

Business Service

Exchange Measurement Correction Report

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Measurement Correction Report

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Referenced documents

Market model

No.	Description	Version	Date	Author
1.	Markt- en subprocessen NEDU – retailprocessen	01:26	18-05-2020	NEDU
9.	IC253 Uitbreiden toepassing meetcorrectierapport	2.0	03-11-2021	NEDU

Design frameworks and guidelines

No.	Description	Version	Date	Author
2.	Ontwerpmethodiek EDSN	1.0	01-04-2010	EDSN
3.	EDSN Begrippenlijst	1.0	28/10/2010	EDSN
4.	NEDU EDSN Ontwerpkeuzes	3.9	15-04-2021	NEDU/EDSN
5.	TC021 Vastlegging datum/tijd conventies	1.0	28-09-2011	EDSN

Service descriptions and data model

No.	Description	Version	Date	Author
6.	EDSN Enumeratie Specificatie	2.7	26-04-2017	EDSN
7.	EDSN Complex Data Type Specificatie	2.2	27-05-2020	EDSN
8.	EDSN Logisch Data Type Specificatie	2.7	27-05-2020	EDSN

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1 Introduction

1.1 Service Description

The service description describes the various aspects of the services provided by Energie Data Services Nederland B.V. (hereinafter EDSN) to the users of the concerned service. EDSN uses the following principles when developing its service:

- Services developed within EDSN are based on the legal framework. This means that each participant is deemed to know and apply the legal standards when using the services provided by EDSN, even if they are not explicitly mentioned in this service description;
- EDSN strives to maintain equal practical market forces for customers, suppliers and system operators as much as possible, like between electricity and gas, on the one hand, and large and small consumers on the other. This increases market confidence, improved customer convenience, reduces automation costs, and cuts deployment time.

To give the reader a good insight into the service and accompanying functionality provided by EDSN, a detailed process description has been included and the used messages have been mentioned. For a description of the market process that supports the service, refer to the corresponding market model [1]. The additional rules and arrangements for these processes are also explained.

More information on the specifications of the EDSN application, in particular the various communication channels (interfaces such as GUI and web services) of the EDSN application can be found in the interface descriptions and user manuals.

1.2 Explanation process “Exchange Measurement Correction Report”

When a metering responsible party discovers that the original monthly message(s) were incorrect and need to be corrected, it may be necessary to send a Measurement Correction Report ¹. The concerned market parties are hereby informed that a measurement error has occurred and that there is new measurement data. The MCR contains both the old and new measurement data for the corrected period. There is also a reason (resulting differences) and an explanation of why new measurement data has been established.

The data will be exchanged between the Metering responsible party, Suppliers, Balance responsible party, Distribution System operator and the Transmission system operator. The Metering responsible party must send the Measurement Correction Report to the appropriate recipient via the business service “Exchange Measurement Correction Report”.

It is also possible for market parties to provide automated notification that consultation is required about the proposed measurement data via an error code in the rejection message. However, consultation is only possible for measurement data that is proposed based on an estimate.

The system operator plays the role of Metering responsible party for corrections on unmeasured connections and can also play this role for corrections on coupling points between grids. In none of these situations must the system operator use this service to send a Measurement Correction Notification. If the system operator does use this service, then metering responsible party should be read as system operator in the service description².

¹ MSP-R described when it is necessary to send a Measurement Correction report.

² The system operators have collectively indicated in the working group that this service is not being used. That is why this functionality will not be supported in the PUD.

This service description “Exchange Measurement Correction Report” describes the various aspects of the exchange of correction measurement errors for large consumers electricity and gas.

1.3 Reading Guide

This document contains the following chapters:

- Description of the “Exchange Measurement Correction Notification” process;
- Interaction diagram;
- Specifications web service;
- Message definitions.

1.4 List of abbreviations

Abbreviation	Description
BPMN	Business Process Model and Notation
BRP	Balance responsible party (formerly PV)
DSO	Distribution system operator
EDSN	Energy Data Services Netherlands
ELK	Electricity
GDS	Closed distribution system
GV	Large consumption
KV	Small consumption
LV	Supplier
MCR	Measurement Correction Report
MLOEA	Multiple suppliers on one connection
MRP	Metering responsible party
PUD	Portal Exchange Services
QoS	Quality of Service
SO	System Operator (DSO or TSO)
TSO	Transmission System Operator

1.5 Principles

The following principles have been used when implementing the service *Exchange Measurement Correction Report* service:

- Date/time stamp in XML messages according to NEDU EDSN Design choices;
- The service is available both through the PUD graphical user interface and via the PUD synchronous web service;
- The service described in this document is available for exchanging the Measurement Correction Report for multiple periods that fall within a given month;
- Wherever this service description refers to “Connection”, this means allocation point electricity, transfer point for MLOEA or gas connection;
- 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.

1.6 Disclaimer

The terms of this disclaimer apply to this English service description.

In the event of any conflict between this English service description and the Dutch version of this service description, the Dutch service description will prevail.

2 Roles and responsibilities

2.1 Consumer

The service Exchange Measurement Correction Report service is designed to explain the reason and correction of erroneous measurement data for electricity or gas. The data will be exchanged between the metering responsible party, supplier, balance responsible party and system operator.

