

Business Service

Exchange volumes for settlement and reconciliation electricity

Name	SD030 – Exchange volumes for settlement electricity	Version	2.0
Code	BSCMF0081 - Exchange aggregated volumes for settlement per grid area BSCMF0082 - Exchange volumes for settlement per individual allocation point BSCMF0083 - Exchange aggregated OV47P volumes for settlement per grid area BSCMF0084 - Exchange OVP volumes for settlement per individual allocation point BSCMF0085 - exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area BSCMF0086 - Exchange allocated volumes and determined volumes for reconciliation per individual allocation point	Status	Approved
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Document management

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¹ By separately modelling notification definitions for volumes for reconciliation (allocation group PRF), possible changes to notification definitions for volumes for reconciliation (allocation group PRF) due to IC280 have no impact on the notification definitions for volumes for settlement (allocation group SMA and TMT).

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Referenced documents

Requirements model

No.	Description	Version	Date	Author
1.	BRS Settlement elektriciteit	1.0	13-01-2023	Working group C1 Allocatie 2.0 Tranche 3
11.	BRS Meetgegevens en reclamaties meetgegevens GV	8.0	20-05-2022	NEDU

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	2.2	27-05-2020	EDSN
5.	EDSN Logisch Data Type Specificatie	2.7	27-05-2020	EDSN
6.	ebIX® Code list	1.1A	06-27-2022	ebIX TC
7.	ISO 8601 date- time notation	1:2019	2019	ISO
9.	Business Service Uitwisseling datasets	14.0	01-06-2022	EDSN
10.	ENTSO-E Code list	V84	27-10-2022	ENTSO-E.

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1 Introduction

1.1 Service description

The service description describes:

1. the arrangements for exchange by the DSOs of volumes for settlement SMA:
 - a. the aggregated volumes for allocation points with allocation method SMA relating to one full calendar month per grid area, to the BRP, TSO and SUP for the provisional or final settlement;
2. the arrangements for exchange by the SO of volumes for settlement TMT:
 - a. the aggregated volumes for allocation points with allocation method TMT relating to one full calendar month per grid area, to the BRP and TSO for the provisional or final settlement;
 - b. the aggregated OVP volumes for allocation points with allocation method TMT relating to one full calendar month per grid area, to the BRP and TSO for the provisional or final settlement;
 - c. the volumes per allocation point for allocation points with allocation method TMT relating to one full calendar month, to the BRP and SUP for the provisional or final settlement;
 - d. the OVP the volumes per allocation point for allocation points with allocation method TMT relating to one full calendar month, to the BRP for the provisional or final settlement;
3. and the arrangements for exchange by the SO of volumes for reconciliation PRF:
 - a. the aggregated allocated volumes and aggregated determined volumes for allocation points with allocation method PRF for a period of one to maximum 17 full calendar months per grid area, to the BRP and the SUP for the reconciliation;
 - b. the allocated volumes and determined volumes per allocation point for allocation points with allocation method PRF for a period of one to seventeen full calendar months, to the BRP for reconciliation (Certificate)²;
 - c. the grid loss change determined by the DSO based on the sum of the active energy volumes PRF for all BRPs per grid area, to the BRP Grid loss and the TSO for reconciliation.

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 Settlement electricity [1].

² The allocated volumes and determined volumes per allocation point for allocation points with allocation method PRF are exchanged via the Certificate. See Business Service Uitwisseling datasets[9] for an explanation about the Certificate exchange.

1.2 Reading guide

This document describes the following aspects, including:

- Process *Exchange volumes for settlement and reconciliation*;
- Exchange of these volumes for settlement and reconciliation via TenneT's MMC hub³;
- The syntactic validations by the MMC hub, the confirmation/rejection by the MMC-hub
- Checks on the volumes for settlement and reconciliation by consumers (BRP, TSO, SUP);
- Confirmation/rejection of the volumes for settlement and reconciliation by the consumers (BRP, TSO, SUP)
- XML notification 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 service *Exchange* volumes for settlement and reconciliation:

- Date/time notation in XML notifications according to NEDU EDSN Ontwerpkeuzes[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 time calendar month (November 2024, winter time):
2024-10-31T23:00:00Z / 2024-11-30T23:00:00Z;
 - Example start and end date time **calendar month** (June 2024, summer time):
2024-05-31T22:00:00Z / 2024-06-30T22:00:00Z;
 - Example start and end date calendar day (9 February 2024, winter time):
2024-02-08T23:00:00Z / 2024-02-09T23:00:00Z;
 - Example start and end date **calendar day** (31 March 2024, change winter time to summer time):
2024-03-30T23:00:00Z / 2024-03-31T22:00:00Z;
 - Example start and end date **calendar day** (09 June 2024, summer time):
2024-06-08T22:00:00Z / 2024-06-09T22:00:00Z;
 - Example start and end date **calendar day** (27 October 2024, change summer time to winter time):
2024-10-26T22:00:00Z / 2024-10-27T23:00:00Z;
- Wherever this service description refers to "System operator" or "SO", this can also be read as "GDS owner" if it involves electricity connections large consumers;
- A set of volumes that are generated in a settlement run for a given calendar month per allocation group will be assigned an identical settlement run identification in order to enable consumers can use this identification to match the set of settlement and reconciliation volumes for a given calendar month, network area and allocation group. This settlement run identification is identical for all receivers;
- All volumes are positive numbers (or zero) except volumes for Allocation group PRF. Negative numbers are only allowed for this Allocation group;
- The notifications with volumes for settlement SMA and TMT will always relate to one full calendar month, while the notifications with volumes for reconciliation PRF will relate to a period of one to maximum 17 full calendar months;
- The specification for the Certificate ⁴(VolumeReconciliationSeries) is described in this service description. The exchange of this Certificate is handled by the service *Uitwisseling datasets*[9] and therefore not described in the service description *Volumes for settlement and reconciliation electricity*;
- If a party will supply data on behalf of another party (via the MMC hub), the Carrier ID should be used for this in the SOAP header . For use CarrierID, see *TenneT Web Services guide*[3];

³ Excluding the allocated volumes and determined volumes per allocation point for allocation points with allocation method PRF (the Certificate). See Business Service *Uitwisseling datasets*[9] for an explanation about the Certificate exchange.

⁴ NEDU issues IC011d (Certificate reconciliation results) and IC133 (Improving the performance of IC011d) specify the rules and implementation regarding the transparency of the volumes reconciled by the system operator. The result of this execution is the Certificate.

1.4 Use of the service Exchange volumes for settlement and reconciliation

The tables below indicate the settlement and reconciliation volumes that must be sent by the System Operator (SO) or Distribution System Operator (DSO) to the balance responsible party (BRP), Transmission System Operator (TSO) or supplier (SUP). The table also contains a reference to the relevant use cases from the BRS[1].

Overview table

From	Data GA = grid area AP=allocation point OVP=imbalance settlement period	To											
		BRP			BRP Grid loss			TSO			SUP		
		SMA	PRF	TMT	SMA	PRF	TMT	SMA	PRF	TMT	SMA	PRF	TMT
SO	Aggregated volumes per GA (BSCMF0081)	1.		7.				2.		8.	3.		
SO	Aggregated OVP volumes per GA (BSCMF0083)			5.						6.			
SO	OVP volumes per AP (BSCMF0084)			10.									
SO	Volumes per AP (BSCMF0082)			11.									12.
SO	Aggregated allocated volumes and aggregated determined volumes per GA (BSCMF0085)		13.						16.				
SO	Allocated volumes and determined volumes per AP (BSCMF0086)		14.										
SO	Grid loss change per GA (BSCMF0085)					15.			17.				

The numbers shown in bold in the table above refer to the numbers shown in bold in the table below.

Detailed overview

Exchange	Provider of volumes for settlement and reconciliation	Consumer of volumes for settlement and reconciliation	Type allocation point	BRS Use case	Business Service	Code ⁵
Allocation points with allocation method smart meter allocation (SMA);						
1. Aggregated settlement volumes for allocation points with allocation method SMA for one full calendar month per grid area, BRP/SUP combination, energy direction, price period.	DSO	BRP	Allocation point ELK SMA	UC A20.301 (BRP)	BSCMF0081 - Exchange aggregated volumes for settlement per grid area (AggregatedVolumeSettlementSeries)	N201
2. Aggregated settlement volumes for allocation points with allocation method SMA for one full calendar month per grid area, BRP, energy direction, price period (incl. EAN13 of the responsible BRP for the grid loss for the relevant grid area).	DSO	TSO	Allocation point ELK SMA	UC A20.311 (TSO)	BSCMF0081 - Exchange aggregated volumes for settlement per grid area (AggregatedVolumeSettlementSeries)	N201
3. Aggregated settlement volumes for allocation points with allocation method SMA for one full calendar month per grid area, BRP/SUP combination, energy	DSO	SUP	Allocation point ELK SMA	UC A20.331 (SUP)	BSCMF0081 - Exchange aggregated volumes for settlement per grid area (AggregatedVolumeSettlementSeries)	N201

⁵ Code for the ProcessTypeID.

Exchange	Provider of volumes for settlement and reconciliation	Consumer of volumes for settlement and reconciliation	Type allocation point	BRS Use case	Business Service	Code ⁵
direction, price period.						
4. Expired.						
Allocation points with allocation method telemetry (TMT)						
5. Aggregated settlement OVP volumes for allocation points with allocation method TMT for one full calendar month per grid area, BRP/SUP combination, energy direction.	SO	BRP	Allocation point EACH TMT (excluding NVL and DIM)	UC A20.302 (BRP)	BSCMF0083 - Exchange aggregated OVP volumes for settlement per grid area (AggregatedSettlementSeries)	N211
6. Aggregated settlement OVP volumes for allocation points with allocation method TMT for one full calendar month per grid area, BRP, energy direction.	SO	TSO	Allocation point EACH TMT (excluding NVL and DIM)	UC A20.312 (TSO)	BSCMF0083 - Exchange aggregated OVP volumes for settlement per grid area (AggregatedSettlementSeries)	N211
7. Aggregated settlement volumes for allocation points with allocation method TMT for one full calendar month per grid area, BRP/SUP combination, energy direction, price period.	SO	BRP	Allocation point EACH TMT (excluding NVL and DIM)	UC A20.302 (BRP)	BSCMF0081 - Exchange aggregated volumes for settlement per grid area (AggregatedVolumeSettlementSeries)	N212
8. Aggregated settlement volumes for allocation points with allocation method TMT for one full calendar month per grid area, BRP, energy direction, price period (incl. EAN13 of the responsible BRP for the grid loss for the relevant grid area).	SO	TSO	Allocation point EACH TMT (excluding NVL and DIM)	UC A20.312 (TSO)	BSCMF0081 - Exchange aggregated volumes for settlement per grid area (AggregatedVolumeSettlementSeries)	N212
9. Expired.						
10. OVP volumes for settlement per individual allocation point for allocation points with allocation method TMT for one full calendar month per energy direction.	SO	BRP	Allocation point EACH TMT (excluding NVL and DIM)	UC A20.302 (BRP)	BSCMF0084 - Exchange OVP volumes for settlement by individual allocation point (SettlementSeries)	N213
11. Volumes for settlement per individual allocation point for allocation points with allocation method TMT for	SO	BRP	Allocation point EACH TMT (excluding NVL and DIM)	UC A20.302 (BRP)	BSCMF0082 - Exchange volumes for settlement per individual allocation point (VolumeSettlementSeries)	N214

Exchange	Provider of volumes for settlement and reconciliation	Consumer of volumes for settlement and reconciliation	Type allocation point	BRS Use case	Business Service	Code ⁵
one full calendar month per energy direction, price period.						
12. Volumes for settlement per individual allocation point for allocation points with allocation method TMT for one full calendar month per energy direction, price period.	SO	SUP	Allocation point EACH TMT (excluding NVL and DIM)	UC A20.332 (SUP)	BSCMF0082 - Exchange volumes for settlement per individual allocation point (VolumeSettlementSeries)	N214
Allocation points with allocation method profile (PRF)						
13. Aggregated allocated volumes and aggregated determined volumes for reconciliation of allocation points with allocation method PRF for a period of one to maximum 17 full calendar months per grid area, BRP/SUP combination, profile category, energy direction, price period; based on determined consumption.	DSO	BRP	Allocation point ELK PRF	UC A20.303 (BRP)	BSCMF0085 - Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area (AggregatedVolumeReconciliationSeries)	N221
14. Allocated volumes and determined volumes for reconciliation per allocation point for allocation points with allocation method PRF for a period of one to maximum 17 full calendar months per profile category, energy direction, price period; based on determined consumption (Certificate) ⁶ .	DSO	BRP	Allocation point ELK PRF	UC A20.303 (BRP)	BSCMF0086 – Exchange allocated volumes and determined volumes for reconciliation per individual allocation point (VolumeReconciliationSeries)	N/A
15. Grid loss change PRF for a period of one to maximum seventeen full calendar months per grid area, energy direction, price period; determined by the DSO based on the sum of the aggregated active energy PRF volumes of all BRPs.	DSO	BRP Grid loss	Allocation point ELK PRF	UC A20.303 (BRP)	BSCMF0085 - Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area (AggregatedVolumeReconciliationSeries)	N223
16. Aggregated allocated volumes and determined	DSO	TSO	Allocation point ELK PRF	UC A20.313 (TSO)	BSCMF0085 - Exchange aggregated allocated volumes and aggregated	N221

⁶ The exchange of Allocated volumes and determined volumes for reconciliation per individual allocation point (Certificate) is handled by the service Uitwisseling datasets[9].

Exchange	Provider of volumes for settlement and reconciliation	Consumer of volumes for settlement and reconciliation	Type allocation point	BRS Use case	Business Service	Code ⁵
volumes for reconciliation of allocation points with allocation method PRF for a period of one to maximum 17 full calendar months per grid area, BRP, profile category, energy direction, price period; based on determined consumption.					determined volumes for reconciliation per grid area (AggregatedVolume ReconciliationSeries)	
17. Grid loss change PRF for a period of one to maximum seventeen full calendar months per grid area, energy direction, price period; determined by the DSO based on the reconciliation results of all BRPs.	DSO	TSO	Allocation point ELK PRF	UC A20.313 (TSO)	BSCMF0085 - Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area (AggregatedVolume ReconciliationSeries)	N223

1.5 List of terms and abbreviations

Term	Description
Aggregate volumes	Aggregation of volumes determined based on volumes determined by the DSO per allocation point in the measurement and change processes.
Allocation point	Virtual point at the transfer point of a connection, where the energy exchange between an installation and the system is administratively allocated to a market party as if measurement had taken place at the transfer point of the connection (Glossary Begrippencode Electriciteit 1.1).
AMI	Consumption with production
AP	Allocation point
AZI	Consumption without production
BPMN	BPMN (Business Process Modelling and Notation)
BRP	Balance responsible party (formerly PV)
BRS	Business Requirements Specification
Determined energy consumption	Indication per connection whether there is consumption with production (AMI) or consumption without production (AZI).
DIM	Unmeasured connections for which profiles are drawn up in accordance with Appendix 16 of the Grid code dimensioned (DIM) profiles.
DSO	Distribution system operator
EDSN	Energie Data Services Nederland B.V.
ELK	Electricity
GDS	Closed distribution system
GV	Large consumption
Imbalance settlement period	The unit of time used to calculate the imbalance of BRPs. In the past, this Imbalance Settlement Period (ISP) was also known as the Program Time Unit (PTE). The OVP is set at 15 minutes (TenneT Imbalance system).
KV	Small consumption
MMC Hub	Market-Market-Communication Hub
MRP	Metering responsible party
NG	Grid area
NVL	Grid loss
OVP	Imbalance settlement period
Periodic meter readings	The established meter readings.
PRF	Profile Identifier for KV or GV allocation points that are not allocated via measured quarter values, but via profile fractions, RCF and an SJI/SJA.
Price period	A continuous period of normal hours or low hours. The periodic volumes are fixed per price period.
Profile category	Profile category year 2021: A classification as registered in the Connection Register. Profile category from go live Allocatie 2.0 tranche 2: A classification for connections based on objectively determined characteristics such as connection value, switching times, contracted transport capacity, determined consumption type and operating time.
SMA	Smart Meter Allocation Identifier for KV allocation points that are allocated with quarter values obtained from the smart meter.
SO	System operator All references to SO can also be read as distribution system operator, transmission system operator or GDS operator.
SUP	Supplier
TMT	Telemetry Identifier for GV allocation points that are allocated with quarter values that are supplied by the MRP or calculated by the SO.
TSO	Transmission system operator
Volume	A volume relating to a period of at least one calendar day. This may also include the terms "periodic volume" and "fixed volume".
Volume per imbalance settlement period	A volume relating to one imbalance settlement period.

2 Roles and responsibilities

2.1 Consumer

This service description describes how the consumers (BRP, TSO, SUP) receive the volumes for settlement.

2.2 Provider

This service description describes how the provider (SO) supplies the volumes for settlement and reconciliation.

