

Business Service

Request Determine Meter Readings and Volumes KA

Concerning allocation points fitted with a remotely readable measurement device

Please note: the Dutch version is leading.

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Document management

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Referenced documents

Requirements model

No.	Description	Version	Date	Author
1.	TS014/IC247A Optimalisatie meetketen voor kleine aansluitingen (TS014/IC247A Optimisation measurement chain for small connection)	2.0	12-05-2023	MFFBAS
2.	BRS Meetgegevens Kleine Aansluitingen (BRS Measurement data Small Connections)	2.0	09-05-2025	MFFBAS
3.	MSP MFF - Retailprocessen (MSP MFF - Retail Processes)	8.0	07-02-2025	MFFBAS

Design frameworks and guidelines

No.	Description	Version	Date	Author
4.	MFFBAS API ontwerprichtlijnen (MFFBAS API design guidelines)	4.0	27-09-2023	MFFBAS
5.	MFFBAS API URI richtlijnen (MFFBAS API URI guidelines)	2.0	01-05-2023	MFFBAS

Service descriptions and data model

No.	Description	Version	Date	Author
6.	TC57CIM Package Market	04v15	12 October 2023	IEC

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1 Introduction

1.1 Service description

The service description describes the aspects of the service *Request Determine Meter Readings and Volumes KA*. This service makes it possible to submit a request for determining meter readings and volumes for allocation points equipped with a remotely readable measurement device.

1.2 Reading guide

This document describes the following aspects, including:

- Process *Request Determine Meter Readings and Volumes KA*;
- Checks on the REST operations;
- Confirmation/rejection of the REST operations;
- JSON and Class Models.

1.3 Starting points

The following principles were used when designing the Business service Request determine meter readings and volumes KA:

- This service only involves submitting a request. It is handled via the already existing process 'Determine and communicate meter readings and volumes', see MSP retail processes [3];
- The request is submitted for one allocation point;
- A remotely readable measurement device is a measurement device with communication functionality that is installed by the distribution system operator and can be read from the connected member ('administrative status on') and is technically readable remotely.
- If the request is correct, the submitting party (the consumer) will only receive a confirmation (an HTTP status code, see section 4.2);
- If the request is not correct, the submitting party (the consumer) will receive a rejection (an HTTP status code, see section 3.2);
- The parameter for this service is based on the IEC CIM reference model [6].
- The distribution of meter readings and volumes that are read and determined based on the approved requests described in this service is not part of this service.

1.4 List of abbreviations

Abbreviation	Description
API	Application Programming Interface
CIM	Common Information Model
DSO	Distribution system operator This is the term used in the Energy Act for regional system operators.
GUI	Graphical User Interface
HTTP	Hypertext Transfer Protocol
IEC	International Electrotechnical Commission
JSON	JavaScript Object Notation
KA	Small connection
REST	Representational State Transfer
URI	Uniform Resource Identifier
URL	Universal Resource Locator
VOMD	Selling and/or purchasing market participant This is the overarching term used in the Energy Act for suppliers, energy communities, peer-to-peer traders and aggregators.

2 Roles and responsibilities

2.1 Consumer

This service description describes how consumers, the VOMDs, can submit a request to include a meter reading with volumes in the measurement sequence for billing purposes.

2.2 Provider

This service description describes how the service provider, a DSO, should handle the request for including meter readings with volumes in the measurement sequence.

2.3 RACI

The RACI below shows *the* roles and responsibilities for the service description *Request determine meter readings and volumes KA*:

R (Responsible, NL: Verantwoordelijk)	EDSN Business Integration
A (Accountable, NL: Eindverantwoordelijk)	To be determined!
C (Consulted, NL: Raadplegen)	Messaging team MFFBAS
I (Informed, NL: Informeren)	MFFBAS, EDSN

3 Process

The request "Determine meter readings and volumes KA" is part of the process Measurement data Small connections.

3.1 Request Determine Meter Readings and Volumes KA

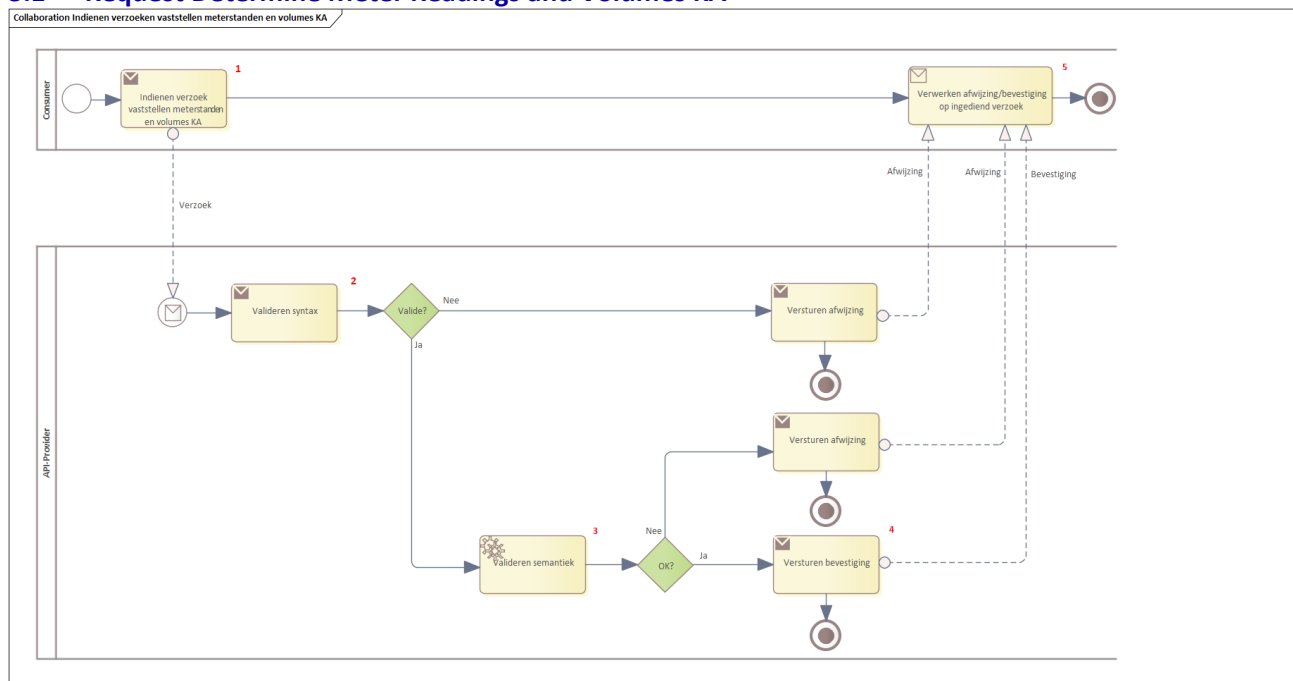


Figure 1 BPMN for the Request Determine meter readings and volumes KA. For detailed information about this process, see the explanation below

A request "Determine meter readings and volumes KA" is submitted via the following scenario:

1. The consumer submits a request "Determine meter readings and volumes KA" and has the following options to do so:
 - a. via GUI;
 - b. via REST API;
2. The provider verifies whether the concerned consumer is authenticated and authorized for this service and validates the received request (notification) syntactically. If there are inaccuracies, the request (notification) is immediately rejected and the provider sends a rejection to the consumer. This can be done in the following ways:
 - a. GUI: via visual notification;
 - b. REST API: via an HTTP status code (see paragraph 3.2);
3. If the received request is syntactically valid, the provider carries out additional checks (see paragraph 3.2). If one of these checks fails, the provider sends a rejection. This can be done in the following ways:
 - a. GUI: via visual notification;
 - b. REST API: via an HTTP status code (see paragraph 3.2);
4. If the received request complies with all validations, the provider sends a confirmation and the request is executed¹. The confirmation can be sent in the following ways:
 - a. GUI: via visual notification;
 - b. REST API: via an HTTP status code (see paragraph 4.2);
5. The consumer processes the confirmation or rejection.

¹ Execution of the request, namely reading meter readings and determining volumes, is not part of this service.

3.2 Provider checks

Following the request “*Determine meter readings and volumes KA*”, the provider has the following checks and notifications at its disposal and performs these checks:

Control	Error message	Error code	HTTP status notification	HTTP status code
The request is complete and syntactically correct.	N/A	N/A	Bad request	400
The consumer is authenticated for this service	N/A	N/A	Unauthorized	401
The consumer is authorized for this service	N/A	N/A	Forbidden	403
The allocation point is known in the connection resource of the concerned distribution system operator	N/A	N/A	Not Found	404
The request was submitted for an allocation point associated with a small connection	Request is not related to a small connection	1001	Unprocessable Entity	422
The request was submitted for an allocation point associated with a small connection fitted with a remotely readable measurement device	Request does not relate to a remotely readable measurement device	1002	Unprocessable Entity	422
The market participant is registered as a current selling and/or purchasing market participant on the allocation point	Specified market participant is not registered on the allocation point	1005	Unprocessable Entity	422
The date in the request is after a date for which meter readings have been determined or must be determined due to a mutation process, a month transition or another process for determined meter readings	There is a mutation process, another process or month transition on or after the desired date in the request for which meter readings have been determined or must be determined	1006	Unprocessable Entity	422
The number of previous requests for determined meter readings for the concerned allocation point by the relevant market participant for the relevant month is less than three	Maximum number of requests for this allocation point has been exceeded	1007	Unprocessable Entity	422
The date in the request is equal to the system date or is in the past	Date in the request is in the future	1009	Unprocessable Entity	422
The service can handle the request	N/A	N/A	Internal Server Error	500
The service is operational	N/A	N/A	Service Unavailable	503

4 Functional parameters REST API

4.1 Submit request

To submit a request "Determine meter readings and volumes KA", to parameters are required:

Notification	1/n	Required	Note	Enumeration
EAN18 code allocation point	1	V	EAN18Type	
Date	1	V	DateType YYYY-MM-DD	

These parameters, the EAN18 of the allocation point and the date must be entered in the URL.

4.2 Response to submitted request

The response to the request "*Determine meter readings and volumes KA*" is a confirmation or a rejection.

Approval:

HTTP status notification	HTTP status code
Accepted	202

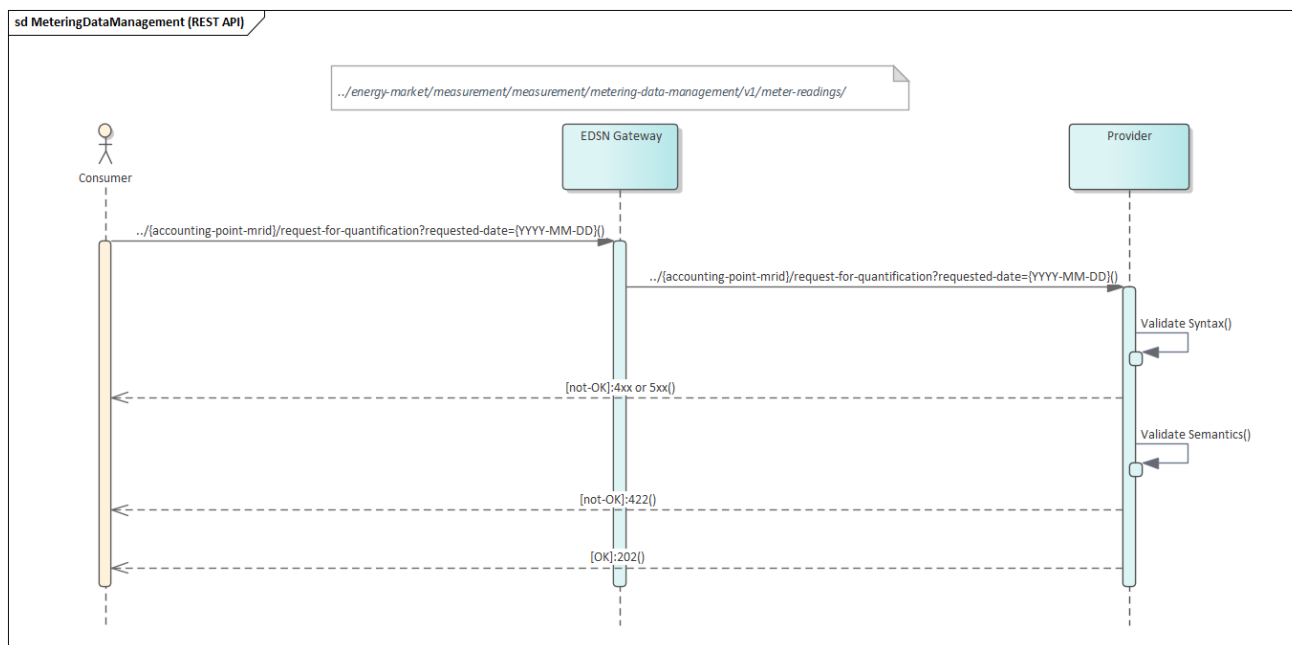
Rejection:

HTTP status notification	HTTP status code
See paragraph 3.2	See paragraph 3.2

5 Sequence diagram

5.1 Note

The sequence diagram shows the parties and services as an object with a so-called "lifeline". The interaction between these objects is shown by arrows if one or more notifications between objects. The notifications in the sequence diagram are explained in more detail in the chapter Information Model.



6 Properties service Metering Data Management

MeteringDataManagement	
Service	metering-data-management
Service ID	BSCMF0202
Description	This API offers the possibility for VOMDs to submit a request for determining meter readings and volumes for an allocation point at a small connection equipped with a remotely readable measuring device
Service transaction pattern	POST ../energy-market/measurement/measurement/metering-data-management/v2/meter-readings/{accounting-point-mrid}/request-for-quantification?requested-date={YYYY-MM-DD} ²
Precondition(s)	Request is submitted by a consumer who is authenticated and authorized to do so.
Trigger	Calling REST call
Post condition(s)	- Submitting request results in a confirmation (see HTTP status code section 4.2); - or - Submitting request results in a rejection (see HTTP status codes paragraph 3.2).
REST API	metering-data-management_v2_0_0
Version	2.0.0 (final)
Date	09-05-2025
Availability (within SLA)	Calendar days from 08:00 – 24:00 (local time resp CET or CEST)
Availability (outside SLA)	Calendar days from 00:00 – 08:00 the next calendar day (local time resp. CET or CEST): submitted requests will be handled to "best effort".
Average load	N/a.
Peak load	N/a.
Period peak load	N/a.
Max. response time	N/a.
Time-out	N/a.

² Date in accordance with the ISO 8601 format YYYY-MM-DD, for example 2027-08-23.

7 Information model REST API

7.1 Note

For this service, no message content is required; the only two parameters needed must be provided via parameters in the URL:

1. the EAN18 of the Allocation point as a path parameter;
2. the desired date as a query parameter.