetersAmount": 0,
"BillingPeriod": "2020-09-02",
"ClientAddress": "string",
"ClientGridElectricityConsumptionAmount": 0,
"ClientGridElectricityPercent": 0,
"ClientID": "string",
"ClientName": "string",
"ConsumptionConversionAct": true,
"ConversionAct": true,
"CustomerID": 0,
"DdAmountNoVAT": 0,
"DdConsumptionAmount": 0,
"DdDiscount": 0,
"DdPriceEur": 0,
"DdUnit": "string",
"DdViapAmountNoVAT": 0,
"DdViapConsumptionAmount": 0,
"DdViapDiscount": 0,
"DdViapPriceEur": 0,
"DdViapUnit": "string",
"DeclarationReferenceNumber": 0,
"DeclarationReferenceType": "string",
"GaAmountNoVAT": 0,
"GaConsumptionAmount": 0,
"GaDiscount": 0,
"GaPriceEur": 0,
"GaUnit": "string",
"GeneralInterestAmountNoVAT": 0,
"GeneralInterestConsumptionAmount": 0,
"GeneralInterestDiscount": 0,
"GeneralInterestPriceEur": 0,
"GeneralInterestUnit": "string",
"MaAmountNoVAT": 0,
"MaConsumptionAmount": 0,
"MaDiscount": 0,
"MaPriceEur": 0,
"MaUnit": "string",
"MaViapAmountNoVAT": 0,
"MaViapConsumptionAmount": 0,
"MaViapDiscount": 0,
"MaViapPriceEur": 0,
"MaViapUnit": "string",
"MetersAmount": 0,
"MetersMalfunctionActCreateDate": "2020-09-02",
"MetersMalfunctionActFrom": "2020-09-02",
"MetersMalfunctionActNumber": 0,
"MetersMalfunctionActTo": "2020-09-02",
"MiAmountNoVAT": 0,
```

```
"MiConsumptionAmount": 0,
"MiDiscount": 0,
"MiPriceEur": 0,
"MiUnit": "string",
"MiViapAmountNoVAT": 0,
"MiViapConsumptionAmount": 0,
"MiViapDiscount": 0,
"MiViapPriceEur": 0,
"MiViapUnit": "string",
"MissingEnergyAmountNoVAT": 0,
"MissingEnergyConsumptionAmount": 0,
"MissingEnergyDiscount": 0,
"MissingEnergyPriceEur": 0,
"MissingEnergyUnit": "string",
"MissingEnergyViapAmountNoVAT": 0,
"MissingEnergyViapConsumptionAmount": 0,
"MissingEnergyViapDiscount": 0,
"MissingEnergyViapPriceEur": 0,
"MissingEnergyViapUnit": "string",
"NkAmountNoVAT": 0,
"NkConsumptionAmount": 0,
"NkDiscount": 0,
"NkPriceEur": 0,
"NkUnit": "string",
"NkViapAmountNoVAT": 0,
"NkViapConsumptionAmount": 0,
"NkViapDiscount": 0,
"NkViapPriceEur": 0,
"NkViapUnit": "string",
"NotConsumeFrom": "2020-09-02",
"NotConsumeTo": "2020-09-02",
"ObjectAddress": "string",
"ObjectID": 0,
"ObjectName": "string",
"ObjectNumber": "string",
"ObjectType": "string",
"OperatorGridElectricityConsumptionAmount": 0,
"OperatorGridElectricityPercent": 0,
"PayingRecoveredEnergyAmountNoVAT": 0,
"PayingRecoveredEnergyConsumptionAmount": 0,
"PayingRecoveredEnergyDiscount": 0,
"PayingRecoveredEnergyPriceEur": 0,
"PayingRecoveredEnergyUnit": "string",
"PayingRecoveredMixedAmountNoVAT": 0,
"PayingRecoveredMixedConsumptionAmount": 0,
"PayingRecoveredMixedDiscount": 0,
"PayingRecoveredMixedPriceEur": 0,
"PayingRecoveredMixedUnit": "string",
"PayingRecoveredPercentConsumptionAmount": 0,
"PayingRecoveredPercentUnit": "string",
"PayingRecoveredPowerConsumptionAmount": 0,
"PayingRecoveredPowerUnit": "string",
"PermanentHomeAmountNoVAT": 0,
"PermanentHomePlusAmountNoVAT": 0,
"PermitablePowerConsumption": 0,
```



```
"PermittablePowerGeneration": 0,
"ReadingsReceiveDate": "2020-09-02",
"ReadingsSubmitDate": "2020-09-02",
"ReferenceSubmitDate": "2020-09-02",
"Reliability1AmountNoVAT": 0,
"Reliability1ConsumptionAmount": 0,
"Reliability1Discount": 0,
"Reliability1PriceEur": 0,
"Reliability1Unit": "string",
"Reliability2AmountNoVAT": 0,
"Reliability2ConsumptionAmount": 0,
"Reliability2Discount": 0,
"Reliability2PriceEur": 0,
"Reliability2Unit": "string",
"Reliability3AmountNoVAT": 0,
"Reliability3ConsumptionAmount": 0,
"Reliability3Discount": 0,
"Reliability3PriceEur": 0,
"Reliability3Unit": "string",
"RgAmountNoVAT": 0,
"RgConsumptionAmount": 0,
"RgDiscount": 0,
"RgPriceEur": 0,
"RgUnit": "string",
"RvAmountNoVAT": 0,
"RvConsumptionAmount": 0,
"RvDiscount": 0,
"RvPriceEur": 0,
"RvUnit": "string",
"SupplyState": "string",
"SupplyStateFrom": "2020-09-02",
"SupplyStateTo": "2020-09-02",
"SvAmountNoVAT": 0,
"SvConsumptionAmount": 0,
"SvDiscount": 0,
"SvPriceEur": 0,
"SvUnit": "string",
"SvViapAmountNoVAT": 0,
"SvViapConsumptionAmount": 0,
"SvViapDiscount": 0,
"SvViapPriceEur": 0,
"SvViapUnit": "string",
"TariffPlan": "string",
"TariffPlanChangeDate": "2020-09-02",
"TechnologicalCostsAmountNoVAT": 0,
"TechnologicalCostsConsumptionAmount": 0,
"TechnologicalCostsDiscount": 0,
"TechnologicalCostsPriceEur": 0,
"TechnologicalCostsUnit": "string",
"TechnologicalCostsViapAmountNoVAT": 0,
"TechnologicalCostsViapConsumptionAmount": 0,
"TechnologicalCostsViapDiscount": 0,
"TechnologicalCostsViapPriceEur": 0,
"TechnologicalCostsViapUnit": "string",
"UnaccountedAct": true,
```

<pre> "UnaccountedConsumptionActCreateDate": "2020-09-02", "UnaccountedConsumptionActFrom": "2020-09-02", "UnaccountedConsumptionActNumber": 0, "UnaccountedConsumptionActTo": "2020-09-02", "VdAmountNoVAT": 0, "VdConsumptionAmount": 0, "VdDiscount": 0, "VdPriceEur": 0, "VdUnit": "string", "VdViapAmountNoVAT": 0, "VdViapConsumptionAmount": 0, "VdViapDiscount": 0, "VdViapPriceEur": 0, "VdViapUnit": "string", "VgAmountNoVAT": 0, "VgConsumptionAmount": 0, "VgDiscount": 0, "VgPriceEur": 0, "VgUnit": "string", "VkAmountNoVAT": 0, "VkConsumptionAmount": 0, "VkDiscount": 0, "VkPriceEur": 0, "VkUnit": "string", "VkViapAmountNoVAT": 0, "VkViapConsumptionAmount": 0, "VkViapDiscount": 0, "VkViapPriceEur": 0, "VkViapUnit": "string" }]</pre>			
Attribute	type	obligation	description
-	-	-	Response description are provided in additional documentation . In next document version, all fields description will be provided here.

Below are the error codes and messages. Response codes and response content in case of error:

Response Error codes

Code	Message	Explanation
1	-	No error codes should be provided. Only blank response or response with data inside.

URI	POST /reports/accounting-data-pack-b2b-count		
Description	Method which will return count (number), how many items Supplier will get in „POST /reports/accounting-data-pack-b2b“ report (reports could have more than 1 item, so it is List). It should be used when supplier need to split data in few portions. This response should be used in „POST /reports/accounting-data-pack-b2b“ method request, where Supplier can provide method header information.		
Parameters	none		
Request Body	Data order must be submitted in HTTP request body in a form of JSON		
Response	HTTP status code	Reason	Response 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.
Rules	No.	Rule description	Attributes
	1.	Counts report list items and return SUM of all report lines	-

JSON Request structure			
<pre>{ "customerCode": "string", "dateFrom": "date", "dateTo": "date", "objectNo": "string" }</pre>			
Attribute	type	obligation	description
customerCode	String(32)	not required	User code of contracted customer
dateFrom	Date	required	Date from which data from DSO Billing system should be included into report
dateTo	Date	required	Date to which data from DSO Billing system should be included into report
objectNo	String(20)	not required	Object Number of the object for the supply of electricity in which the contract is concluded.

JSON Response structure			
<pre>{ "count": "number" }</pre>			
Attribute	type	obligation	description
count	number(10)	required	Returns number, how many items are in report items list. This response can be used in accounting-data-pack-b2c report Header parameters to split data in few response portions (if need pagination)

Below are the error codes and messages. Response codes and response content in case of error:

Response Error codes

Code	Message	Explanation
1	-	No error codes should be provided. Only blank response or response with data inside.

URI	POST /reports/accounting-data-pack-b2b-meters-level		
Description	Report which will return accounting data in meter level for Business clients. If business client object has two meters, this method will return list of two items.		
Parameters	HEADER parameters: <ul style="list-style-type: none"> • 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 report rows in the return list. Optional. The default value is 30. 		
Request Body	Data order must be submitted in HTTP request body in a form of JSON		
Response	HTTP status code	Reason	Response 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.
Rules	No.	Rule description	Attributes
	1.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If only date fields are specified, then the report returns information about all objects in all customer contracts.	dateFrom, dateTo
	2.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If date fields and customerCode are specified, then the report returns information about all objects in provided customer contract.	dateFrom, dateTo, customerCode
	3.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If date fields, customerCode and objectNo are specified, then the report returns information about provided object in provided customer contract.	dateFrom, dateTo, customerCode, objectNo

JSON Request structure			
<pre>{ "customerCode": "string", "dateFrom": "date", "dateTo": "date", "objectNo": "string" }</pre>			
Attribute	type	obligation	description
customerCode	String(32)	not required	User code of contracted customer
dateFrom	Date	required	Date from which data from DSO Biling system should be included into report
dateTo	Date	required	Date to which data from DSO Biling system should be included into report
objectNo	String(20)	not required	Object Number of the object for the supply of electricity in which the contract is concluded.

JSON Response structure

```
[
{
"AccumulatedTransferredConsumptionAmount": 0,
"AgreementFrom": "2020-09-02",
"AgreementModel": "string",
"AgreementTo": "2020-09-02",
"AgreementType": "string",
"AutoMetersAmount": 0,
"BillingPeriod": "2020-09-02",
"ClientAddress": "string",
"ClientGridElectricityConsumptionAmount": 0,
"ClientGridElectricityPercent": 0,
"ClientID": "string",
"ClientName": "string",
"ConsumptionConversionAct": true,
"ConversionAct": true,
"CustomerID": 0,
"DdAmountNoVAT": 0,
"DdConsumptionAmount": 0,
"DdDiscount": 0,
"DdPriceEur": 0,
"DdReadingsFrom": 0,
"DdReadingsTo": 0,
"DdUnit": "string",
"DdViapAmountNoVAT": 0,
"DdViapConsumptionAmount": 0,
"DdViapDiscount": 0,
"DdViapPriceEur": 0,
"DdViapUnit": "string",
"DeclarationReferenceNumber": 0,
"DeclarationReferenceType": "string",
"GaAmountNoVAT": 0,
"GaConsumptionAmount": 0,
"GaDiscount": 0,
"GaPriceEur": 0,
"GaUnit": "string",
"GeneralInterestAmountNoVAT": 0,
"GeneralInterestConsumptionAmount": 0,
"GeneralInterestDiscount": 0,
"GeneralInterestPriceEur": 0,
"GeneralInterestUnit": "string",
"MaAmountNoVAT": 0,
"MaConsumptionAmount": 0,
"MaDiscount": 0,
"MaPriceEur": 0,
"MaReadingsFrom": 0,
"MaReadingsTo": 0,
"MaUnit": "string",
"MaViapAmountNoVAT": 0,
"MaViapConsumptionAmount": 0,
"MaViapDiscount": 0,
"MaViapPriceEur": 0,
"MaViapUnit": "string",
"MetersAmount": 0,
"MetersMalfunctionActCreateDate": "2020-09-02",
```



```
"MetersMalfunctionActFrom": "2020-09-02",
"MetersMalfunctionActNumber": 0,
"MetersMalfunctionActTo": "2020-09-02",
"MetersNumber": "string",
"MiAmountNoVAT": 0,
"MiConsumptionAmount": 0,
"MiDiscount": 0,
"MiPriceEur": 0,
"MiReadingsFrom": 0,
"MiReadingsTo": 0,
"MiUnit": "string",
"MiViapAmountNoVAT": 0,
"MiViapConsumptionAmount": 0,
"MiViapDiscount": 0,
"MiViapPriceEur": 0,
"MiViapUnit": "string",
"MissingEnergyAmountNoVAT": 0,
"MissingEnergyConsumptionAmount": 0,
"MissingEnergyDiscount": 0,
"MissingEnergyPriceEur": 0,
"MissingEnergyUnit": "string",
"MissingEnergyViapAmountNoVAT": 0,
"MissingEnergyViapConsumptionAmount": 0,
"MissingEnergyViapDiscount": 0,
"MissingEnergyViapPriceEur": 0,
"MissingEnergyViapUnit": "string",
"NkAmountNoVAT": 0,
"NkConsumptionAmount": 0,
"NkDiscount": 0,
"NkPriceEur": 0,
"NkReadingsFrom": 0,
"NkReadingsTo": 0,
"NkUnit": "string",
"NkViapAmountNoVAT": 0,
"NkViapConsumptionAmount": 0,
"NkViapDiscount": 0,
"NkViapPriceEur": 0,
"NkViapUnit": "string",
"NotConsumeFrom": "2020-09-02",
"NotConsumeTo": "2020-09-02",
"ObjectAddress": "string",
"ObjectID": 0,
"ObjectName": "string",
"ObjectNumber": "string",
"ObjectType": "string",
"OperatorGridElectricityConsumptionAmount": 0,
"OperatorGridElectricityPercent": 0,
"PayingRecoveredEnergyAmountNoVAT": 0,
"PayingRecoveredEnergyConsumptionAmount": 0,
"PayingRecoveredEnergyDiscount": 0,
"PayingRecoveredEnergyPriceEur": 0,
"PayingRecoveredEnergyUnit": "string",
"PayingRecoveredMixedAmountNoVAT": 0,
"PayingRecoveredMixedConsumptionAmount": 0,
"PayingRecoveredMixedDiscount": 0,
```

```
"PayingRecoveredMixedPriceEur": 0,  
"PayingRecoveredMixedUnit": "string",  
"PayingRecoveredPercentConsumptionAmount": 0,  
"PayingRecoveredPercentUnit": "string",  
"PayingRecoveredPowerConsumptionAmount": 0,  
"PayingRecoveredPowerUnit": "string",  
"PermanentHomeAmountNoVAT": 0,  
"PermanentHomePliusAmountNoVAT": 0,  
"PermitablePowerConsumption": 0,  
"PermitablePowerGeneration": 0,  
"ReadingsReceiveDate": "2020-09-02",  
"ReadingsSourceTypeCodeDatahub": "string",  
"ReadingsSubmitDate": "2020-09-02",  
"ReferenceSubmitDate": "2020-09-02",  
"Reliability1AmountNoVAT": 0,  
"Reliability1ConsumptionAmount": 0,  
"Reliability1Discount": 0,  
"Reliability1PriceEur": 0,  
"Reliability1Unit": "string",  
"Reliability2AmountNoVAT": 0,  
"Reliability2ConsumptionAmount": 0,  
"Reliability2Discount": 0,  
"Reliability2PriceEur": 0,  
"Reliability2Unit": "string",  
"Reliability3AmountNoVAT": 0,  
"Reliability3ConsumptionAmount": 0,  
"Reliability3Discount": 0,  
"Reliability3PriceEur": 0,  
"Reliability3Unit": "string",  
"RgAmountNoVAT": 0,  
"RgConsumptionAmount": 0,  
"RgDiscount": 0,  
"RgPriceEur": 0,  
"RgReadingsFrom": 0,  
"RgReadingsTo": 0,  
"RgUnit": "string",  
"RvAmountNoVAT": 0,  
"RvConsumptionAmount": 0,  
"RvDiscount": 0,  
"RvPriceEur": 0,  
"RvReadingsFrom": 0,  
"RvReadingsTo": 0,  
"RvUnit": "string",  
"SupplyState": "string",  
"SupplyStateFrom": "2020-09-02",  
"SupplyStateTo": "2020-09-02",  
"SvAmountNoVAT": 0,  
"SvConsumptionAmount": 0,  
"SvDiscount": 0,  
"SvPriceEur": 0,  
"SvReadingsFrom": 0,  
"SvReadingsTo": 0,  
"SvUnit": "string",  
"SvViapAmountNoVAT": 0,  
"SvViapConsumptionAmount": 0,
```

<pre> "SvViapDiscount": 0, "SvViapPriceEur": 0, "SvViapUnit": "string", "TariffPlan": "string", "TariffPlanChangeDate": "2020-09-02", "TechnologicalCostsAmountNoVAT": 0, "TechnologicalCostsConsumptionAmount": 0, "TechnologicalCostsDiscount": 0, "TechnologicalCostsPriceEur": 0, "TechnologicalCostsReadingsFrom": 0, "TechnologicalCostsReadingsTo": 0, "TechnologicalCostsUnit": "string", "TechnologicalCostsViapAmountNoVAT": 0, "TechnologicalCostsViapConsumptionAmount": 0, "TechnologicalCostsViapDiscount": 0, "TechnologicalCostsViapPriceEur": 0, "TechnologicalCostsViapUnit": "string", "UnaccountedAct": true, "UnaccountedConsumptionActCreateDate": "2020-09-02", "UnaccountedConsumptionActFrom": "2020-09-02", "UnaccountedConsumptionActNumber": 0, "UnaccountedConsumptionActTo": "2020-09-02", "VdAmountNoVAT": 0, "VdConsumptionAmount": 0, "VdDiscount": 0, "VdPriceEur": 0, "VdReadingsFrom": 0, "VdReadingsTo": 0, "VdUnit": "string", "VdViapAmountNoVAT": 0, "VdViapConsumptionAmount": 0, "VdViapDiscount": 0, "VdViapPriceEur": 0, "VdViapUnit": "string", "VgAmountNoVAT": 0, "VgConsumptionAmount": 0, "VgDiscount": 0, "VgPriceEur": 0, "VgUnit": "string", "VkAmountNoVAT": 0, "VkConsumptionAmount": 0, "VkDiscount": 0, "VkPriceEur": 0, "VkReadingsFrom": 0, "VkReadingsTo": 0, "VkUnit": "string", "VkViapAmountNoVAT": 0, "VkViapConsumptionAmount": 0, "VkViapDiscount": 0, "VkViapPriceEur": 0, "VkViapUnit": "string" }] </pre>			
Attribute	type	obligation	description

-	-	-	Response description are provided in additional documentation . In next document version, all fields description will be provided here.
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Below are the error codes and messages. Response codes and response content in case of error:

Response Error codes

Code	Message	Explanation	
1	-	No error codes should be provided. Only blank response or response with data inside.	
URI	POST /reports/accounting-data-pack-b2b-meters-level-count		
Description	Method which will return count (number), how many items Supplier will get in „POST /reports/accounting-data-pack-b2b-meters-level“ report (reports could have more than 1 item, so it is List). It should be used when supplier need to split data in few portions. This response should be used in „POST /reports/accounting-data-pack-b2b-meters-level“ method request, where Supplier can provide method header information.		
Parameters	none		
Request Body	Data order must be submitted in HTTP request body in a form of JSON		
Response	HTTP status code	Reason	Response 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.
Rules	No.	Rule description	Attributes
	1.	Counts report list items and return SUM of all report lines	-

JSON Request structure			
<pre>{ "customerCode": "string", "dateFrom": "date", "dateTo": "date", "objectNo": "string" }</pre>			
Attribute	type	obligation	description
customerCode	String(32)	not required	User code of contracted customer
dateFrom	Date	required	Date from which data from DSO Billing system should be included into report
dateTo	Date	required	Date to which data from DSO Billing system should be included into report
objectNo	String(20)	not required	Object Number of the object for the supply of electricity in which the contract is concluded.

JSON Response structure			
<pre>{ "count": "number" }</pre>			
Attribute	type	obligation	description
count	number(10)	required	Returns number, how many items are in report items list. This response can be used in accounting-data-pack-b2c report Header parameters to split data in few response portions (if need pagination)

Below are the error codes and messages. Response codes and response content in case of error:

Response Error codes

Code	Message	Explanation
1	-	No error codes should be provided. Only blank response or response with data inside.

URI	POST /reports/objects-data-pack
Description	Report which will return object information for both Business or Household customer.
Parameters	HEADER parameters: <ul style="list-style-type: none"> • 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 report rows in the return list. Optional. The default value is 30.
Request Body	Data order must be submitted in HTTP request body in a form of JSON

	HTTP status code	Reason	Response description
Response	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.
		No.	Rule description
Rules	1.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If only date fields are specified, then the report returns information about all objects in all customer contracts.	dateFrom, dateTo

	2.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If date fields and customerCode are specified, then the report returns information about all objects in provided customer contract.	dateFrom, dateTo, customerCode
	3.	Depending on the dateFrom and dateTo fields specified in the request, the request is executed and the report data is selected and submitted. If date fields, customerCode and objectNo are specified, then the report returns information about provided object in provided customer contract.	dateFrom, dateTo, customerCode, objectNo

JSON Request structure			
<pre>{ "customerCode": "string", "dateFrom": "date", "dateTo": "date", "objectNo": "string" }</pre>			
Attribute	type	obligation	description
customerCode	String(32)	not required	User code of contracted customer
dateFrom	Date	required	Date from which data from DSO Billing system should be included into report
dateTo	Date	required	Date to which data from DSO Billing system should be included into report
objectNo	String(20)	not required	Object Number of the object for the supply of electricity in which the contract is concluded.

JSON Response structure			
<pre>[{ "AgreementFrom": "2020-09-02", "AgreementModel": "string", "AgreementTo": "2020-09-02", "AgreementType": "string", "AutoMetersAmount": 0, "ClientID": "string", "ClientName": "string", "ConsumptionState": "string", "ConsumptionStateFrom": "2020-09-02", "ConsumptionStateTo": "2020-09-02", "CustomerID": "string", "GeneratingCustomer": "string", "MetersAmount": 0, "ObjectAddress": "string", "ObjectID": 0, "ObjectName": "string", "ObjectNumber": "string", "ObjectType": "string", "PermittablePowerConsumption": 0, "PermittablePowerGeneration": 0, "PowerPlantType": "string", "SupplyState": "string", "SupplyStateFrom": "2020-09-02", "SupplyStateTo": "2020-09-02", "TariffPlan": "string", "TariffPlanChangeDate": "2020-09-02", "TechnicalCosts": "string", "TotalProducts": 0, "TotalScales": 0, "Voltage": 0 }]</pre>			
Attribute	type	obligation	description
-	-	-	Response description are provided in additional documentation . In next document version, all fields description will be provided here.

Below are the error codes and messages. Response codes and response content in case of error:

Response Error codes

Code	Message	Explanation	
1	-	No error codes should be provided. Only blank response or response with data inside.	
URI	POST /reports/objects-data-pack-count		
Description	Method which will return count (number), how many items Supplier will get in „POST /reports/objects-data-pack“ report (reports could have more than 1 item, so it is List). It should be used when supplier need to split data in few portions. This response should be used in „POST /reports/objects-data-pack“ method request, where Supplier can provide method header information.		
Parameters	none		
Request Body	Data order must be submitted in HTTP request body in a form of JSON		
Response	HTTP status code	Reason	Response 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.
Rules	No.	Rule description	Attributes
	1.	Counts report list items and return SUM of all report lines	-

JSON Request structure			
<pre>{ "customerCode": "string", "dateFrom": "date", "dateTo": "date", "objectNo": "string" }</pre>			
Attribute	type	obligation	description
customerCode	String(32)	not required	User code of contracted customer
dateFrom	Date	required	Date from which data from DSO Billing system should be included into report
dateTo	Date	required	Date to which data from DSO Billing system should be included into report
objectNo	String(20)	not required	Object Number of the object for the supply of electricity in which the contract is concluded.

JSON Response structure			
<pre>{ "count": "number" }</pre>			
Attribute	type	obligation	description
count	number(10)	required	Returns number, how many items are in report items list. This response can be used in accounting-data-pack-b2c report Header parameters to split data in few response portions (if need pagination)

Below are the error codes and messages. Response codes and response content in case of error:

Response Error codes

Code	Message	Explanation
1	-	No error codes should be provided. Only blank response or response with data inside.

objects[] List is required element in all supplier change notification request types (using clientId or using customerId) where supplier must provide objectNumbers and contractTypes which are included in new contract with customer.