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)	Core team system operators, BAS, A2.0 Working Group C1, EDSN, ebIX Technical Commission, TenneT
I (Informed, NL: Informeren)	BAS, MFF, EDSN

3 BPMN Exchange volumes for settlement and reconciliation

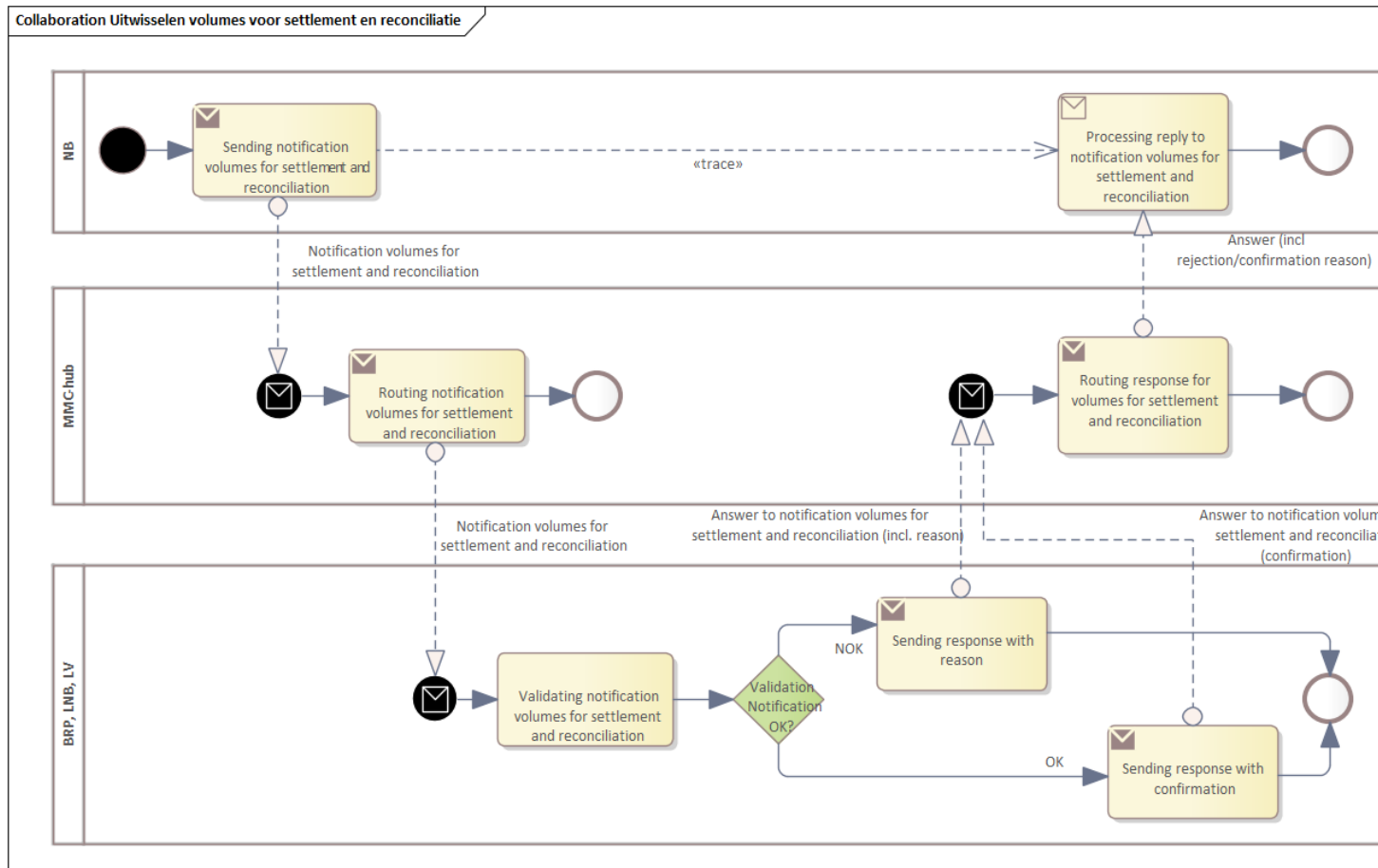


Figure 1 For detailed information about this process, see BRS Settlement electricity[1]

3.1 Exchange volumes for settlement and reconciliation⁷

The process for exchange of volumes for settlement and reconciliation follows the following scenario:

1. The system operator sends the notification "Notification volumes for settlement"⁸ to the MMC hub;
2. The MMC hub processes⁹ the received "Notification volumes for settlement/reconciliation" notification and routes the notification to the receiver¹⁰;
3. The recipient checks the notification "Notification volumes for settlement/reconciliation";
4. The receiver sends the response "Confirmation/rejection notification volumes for settlement/reconciliation" to the MMC hub:
 - a confirmation reply, or
 - an answer with one or more rejections
5. The MMC-hub processes¹¹ the response and routes the notification to the recipient.

⁷ This process does not apply to the notification "Allocated volumes and determined volumes for reconciliation per individual allocation point" (the Certificate). The exchange of the Certificate is handled by the service Uitwisseling datasets[9].

⁸ A notification with volumes for settlement of volumes for reconciliation.

⁹ A non-valid notification is rejected by the MMC hub, see section 3.2.

¹⁰ Is the consumer (BRP, TSO, SUP) of volumes for settlement or reconciliation.

¹¹ A non-valid notification is rejected by the MMC hub, see section 3.2.

3.2 Validations MMC hub

Following the received notification "Notification volumes for settlement/reconciliation" and received notification "Confirmation/rejection notification volumes for settlement/reconciliation", the MMC hub performs the following validations:

Validation	Error notification
XSD Validation: The notification adheres to the XSD rules	TEN-500001: [Error detail]
Unreadable notification: The notification must have 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 involved. For the functionality of the MMC-hub, please refer to the TenneT Web Services guide[3].

3.3 Checks on receiver

After receiving the notification "Notification volumes for settlement/reconciliation" and the notification "Confirmation/rejection notification volumes for settlement/reconciliation", the receiver can perform the following validations¹²:

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 "Notification volumes for settlement/reconciliation" the receiver performs the following checks:

Validation	Error notification in the Acknowledgement
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

¹² The MMC-hub performs these checks. The recipient can choose to perform these checks as well.

3.4 Checks receiver for notification “Aggregate volumes for settlement per grid area” (BSCMF0081)

Following the notification "Aggregate volumes for settlement per grid area", the receiver has the following checks and error notifications at his disposal, and performs these checks if they are mandatory or relevant for processing by the receiver:

Control	Error notification	Role	Code
Volumes for settlement			
The EAN code-18 of the grid area is a valid EAN code.	EAN code-18 is not valid.	BRP/TSO/ SUP	651
The BRP was registered in the grid area involved for at least one allocation point within this allocation group and for minimum one calendar day.	The BRP is not active as BRP in the grid area for this allocation group.	BRP	832
All products match the product type.	One or more products do not fit the product type.	BRP/TSO/ SUP	667
All energy units match the products.	One or more energy units do not fit the product(s).	BRP/TSO/ SUP	668
The volume has a correct number of decimal places.	Volume has an incorrect number of decimal places.	BRP/TSO/ SUP	776
All volumes in the notification are positive numbers (or zero).	Volume with negative value.	BRP/TSO/ SUP	686
The type of volumes matches the notification.	The type of volumes does not match the notification.	BRP/TSO/ SUP	810
The EAN code-18 of the grid area or the allocation point together with the system operator is active and administered to the transmission system operator.	The grid area or the allocation point, in combination with the system operator, is not included in the administration of the transmission system operator.	TSO	777
The notification contains the EAN 13 for a market party and the expected market role exactly once.	Missing or incorrect EAN13.	BRP/SUP	758
The notification contains the EAN13 of the market party exactly once with market role BRP and exactly once the EAN13 of the responsible BRP for grid loss with the expected market role.	Missing or incorrect EAN13.	TSO	834
The BRP is known and certified according the BRP certification register.	The BRP is not known and certified according the BRP certification register.	TSO	765
The combination of BRP/SUP for the grid area or the allocation point is correct.	The combination of BRP/SUP for the grid area or the allocation point is not correct.	BRP/SUP	786
The period to which the notification relates is exactly one calendar day.	Invalid period.	BRP/TSO/ SUP	789
Each combination of volume, product, energy unit, energy direction and price period occurs exactly once in the notification.	Multiple delivery of volumes.	BRP/TSO/ SUP	799
The notification was not delivered too early.	The notification was delivered too early, not expected earlier than in month M+2.	BRP/TSO	792
The notification was not delivered too early.	The notification was delivered too early, not expected earlier than in month M+5.	SUP	798
The settlement run identification is unique.	A volumes notification with the same settlement run identification has already been received.	TSO	784
The reference in the notification is unique.	A notification with this reference has been received in the past.	BRP/TSO/ SUP	670
Notification header			
The NotificationId in the SOAP header is unique.	A previous notification has already been received with the same NotificationID.	BRP/TSO/ SUP	669
The ProcessTypeID in the notification header matches the content of the notification.	ProcessTypeID does not match the content of the notification.	BRP/TSO/ SUP	681

Control	Error notification	Role	Code
The ProcessTypeID in the notification header matches the recipient of the notification.	ProcessTypeID does not match the recipient of the notification.	BRP/TSO/ SUP	747
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.	BRP/TSO/ SUP	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.	BRP/TSO/ SUP	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.	BRP/TSO/ SUP	745
The contentType ¹³ 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.	BRP/TSO/ SUP	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.	BRP/TSO/ SUP	780
Entire notification			
Notification is complete, correct and directed to the correct recipient ¹⁴ .	[free text field] ¹⁵	BRP/TSO/ SUP	999

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

14 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.

15 An explanation of error code 999 should be entered in this text field.

3.5 Checks Receiver for notification: "Volumes for settlement per individual allocation point" (BSCMF0082)

The following checks and error notifications are available to the receiver in response to the notification "Volumes for settlement per individual allocation point" and will be carried out insofar as they are mandatory or relevant for the processing by the receiver:

Control	Error notification	Role	Code
Volumes for settlement			
The EAN code-18 of the connection is a valid EAN code.	EAN code-18 is not valid.	BRP/SUP	650
All products match the product type.	One or more products do not fit the product type.	BRP/SUP	667
All energy units match the products.	One or more energy units do not fit the product(s).	BRP/SUP	668
The volume has a correct number of decimal places.	Volume has an incorrect number of decimal places.	BRP/SUP	776
All volumes in the notification are positive numbers (or zero).	Volume with negative value.	BRP/SUP	686
The type of volumes matches the notification.	The type of volumes does not match the notification.	BRP/SUP	810
According to the connection register, the BRP is registered on the connection during the consumption period involved.	The BRP is not registered as a BRP on the connection.	BRP	787
According to the connection register, the SUP is registered on the connection during the consumption period involved.	The SUP is not registered as an SUP on the connection.	SUP	788
The period to which the notification relates is exactly one calendar day.	Invalid period.	BRP/SUP	789
There is no overlap between consumption periods per product combined with energy direction and pricing period.	Overlapping consumption periods.	BRP/SUP	791
The consumption period per product combined with energy direction and pricing period falls within the notification period.	Consumption period does not fall within the notification period.	BRP/SUP	793
The notification was not delivered too early.	The notification was delivered too early, not expected earlier than in month M+2.	BRP	792
The notification was not delivered too early.	The notification was delivered too early, not expected earlier than in month M+5.	SUP	798
The reference in the notification is unique.	A notification with this reference has been received in the past.	BRP/SUP	670
Notification header			
The NotificationId in the SOAP header is unique.	A previous notification has already been received with the same NotificationID.	BRP/SUP	669
The ProcessTypeID in the notification header matches the content of the notification.	ProcessTypeID does not match the content of the notification.	BRP/SUP	681
The ProcessTypeID in the notification header matches the recipient of the notification.	ProcessTypeID does not match the recipient of the notification.	BRP/SUP	747
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.	BRP/SUP	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.	BRP/SUP	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.	BRP/SUP	745
The contentType ¹⁶ 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.	BRP/SUP	754

¹⁶ See Technical Guide - Measurements & Allocations Documents[8] for further information how to fill the contentType.

Control	Error notification	Role	Code
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.	BRP/SUP	780
Entire notification			
Notification is complete, correct and directed to the correct recipient ¹⁷ .	[free text field] ¹⁸	BRP/SUP	999

¹⁷ 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.

¹⁸ An explanation of error code 999 should be entered in this text field.

3.6 Checks receiver for notification "Aggregate OVP volumes for settlement per grid area" (BSCMF0083)

Following the notification "Aggregate OVP volumes for settlement per grid area", the receiver has the following checks and error notifications at his disposal, and performs these checks if they are mandatory or relevant for processing by the receiver:

Control	Error notification	Role	Code
Volumes for settlement			
The EAN code-18 of the grid area is a valid EAN code.	EAN code-18 is not valid.	BRP/TSO	651
The BRP was registered in the grid area involved for at least one allocation point within this allocation group and for minimum one calendar day.	The BRP is not active as BRP in the grid area for this allocation group.	BRP	832
All products match the product type.	One or more products do not fit the product type.	BRP/TSO	667
All energy units match the products.	One or more energy units do not fit the product(s).	BRP/TSO	668
The number of positions of all time series matches the period and the resolution.	The number of positions is incorrect.	BRP/TSO	671
The first position in a time series is "1".	First position does not start with '1'.	BRP/TSO	676
The positions within a time series increase with an increment of '1'.	The increment of a time series is not '1'.	BRP/TSO	782
The volume has a correct number of decimal places.	Volume has an incorrect number of decimal places.	BRP/TSO	776
All volumes in the notification are positive numbers (or zero).	Volume with negative value.	BRP/TSO	686
The type of volumes matches the notification.	The type of volumes does not match the notification.	BRP/TSO	810
The EAN code-18 of the grid area or the allocation point together with the system operator is active and administered to the transmission system operator.	The grid area or the allocation point, in combination with the system operator, is not included in the administration of the transmission system operator.	TSO	777
The notification contains the EAN 13 for a market party and the expected market role exactly once.	Missing or incorrect EAN13.	BRP/TSO	758
The BRP is known and certified according the BRP certification register.	The BRP is not known and certified according the BRP certification register.	TSO	765
The combination of BRP/SUP for the grid area or the allocation point is correct.	The combination of BRP/SUP for the grid area or the allocation point is not correct.	BRP	786
The period to which the notification relates is exactly one calendar day.	Invalid period.	BRP/TSO	789
The number of time series in the notification matches the allocation group.	The number of time series in the notification does not match the allocation group.	BRP/TSO	764
The notification was not delivered too early.	The notification was delivered too early, not expected earlier than in month M+2.	BRP/TSO	792
The settlement run identification is unique.	A volumes notification with the same settlement run identification has already been received.	TSO	784
The reference in the notification is unique.	A notification with this reference has been received in the past.	BRP/TSO	670
Notification header			
The NotificationId in the SOAP header is unique.	A previous notification has already been received with the same NotificationID.	BRP/TSO	669
The ProcessTypeID in the notification header matches the content of the notification.	ProcessTypeID does not match the content of the notification.	BRP/TSO	681
The ProcessTypeID in the notification header matches the recipient of the notification.	ProcessTypeID does not match the recipient of the notification.	BRP/TSO	747

Control	Error notification	Role	Code
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.	BRP/TSO	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.	BRP/TSO	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.	BRP/TSO	745
The contentType ¹⁹ 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.	BRP/TSO	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.	BRP/TSO	780
Entire notification			
Notification is complete, correct and directed to the correct recipient ²⁰ .	[free text field] ²¹	BRP/TSO	999

¹⁹ See Technical Guide - Measurements & Allocations Documents[8] for further information how to fill the contentType.

²⁰ 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.

²¹ An explanation of error code 999 should be entered in this text field.

3.7 Checks receiver for notification “OVP volumes for settlement per individual allocation point” (BSCMF0084)

The following checks and error notifications are available to the receiver in response to the notification "OVP volumes for settlement per individual allocation point" and will be carried out insofar as they are mandatory or relevant for the processing by the receiver:

Control	Error notification	Role	Code
Volumes for settlement			
The EAN code-18 of the connection is a valid EAN code.	EAN code-18 is not valid.	BRP	650
All products match the product type.	One or more products do not fit the product type.	BRP	667
All energy units match the products.	One or more energy units do not fit the product(s).	BRP	668
The number of positions of all time series matches the period and the resolution.	The number of positions is incorrect.	BRP	671
The first position in a time series is "1".	First position does not start with '1'.	BRP	676
The positions within a time series increase with an increment of '1'.	The increment of a time series is not '1'.	BRP	782
The volume has a correct number of decimal places.	Volume has an incorrect number of decimal places.	BRP	776
All volumes in the notification are positive numbers (or zero).	Volume with negative value.	BRP	686
The type of volumes matches the notification.	The type of volumes does not match the notification.	BRP	810
According to the connection register, the BRP is registered on the connection during the consumption period involved.	The BRP is not registered as a BRP on the connection.	BRP	787
The combination of origin indication, validation status and repair method is a valid combination ²² .	The combination of origin indication, validation status and repair method is not a valid combination.	BRP	683
The period to which the notification relates is exactly one calendar day.	Invalid period.	BRP	789
There is no overlap between consumption periods.	Overlapping consumption periods.	BRP	795
The period of consumption is equal to or falls within the calendar month.	Consumption period does not equal or fall within the calendar month.	BRP	796
Each consumption period has a time series for production and a time series for consumption.	The number of time series in the consumption period is not correct.	BRP	797
The notification was not delivered too early.	The notification was delivered too early, not expected earlier than in month M+2.	BRP	792
The reference in the notification is unique.	A notification with this reference has been received in the past.	BRP	670
Notification header			
The NotificationId in the SOAP header is unique.	A previous notification has already been received with the same NotificationID.	BRP	669
The ProcessTypeID in the notification header matches the content of the notification.	ProcessTypeID does not match the content of the notification.	BRP	681
The ProcessTypeID in the notification header matches the recipient of the notification.	ProcessTypeID does not match the recipient of the notification.	BRP	747
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.	BRP	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.	BRP	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.	BRP	745

²² See BRS Metering data GV Appendix a for valid combinations of origin indication, validation status and repair methodology[11].

Control	Error notification	Role	Code
The contentType ²³ 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.	BRP	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.	BRP	780
Entire notification			
Notification is complete, correct and directed to the correct recipient ²⁴ .	[free text field] ²⁵	BRP	999

3.8 Checks receiver for notification “Aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area” (BSCMF0085)

Following the notification "Aggregate allocated volumes and aggregated determined volumes for reconciliation per grid area", the receiver has the following checks and error notifications at his disposal, and performs these checks if they are mandatory or relevant for processing by the receiver:

Control	Error notification	Role	Code
Volumes for reconciliation			
The EAN code-18 of the grid area is a valid EAN code.	EAN code-18 is not valid.	BRP/TSO	651
The BRP was registered in the grid area involved for at least one allocation point within this allocation group and for minimum one calendar day.	The BRP is not active as BRP in the grid area for this allocation group.	BRP	832
All products match the product type.	One or more products do not fit the product type.	BRP/TSO	667
All energy units match the products.	One or more energy units do not fit the product(s).	BRP/TSO	668
The volume has a correct number of decimal places.	Volume has an incorrect number of decimal places.	BRP/TSO	776
The number of provided volumes for calendar months is equal to notification header specification	The number of volumes is not applicable to the notification	BRP/TSO	813
Type of volumes match the notification	The type of volumes does not match the notification	BRP/TSO	810
The EAN code-18 of the grid area or the allocation point together with the system operator is active and administered to the transmission system operator.	The grid area or the allocation point, in combination with the system operator, is not included in the administration of the transmission system operator.	TSO	777
The notification contains the EAN 13 for a market party and the expected market role exactly once.	Missing or incorrect EAN13.	TSO	758
The notification with grid loss volume does not contain EAN13 code and market role.	Invalid EAN13.	BRP	801
The notification with aggregated allocated volumes and aggregated determined volumes contains exactly once the EAN13 of the market party and the expected market role.	Missing or incorrect EAN13.	BRP	818
The BRP is known and certified according the BRP certification register.	The BRP is not known and certified according the BRP certification register.	TSO	765
The combination of BRP/SUP for the grid area or the allocation point is correct.	The combination of BRP/SUP for the grid area or the allocation point is not correct.	BRP	786
The BRP has rightly received the notification with grid loss volumes.	Incorrect BRP for grid loss volumes.	BRP	835
The period to which the notification relates is at least one calendar month and maximum 17 calendar months.	Invalid period.	BRP/TSO	790

²³ See Technical Guide - Measurements & Allocations Documents[8] for further information how to fill the contentType.

²⁴ 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.

²⁵ An explanation of error code 999 should be entered in this text field.

Control	Error notification	Role	Code
All calendar months fall within the notification period.	Calendar month is not within the notification period.	BRP/TSO	802
A notifications containing aggregated volumes, the combination of calendar month, product, volumetype, profile category, determined consumprions type, energy directionand price period occurs exactly once in the notification period.	Multiple delivery of volumes.	BRP/TSO	800
A notification containing volumes with operational network energy loss, the combination of calendar month, product, volumetype, energy direction and price period occurs exactly once in the applicable notification period.	Multiple delivery of volumes	BRP/TSO	845
The period from start date/time Calendar month to end date/time Calendar month is exactly 1 calendar month.	Period is not equal to a calendar month.	BRP/TSO	804
The notification was not delivered too early.	The notification was delivered too early, not expected earlier than in month M+4.	BRP/TSO	833
The settlement run identification is unique.	A volumes notification with the same settlement run identification has already been received.	TSO	784
The reference in the notification is unique.	A notification with this reference has been received in the past.	BRP/TSO	670
Notification header			
The NotificationId in the SOAP header is unique.	A previous notification has already been received with the same NotificationID.	BRP/TSO	669
The ProcessTypeID in the notification header matches the content of the notification.	ProcessTypeID does not match the content of the notification.	BRP/TSO	681
The ProcessTypeID in the notification header matches the recipient of the notification.	ProcessTypeID does not match the recipient of the notification.	BRP/TSO	747
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.	BRP/TSO	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.	BRP/TSO	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.	BRP/TSO	745
The contentType ²⁶ 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.	BRP/TSO	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.	BRP/TSO	780
Entire notification			
Notification is complete, correct and directed to the correct recipient ²⁷ .	[free text field] ²⁸	BRP/TSO	999

3.9 Checks receiver for notification “Allocated volumes and determined volumes for reconciliation per individual allocation point” (BSCMF0086)

²⁶ See Technical Guide - Measurements & Allocations Documents[8] for further information how to fill the contentType.

²⁷ 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.

²⁸ An explanation of error code 999 should be entered in this text field.

The exchange of notification “Allocated volumes and determined volumes for reconciliation per individual allocation point” (the Certificate) is handled by the service Uitwisseling datasets[9] and therefore not described in the service description Volumes for settlement and reconciliation electricity.

3.10 Use ProcessTypeID for exchange volumes for settlement

As described in the *BRS Settlement Electricity*[1], the schedules of volumes for settlement and reconciliation can be used for different purposes. In the EDSNBusinessDocumentHeader (functional header) in the notification, the application should be specified at ProcessTypeID. Further explanation about the use of the EDSNBusinessDocumentHeader is included in the NEDU EDSN Ontwerpkeuzes[2].

See paragraph 1.4 for the overview of ProcessTypeID for volumes for settlement and reconciliation.

4 Functional parameters

4.1 Notification for Exchange aggregated volumes for settlement per grid area (BSCMF0081)

Exchange aggregate volumes for settlement per grid area is an exchange of aggregate volumes for settlement of the following:

1. SMA allocation group per calendar month per grid area per BRP/SUP combination for exchange with BRP and SUP (one aggregate in one notification);
2. TMT allocation group per calendar month per grid area per BRP/SUP combination for exchange with BRP (one aggregate in one notification);
3. SMA or TMT allocation group per calendar month per grid area per BRP for exchange with the TSO (one aggregate in one notification).

The following information is exchanged per aggregate:

Given	Elec	1/n	Note	XML code
Notification Reference	V	1	A UUID as a unique identifier of the notification.	
EAN code and market role	V	1	For aggregated volumes for settlement to the TSO: EAN13 of the BRP. For aggregated settlement volumes to the BRP: EAN13 of the SUP. For aggregated volumes for settlement to SUP: EAN13 of the BRP.	
	V	1	For aggregated volumes for settlement to the TSO: Market role of the BRP ²⁹ . For aggregated settlement volumes to the BRP: Market role of the SUP ²⁹ . For aggregated volumes for settlement to SUP: Market role of the BRP ²⁹ .	DDK DDQ DDK
	A	1	EAN13 of the responsible BRP for the grid loss of the grid area involved, settlement month and allocation group. <u>Required</u> if it is a volumes for settlement notification for the TSO. <u>Must be empty</u> if it is a volumes for settlement	

²⁹ Market role as defined in ebIX Code list[6].

Given	Elec	1/n	Note	XML code
			notification for SUP or BRP ³⁰ .	
	A	1	Market role of the BRP Grid loss ²⁹ .	DDX
EAN code grid area	V	1	The identifying EAN18 code of the grid area.	
Product type	V	1	Allowed values (from ebIX Code list[6] and including a leading zero): Electricity	023
Allocation group	V	1	An identifier for the group to which the related volumes for settlement belong. Allowed values: Allocation points aggregated (allocation method SMA) Allocation points aggregated (allocation method TMT)	SMA TMT
Settlement run identification	V	1	Unique identifier (UUID) for the settlement run. Based on this identification, consumers may link the set of volumes to each other for settlement for a given calendar month, per network area, per allocation group. This settlement run identification is identical for all receivers.	
Start date period	V	1	Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date period	V	1	End date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ Notification period from start date/time to end date/time is the calendar month to which the settlement relates; this period is exactly 1 calendar month.	
Volume³¹		n		
Volume	V	1	Volume in whole numbers.	
Type volume	V	1	Type of volume. Permitted values (from ENTSO-E Code list[10]): Volume provided by SO's in the settlement process	A13
Product ID	V	1	Allowed values (from ebIX Code list[6]): Electricity: Active energy	8716867000030
Energy unit	V	1	Permissible active energy value: kWh	KWH
Energy direction	V	1	Allowed values (from ebIX Code list[6]): Consumption Production	E17 E18
Price period	V	1	Allowable values for electricity (from ebIX Code list[6]): Low Normal	E10 E11

Mandatory fields (V) are always filled; optional fields (O) or dependent fields (A) when required for the related settlement data notification.

30 Must be empty means that the appropriate field is missing from the notification. Empty fields in the XML notification are not allowed based on the UN/CEFACT NDR.

31 Number of volumes in a consumption period for allocation method SMA or TMT is: 4 (per energy direction, price period).

4.2 Notification for Exchange volumes for settlement per individual allocation point (BSCMF0082)

Exchanging volumes for settlement per individual allocation point is an exchange of volumes for settlement per:

1. TMT allocation point per calendar month per allocation point for exchange with BRP and SUP (one allocation point in one notification).

The following information is exchanged per allocation point:

Given	Elec	1/n	Note	XML code
Notification Reference	V	1	A UUID as a unique identifier of the notification.	
EAN code connection	V	1	EAN18 allocation point electricity.	
Product type	V	1	Allowed values (from ebIX Code list[6]) and including a leading zero): Electricity	023
Allocation group	V	1	An identifier for the group to which the related volumes for settlement belong. Allowed values: Individual allocation points (allocation method TMT)	TMT
Settlement run identification	V	1	Unique identifier (UUID) for the settlement run. Based on this identification, consumers may link the set of volumes to each other for settlement for a given calendar month, per network area, per allocation group. This settlement run identification is identical for all receivers.	
Start date period	V	1	Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date period	V	1	End date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ Notification period from start date/time to end date/time is the calendar month to which the settlement relates; this period is exactly 1 calendar month.	
Volume³²		n		
Start date/time consumption period	V	1	Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date/time consumption period	V	1	End date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ Use period from start date/time to end date/time is less than or equal to the notification period.	
Volume	V	1	Volume in whole numbers.	
Type volume	V	1	Type of volume. Permitted values (from ENTSO-E Code list[10]): Volume provided by SO's in the settlement process	A13
Product ID	V	1	Allowed values (from ebIX Code list[6]): Electricity: Active energy	8716867000030
Energy unit	V	1	Permissible active energy value: kWh	KWH
Energy direction	V	1	Allowed values (from ebIX Code list[6]): Consumption Production	E17 E18
Price period	V	1	Allowable values for electricity (from ebIX Code list[6]): Low Normal	E10 E11

Mandatory fields (V) are always filled; optional fields (O) or dependent fields (A) when required for the related settlement data notification.

³² Number of volumes in a consumption period for allocation method TMT is: 4 (per energy direction, price period).

4.3 Notification for Exchange aggregated OVP volumes for settlement per grid area (BSCMF0083)

Exchange aggregated OVP volumes for settlement per grid area is an exchange of aggregate volumes for settlement of a:

1. TMT allocation group per calendar month per grid area per BRP/SUP combination for exchange with BRP (one aggregate in one notification);
2. TMT allocation group per calendar month per grid area per BRP for exchange with the TSO (one aggregate in one notification).

The following information is exchanged per aggregate:

Given	Elec	1/n	Note	XML code
Notification Reference	V	1	A UUID as a unique identifier of the notification.	
EAN code and market role	V	1	For aggregated volumes for settlement to the TSO: EAN13 of the BRP. For aggregated settlement volumes to the BRP: EAN13 of the SUP.	
	V	1	For aggregated volumes for settlement to the TSO: Market role of the BRP ³³ . For aggregated settlement volumes to the BRP: Market role of the SUP ³³ .	DDK DDQ
EAN code grid area	V	1	The identifying EAN18 code of the grid area.	
Product type	V	1	Allowed values (from ebIX Code list[6] and including a leading zero): Electricity	023
Allocation group	V	1	An identifier for the group to which the related volumes for settlement belong. Allowed values: Allocation points aggregated (allocation method TMT)	TMT
Settlement run identification	V	1	Unique identifier (UUID) for the settlement run. Based on this identification, consumers may link the set of volumes to each other for settlement for a given calendar month, per network area, per allocation group. This settlement run identification is identical for all receivers.	
Start date period	V	1	Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date period	V	1	End date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ Notification period from start date/time to end date/time is the calendar month to which the settlement relates; this period is exactly 1 calendar month.	
Volume³⁴		n		
OVP (electricity)	V	1	Resolution is in accordance with ISO 8601 notation[7] for <i>Duration</i> . Permissible values electricity: 15 minutes	PT15M
Type volume	V	1	Type of volume. Permitted values (from ENTSO-E Code list[10]): OVP volume provided by SOs for settlement process	A14
Product ID	V	1	Allowed values (from ebIX Code list[6]): Electricity: Active energy	8716867000030

³³ Market role as defined in ebIX Code list[6].

³⁴ Number of complete time series: 2 (time series for consumption and a time series for production).

Given	Elec	1/n	Note	XML code
Energy unit	V	1	Permissible active energy value: kWh	KWH
Energy direction	V	1	Allowed values (from ebIX Code list[6]): Consumption Production	E17 E18
Volume per position		n		
Position	V	1	Position in the series in whole numbers.	
Volume	V	1	Volume as a decimal number, always to 3 decimal places.	

Mandatory fields (V) are always filled; optional fields (O) or dependent fields (A) when required for the related settlement data notification.

4.4 Notification for Exchange OVP volumes for settlement per individual allocation point (BSCMF0084)

Exchanging OVP volumes for settlement per individual allocation point is an exchange of OVP volumes for settlement per:

1. TMT allocation point per calendar month per allocation point for exchange with BRP (one allocation point in one notification).

The following information is exchanged per allocation point:

Given	Elec	1/n	Note	XML code
Notification Reference	V	1	A UUID as a unique identifier of the notification.	
EAN code connection	V	1	EAN18 allocation point electricity.	
Product type	V	1	Allowed values (from eBIX Code list[6] and including a leading zero): Electricity	023
Allocation group	V	1	An identifier for the group to which the related volumes for settlement belong. Allowed values: Individual allocation points (allocation method TMT)	TMT
Settlement run identification	V	1	Unique identifier (UUID) for the settlement run. Based on this identification, consumers may link the set of volumes to each other for settlement for a given calendar month, per network area, per allocation group. This settlement run identification is identical for all receivers.	
Start date period	V	1	Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date period	V	1	End date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ Notification period from start date/time to end date/time is the calendar month to which the settlement relates; this period is exactly 1 calendar month.	
Volume³⁵		n		
Start date/time consumption period	V	1	Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date/time consumption period	V	1	End date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ Use period from start date/time to end date/time is less than or equal to the notification period. If the BRP was only registered at the allocation point for a part of the calendar month, the times series with volumes for settlement will only be supplied for that part of the calendar month. For that part of the calendar month when the BRP was not registered to the connection, a time series with zeros will not be delivered.	
OVP (electricity)	V	1	Resolution is in accordance with ISO 8601 notation[7] for <i>Duration</i> . Permissible values electricity: 15 minutes	PT15M
Type volume	V	1	Type of volume. Permitted values (from ENTSO-E Code list[10]): OVP volume provided by SOs for settlement process	A14
Product ID	V	1	Allowed values (from eBIX Code list[6]): Electricity: Active energy	8716867000030
Energy unit	V	1	Permissible active energy value: kWh	KWH

³⁵ Number of full time series in a consumption period is: 2 (time series for consumption and a time series for production).

Given	Elec	1/n	Note	XML code
Energy direction	V	1	Allowed values (from ebIX Code list[6]): Consumption Production	E17 E18
Volume per position		n		
Position	V	1	Position in the series in whole numbers.	
Volume	V	1	Volume as a decimal number, always to 3 decimal places.	
Origin indicator	V	1	Allowed values: Measured Measured update Calculated Unmeasured 'zero' ³⁶ See BRS Appendix A Status of metering data and meter readings [11].	MSR UMS CLC NMS
Validation status	A	1	Allowed values: Valid Not Valid Manually approved See BRS Appendix A Status of metering data and meter readings [11].	QLD NVL MNL
Repair method	A	1	Allowed values: Meter check Correction factor error Correction build-in error Interpolation at meter change Zero data for loss of power Correction based on meter readings Extra information Objection BRP Objection SO Estimated Calculated by SO ³⁷ See BRS Appendix A Status of metering data and meter readings [11].	VMT CFF CIN IMC NCD CMR ENF RBR RGR GMR CBD

Mandatory fields (V) are always filled; optional fields (O) or dependent fields (A) when required for the related settlement data notification.

³⁶ "Unmeasured 'zero'" (NMS) is used as Origin indicator status for zeros during production if this is not measured.
³⁷ If repair method is "Calculated by SO" (CBD), then Origin indicator is "Calculated" (CLC) and Validation status is not entered.

4.5 Notification for exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area (BSCMF0085)

Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area is an exchange of aggregated allocated volumes, aggregated determined volumes and volumes of grid loss for reconciliation of a:

1. PRF allocation group per one to a maximum of seventeen calendar months per grid area per BRP/SUP combination for exchange with the BRP and BRP Grid Loss³⁸ (one aggregate in one notification);
2. PRF allocation group per one to maximum seventeen calendar months per grid area per BRP for exchange with the TSO³⁹ (one aggregate in one notification).

The following information is exchanged per aggregate:

Given	Elec	1/n	Note	XML code
Notification Reference	V	1	A UUID as a unique identifier of the notification.	
EAN code and market role	A	1	For aggregated allocated volumes and aggregated determined volumes for reconciliation to the TSO: EAN13 of the BRP. For aggregated allocated volumes and aggregated determined volumes for reconciliation to the BRP: EAN13 of the SUP. For grid loss change to the TSO: EAN13 of the BRP Grid loss. An EAN13 of the BRP grid loss involved is not included for grid loss change to the BRP grid loss.	
	A	1	For aggregated allocated volumes and aggregated determined volumes for reconciliation to the TSO: Market role of the BRP ⁴⁰ . For aggregated allocated volumes and aggregated determined volumes for reconciliation to the BRP: Market role of the SUP ⁴⁰ . For grid loss change to the TSO: Market role of the BRP Grid loss ⁴⁰ . For grid loss change to BRP grid loss, a market role has not been included for the BRP grid loss involved.	DDK DDQ DDX
EAN code grid area	V	1	The identifying EAN18 code of the grid area.	
Product type	V	1	Allowed values (from ebIX Code list[6] and including a leading zero): Electricity	023
Allocation group	V	1	An identifier for the group to which the related volumes for reconciliation belong. Allowed values: Allocation points aggregated (allocation method PRF)	PRF
Settlement run identification	V	1	Unique identifier (UUID) for the settlement run. Based on this identification, consumers may link the set of volumes to each other for settlement for a given calendar month, per network area, per allocation group. This settlement run identification is identical for all receivers.	
Start date period	V	1	Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date period	V	1	End date time is in UTC and in accordance with ISO	

38 If a BRP is also designated as a BRP for grid loss the grid area, the BRP involved will receive notification(s) per BRP/SUP combination with aggregated allocated volumes and aggregated determined volumes , and a separate notification with volumes grid loss .

39 If a BRP has also been designated as a BRP for grid loss for the grid area, the TSO will then receive a notification with aggregated allocated volumes and aggregated determined volumes and a separate notification with grid loss volumes for the BRP involved.

40 Market role as defined in ebIX Code list[6].

Given	Elec	1/n	Note	XML code
			8601 notation[7]: YYYY-MM-DDThh:mm:ssZ Notification period from start date/time to end date/time is maximum 17 calendar months.	
Volume^{41,42}		n		
Start date/time calendar month	V	1	Start date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
End date/time calendar month	V	1	End date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ Period from start date/time to end date/time is exactly 1 calendar month.	
Volume	V	1	Volume in whole numbers.	
Type volume	V	1	Characterisation of the volume. Permitted values (from ENTSO-E Code list[10]): For aggregated allocated volumes and aggregated determined volumes for reconciliation to the BRP and TSO: Volume provided by SO's in the settlement process Volume submitted by SOs for final imbalance determination For grid loss volumes to the TSO and BRP grid loss: Grid loss	A13 A20 A15
Product ID	V	1	Allowed values (from ebIX Code list[6]): Electricity: Active energy	8716867000030
Energy unit	V	1	Permissible active energy value: kWh	KWH
Energy direction	V	1	Allowed values (from ebIX Code list[6]): Consumption Production	E17 E18
Price period	V	1	Allowable values for electricity (from ebIX Code list[6]): Low Normal	E10 E11
Profile category	A	1	Profile category identifier. Required if it is an aggregated allocated volume or an aggregated determined volume, and applicable for appropriate network area. <u>Must be empty</u> if it is a grid loss volume ⁴³ . If a profile category is not applicable for the network area, the profile category is not part of notification about the network area.	E1A E1B E1C E2A E2B E3A E3B E3C E3D E4A
Determined energy consumption	A	1	Indicates whether there is consumption with production or consumption without production.	

41 Number of volumes per calendar month for aggregated allocated volumes/aggregated determined volumes notification to the BRP or TSO maximum 120:

- E1A: always 16 volumes (per type volume, determined consumption type, energy direction, price period);
- E1B: always 16 volumes (per type volume, determined consumption type, energy direction, price period);
- E1C: always 16 volumes (per type volume, determined consumption type, energy direction, price period);
- E2A: always 16 volumes (per type volume, determined consumption type, energy direction, price period);
- E2B: always 16 volumes (per type volume, determined consumption type, energy direction, price period);
- E3A: always 8 volumes (per type volume, energy direction, price period);
- E3B: always 8 volumes (per type volume, determined consumption type, energy direction, price period);
- E3C: always 8 volumes (per type volume, energy direction, price period);
- E3D: always 8 volumes (per type volume, energy direction, price period);
- E4A: always 8 volumes (per type volume, energy direction, price period).

42 Number of volumes per calendar month for grid loss notification to TSO and BRP Grid loss is always 4 (per energy direction, price period).

43 Must be empty means that the appropriate field is missing from the notification. Empty fields in the XML notification are not allowed based on the UN/CEFACT NDR.

Given	Elec	1/n	Note	XML code
			<u>Required</u> if it is a volume notification for profile category E1A, E1B, E1C, E2A or E2B⁴⁴. <u>Must be empty</u> if it is a volume notification for profile category E3A, E3B, E3C, E3D or E4A⁴³. <u>Must be empty</u> if it is a grid loss volume⁴³. Permitted values for profile category E1A, E1B, E1C, E2A or E2B: Consumption with production Consumption without production	AMI AZI

Mandatory fields (V) are always filled; optional fields (O) or dependent fields (A) when required for the related settlement data notification.

⁴⁴ This obligation does not apply for volumes relating to a period before the functional go live of IC273 (Tranche 2 Allocated 2.0).

4.6 Notification for Exchange allocated volumes and determined volumes for reconciliation per individual allocation point (BSCMF0086)

Exchange allocated volumes and determined volumes for reconciliation per individual allocation point is an exchange of:

1. PRF allocation points for the BRP (multiple allocation points in one Certificate).

The following information is exchanged per allocation point⁴⁵:

Given	Elec	1/n	Note
Run Month	V	1	According to the notation: YYYYMM.
Delivery month	V	1	According to the notation: YYYYMM.
EAN code Connection	V	1	EAN18 for the allocation point electricity.
EAN code BRP	V	1	EAN13 of the BRP.
EAN code Supplier	V	1	EAN13 of the SUP.
EAN code Grid area	V	1	EAN18 of the grid area.
Allocation volume Normal Consumption	V	1	Imputed allocation volume consumption during normal hours (in kWh, no decimal places).
Allocation volume Normal Production	V	1	Imputed allocation volume production during normal hours (in kWh, no decimal places).
Allocation volume Low Consumption	V	1	Imputed allocation volume consumption during low hours (in kWh, no decimal places).
Allocation volume Low Production	V	1	Imputed allocation volume production during low hours (in kWh, no decimal places).
Actual Volume Normal Consumption	V	1	The volume consumption during normal hours determined for reconciliation (in kWh, no decimal places).
Actual Volume Normal Production	V	1	The volume production during normal hours determined for reconciliation (in kWh, no decimal places).
Actual Volume Low Consumption	V	1	The volume consumption during low hours determined for reconciliation (in kWh, no decimal places).
Actual Volume Low Production	V	1	The volume production during low hours determined for reconciliation (in kWh, no decimal places).
Start date Consumption period	V	1	Start date of the consumption period according to the notation: YYYYMMDD.
End Date Consumption Period	V	1	End date of the consumption period according to the notation: YYYYMMDD.

Mandatory fields (V) are always filled; optional fields (O) or dependent fields (A) when required for the related settlement data notification.

⁴⁵ Exchange via the Certificate.

4.7 Response to notifications for Exchange volumes for settlement

In this case⁴⁶, the response for all notifications has the same structure. The response consists of an acknowledgement or a rejection:

Given	Elec	1/n	Note	XML code
Notification Reference	V	1	A UUID as a unique identifier of the notification.	
Notification Message Reference	A ⁴⁷	1	A UUID as unique identifier for the acknowledged or rejected notification message ⁴⁸ .	
Date/time response notification	V	1	Date time is in UTC and in accordance with ISO 8601 notation[7]: YYYY-MM-DDThh:mm:ssZ	
Confirmation/rejection code	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 to 3.8).	Code for rejection: see paragraph 3.3 to 3.8.
Explanation of the rejection	O	n	Optional explanation of the rejection.	

Mandatory fields (V) are always filled; optional fields (O) or dependent fields (A) when required for the related notification.

4.8 Explanation of the correlation of the response to the notification

Correlation on the following levels:

1. CorrelationID in the EDSNBusinessDocumentHeader shows the technical correlation between Notification and Acknowledgement if entered into the Notification by the provider⁴⁹;
2. Via the notification attribute (both UUID), the obligatory process correlation between Notification and Acknowledgement is established

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

⁴⁶ This response does not apply to the message "Allocated volumes and determined volumes for reconciliation per individual allocation point" (the Certificate). The exchange of the Certificate is handled by the service Uitwisseling datasets[9].

⁴⁷ 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.

⁴⁸ Is the associatedSeries.mRID of the related Notification notification.

⁴⁹ CorrelationID can be filled by the supplier of volumes (provider). If filled, the receiving party (consumer) must specify this CorrelationID in the response to the provider. See NEDU EDSN Ontwerpkeuzes[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 Ontwerpkeuzes[2].

5.2 Exchange aggregated volumes for settlement by grid area (BSCMF0081)

The sequence diagram below relates to the supply of aggregated volumes for settlement per grid area by the system operator to the MMC hub. The MMC hub takes care of routing, preparing and forwarding the relevant volumes to the receiver.

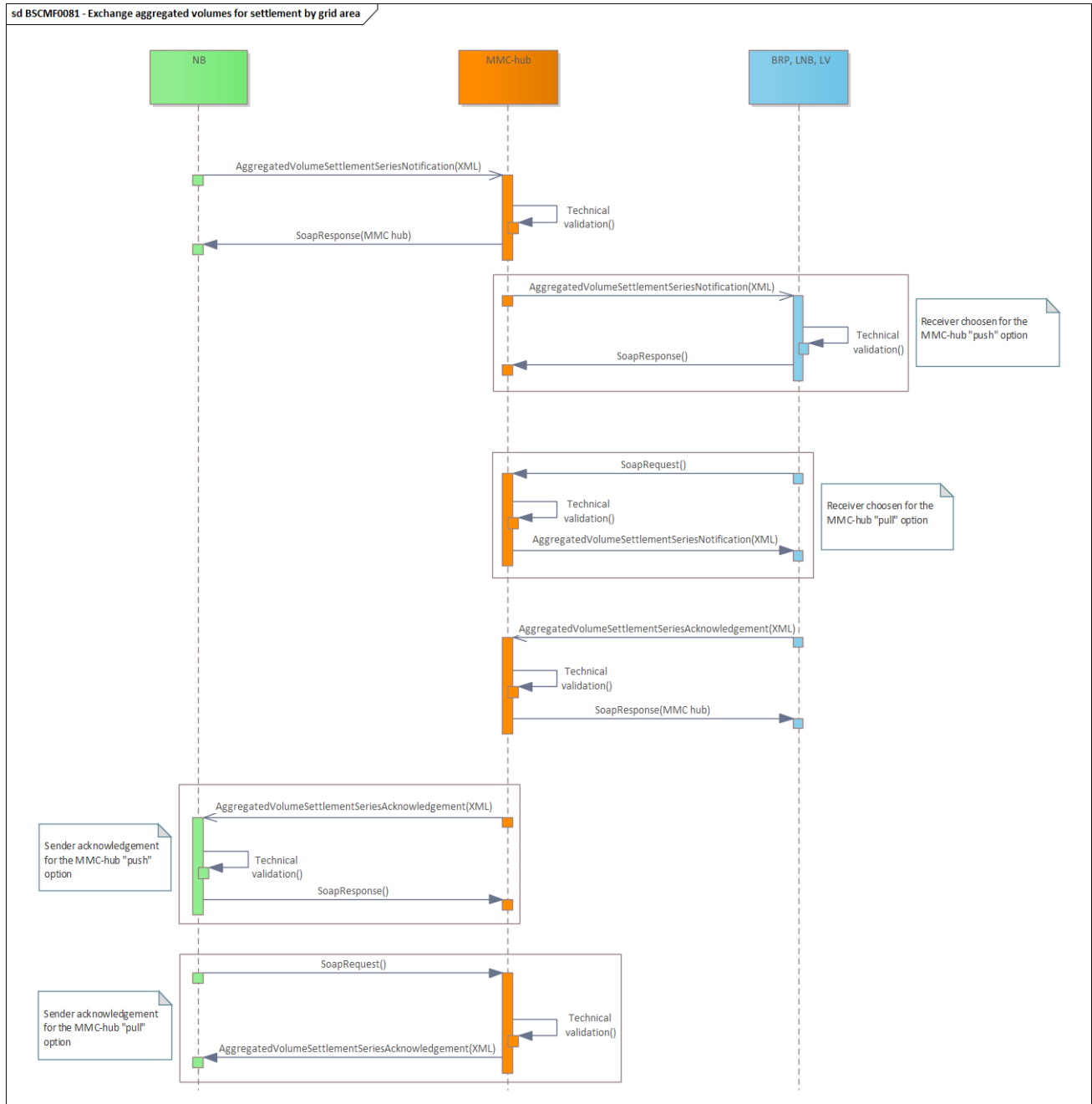


Figure 2 The sequence diagram for exchange volumes for settlement between SO and BRP, TSO and SUP via the MMC hub

5.3 Exchange volumes for settlement per individual allocation point (BSCMF0082)

The sequence diagram below relates to the supply of volumes for settlement per individual allocation point by the system operator to the MMC hub. The MMC hub takes care of routing, preparing and forwarding the relevant volumes to the receiver.

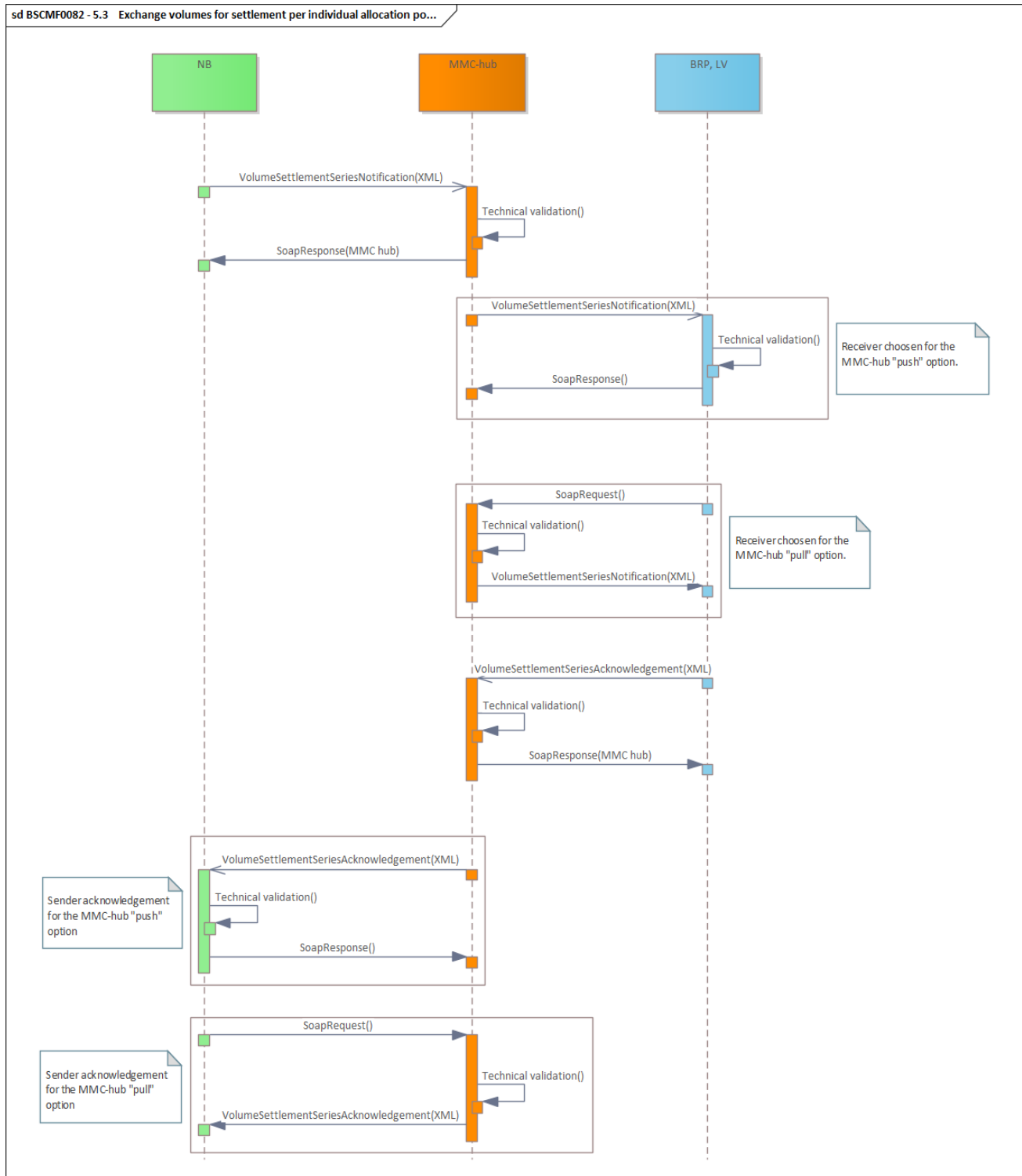


Figure 3 The sequence diagram for exchange volumes for settlement between SO and BRP and SUP via the MMC hub

5.4 Exchange aggregated OVP volumes for settlement per grid area (BSCMF0083)

The sequence diagram below relates to the supply of aggregated volumes per OVP for settlement per grid area by the system operator to the MMC hub. The MMC hub takes care of routing, preparing and forwarding the relevant volumes to the receiver.

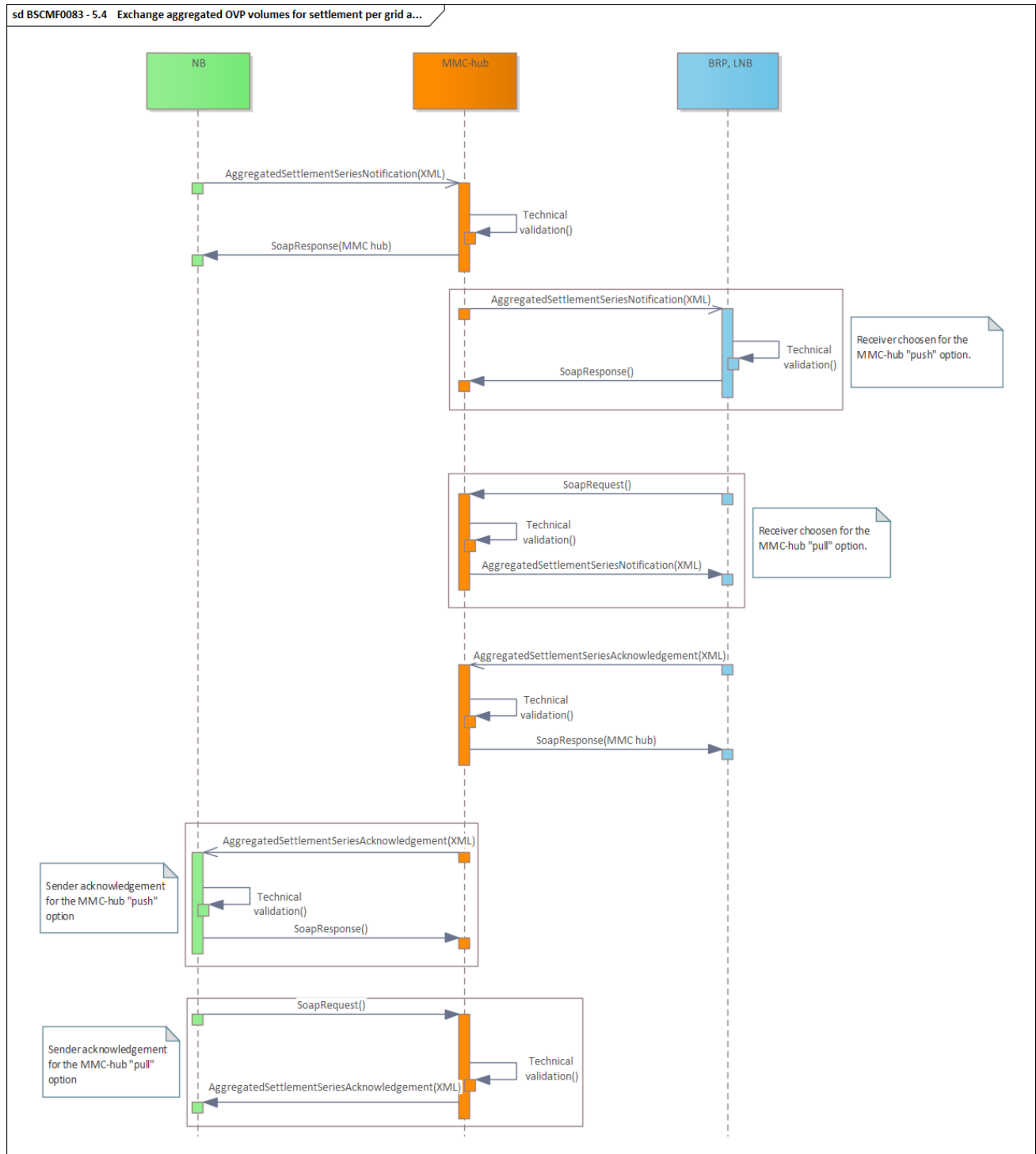


Figure 4 The sequence diagram for exchange volumes for settlement between SO and BRP and TSO via the MMC hub

5.5 Exchange OVP volumes for settlement per individual allocation point (BSCMF0084)

The sequence diagram below relates to the supply of volumes per OVP for settlement per individual allocation point by the system operator to the MMC hub. The MMC hub takes care of routing, preparing and forwarding the relevant volumes to the receiver.

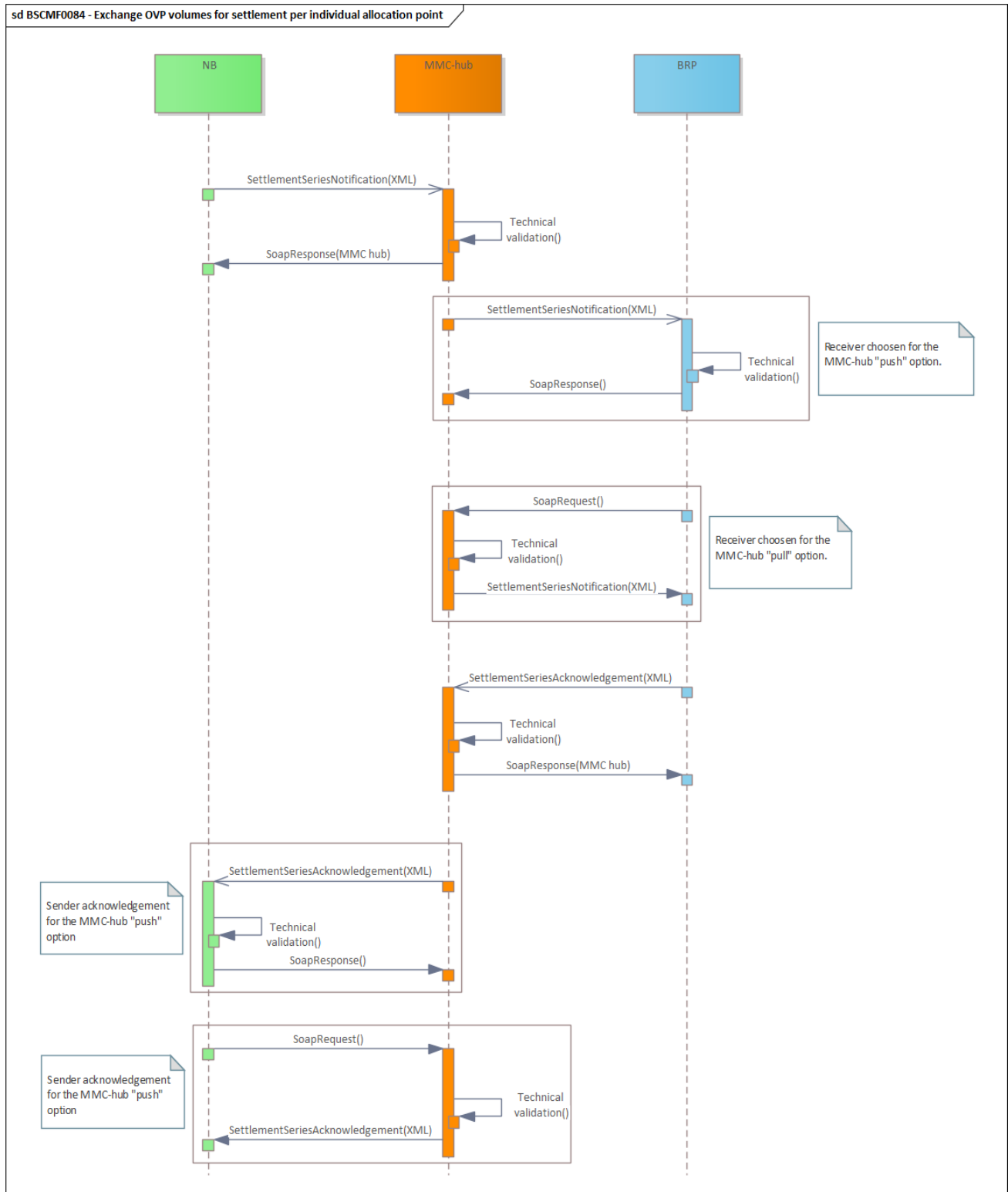


Figure 5 The sequence diagram for exchange volumes for settlement between SO and BRP via the MMC hub

5.6 Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area BSCMF0085

The sequence diagram below relates to supplying *aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area* by the system operator to the MMC hub. The MMC hub takes care of routing, preparing and forwarding the relevant volumes to the receiver.

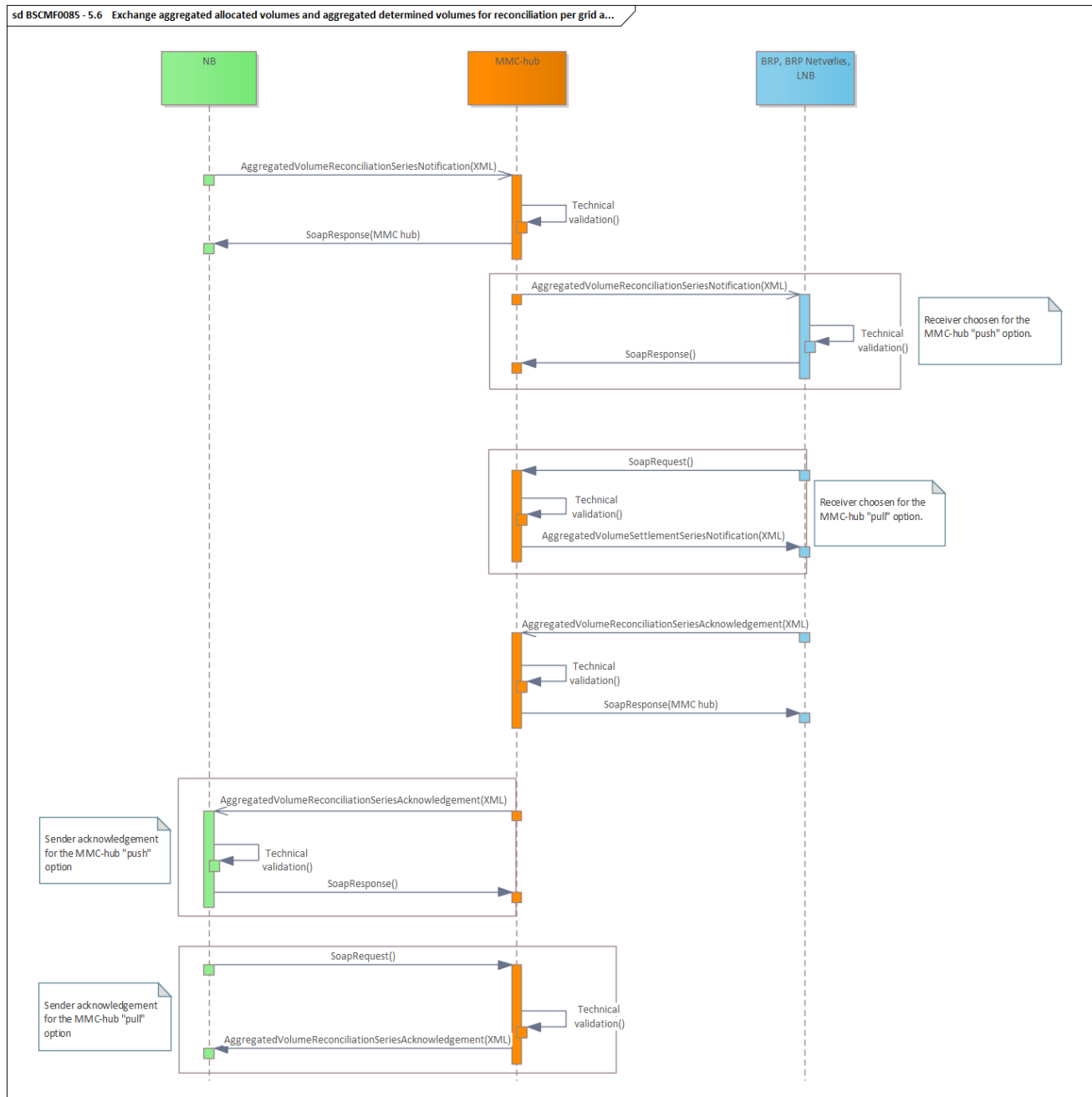


Figure 6 The sequence diagram for exchange volumes for reconciliation between SO and BRP and TSO via the MMC hub

5.7 Exchange allocated volumes and determined volumes for reconciliation per individual allocation point BSCMF0086

The sequence diagram below relates to supplying *allocated volumes and determined volumes for reconciliation per individual allocation point* by the system operator via the Certificate. The exchange of the Certificate is handled by the service Uitwisseling datasets[9].

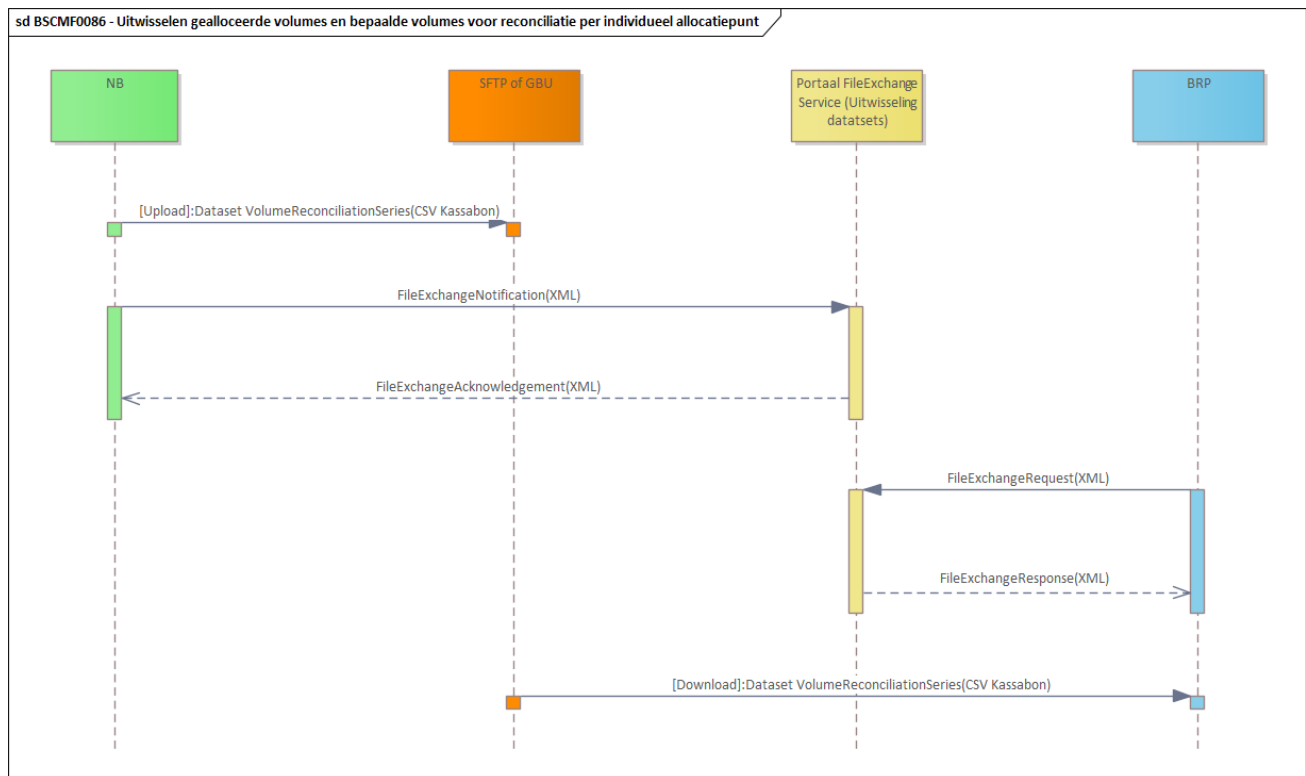


Figure 7 The sequence diagram for exchange volumes for reconciliation between SO and BRP

6 Properties service volumes for settlement and reconciliation electricity

6.1 Exchange aggregated volumes for settlement by grid area (BSCMF0081)

Exchange aggregated volumes for settlement per grid area (AggregatedVolumeSettlementSeries)	
Service	AggregatedVolumeSettlementSeries – Exchange aggregated volumes for settlement by grid area
DSO Service ID	BSCMF0081
Description	The exchange of volumes for settlement between SO (provider) and the BRP, TSO, SUP (consumer)
Service transaction pattern	Notification/Acknowledgement
Precondition(s)	<i>Notification with volumes for settlement</i> is submitted by a party that is authorized and authenticated to do so.
Trigger	DSO offers <i>notification with volumes for settlement</i> to MMC hub.
Post condition(s)	- Notification with volumes for settlement rejected; - or - Notification with volumes for settlement executed.

Service use ⁵⁰	
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	100% of the incoming Notifications must be answered by the consumer by means of an Acknowledgement within 15 minutes.
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 data) only performs a 'retry' if he did not receive a positive HTTP response from de MMC hub. If the recipient (consumer of the data) 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 Notification 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].
Operation	
User	SOr
Function	Submit notification <i>Aggregated volumes for settlement by grid area</i>
Soap action	See WSDL
Input notification	AggregatedVolumeSettlementSeriesNotification
XSD	AggregatedVolumeSettlementSeriesNotification_1p0
Output notification	AggregatedVolumeSettlementSeriesAcknowledgement
XSD	AggregatedVolumeSettlementSeriesAcknowledgement_1p0

6.2 Exchange volumes for settlement per individual allocation point (BSCMF0082)

Exchange volumes for settlement per individual allocation point (VolumeSettlementSeries)	
Service	VolumeSettlementSeries– Exchange volumes for settlement per individual allocation point

⁵⁰ To be agreed with TenneT.

DSO Service ID	BSCMF0082
Description	The exchange of volumes for settlement between SO (provider) and the BRP, SUP (consumer)
Service transaction pattern	Notification/Acknowledgement
Precondition(s)	<i>Notification with volumes for settlement</i> is submitted by a party that is authorized and authenticated to do so.
Trigger	DSO offers <i>notification with volumes for settlement</i> to MMC hub.
Post condition(s)	- Notification with volumes for settlement rejected; - or - Notification with volumes for settlement executed.
Service use⁵¹	
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	100% of the incoming Notifications must be answered by the consumer by means of an Acknowledgement within 15 minutes.
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 data) only performs a 'retry' if he did not receive a positive HTTP response from de MMC hub. If the recipient (consumer of the data) 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 Notification 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].
Operation	
User	SO
Function	Submit notification <i>Volumes for settlement per individual allocation point</i>
Soap action	See WSDL
Input notification	VolumesSettlementSeriesNotification

⁵¹ To be agreed with TenneT.

XSD	VolumeSettlementSeriesNotification_1p0
Output notification	VolumeSettlementSeriesAcknowledgement
XSD	VolumeSettlementSeriesAcknowledgement_1p0

6.3 Exchange aggregated OVP volumes for settlement per grid area (BSCMF0083)

Exchange aggregated OVP volumes for settlement per grid area (AggregatedSettlementSeries)	
Service	AggregatedSettlementSeries – Exchange aggregated OVP volumes for settlement per grid area
DSO Service ID	BSCMF0083
Description	The exchange of volumes for settlement between SO (provider) and the BRP, TSO (consumer)
Service transaction pattern	Notification/Acknowledgement
Precondition(s)	<i>Notification with volumes for settlement</i> is submitted by a party that is authorized and authenticated to do so.
Trigger	DSO offers <i>notification with volumes for settlement</i> to MMC hub.
Post condition(s)	- Notification with volumes for settlement rejected; - or - Notification with volumes for settlement executed.
Service use ⁵²	
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	100% of the incoming Notifications must be answered by the consumer by means of an Acknowledgement within 15 minutes.
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 data) only performs a 'retry' if he did not receive a positive HTTP response from de MMC hub. If the recipient (consumer of the data) 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 Notification 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].

⁵² To be agreed with TenneT.

Date	See MMC Technical Guide - Measurements & Allocations Documents[8].
Soap address	See MMC Technical Guide - Measurements & Allocations Documents[8].
Operation	
User	SO
Function	Submit notification <i>Aggregated OVP volumes for settlement by grid area</i>
Soap action	See WSDL
Input notification	AggregatedSettlementSeriesNotification
XSD	AggregatedSettlementSeriesNotification_1p0
Output notification	AggregatedSettlementSeriesAcknowledgement
XSD	AggregatedSettlementSeriesAcknowledgement_1p0

6.4 Exchange OVP volumes for settlement per individual allocation point (BSCMF0084)

Exchange OVP volumes for settlement per individual allocation point (SettlementSeries)	
Service	SettlementSeries – Exchange OVP volumes for settlement per individual allocation point
DSO Service ID	BSCMF0084
Description	The exchange of volumes for settlement between SO (provider) and the BRP (consumer)
Service transaction pattern	Notification/Acknowledgement
Precondition(s)	<i>Notification with volumes for settlement</i> is submitted by a party that is authorized and authenticated to do so.
Trigger	DSO offers <i>notification with volumes for settlement</i> to MMC hub.
Post condition(s)	- Notification with volumes for settlement rejected; - or - Notification with volumes for settlement executed.
Service use ⁵³	
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	100% of the incoming Notifications must be answered by the consumer by means of an Acknowledgement within 15 minutes.
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 data) only performs a 'retry' if he did not receive a positive HTTP response from de MMC hub. If the recipient (consumer of the data) 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 Notification 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].
Operation	
User	SO

⁵³ To be agreed with TenneT.

Function	Submit notification <i>OVP volumes for settlement per individual allocation point</i>
Soap action	See WSDL
Input notification	SettlementSeriesNotification
XSD	SettlementSeriesNotification_1p0
Output notification	SettlementSeriesAcknowledgement
XSD	SettlementSeriesAcknowledgement_1p0

6.5 Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area BSCMF0085

Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area (AggregatedVolumeReconciliationSeries)	
Service	AggregatedVolumeReconciliationSeries – Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area
DSO Service ID	BSCMF0085
Description	The exchange of volumes for reconciliation between SO (provider) and BRP, BRP Grid loss and DSO (consumer)
Service transaction pattern	Notification/Acknowledgement
Precondition(s)	<i>Notification with aggregated allocated volumes and aggregated determined volumes for reconciliation</i> is submitted by a party authorized and authenticated for this purpose.
Trigger	DSO supplies <i>Notification with volumes for reconciliation</i> to MMC hub.
Post condition(s)	- Notification with volumes for reconciliation rejected; - or - Notification with volumes for reconciliation executed.
Service use ⁵⁴	
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	100% of the incoming Notifications must be answered by the consumer by means of an Acknowledgement within 15 minutes.
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 data) only performs a 'retry' if he did not receive a positive HTTP response from the MMC hub. If the recipient (consumer of the data) 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

⁵⁴ To be agreed with TenneT.

		administrator of the MMC-hub can be contacted. After coordination, a resend of the Notification 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].
Operation		
User		SO
Function		Submit notification <i>Aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area</i>
Soap action		See WSDL
	Input notification	AggregatedVolumeReconciliationSeriesNotification
	XSD	AggregatedVolumeReconciliationSeriesNotification_1p0
	Output notification	AggregatedVolumeReconciliationSeriesAcknowledgement
	XSD	AggregatedVolumeReconciliationSeriesAcknowledgement_1p0

6.6 Exchange allocated volumes and determined volumes for reconciliation per individual allocation point BSCMF0086

Exchange allocated volumes and determined volumes for reconciliation per individual allocation point (VolumeReconciliationSeries)	
Service	VolumeReconciliationSeries– Exchange allocated volumes and determined volumes for reconciliation per individual allocation point via the Certificate
DSO Service ID	BSCMF0086
Description	The exchange of volumes for reconciliation between SO (provider) and the BRP (consumer)
Service transaction pattern	See service description Uitwisseling datasets[9]

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].

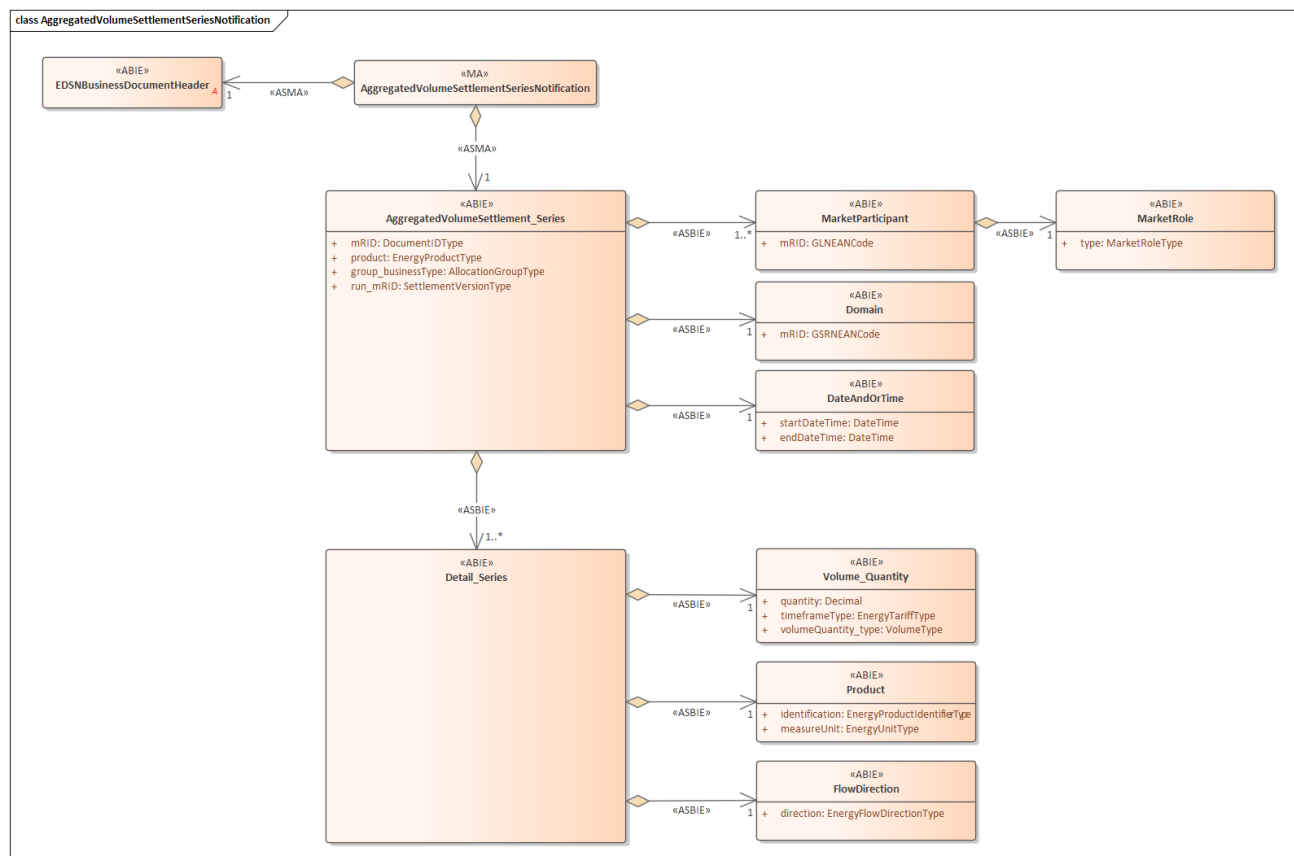
For more information on data types, please refer to NEDU EDSN Ontwerpkeuzes[2].

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 Notification Exchange aggregated volumes for settlement per grid area (AggregatedVolumeSettlementSeriesNotification)



AggregatedVolumeSettlement_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
group_businessType	AllocationGroupType	1..1	The identification of the nature of the time series.	Allocation group
run_mRID	SettlementVersionType	1..1	The identification of the version of the time series.	Settlement run identification

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
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Domain

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	GSRNEANCode	1..1	The unique identification of the domain.	EAN code grid area

FlowDirection

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

MarketParticipant

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

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

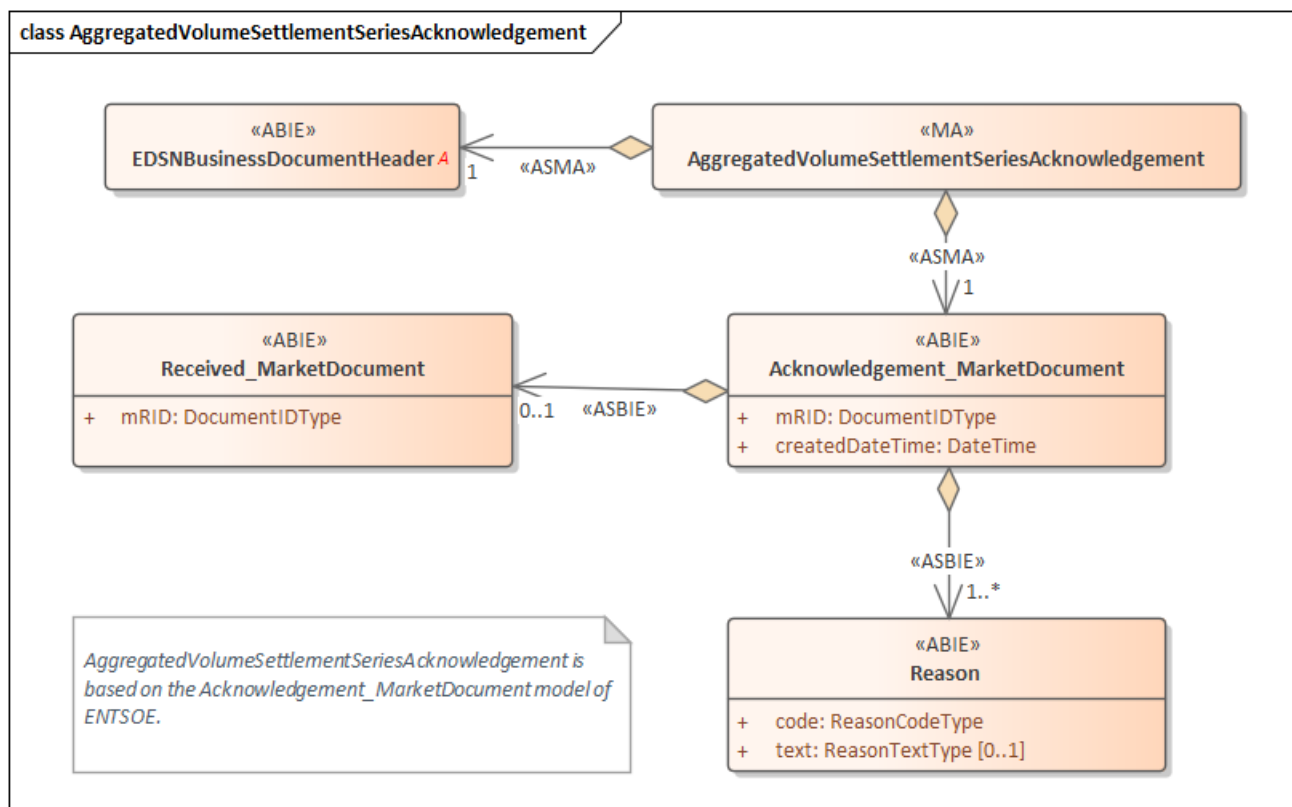
Product

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

Volume_Quantity

XML element	Data type	Multiplicity	Description	Functional parameter
quantity	Decimal	1..1	The quantity value. The association role provides the information about what is expressed.	Volume (electricity)
timeframeType	EnergyTariffType	1..1	The coded identification of the timeframe.	Price period
volumeQuantity_type	VolumeType	1..1	The description of the type of the quantity.	Type volume

7.3 Confirmation/rejection notification Exchange aggregated volumes for settlement per grid area (AggregatedVolumeSettlementSeriesAcknowledgement)



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 as per ISO 8601 YYYY-MM-DDThh:mm:ssZ.	Date/time notification

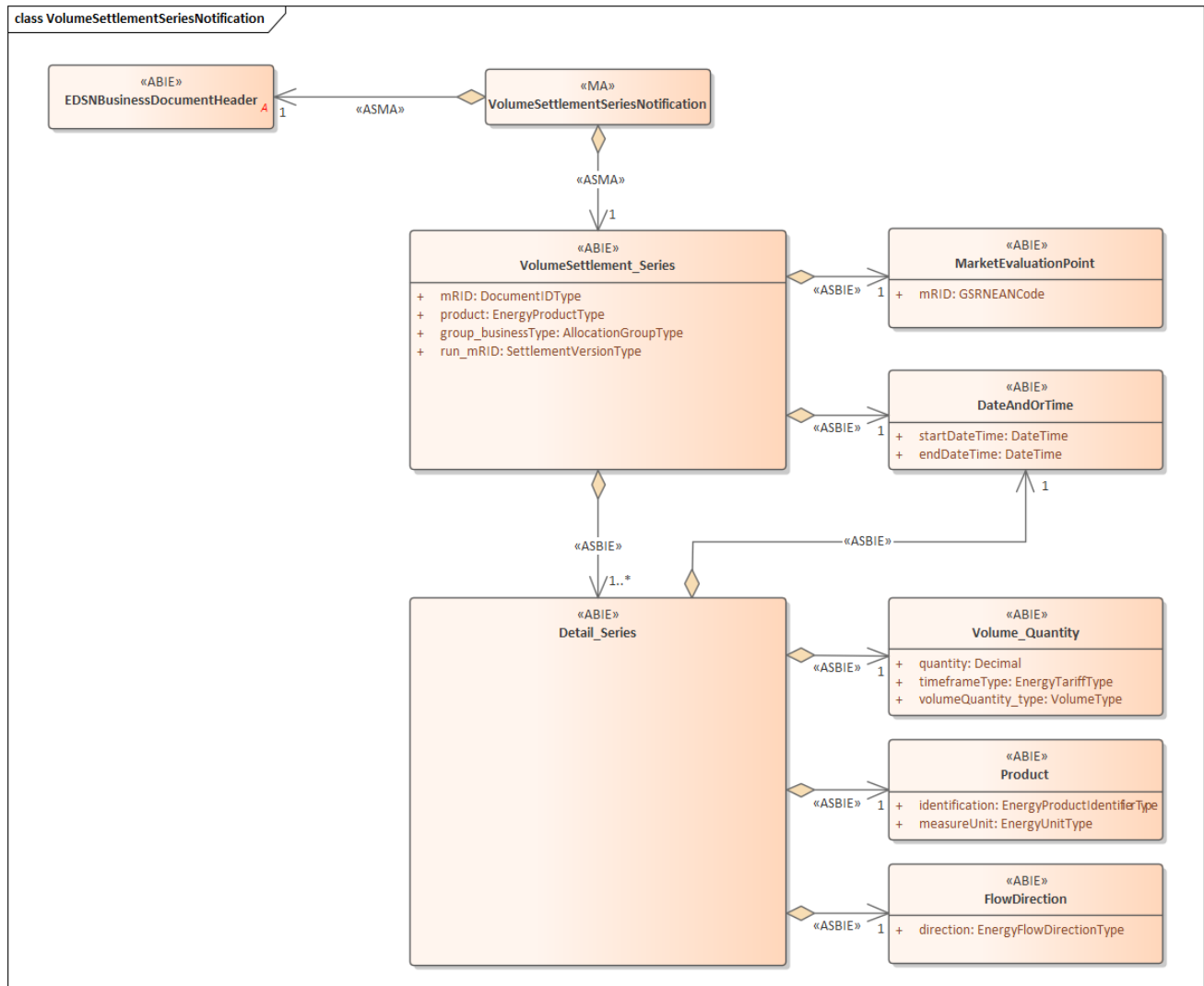
Reason

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.	Notification message identifier (UUID)

7.4 Notification Exchange volumes for settlement per individual allocation point (VolumeSettlementSeriesNotification)



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
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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

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

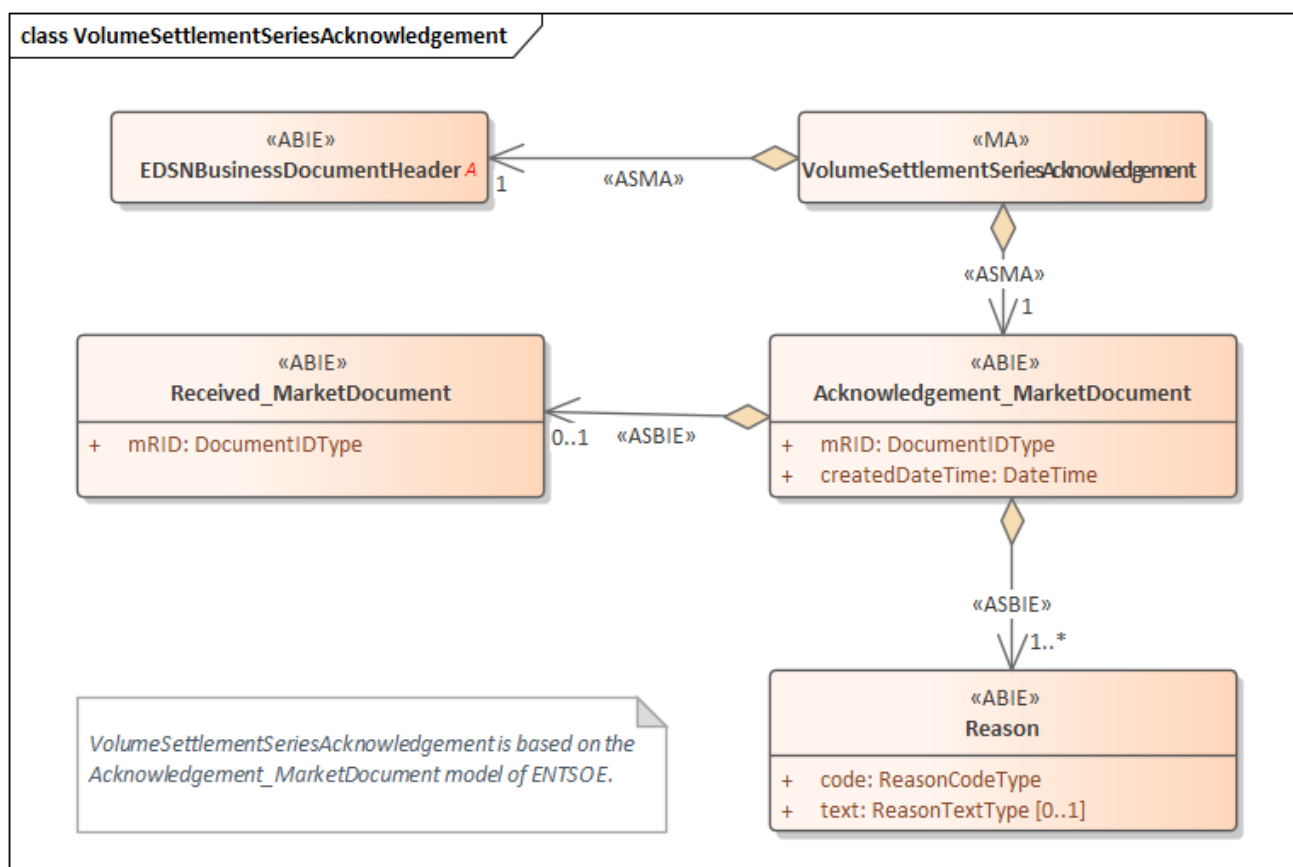
Volume_Quantity

XML element	Data type	Multiplicity	Description	Functional parameter
quantity	Decimal	1..1	The quantity value. The association role provides the information about what is expressed.	Volume (electricity)
timeframeType	EnergyTariffType	1..1	The coded identification of the timeframe.	Price period
volumeQuantity_type	VolumeType	1..1	The description of the type of the quantity.	Type volume

VolumeSettlement_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
group_businessType	AllocationGroupType	1..1	The identification of the nature of the time series.	Allocation group
run_mRID	SettlementVersionType	1..1	The identification of the version of the time series.	Settlement run identification

7.5 Confirmation/rejection notification Exchange volumes for settlement per individual allocation point (VolumesSettlementSeriesAcknowledgement)



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

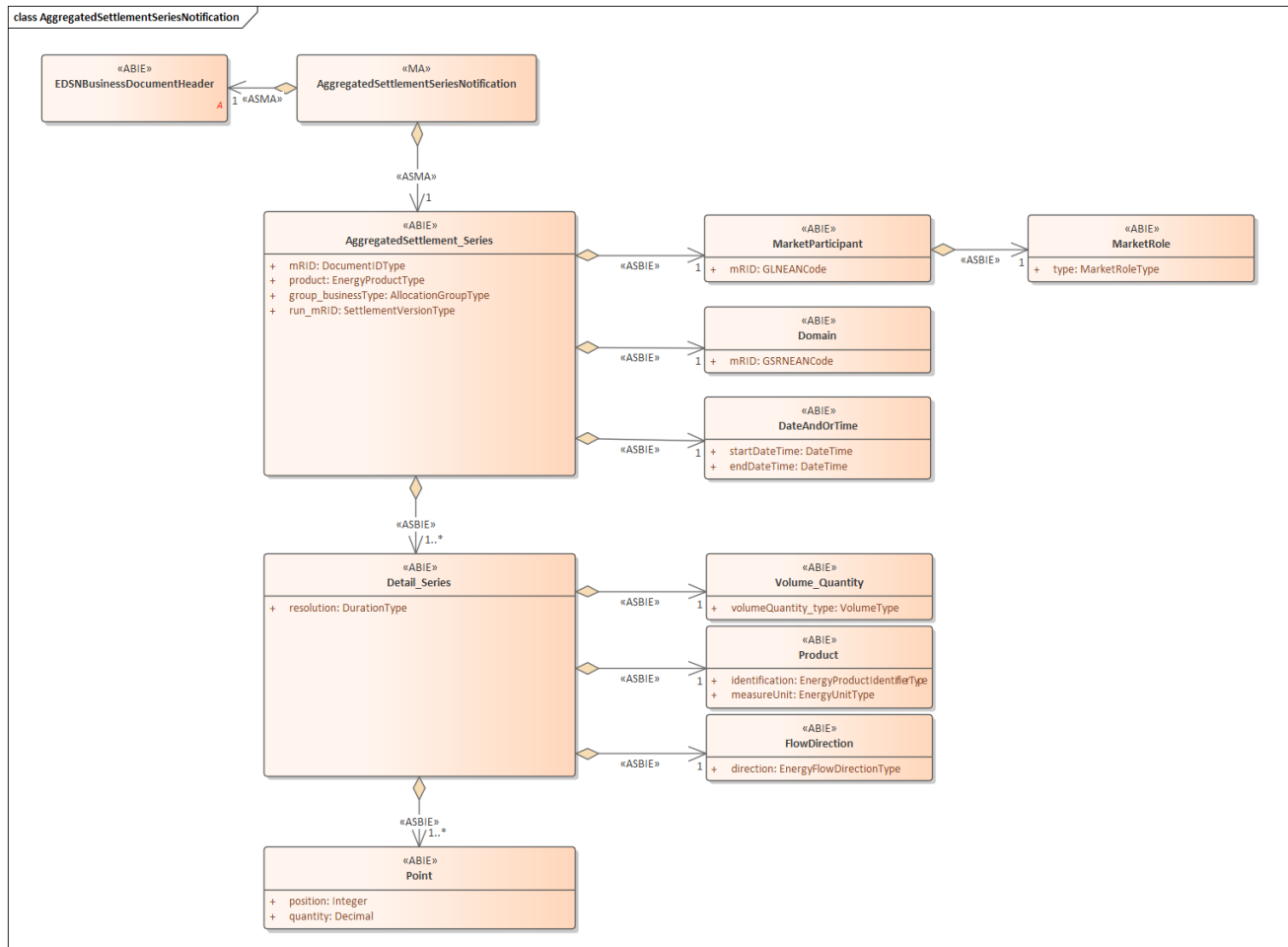
Reason

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.	Notification message identifier (UUID)

7.6 Notification Exchange aggregated OVP volumes for settlement per grid area (AggregatedSettlementSeriesNotification)



AggregatedSettlement_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
group_businessType	AllocationGroupType	1..1	The identification of the nature of the time series.	Allocation group
run_mRID	SettlementVersionType	1..1	The identification of the version of the time series.	Settlement run identification

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.	OVP (electricity)

Domain

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	GSRNEANCode	1..1	The unique identification of the domain.	EAN code grid area

FlowDirection

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

MarketParticipant

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

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

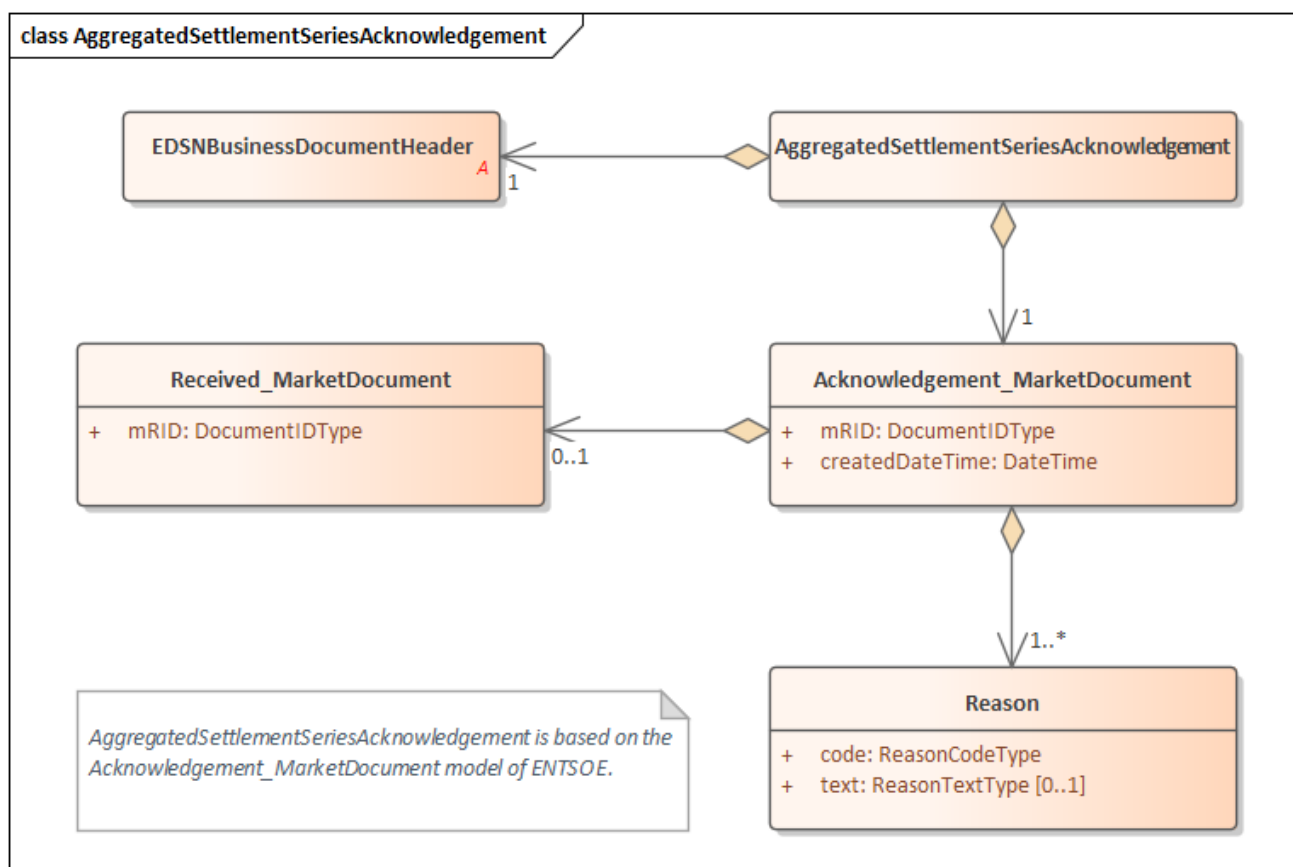
XML element	Data type	Multiplicity	Description	Functional parameter
identification	EnergyProductIdentifierType	1..1	The unique identification of the product.	Product ID
measureUnit	EnergyUnitType	1..1	The identification of the measure unit.	Energy unit

Volume_Quantity

XML element	Data type	Multiplicity	Description	Functional parameter
volumeQuantity_type	VolumeType	1..1	The description of the type of the quantity.	Type volume

7.7 Confirmation/rejection notification Exchange aggregated OVP volumes for settlement per grid

area (AggregatedSettlementSeriesAcknowledgement)



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 as per ISO 8601 YYYY-MM-DDThh:mm:ssZ.	Date/time notification

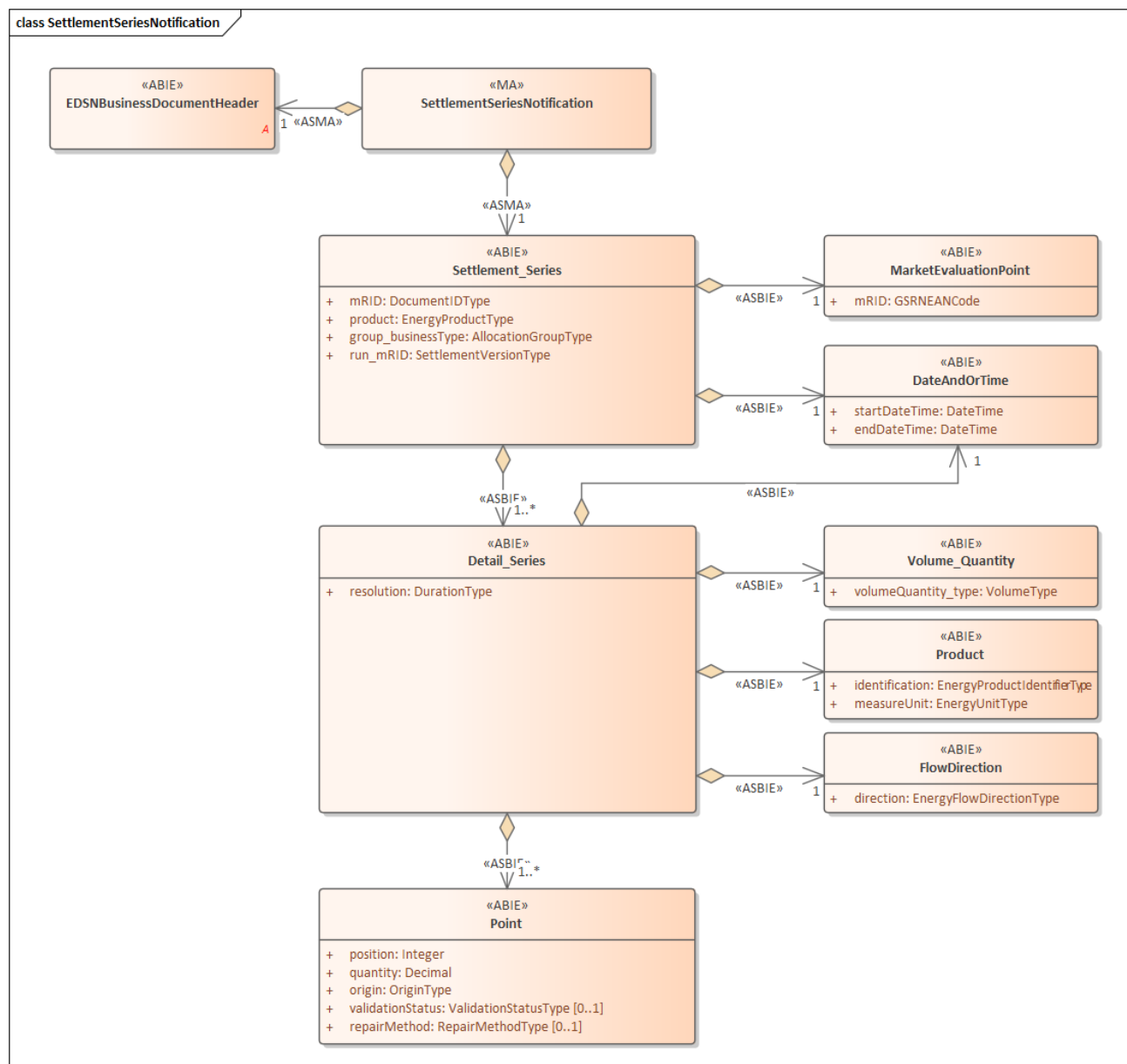
Reason

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.	Notification message identifier (UUID)

7.8 Notification Exchange OVP volumes for settlement per individual allocation point (SettlementSeriesNotification)



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.	OVP (electricity)

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

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
origin	OriginType	1..1	The identification of the origin.	Origin indicator
validationStatus	ValidationStatusType	0..1	The identification of the validation status.	Validation status
repairMethod	RepairMethodType	0..1	The identification of the repair method.	Repair method

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

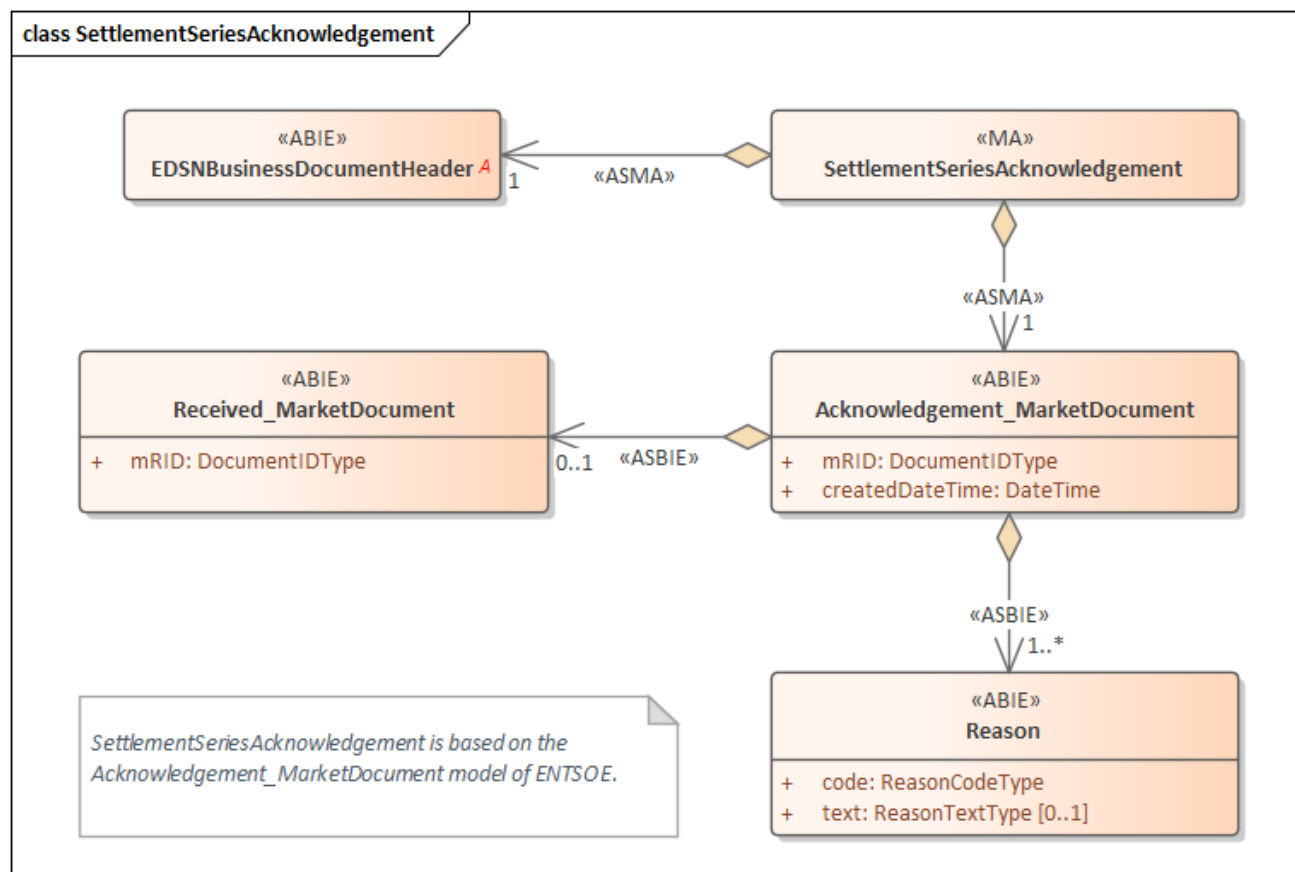
Settlement_Series

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
group_businessType	AllocationGroupType	1..1	The identification of the nature of the time series.	Allocation group
run_mRID	SettlementVersionType	1..1	The identification of the version of the time series.	Settlement run identification

Volume_Quantity

XML element	Data type	Multiplicity	Description	Functional parameter
volumeQuantity_type	VolumeType	1..1	The description of the type of the quantity.	Type volume

7.9 Confirmation/rejection notification Exchange OVP volumes for settlement per individual allocation point (SettlementSeriesAcknowledgement)



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 as per ISO 8601 YYYY-MM-DDThh:mm:ssZ.	Date/time notification

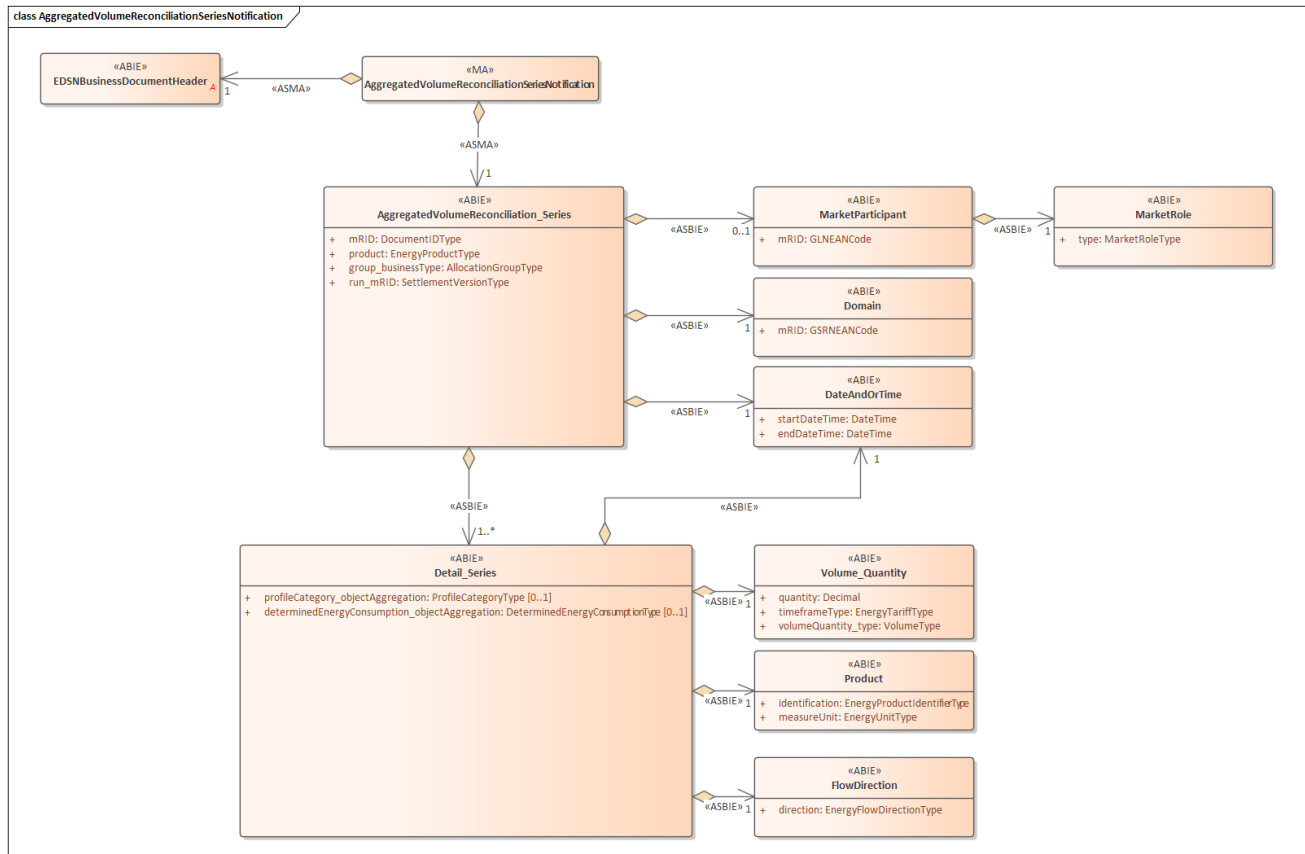
Reason

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.	Notification message identifier (UUID)

7.10 Notification Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area (AggregatedVolumeReconciliationSeriesNotification)



AggregatedVolumeReconciliation_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
group_businessType	AllocationGroupType	1..1	The identification of the nature of the time series.	Allocation group
run_mRID	SettlementVersionType	1..1	The identification of the version of the time series.	Settlement run identification

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
profileCategory_objectAggregation	ProfileCategoryType	0..1	The identification of the profile category that is the common denominator used to aggregate volumes.	Profile category
determinedEnergyConsumption_objectAggregation	DeterminedEnergyConsumptionType	0..1	The identification of the determined energy consumption that is the common denominator used to aggregate volumes.	Determined energy consumption

Domain

XML element	Data type	Multiplicity	Description	Functional parameter
mRID	GSRNEANCode	1..1	The unique identification of the domain.	EAN code grid area

FlowDirection

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

MarketParticipant

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

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

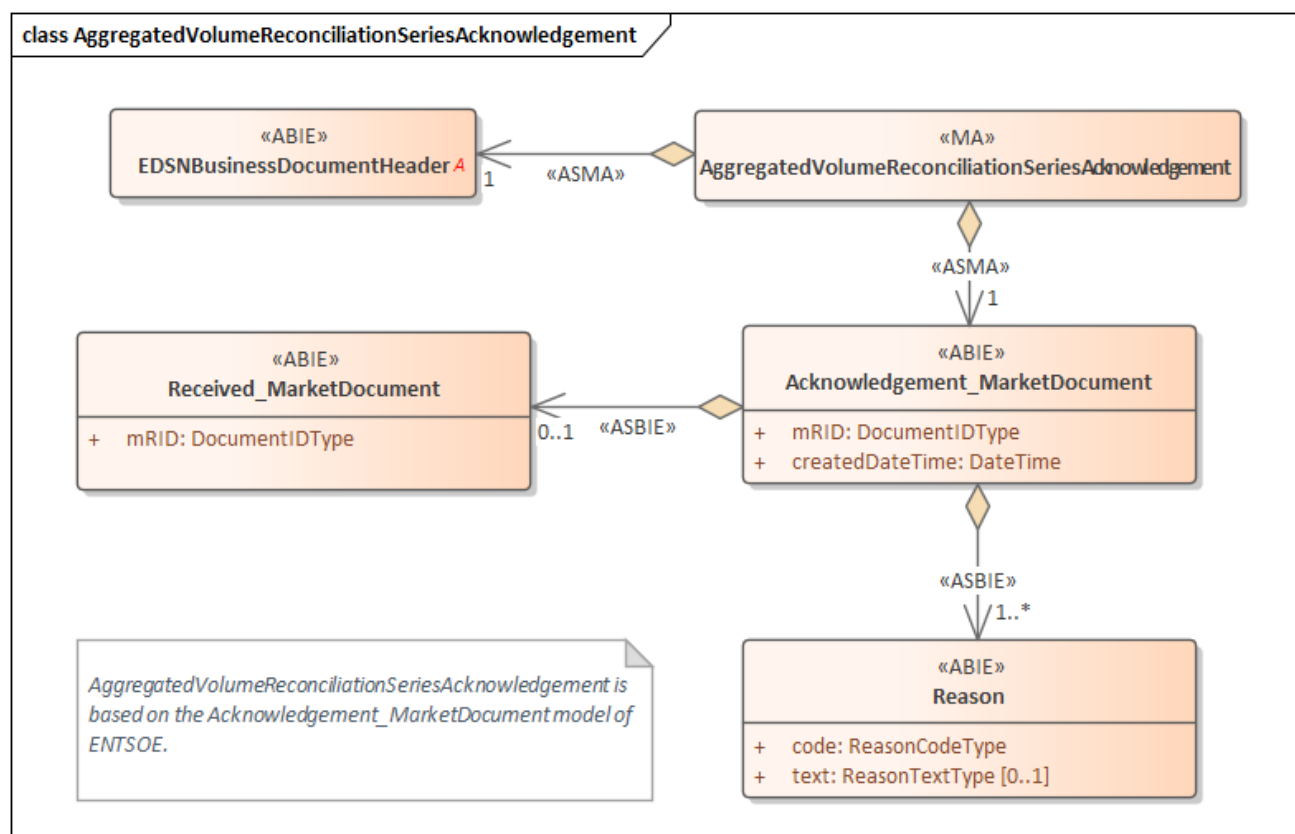
Product

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

Volume_Quantity

XML element	Data type	Multiplicity	Description	Functional parameter
quantity	Decimal	1..1	The quantity value. The association role provides the information about what is expressed.	Volume (electricity)
timeframeType	EnergyTariffType	1..1	The coded identification of the timeframe.	Price period
volumeQuantity_type	VolumeType	1..1	The description of the type of the quantity.	Type volume

7.11 Confirmation/rejection notification Exchange aggregated allocated volumes and aggregated determined volumes for reconciliation per grid area (AggregatedVolumeReconciliationSeriesAcknowledgement)



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 as per ISO 8601 YYYY-MM-DDThh:mm:ssZ.	Date/time notification

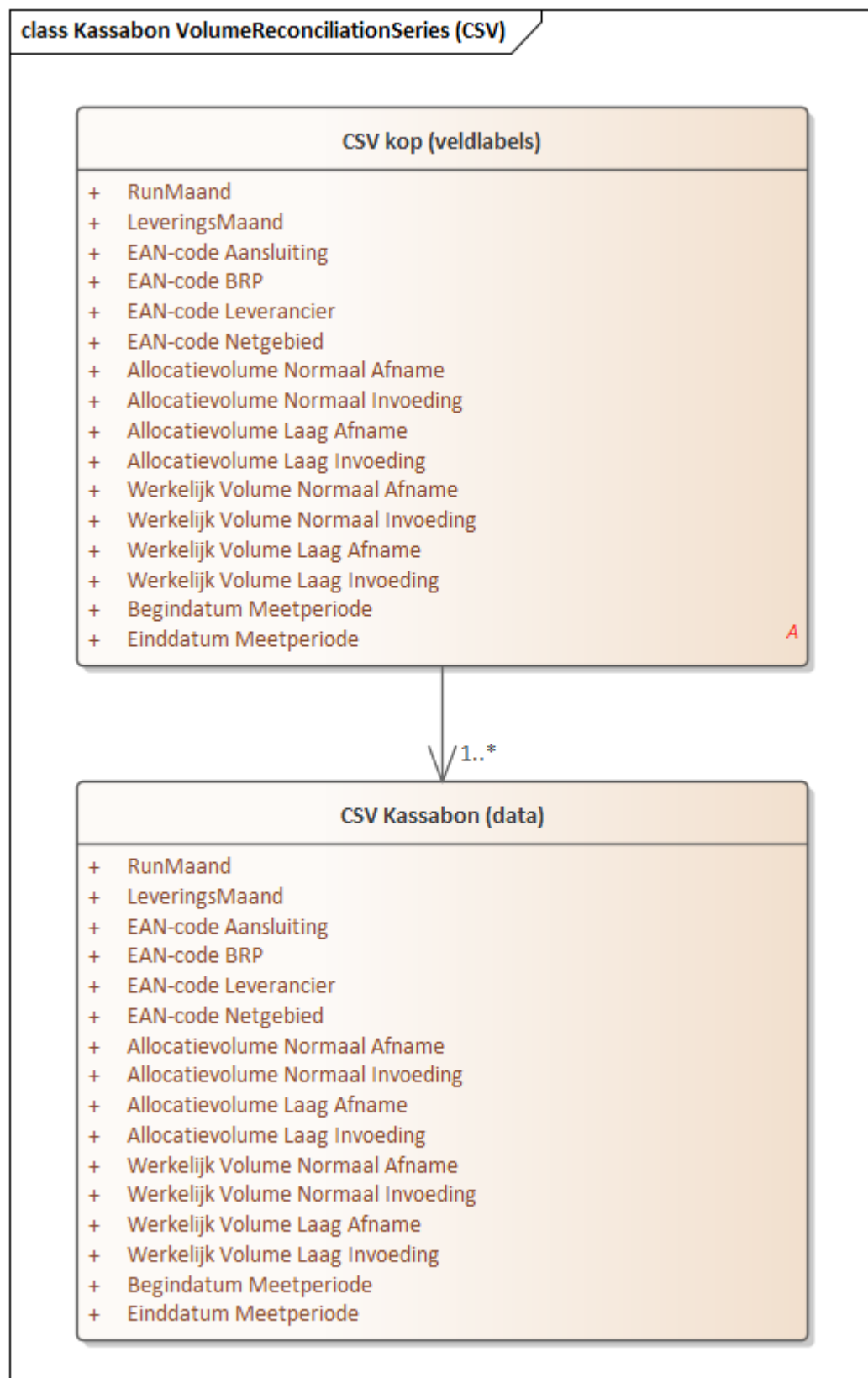
Reason

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.	Notification message identifier (UUID)

7.12 Certificate specification allocated volumes and determined volumes for reconciliation per individual allocation point (VolumeReconciliationSeries)



The table below presents an overview of the functional parameter implementation in the message definition⁵⁵.

Kop (labels)

Given	Data type	Multiplicity	Description
Run Month	String	1..1	Text label field Run Month
Delivery month	String	1..1	Text label field Delivery month
EAN code Connection	String	1..1	Text label field EAN-code Connection
EAN code BRP	String	1..1	Text label field EAN code BRP
EAN code Supplier	String	1..1	Text label field EAN code Supplier
EAN code Grid area	String	1..1	Text label field EAN code Grid area
Allocation volume Normal Consumption	String	1..1	Text label field Allocation Volume Normal Consumption
Allocation volume Normal Production	String	1..1	Text label field Allocation Volume Normal Production
Allocation volume Low Consumption	String	1..1	Text label field Allocation volume Low Consumption
Allocation volume Low Production	String	1..1	Text label field Allocation volume Low Production
Actual Volume Normal Consumption	String	1..1	Text label field Actual Volume Normal Consumption
Actual Volume Normal Production	String	1..1	Text label field Actual Volume Normal Production
Actual Volume Low Consumption	String	1..1	Text label field Actual Volume Low Consumption
Actual Volume Low Production	String	1..1	Text label field Actual Volume Low Production
Start date of Measurement period	String	1..1	Text label field Start date Measurement period
End date of Measurement period	String	1..1	Text label field End date Measurement period

Certificate (data VolumeReconciliationSeries)

Given	Data type	Multiplicity	Description
Run Month	Date	1..1	According to the notation: YYYYMM.
Delivery month	Date	1..1	According to the notation: YYYYMM.
EAN code Connection	String	1..1	EAN18 for the allocation point electricity.
EAN code BRP	String	1..1	EAN13 of the BRP.
EAN code Supplier	String	1..1	EAN13 of the SUP.
EAN code Grid area	String	1..1	EAN18 of the grid area.
Allocation volume Normal Consumption	Integer	1..1	Imputed allocation volume consumption during normal hours (in kWh, no decimal places).
Allocation volume Normal Production	Integer	1..1	Imputed allocation volume production during normal hours (in kWh, no decimal places).
Allocation volume Low Consumption	Integer	1..1	Imputed allocation volume consumption during low hours (in kWh, no decimal places).

⁵⁵ Concerns the structure of the current Certificate. The format of this Certificate is different from RFC 4180 which is used as the CSV format for the Dutch energy market

Given	Data type	Multiplicity	Description
Allocation volume Low Production	Integer	1..1	Imputed allocation volume production during low hours (in kWh, no decimal places).
Actual Volume Normal Consumption	Integer	1..1	The volume consumption during normal hours determined for reconciliation(in kWh, no decimal places).
Actual Volume Normal Production	Integer	1..1	The volume production during normal hours determined for reconciliation (in kWh, no decimal places).
Actual Volume Low Consumption	Integer	1..1	The volume consumption during low hours determined for reconciliation(in kWh, no decimal places).
Actual Volume Low Production	Integer	1..1	The volume production during low hours determined for reconciliation (in kWh, no decimal places).
Start date of Measurement period	Date	1..1	Start date of the consumption period according to the notation: YYYYMMDD.
End date of Measurement period	Date	1..1	End date of the consumption period according to the notation: YYYYMMDD.

Structure and exemple (Comma Separated Value)

Structure Certificate

Line	Structure
1 (labels)	Run Month;Delivery Month;EAN code Connection;EAN code BRP;EAN code Supplier;EAN code Grid area;Allocation volume Normal Consumption;Allocation volume Normal Production;Allocation volume Low Consumption;Allocation volume Low Production;Actual Volume Normal Consumption;Actual Volume Normal Production;Actual Volume Low Consumption;Actual Volume Low Production;Start date Measurement period;End date Measurement period
2.. n (data)	Run Month;Delivery Month;EAN code Connection;EAN code BRP;EAN code Supplier;EAN code Grid area;Allocation volume Normal Consumption;Allocation volume Normal Production;Allocation volume Low Consumption;Allocation volume Low Production;Actual Volume Normal Consumption;Actual Volume Normal Production;Actual Volume Low Consumption;Actual Volume Low Production;Start date Measurement period;End date Measurement period

Example Certificate

Line	Example
1	Run Month;Delivery Month;EAN code Connection;EAN code BRP;EAN code Supplier;EAN code Grid area;Allocation volume Normal Consumption;Allocation volume Normal Production;Allocation volume Low Consumption;Allocation volume Low Production;Actual Volume Normal Consumption;Actual Volume Normal Production;Actual Volume Low Consumption;Actual Volume Low Production;Start date Measurement period;End date Measurement period
2	202408;202305;871690930000400000;7609999151408;8719328014201;871690910000025589;61;12;80;19;344;24;450;39;20230501;20240501
3	202408;202306;871690930000400000;7609999151408;8719328014201;871690910000025589;59;6;59;7;330;46;329;134;20230501;20240501
4	202408;202307;871690930000400000;7609999151408;8719328014201;871690910000025589;61;0;63;0;341;0;352;0;20230501;20240501
5 .. n	