The process below will be followed:

1. Submission of the Measurement Correction Report by metering responsible party.
2. Requesting *the* prepared *Measurement Correction Report* by the system operator, supplier and balance responsible party.
3. Submission of the result (approval or rejection) of Measurement Correction Report by system operator, supplier and balance responsible party.
4. Retrieval of prepared results of the Measurement Correction Report by the metering responsible party.

2.2 Provider

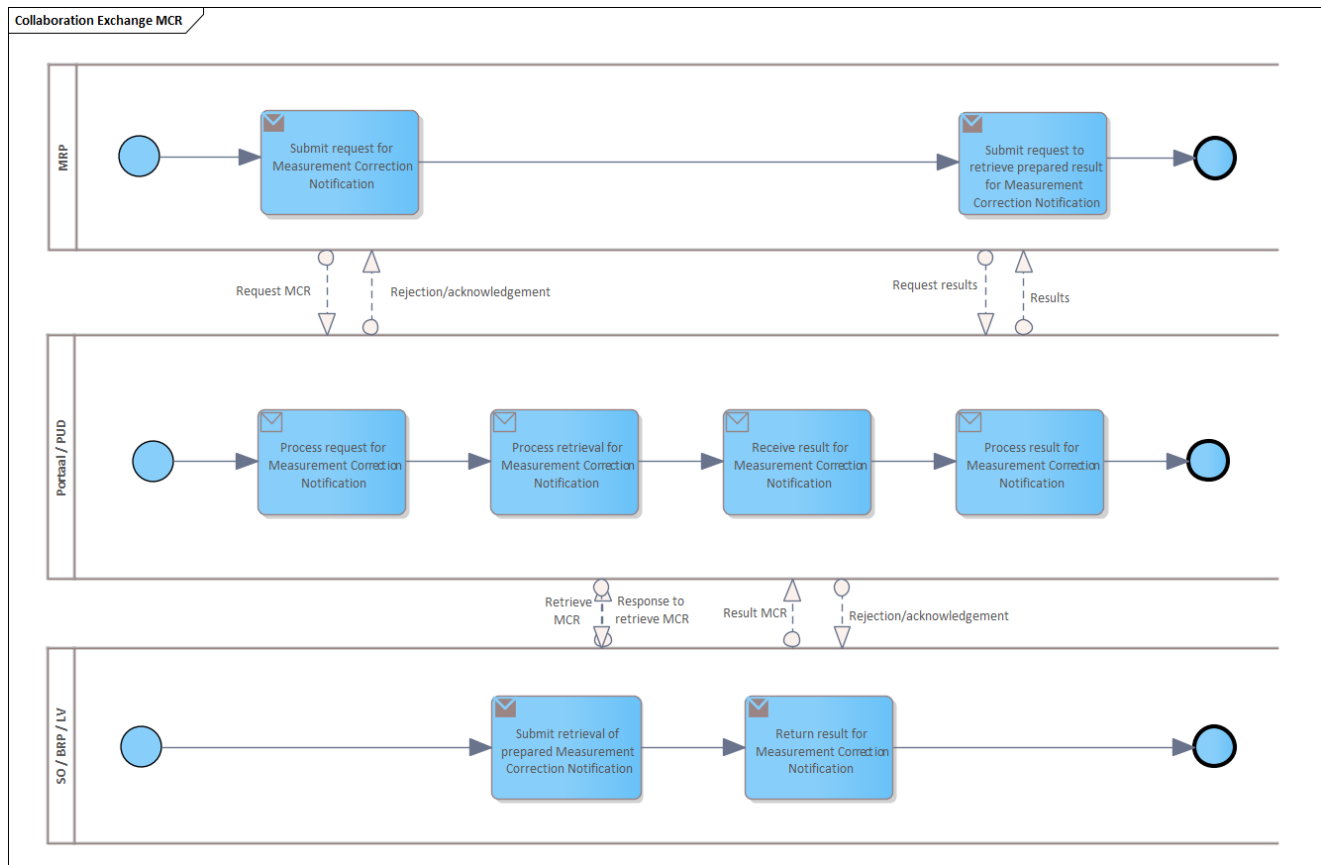
The system operators offer this service to allow the metering responsible party to report corrections of measurement errors for large consumers electricity and gas to the concerned market parties.

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)	EDSN
C (Consulted, NL: Raadplegen)	NEDU, ICWE, ICWG, EDSN and SI
I (Informed, NL: Informeren)	NEDU General Meeting of Members, EDSN

3 BPMN exchange Measurement Correction Report



3.1 Process description

The “Exchange Measurement Correction Report” process follows the following scenario:

- 1 *The Measurement Correction Report* is announced per connection by a metering responsible party who is authorized and authenticated for this purpose and has a number of possibilities:
 - a Via GUI³;
 - b Via XML notification, MeasureCorrectionNotification⁴²;
- 2 The received *Measurement Correction Report* is first syntactically validated by PUD. The other PUD validations described in the Validations chapter are also performed. In case of inaccuracies, *the Measurement Correction Report* is immediately rejected and the submitter is expected to correct the errors and resubmit *the Measurement Correction Report*;
- 3 If the *received Measurement Correction Report* is successfully validated by PUD, the submitter will receive a confirmation of receipt. PUD creates a transaction dossier for the received *Measurement Correction Report* for the concerned connection;
- 4 PUD processes *the Measurement Correction Report* and prepares *the Measurement Correction Report* for the recipient in question;
- 5 The *Measurement Correction Report* is prepared by PUD for the concerned recipient. