

Business Service

Exchange revision requests

This version of the Service Description will take effect after approval,
when
Allocatie 2.0 tranche 3 goes live.

Please note: the Dutch version is leading.

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Code	BSCMF0064 - Exchange revision request after checks on metering data BSCMF0065 - Exchange revision request after checks on allocation data	Status	Approved
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Document management

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3.9	18-11-2021	Change in use cases BRS included in this service description: - Use case A20.121 and A20.131 merged into A20.121 - BRP changed in BRP Version for the NEDU approval process	EDSN
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Version	Version date	Changes	Author
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Referenced documents

Requirements model

No.	Description	Version	Date	Author
1.	BRS Metering data and objections metering data GV	9.0	14-04-2023	MFF BAS WG C1

Design frameworks and guidelines

No.	Description	Version	Date	Author
2.	NEDU EDSN Ontwerpkeuzes	3.9	15-04-2021	NEDU/EDSN
3.	TenneT Web Services guide	N/A	April 2020	TenneT
8.	Technical Guide - Measurements & Allocations Documents	1.7	13-06-2022	TenneT

Service descriptions and data model

No.	Description	Version	Date	Author
4.	EDSN Complex Data Type Specificatie	2.4	07-06-2023	EDSN
5.	EDSN Logisch Data Type Specificatie	3.0	07-06-2023	EDSN
6.	ebIX® Code list	1.2A	May 2023	ebIX TC
7.	ISO 8601 voor datum- en tijdsnotatie	1:2019	2019	ISO

This document is a publication of EDSN for MFF BAS. In the interest of completeness and accuracy, we kindly request you to forward any comments, additions and corrections regarding this document to EDSN.

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1. Introduction

1.1 Service description

The service description describes the agreements on the exchange of revision requests for measurement data in daily notifications for a telemetrically metered

- Allocation point for large consumption electricity with allocation method TMT
- Allocation point system balance electricity with allocation method TMT

To give the reader a good idea of the exchange, a detailed process description is included as well as an indication of the notifications to be used. For a functional description of the process that supports this exchange, please refer to the Business Requirement Specification Metering data and objections metering data[1].

1.2 Reading guide

This document describes the following aspects, including:

- Process *Exchange* revision requests;
- The exchange of these revision requests via TenneT's MMC-hub
- The syntactic validations by the MMC-hub, the confirmation/rejection by the MMC-hub
- The checks on the revision requests by the consumers (TSO, MRP, DSO)
- The confirmation/rejection of the revision requests by the consumers (TSO, MRP, DSO)
- XML message definitions.

For the functionality of the MMC-hub, please refer to the TenneT Web Services guide[3].

1.3 Starting points

The following principles were used when designing the *Exchange* revision requests service:

- Date/time notation in XML notifications according to NEDU EDSN *Design Choices*[2]
- The start and end date are in UTC and in accordance with the notation: YYYY-MM-DDThh:mm:ssZ;
Example start and end date **calendar day** electricity (winter time):
2020-02-08T23:00:00Z / 2020-02-09T23:00:00Z;
Example start and end date **calendar day** electricity (change winter time to summer time):
2020-03-28T23:00:00Z / 2020-03-29T22:00:00Z;
Example start and end date **calendar day** electricity (summer time):
2020-06-08T22:00:00Z / 2020-06-09T22:00:00Z;
Example start and end date **calendar day** electricity (change summer time to winter time):
2020-10-24T22:00:00Z / 2020-10-25T23:00:00Z;
- Wherever reference is made in this service description to "large consumption" or "GV" connection/allocation point, this shall be understood to mean a telemetered large consumption connection/allocation point with allocation method TMT or a telemetered Article 1 section 2 and 3 connection/allocation point with allocation method TMT(A1)
- Where this service description refers to "distribution system operator" or "DSO", this can also be read as "GDS owner" insofar as it concerns large consumption electricity connections.

1.4 Use of the Exchange revision requests service

The table below shows which types of revision requests may be sent by which market roles and what deadlines apply¹. The table also contains a reference to the relevant use cases from the BRS[1].

Source	Possible reasons for objection	Claim period	BRS Use case	Code ²
Revision requests from BRP to MRP				
Measurement data time series	Measurement data expected but not received (do not send measurement data) Zero values measured for more than 7 calendar days (original and proposal measurement data to be included)	First calendar day up to the eighth working day	UC A20.101	N90
Measurement data time series	Measurement data contested (original and proposal measurement data to be included) Measurement data estimated too long (original and proposal measurement data to be included)	First calendar day up to the eighth working day If the indication of origin is "calculated" and the repair method is "estimated" (BRS Appendix A ranking 6), objections may only be made from the 6th calendar day onwards.	UC A20.101	N90
Revision requests from DSO to MRP				
Measurement data time series	Measurement data expected but not received (do not send measurement data) Measurement data do not match the delivery direction (do not send measurement data) Measurement data do not match the registered capacity (original measurement data to be sent) ³	First calendar day up to the eighth working day	UC A20.111	N90
Revision requests from TSO to MRP				
Measurement data time series	Measurement data expected but not received (do not send measurement data) Measurement data do not match the delivery direction (do not send measurement data) Measurement data do not match the registered capacity (original measurement data to be sent) ¹	First calendar day up to the eighth working day	UC A20.112	N90
Revision requests from BRP to SO				
Allocation data	Allocation data allocation point telemetry (incl. NVL and DIM) received	First calendar day up to the tenth working day	UC A20.121	N91

¹ For revision requests for measurement data, IC248 (section 3.5) contains the table with status measurement data and possibilities for objections for TSO, BRP and DSO.

² See paragraph 3.6 Application ProcessTypeID.

³ A notification with a volume greater than 150% and less than or equal to 200% of what may be expected based on the physical capacity of the connection may be claimed via a revision request. The MRP will need to deal with it and assess whether the volume was correct after all (and possibly the registered physical capacity incorrect) or send a new measurement data notification.

Source	Possible reasons for objection	Claim period	BRS Use case	Code ²
	but not expected Allocation data allocation point telemetry (incl. NVL and DIM) expected but not received	day 16:00		

1.5 List of abbreviations

Abbreviation	Description
A1	A connection which falls within the definition of Article 1 of the Electricity Act. This connection is treated as a large consumption, while technically the connection is a small consumption connection
BRP	Balance responsible party, formerly PV
EDSN	Energy Data Services Netherlands
GDS	Closed distribution system
GV	Large consumption
TSO	Transmission system operator
MMC-hub	Market-Market-Communication Hub
MRP	Metering responsible arty
DSO	Distribution system operator
SO	System operator, can be either transmission or distribution system operator.
TMT	Telemetry (abbreviation used to distinguish between connections/allocation points with allocation method PRF and connections/allocation points with allocation method TMT)

2. Roles and responsibilities

2.1 Consumer

This service description describes how the consumers (TSO, MRP, DSO) receive the revision requests.

2.2 Provider

This service description describes how the providers (TSO, BRP, DSO) offer the revision requests.

2.3 RACI

The RACI below shows the roles and responsibilities for this service:

R (Responsible, NL: Verantwoordelijk)	EDSN Business Integration
A (Accountable, NL: Eindverantwoordelijk)	To be determined!
C (Consulted, NL: Raadplegen)	Notifications team MFFBAS, ebIX Technical Commission,
I (Informed, NL: Informeren)	GMM MFF, EDSN

3. BPMN Exchange revision requests

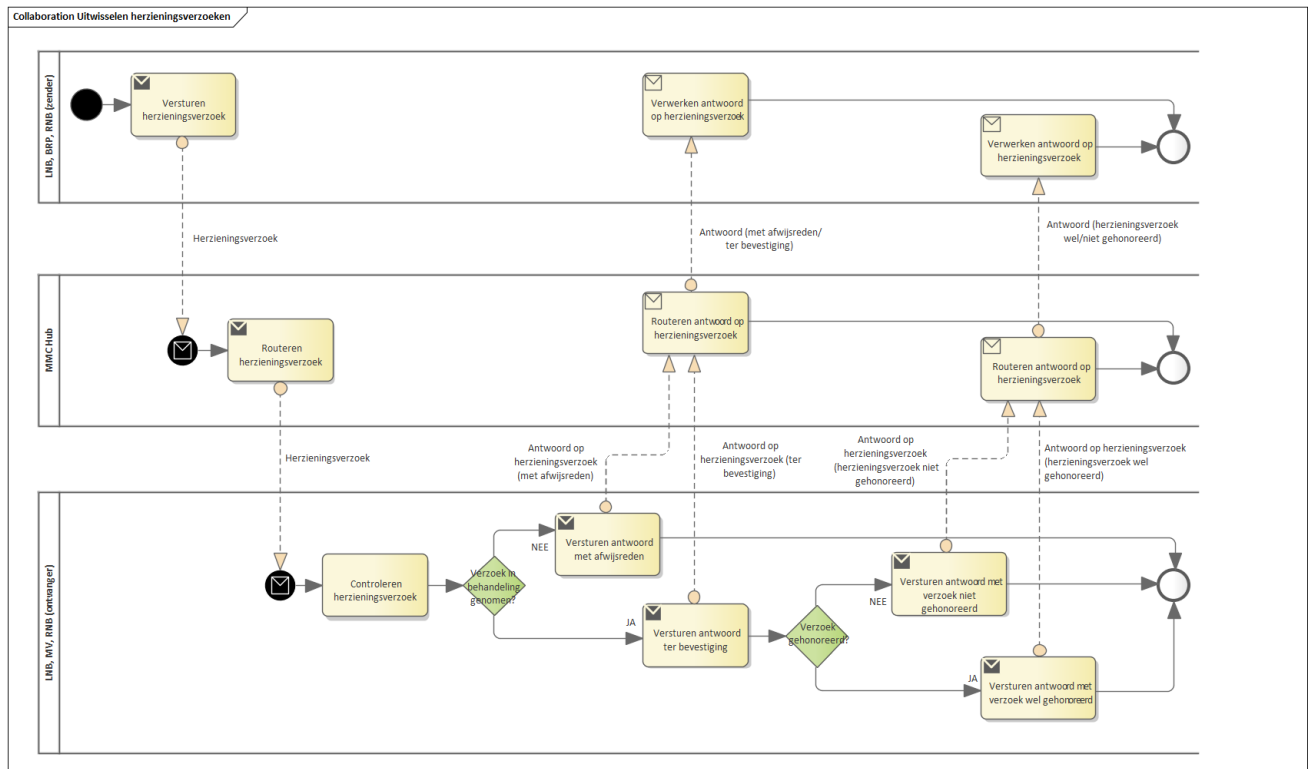


Figure 1 For detailed information on this process see BRS Metering data and objections GV[1]

3.1 Exchange revision requests

The process for exchanging revision requests follows the following scenario:

1. The sender (balance responsible party or system operator) sends the "Revision request" notification to the MMC-hub;
2. The MMC-hub processes⁴ the received "Revision request" notification and routes the notification to the recipient;
3. The recipient checks the "Revision Request" notification
4. The receiver sends the first response notification "Confirmation/rejection of revision request" to the MMC-hub:
 - a confirmation reply, or
 - a response with one or more rejections following the checks in sections 3.3, 3.4 or 3.5
5. The MMC-hub processes⁵ the received first response notification and routes the notification to the recipient;
6. The recipient sends the second response notification "Revision request accepted/not accepted" to the MMC-hub if the "Revision request" was not rejected in the first response notification:
 - an answer: request for revision granted, or
 - An answer: request for revision not accepted
7. The MMC-hub processes⁶ the received second response notification and routes the notification to the sender;

4 A non-valid notification will be rejected by the MMC-hub, see paragraph 3.2.

5 A non-valid notification will be rejected by the MMC-hub, see paragraph 3.2.

6 A non-valid notification will be rejected by the MMC-hub, see paragraph 3.2.

3.2 Validations MMC-hub

Following the received notification "Revision request" and received notification "Revision request confirmation/rejection", the MMC-hub performs the following validations:

Validation	Error notification
XSD Validation: The notification shall comply to the XSD rules	TEN-500001: [Error detail]
Unreadable notification: The notification shall be a valid XML layout	TEN-500001: [Error detail]
Others: All other faults	TEN-999999: Unhandled exception

If a notification is rejected by the MMC-hub, the MMC-hub sends the error code and text to the submitter of the notification concerned. For the functionality of the MMC-hub, please refer to the TenneT Web Services guide[3].

3.3 Checks on receiver

Following the received notification "Revision request" and the received notification "Conformation/rejection revision request" the recipient may perform the following checks⁷:

Validation	Error notification in the SOAP response
The received XML notification complies with the W3C XML 'well-formedness' specification.	TEN-500001: [Error detail]
The received XML notification complies with the XML schema definition (XSD) of the receiver.	TEN-500001: [Error detail]

Following the received notification "Revision request" the receiver performs the following checks:

Validation	Error notification in the Response
The integrity and/or confidentiality of the XML notification is guaranteed (signing check).	Error code: 999 Error notification: TEN-500021 – Incorrect notification signing
The technicalNotificationId in the SOAP header is unique.	Error code: 999 Error notification: TEN-500023 – Unique identifier not unique or already processed

3.4 Checks recipient for notification "Exchange of revision requests after measurement data check"

In response to the notification "Exchange revision requests after check metering data", the following checks and error notifications are available to the recipient. The recipient performs these checks if they are mandatory or relevant for processing by the recipient:

Control	Error notification	Role	Code
Connection			
The EAN code-18 of the connection is a valid EAN code.	EAN code-18 is not valid.	MRP	650
The EAN code-18 of the connection is administered in the connection register during the entire notification period.	The connection does not appear in the connection register.	MRP	653
According to the connection register, the BRP is registered as BRP on the connection during the entire notification period.	The BRP is not registered as a BRP on the connection.	MRP	656
The product type in the notification corresponds to the product type of the connection in the connection register.	The product type does not correspond to the product type of the connection.	MRP	659
The connection is a GV allocation point electricity with allocation method telemetry.	The connection is not a GV allocation point with allocation method telemetry.	MRP	730
The notification contains a valid reason for objection ⁸ .	Invalid reason for objection.	MRP	731
For a revision request with reason "longer than 7 calendar days with measured zero values", actually 7 consecutive calendar days with measured zero values have preceded.	No 7 consecutive calendar days measured zero values.	MRP	757

⁷ These validations are always performed by the MCC hub. It is recommended that recipients also perform these validations themselves.

⁸ For potential reasons for objection, see paragraph 1.4.

The notification contains the reference ID referring to the measurement data notification from the allocation point except for a revision request with reason EOT (measurement data expected but not received).	Reference ID is incorrect or missing.	MRP	732
The period of the objection notification corresponds to the period of the notification to which the reference ID refers.	The period in the objection notification does not correspond to the period in the notification to which the reference ID refers.	MRP	734
The notification was received within the objection period ⁹ .	The notification was received outside the objection period.	MRP	735
The period covered by the revision request is exactly one calendar day.	Invalid period.	MRP	746
A recipient of measurement data may submit a revision request only once per measurement data notification.	Revision request has already been submitted for the Measurement Data notification.	MRP	737
A recipient of measurement data may only submit a revision request on the last measurement data notification sent for a specific notification period.	Revision request was not made for the last measurement data notification sent.	MRP	749
A newer version of the notification has not yet been received when processing the notification.	Notification not processed because a newer version of the notification has been received.	MRP	760
The reference in the notification is unique.	A notification with this reference has been received in the past.	MRP	670
Time Series			
The resolution corresponds to the resolution of the notification on which a claim is made.	The resolution does not correspond to the resolution of the notification being complained about.	MRP	736
All products match the product type.	One or more products do not fit the product type.	MRP	667
All energy units match the products.	One or more energy units do not fit the product(s).	MRP	668
The positions within a time series are delivered in order from low to high.	The order of the positions is incorrect.	MRP	672
Each position in a time series occurs exactly once in the respective time series.	Double delivery of positions.	MRP	673
A time series for a product in combination with a direction of delivery occurs only once in the notification.	Multiple delivery of time series of a product combination in combination with delivery direction.	MRP	675
The volume has a correct number of decimal places.	Volume has an incorrect number of decimal places.	MRP	776
All volumes in the notification are positive numbers (or zero).	Volume with negative value.	MRP	686
In case of the reason for objection "Metering data disputed", an original volume and a proposal volume are included in the notification.	No original and/or proposal volume.	MRP	711
In case of the reason for objection "Metering data do not match recorded capacity", an original volume is included in the notification.	No original volume available.	MRP	712
In case of the reason for objection "Zero values measured for more than 7 calendar days", an original volume and a proposal volume are included in the notification.	No original and/or proposal volume.	MRP	750
In case of the reason for objection "Measurement data estimated too long", an original volume and a proposal volume are included in the notification.	No original and/or proposal volume.	MRP	751
In case of the reason for objection "Measurement data expected but not received", no original volume and/or a proposal volume are included in the notification.	Invalid delivery of original and/or proposal volume.	MRP	752
In case of the reason for objection "Metering data do not match delivery direction", no original volume and/or a proposal volume are included in the notification.	Invalid delivery of original and/or proposal volume.	MRP	753

⁹ For the objection period, see paragraph 1.4.

Per imbalance settlement period and per delivery direction, each proposed volume is unequal to the original volume.	Proposed volume is equal to original volume.	MRP	738
All original volumes per delivery direction and imbalance settlement period in the notification correspond to the volumes per delivery direction and imbalance settlement period in the metering data notification on which a claim is made.	Original volume is incorrect.	MRP	739
Notification header			
The NotificationID in the SOAP header is unique.	A previous notification has already been received with the same NotificationID.	MRP	669
The ProcessTypeID in the notification header matches the content of the notification.	ProcessTypeID does not match the content of the notification.	MRP	681
No notification with a more recent creation date/time stamp has been received.	A notification has already been received with a more recent creation date/time stamp.	MRP	704
The senderID in de SOAP Header equals the SenderID in the Business Document Header.	senderID in de SOAP Header does not equal SenderID in de Business Document Header.	MRP	701
The receiverID in de SOAP Header equals the ReceiverID in the Business Document Header.	receiverID in de SOAP Header does not equal the ReceiverID in the Business Document Header.	MRP	745
The EAN 13 of the market party that compiled the data is the same as the SenderID in the Business Document Header.	EAN 13 of the market party that produced the data does not match the SenderID in the Business Document Header.	MRP	778
The contentType ¹⁰ in the SOAP Header is in keeping with the ProcessTypeID in the Business Document Header.	contentType in the SOAP is not consistent with ProcessTypeID in the Business Document Header.	MRP	754
The Correlation ID in the Business Document Header, if filled in, is the same as the Correlation ID in the SOAP Header.	The Correlation ID in the Business Document Header is not the same as the Correlation ID in the SOAP Header.	MRP	780
Entire notification			
Notification is complete, correct and directed to the correct recipient ¹¹ .	[free text field] ¹²	MRP	999

3.5 Controls receiver for notification "Exchange revision requests after allocation data check".

In response to the notification "Exchange revision requests after check allocation data", the following checks and error notifications are available to the recipient. The recipient performs these checks if they are mandatory or relevant for processing by the recipient:

Control	Error notification	Role	Code
Connection			
The EAN code-18 of the connection is a valid EAN code.	EAN code-18 is not valid.	SO	650
The EAN code-18 of the connection is registered with the system operator during the entire notification period.	The connection does not appear in the records of the system operator.	SO	652
According to the connection register, the BRP is registered as BRP on the connection during the entire notification period.	The BRP-er is not registered as a BRP on the connection.	SO	656
The connection was not demolished during the entire period covered by the notice.	The connection has been demolished.	SO	657
The product type in the notification corresponds to the product type of the connection in the connection register.	The product type does not correspond to the product type of the connection.	SO	659

¹⁰ See Technical Guide - Measurements & Allocations Documents[8] for further information how to fill the contentType.

¹¹ Check and error notification if a received notification is not correct or not intended for that recipient and cannot be caught by one of the above checks.

¹² An explanation for error code 999 should be entered in this text field.

The connection is a GV allocation point electricity with allocation method telemetry.	The connection is not a GV allocation point with allocation method telemetry.	SO	730
The notification contains a valid reason for objection ¹³ .	Invalid reason for objection.	SO	731
The notification contains the reference ID referring to the allocation data notification for the allocation point except for a revision request with reason E0B (Allocation data allocation point expected but not received).	Reference ID is incorrect or missing.	SO	733
The period of the objection notification corresponds to the period of the notification to which the reference ID refers.	The period in the objection notification does not correspond to the period in the notification to which the reference ID refers.	SO	734
A recipient of allocation data may submit a revision request only on the last allocation data notification sent for a specific notification period.	Revision request was not made for the last allocation data notification sent.	SO	748
A recipient of allocation data may submit a revision request only once per allocation data notification.	Revision request has already been submitted for the allocation data notification.	SO	756
The notification was received within the objection period ¹⁴ .	The notification was received outside the objection period.	SO	735
The period covered by the revision request is exactly one calendar day.	Invalid period.	SO	746
A newer version of the notification has not yet been received when processing the notification.	Notification not processed because a newer version of the notification has been received.	SO	760
The reference in the notification is unique.	A notification with this reference has been received in the past.	SO	670
Notification header			
The NotificationID in the SOAP header is unique.	A previous notification has already been received with the same NotificationID.	SO	669
The ProcessTypeID in the header of the notification matches the content of the notification.	ProcessTypeID does not match the content of the notification.	SO	681
No notification with a more recent creation date/time stamp has been received.	A notification has already been received with a more recent creation date/time stamp.	SO	704
The senderID in de SOAP Header equals the SenderID in the Business Document Header.	senderID in de SOAP Header does not equal SenderID in de Business Document Header.	SO	701
The receiverID in de SOAP Header equals the ReceiverID in the Business Document Header.	receiverID in de SOAP Header does not equal the ReceiverID in the Business Document Header.	SO	745
The EAN 13 of the market party that compiled the data is the same as the SenderID in the Business Document Header.	EAN 13 of the market party that produced the data does not match the SenderID in the Business Document Header.	SO	778
The contentType ¹⁵ in the SOAP Header is in keeping with the ProcessTypeID in the Business Document Header.	contentType in the SOAP is not consistent with ProcessTypeID in the Business Document Header.	SO	754
The Correlation ID in the Business Document Header, if filled in, is the same as the Correlation ID in the SOAP Header.	The Correlation ID in the Business Document Header is not the same as the Correlation ID in the SOAP Header.	SO	780
Entire notification			
Notification is complete, correct and directed to the correct recipient ¹⁶ .	[free text field] ¹⁷	SO	999

13 For potential reasons for objection, see paragraph 1.4.

14 For the objection period, see paragraph 1.4.

15 See Technical Guide - Measurements & Allocations Documents[8] for further information how to fill the contentType.

16 Check and error notification if a received notification is not correct or not intended for that recipient and cannot be caught by one of the above checks.

17 An explanation for error code 999 should be entered in this text field.

3.6 Application ProcessTypeID for exchanging revision requests

As described in the BRS Metering data and objections metering data GV[1], the arrangement for revision requests can be used for several applications. In the EDSNBusinessDocumentHeader (functional header) in the notification, the application should be specified under ProcessTypeID. Further explanation about the use of the EDSNBusinessDocumentHeader is included in the NEDU EDSN Design Choices[2].

Application	Code
Exchange of revision requests after verification of measurement data	N90
Exchange of revision requests after verification of allocation data	N91

4. Functional parameters

4.1 Request for revision after verification of measurement data

The following functional parameters shall be applied in case of Exchange of revision request after check metering data:

Given	Gas ¹⁸	Elec	1/n	Note	XML code
Notification Reference	N/A	V	1	A UUID as a unique identifier of the notification.	
EAN code connection	N/A	V	1	EAN 18 electricity allocation point.	
EAN code involved party	N/A	V	1	EAN 13 of the balance responsible party, transmission system operator or distribution system operator.	
Market role	N/A	V	1	Allowed values (from ebIX Code list[6]): Transmission system operator Balance responsible party Distribution system operator	EZ DDK DDM
Product type	N/A	V	1	Allowed values (from ebIX Code list[6] and including a leading zero): Electricity	023
Reference to notification metering data	N/A	A	1	Reference to related notification measurement data time series. Mandatory if reason for claim other than 'Measured data expected but not received' (code EOT).	
Reason for objection	N/A	V	1	Allowed values (from ebIX Code list[6]): BRP/DSO/TSO: Measurement data expected but not received (do not send measurement data). BRP: Measurement data estimated too long (only include original and proposed measurement data that have been disputed) DSO/TSO: Measurement data do not match delivery direction (do not send measurement data). DSO/TSO: Measurement data do not match the registered capacity (only original measurement data that is being disputed to be sent). BRP: Measurement data disputed (only include original and proposed measurement data that is being disputed). BRP: Zero values measured for more than 7 calendar days (only include original and proposed measurement data that is being disputed)	EOT EOC EOV EOU EOA EOW
Explanation of claim	N/A	O	1	Further explanation as to why the request for revision has been made.	
Start date period	N/A	V	1	Start date time to which the revision request refers. Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date period	N/A	V	1	End date time to which the revision request refers. End date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
Energy type			0/n		
Imbalance settlement period (electricity)/measurement period (electricity)/PTE (gas)	N/A	A	1	Resolution is in accordance to ISO 8601 notation[7] for Duration. This resolution shall correspond to the resolution in the related measurement data notification. Permissible values electricity: 5 minutes 15 minutes	PT5M PT15M

¹⁸ For the time being, this notification is not intended for gas, but it has been technically prepared for use with gas at a later date.

				Only obligatory for BRP in case of objection: - Measurement data estimated too long (code E0C) - Measurement data disputed (code E0A) - Zero values measured for longer than 7 calendar values (code E0W) Only compulsory for DSO/TSO in case of reason for objection: - Measurement data do not match the registered capacity (code E0U)	
Product ID ¹⁹	N/A	A	1	Allowed values (from ebIX Code list[6]): Electricity: Active energy Only obligatory for BRP in case of objection: - Measurement data estimated too long (code E0C) - Measurement data disputed (code E0A) - Zero values measured for longer than 7 calendar values (code E0W) Only compulsory for DSO/TSO in case of reason for objection: - Measurement data do not match the registered capacity (code E0U)	8716867000030
Energy unit	N/A	A	1	Permissible active energy value: kWh Only obligatory for BRP in case of objection: - Measurement data estimated too long (code E0C) - Measurement data disputed (code E0A) - Zero values measured for longer than 7 calendar values (code E0W) Only compulsory for DSO/TSO in case of reason for objection: - Measurement data do not match the registered capacity (code E0U)	KWH
Energy direction	N/A	A	1	Allowed values (from ebIX Code list[6]): Consumption Production Only obligatory for BRP in case of objection: - Measurement data estimated too long (code E0C) - Measurement data disputed (code E0A) - Zero values measured for longer than 7 calendar values (code E0W) Only compulsory for DSO/TSO in case of reason for objection: - Measurement data do not match the registered capacity (code E0U)	E17 E18
Original Volume per position (only include original measurement data that is being disputed)			0/n		
Position	N/A	A	1	Position in the series in whole numbers. Only obligatory for BRP in case of objection: - Measurement data estimated too long (code E0C) - Measurement data disputed (code E0A)	

¹⁹ For the time being, this notification is not intended for reactive energy, but it has been technically prepared for use with reactive energy at a later date.

				- Zero values measured for longer than 7 calendar values (code E0W) Only compulsory for DSO/TSO in case of reason for objection: - Measurement data do not match the registered capacity (code E0U)	
Volume	N/A	A	1	Volume as a decimal number, always to 3 decimal places. Only obligatory for BRP in case of objection: - Measurement data estimated too long (code E0C) - Measurement data disputed (code E0A) - Zero values measured for longer than 7 calendar values (code E0W) Only compulsory for DSO/TSO in case of reason for objection: - Measurement data do not match the registered capacity (code E0U)	
Proposal Volume per position (only include proposal measurement data that is being disputed)			0/n		
Position	N/A	A	1	Position in the series in whole numbers. Only obligatory for BRP in case of objection: - Measurement data estimated too long (code E0C) - Measurement data disputed (code E0A) - Zero values measured for longer than 7 calendar values (code E0W)	
Volume	N/A	A	1	Volume as a decimal number, always to 3 decimal places. Only obligatory for BRP in case of objection: - Measurement data estimated too long (code E0C) - Measurement data disputed (code E0A) - Zero values measured for longer than 7 calendar values (code E0W)	

Mandatory fields (V) are always filled; optional fields (O) or dependent fields (A) if required for the context of the revision request notification concerned.

4.2 Request for revision after verification of allocation data

The following functional parameters shall be applied for Exchange revision request after check allocation data:

Given	Gas	Elec	1/n	Note	XML code
Notification Reference	N/A	V	1	A UUID as a unique identifier of the notification.	
EAN code connection	N/A	V	1	EAN 18 electricity allocation point.	
EAN Code balance responsible party	N/A	V	1	EAN 13 of the balance responsible party.	
Market role	N/A	V	1	Allowed values: Balance responsible party	DDK
Product type	N/A	V	1	Allowed values (from ebIX Code list[6] and including a leading zero): Electricity	023
Reference to allocation data notification	N/A	A	1	Reference to the related notification with allocation data ²⁰ . Mandatory if reason for claim 'Allocation data allocation point received but not expected' (code E0D).	

²⁰ The MSCONS notification also has a unique ID: *BGM 1004 Document/notification number. Unique ID for the notification, given by the sender.* This unique ID must be given as reference in case of an MSCONS notification.

Given	Gas	Elec	1/n	Note	XML code
Reason for objection	N/A	V	1	Allowed values (from ebIX Code list[6]): Allocation data allocation point received but not expected.	E0D
				Allocation data allocation point expected but not received ²¹ .	E0B
Explanation of claim	N/A	O	1	Further explanation as to why the request for revision has been made.	
Start date period	N/A	V	1	Start date time to which the revision request refers. Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date period	N/A	V	1	End date time to which the revision request refers. End date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	

²¹ This reason for objection is not intended to complain about the absence of the current allocation data notification. In general, the absence of the current notification with allocation data is communicated to all BRP-s in advance.

4.3 First Response Exchange revision request

The response consists of a confirmation or a rejection of the revision request:

Given	Gas	Elec	1/n	Note	XML code
Notification Reference	N/A	V	1	A UUID as a unique identifier of the notification.	
Reference of the revision request notification	N/A	A ²²	1	A UUID as unique identifier for the acknowledged or rejected revision request notification ²³ .	
Date/time response notification	N/A	V	1	Date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
Confirmation/rejection code	N/A	V	n	If confirmed (not rejected!), code "000" must be returned in the response. If rejected, at least one code for rejection must be returned in the response (see section 3.3, 3.4 and 3.5).	000 Code for rejection: see section 3.3, 3.4 and 3.5.
Explanation of the rejection	N/A	O	n	Optional explanation of the rejection.	

4.4 Second Response Exchange revision request

The response consists of an answer as to whether the request for revision has been granted or not:

Given	Gas	Elec	1/n	Note	XML code
Notification Reference	N/A	V	1	A UUID as a unique identifier of the notification.	
Reference of the revision request notification	N/A	A ²⁴	1	A UUID as unique identifier for the acknowledged or rejected revision request notification ²⁵ .	
Date/time response notification	N/A	V	1	Date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
Confirmation/rejection code	N/A	V	1	If the request for revision is granted, code "001" must be returned in the response. If revision request is not successful, code "900" must be returned in the response.	001 900
Explanation of the rejection	N/A	O	1	Optional explanation of the rejection.	

Mandatory fields (V) are always filled; optional fields (O) or dependent fields (A) if required for the context of the revision request notification concerned.

²² If the integrity and/or confidentiality of the XML notification cannot be guaranteed, the recipient must be able to send a rejection to the sender of the corresponding notification without the reference of the received notification. Due to compromised integrity or confidentiality there is no proper way to retrieve this information.

²³ Is the Measurement_Series.mRID of the MeasurementSeriesRevisionRequest/AllocationVolumeRevisionRequest notification.

²⁴ If the integrity and/or confidentiality of the XML notification cannot be guaranteed, the recipient must be able to send a rejection to the sender of the corresponding notification without the reference of the received notification. Due to compromised integrity or confidentiality there is no proper way to retrieve this information.

²⁵ Is the Measurement_Series.mRID of the MeasurementSeriesRevisionRequest/AllocationVolumeRevisionRequest notification.

4.4.1 Explanation of the correlation of the response to the request

Correlation on the following levels:

1. The EDSNBusinessDocumentHeader shows the technical correlation between Request and Response if entered into the Request by the provider²⁶;
2. Via the notification attribute (UUID), the mandatory process correlation between Request and Response.

Additionally, a correlation may apply on the level of the SOAP header, see the document MMC Technical Guide – Measurements & Allocations Documents [8].

²⁶ CorrelationID can be entered by the submitter of the revision request (provider). If filled, the receiving party (consumer) must specify this CorrelationID in the response to the submitter. See Design Choices[2] for an explanation of the use of CorrelationID.

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 as one or more notifications between objects. The notifications in the sequence diagram are explained in more detail in the chapter Information Model. Further details about notification standards and application methods are described in NEDU EDSN Design Choices[2].

5.2 Exchange revision requests

The following sequence diagram refers to offering *Exchange of revision requests* by the balance responsible party or system operator to the MMC-hub:

1. Exchange of revision request after measurement data verification (MeasurementSeriesRevision)
2. Exchange of revision request after AllocationVolumeRevision

The MMC-hub takes care of routing, preparing and forwarding the relevant revision request to the recipient.

Exchange of revision request after verification metering data (MeasurementSeriesRevision)

sd Uitwisselen herzieningsverzoek na controle meetgegevens

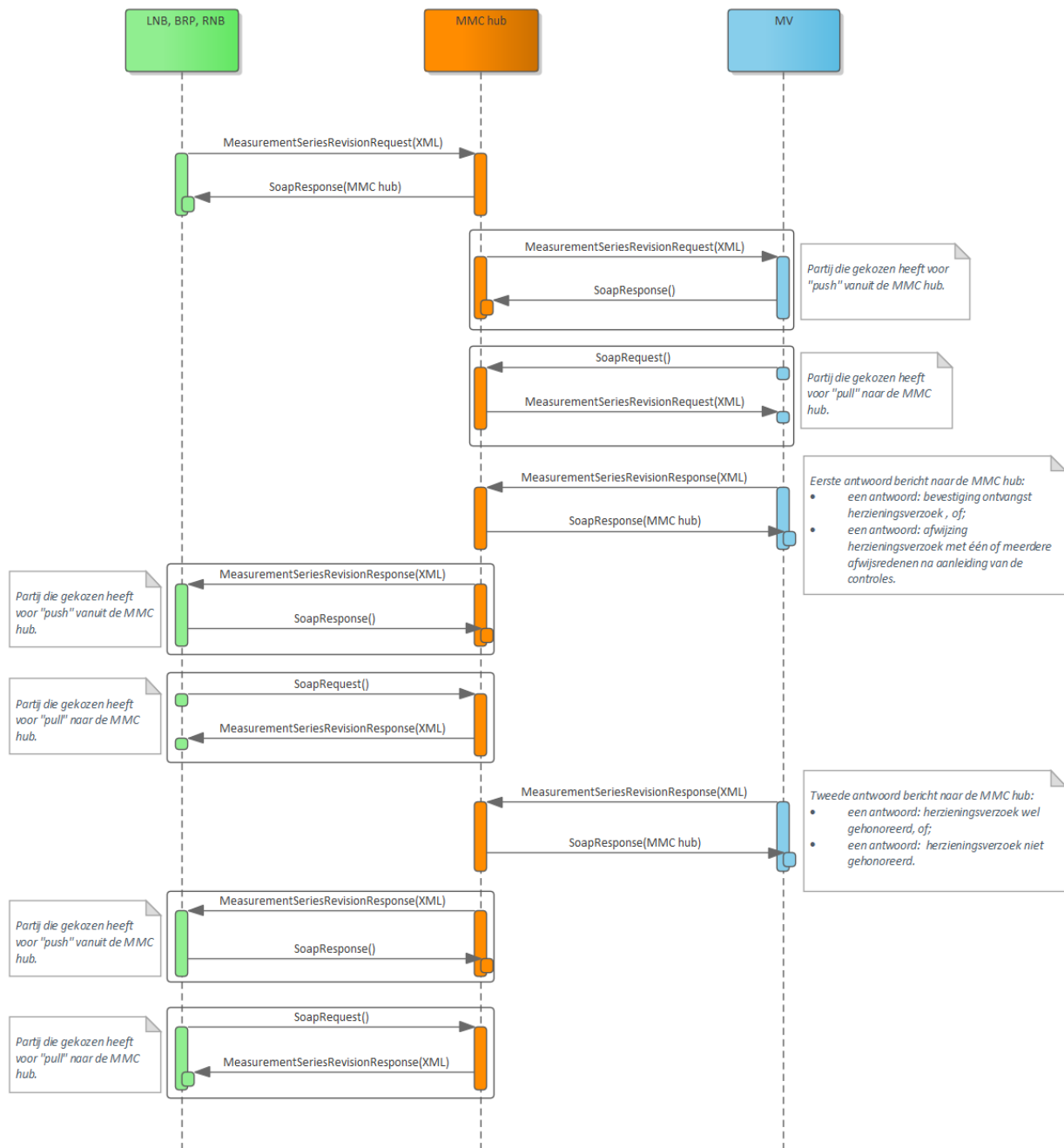


Figure 2 The sequence diagram for exchanging revision requests after verification of measurement data between TSO, BRP or DSO and the MRP via the MMC-hub

Exchange revision request after verification of allocation data (AllocationVolumeRevision)

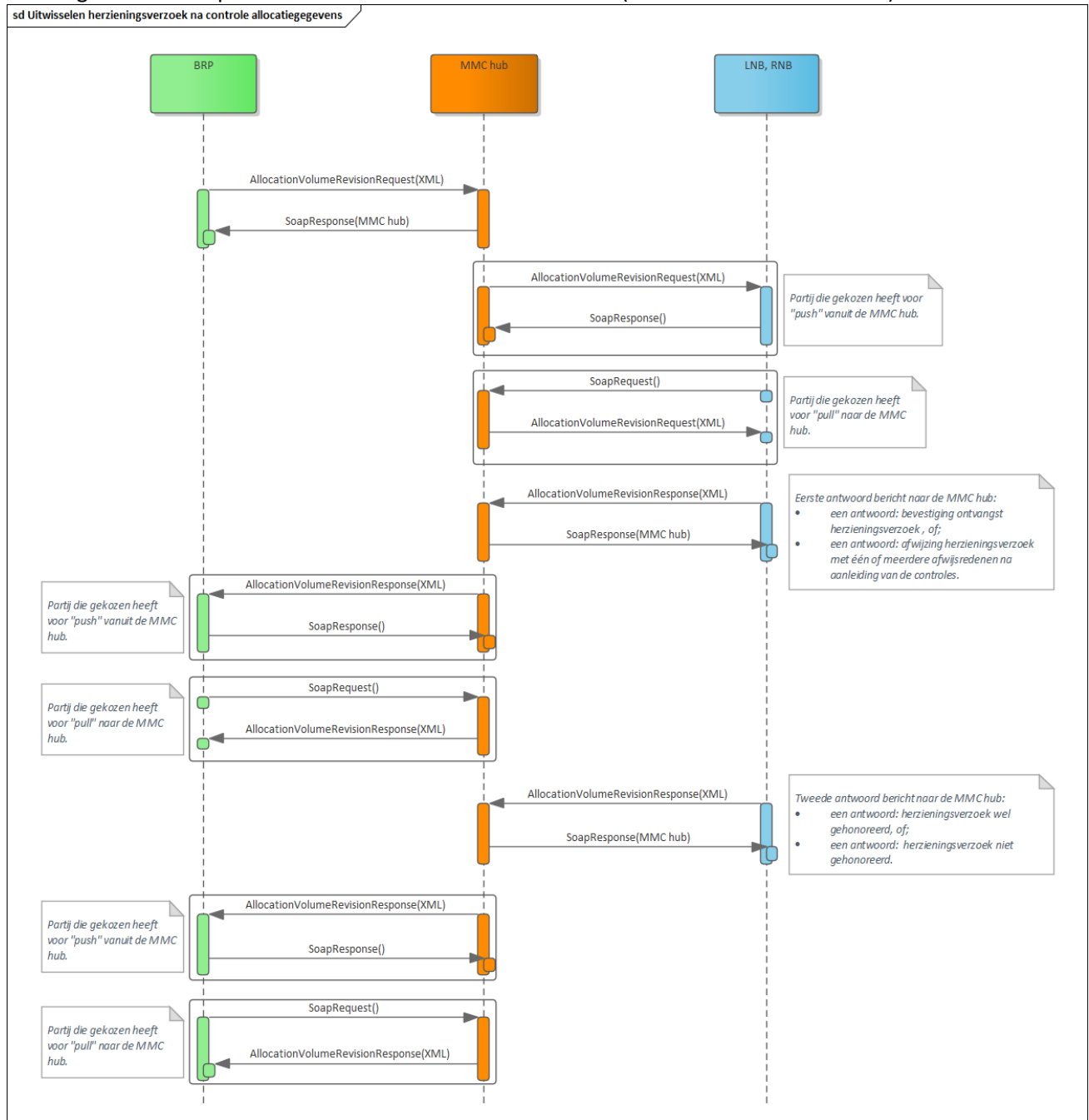


Figure 3 The sequence diagram for exchanging revision requests after allocation data check between BRP and the TSO or DSO via the MMC-hub

6. Properties service Exchange revision requests

6.1 Service features Exchange of revision requests after checking measurement data

Exchange revision request metering data (MeasurementSeriesRevision Request)	
Service	MeasurementSeriesRevision - Exchange of revision request after verification of metering data
DSO service ID	BSCMF0064
Description	Exchanging revision requests measurement data between TSO, BRP or DSO (provider) and the MRP (consumer).
Service transaction pattern	Request/Response
Precondition(s)	The metering data revision request shall be submitted by a party that is authorised and authenticated to do so.
Trigger	Party supplies <i>the measurement data revision request</i> to the MMC-hub.
Post condition(s)	• <i>Measurement data revision request rejected;</i> - or • <i>Measurement data revision request carried out</i>
Service use ²⁷	
Pattern of use	N/a.
Average load	N/a.
Peak load	N/a.
Period peak load	N/a.
Period of inactivity	N/a.
Max. consumer response time	95% of incoming Requests must be answered by the consumer within 60 minutes. For the second response notification: see Metering Code article 5.5.
Max. response time Soap response MMC-hub	See MMC Technical Guide - Measurements & Allocations Documents[8].
Time-out	See MMC Technical Guide - Measurements & Allocations Documents[8].
Retry	The sender (provider of the revision request) only performs a 'retry' if he did not receive a positive HTTP response from de MMC-hub. If the recipient (consumer of the revision request) after the max. response time still did not receive a response, we advise to contact the recipient to find out the reason behind. If necessary after that the administrator of the MMC-hub can be contacted. After coordination, a resend of the Request can be chosen as a follow-up action.
Web service	
WSDL	See MMC Technical Guide - Measurements & Allocations Documents[8].
Version	See MMC Technical Guide - Measurements & Allocations Documents[8].
Date	See MMC Technical Guide - Measurements & Allocations Documents[8].
Soap address	See MMC Technical Guide - Measurements & Allocations Documents[8].

²⁷ To be agreed with TenneT.

Operation		
User		MRP-er
Function		Submit <i>measurement data revision request</i>
Soap action		See WSDL
	Input notification	MeasurementSeriesRevisionRequest
	XSD	MeasurementSeriesRevisionRequest_1p0
	Output notification	MeasurementSeriesRevisionResponse
	XSD	MeasurementSeriesRevisionResponse_1p1

6.2 Service features Exchange of revision requests after allocation data check

Exchange revision request allocation data (AllocationVolumeRevision)	
Service	AllocationVolumeRevision - Exchange revision request after check allocation data
DSO service ID	BSCMF0065
Description	The exchange of revision requests allocation data between BRP (provider) and the TSO or DSO (consumer).
Service transaction pattern	Request/Response
Precondition(s)	The allocation data revision request shall be submitted by a party that is authorised and authenticated to do so.
Trigger	Party provides <i>the revision request allocation information</i> to the MMC-hub.
Post condition(s)	• <i>Revision request allocation data rejected;</i> - or • <i>Revision request allocation data carried out.</i>
Service use ²⁸	
Pattern of use	N/a.
Average load	N/a.
Peak load	N/a.
Period peak load	N/a.
Period of inactivity	N/a.
Max. consumer response time	95% of incoming Requests must be answered by the consumer within 60 minutes. For the second response notification: see Grid code item 10.16.
Max. response time Soap response MMC-hub	See MMC Technical Guide - Measurements & Allocations Documents[8].
Time-out	See MMC Technical Guide - Measurements & Allocations Documents[8].
Retry	The sender (provider of the revision request) only performs a 'retry' if he did not receive a positive HTTP response from de MMC-hub. If the recipient (consumer of the revision request) after the max. response time still did not receive a response, we advise to contact the recipient to find out the reason behind. If necessary after that the administrator of the MMC-hub can be contacted. After coordination, a resend of the Request can be chosen as a follow-up action.
Web service	
WSDL	See MMC Technical Guide - Measurements & Allocations Documents[8].
Version	See MMC Technical Guide - Measurements & Allocations Documents[8].
Date	See MMC Technical Guide - Measurements & Allocations Documents[8].
Soap address	See MMC Technical Guide - Measurements & Allocations Documents[8].

²⁸ To be agreed with TenneT.

Operation		
User		MRP-er
Function		Submit <i>Revision request allocation data</i>
Soap action		See WSDL
	Input notification	AllocationVolumeRevisionRequest
	XSD	AllocationVolumeRevisionRequest_1p0
	Output notification	AllocationVolumeRevisionResponse
	XSD	AllocationVolumeRevisionResponse_1p1

7. Information model

7.1 Note

The information model is shown as a class diagram. Each class diagram is followed by a table with the description of the elements, except for the class diagrams of "empty" notifications exchanged for acknowledgement.

Multiplicities are indicated with the elements. Notation 0..1 means that the element optionally occurs once, 1..1 means that the element occurs once (mandatory). Notation 0...* means that the element may optionally occur more than once. Notation 1..* means that the element may occur one or more times (mandatory).

Data types determine which type of value an element can contain. The data types are subdivided into:

- **Composite data types** (CDT): a composition of several (fixed) elements, which are reused more often (e.g. address)[4].
- **Logical data types** (LDT): a defined set of properties of the element such as minimum length, maximum length, pattern[5].

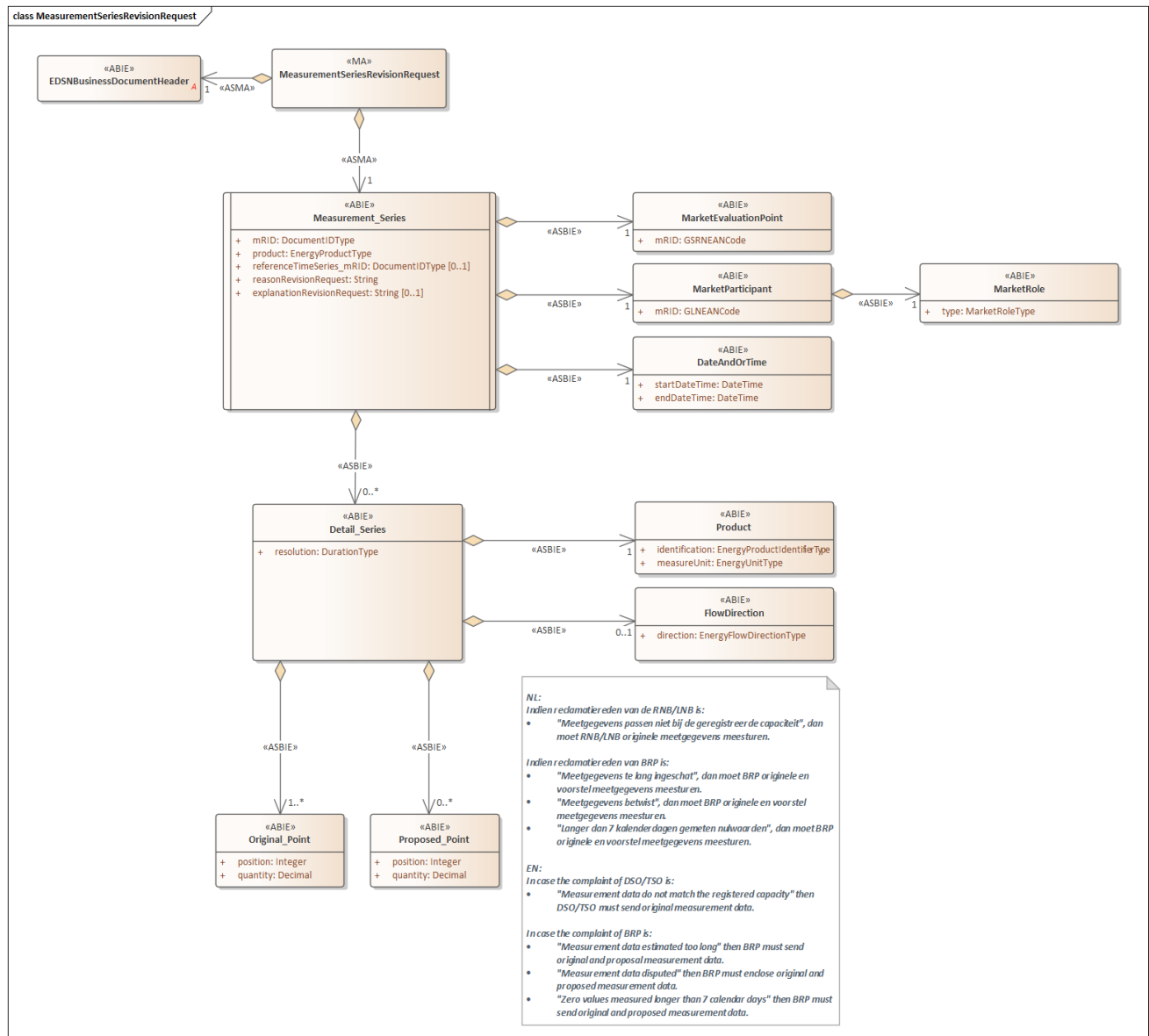
For more information on data types, please refer to NEDU EDSN Design Choices[2].

Detailed information on the values of the data types is available as a PDF document on mijnEDSN:

- EDSN Complex Data Type Specification (CDT).
- EDSN Logical Data Type Specification (LDT).

These documents also describe the values of the data types used in other information models.

7.2 Revision request after measurement data verification (MeasurementSeriesRevisionRequest)



DateAndOrTime

XML element	Data type	Multiplicity	Description	Functional parameter
startDateTime	DateTime	1..1	Start date/time of the period as per ISO 8601 YYYY-MM-DDThh:mm:ssZ.	Start date period
endDateTime	DateTime	1..1	End date/time of the period as per ISO 8601 YYYY-MM-DDThh:mm:ssZ.	End date period

Detail_Series

XML element	Data type	Multiplicity	Description	Functional parameter
resolution	DurationType	1..1	The definition of the number of units of time that compose an individual step within a period.	Imbalance settlement period (electricity)/measurement period (electricity)/PTE (gas)

FlowDirection

XML element	Data type	Multiplicity	Description	Functional parameter
direction	EnergyFlowDirectionType	1..1	The identification of the direction.	Energy direction

MarketEvaluationPoint

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	GSRNEANCode	1..1	The identification of the evaluation point.	EAN code connection

MarketParticipant

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	GLNEANCode	1..1	The identification of a party in the energy market.	EAN code involved party

MarketRole

XML element	Data type	Multiplicity	Description	Functional parameter
type	MarketRoleType	1..1	The identification of the role played by a market player.	Market role

Measurement_Series

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	DocumentIDType	1..1	A unique identification of the time series.	Notification Identifier (UUID)
product	EnergyProductType	1..1	The identification of the energy product (electricity, gas etc.)	Product type
referenceTimeSeries_mRID	DocumentIDType	0..1	Reference to earlier received time series	Reference to measurement data
reasonRevisionRequest	String	1..1	Reason for this revision request	Reason for objection
explanationRevisionRequest	String	0..1	Explanation for this revision request	Explanation of claim

Original_Point

XML element	Data type	Multiplicity	Description	Functional parameter
position	Integer	1..1	A sequential value representing the relative position within a given time interval.	Position
quantity	Decimal	1..1	The principal quantity or the accepted offer quantity identified for a point.	Volume

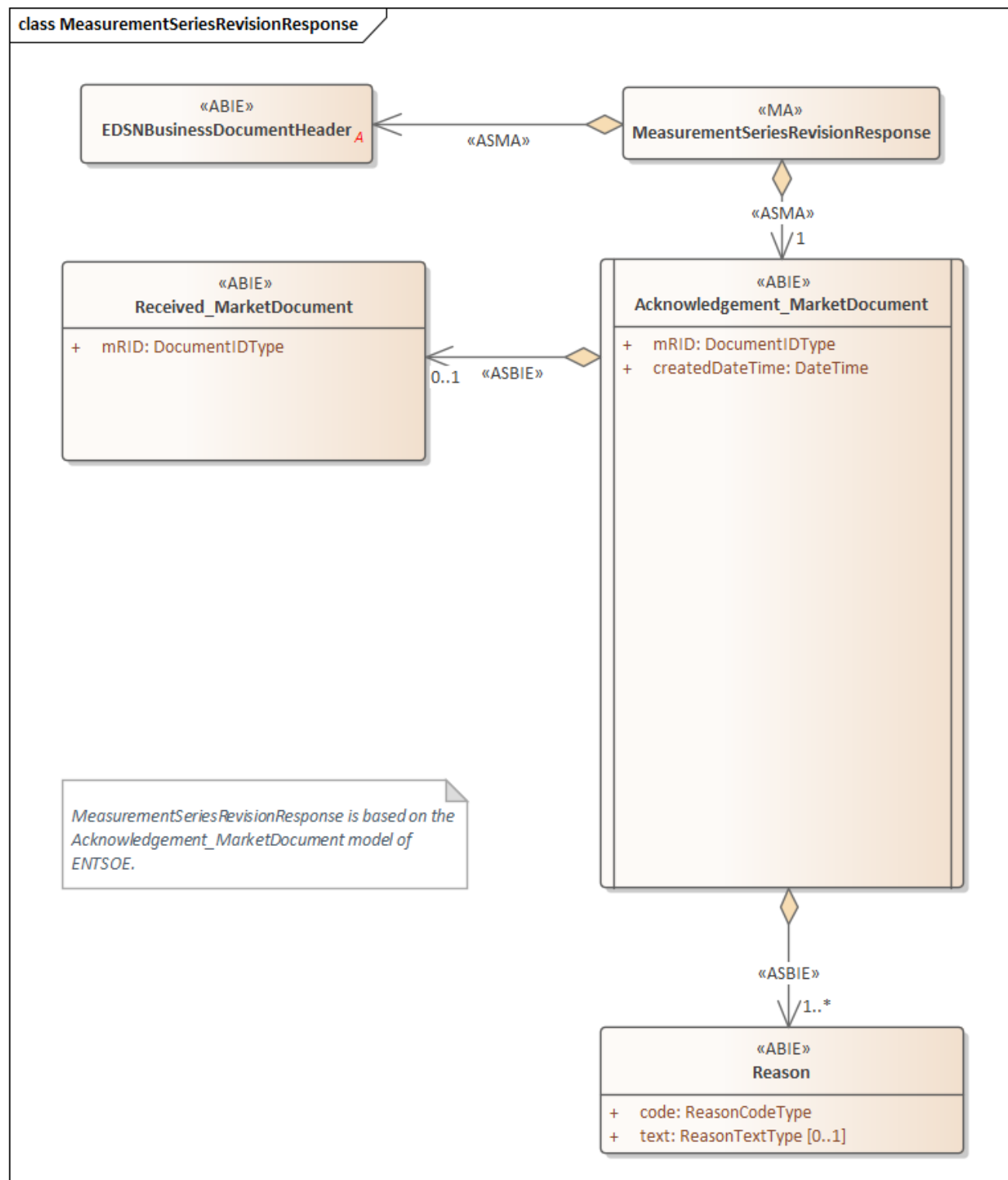
Product

XML element	Data type	Multiplicity	Description	Functional parameter
identification	EnergyProductIdentifierType	1..1	The unique identification of the product.	Product ID
measureUnit	EnergyUnitType	1..1	The identification of the measure unit.	Energy unit

Proposed_Point

XML element	Data type	Multiplicity	Description	Functional parameter
position	Integer	1..1	A sequential value representing the relative position within a given time interval.	Position
quantity	Decimal	1..1	The principal quantity or the accepted offer quantity identified for a point.	Volume

7.3 Confirmation/rejection of revision request after measurement data check (MeasurementSeriesRevisionResponse)



Acknowledgement_MarketDocument

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	DocumentIDType	1..1	The unique identification of the document being exchanged within a business process flow.	Notification Identifier (UUID)
createdDateTime	DateTime	1..1	The date and time of the creation of the document.	Date/time notification

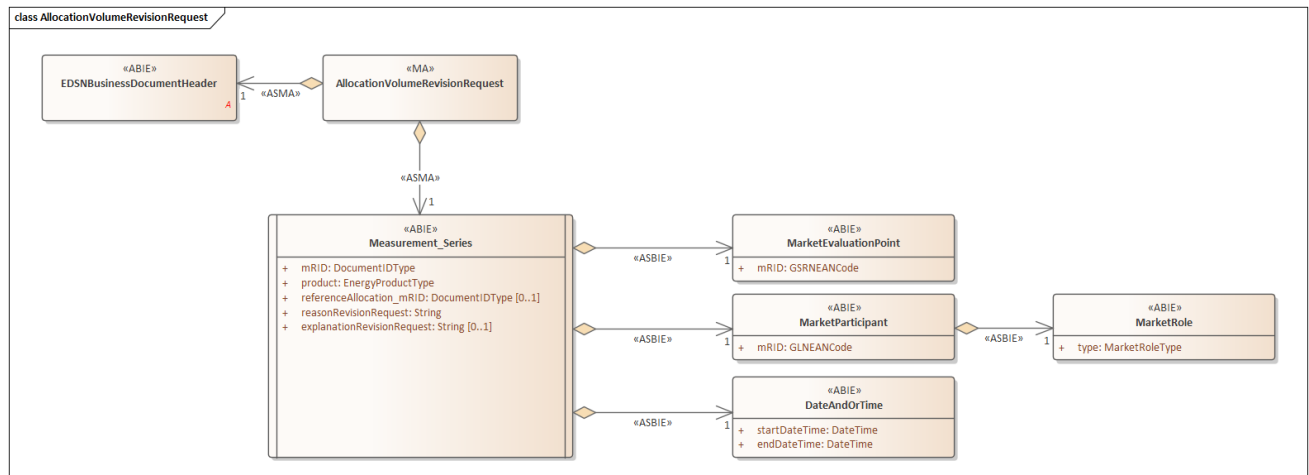
Reason

XML element	Data type	Multiplicity	Description	Functional parameter
code	ReasonCodeType	1..1	The motivation of an act in coded form.	Confirmation/rejection code
text	ReasonTextType	0..1	The textual explanation corresponding to the reason code.	Explanation of confirmation/rejection

Received_MarketDocument

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	DocumentIDType	1..1	The unique identification of the document being exchanged within a business process flow.	Revision request notification reference (UUID)

7.4 Revision request after allocation data check (AllocationVolumeRevisionRequest)



DateAndOrTime

XML element	Data type	Multiplicity	Description	Functional parameter
startDateTime	DateTime	1..1	Start date/time of the period as per ISO 8601 YYYY-MM-DDThh:mm:ssZ.	Start date period
endDateTime	DateTime	1..1	End date/time of the period as per ISO 8601 YYYY-MM-DDThh:mm:ssZ.	End date period

MarketEvaluationPoint

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	GSRNEANCode	1..1	The identification of the evaluation point.	EAN code connection

MarketParticipant

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	GLNEANCode	1..1	The identification of a party in the energy market.	EAN code balance responsible party

MarketRole

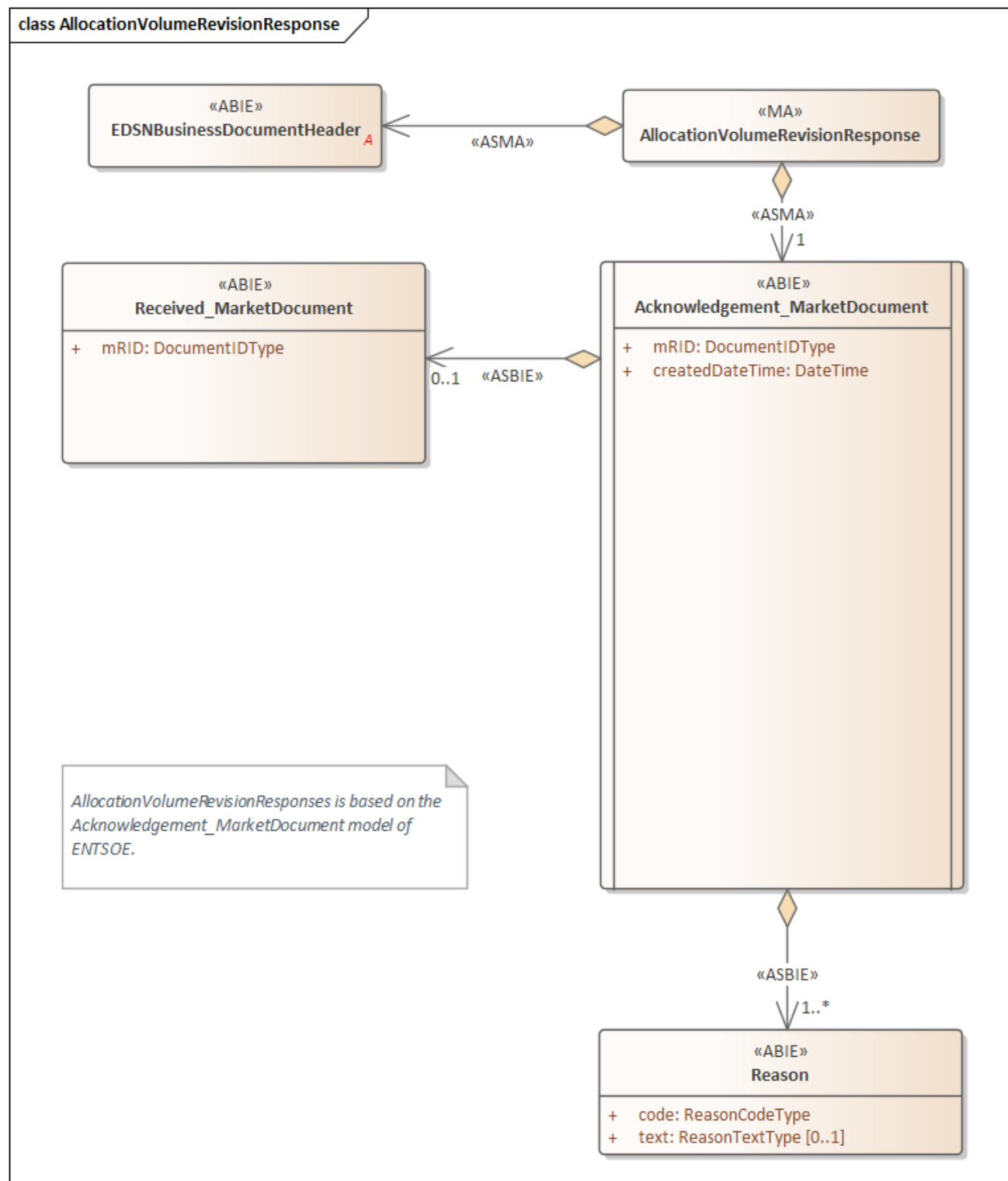
XML element	Data type	Multiplicity	Description	Functional parameter
type	MarketRoleType	1..1	The identification of the role played by a market player.	Market role

Measurement_Series

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	DocumentIDType	1..1	A unique identification of the revision request.	Notification Identifier (UUID)
product	EnergyProductType	1..1	The identification of the energy product (electricity, gas etc.)	Product type
referenceAllocation_mRID	DocumentIDType	0..1	Reference to earlier received allocation information	Reference to allocation data

XML element	Data type	Multiplicity	Description	Functional parameter
reasonRevisionRequest	String	1..1	Reason for this revision request	Reason for objection
explanationRevisionRequest	String	0..1	Explanation for this revision request	Explanation of claim

7.5 Confirmation/rejection revision request after verification of allocation data (AllocationVolumeRevisionResponse)



Acknowledgement_MarketDocument

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	DocumentIDType	1..1	The unique identification of the document being exchanged within a business process flow.	Notification Identifier (UUID)
createdDateTime	DateTime	1..1	The date and time of the creation of the document.	Date/time notification

Reason

XML element	Data type	Multiplicity	Description	Functional parameter
code	ReasonCodeType	1..1	The motivation of an act in coded form.	Confirmation/rejection code
text	ReasonTextType	0..1	The textual explanation corresponding to the reason code.	Explanation of confirmation/rejection

Received_MarketDocument

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	DocumentIDType	1..1	The unique identification of the document being exchanged within a business process flow.	Revision request notification reference (UUID)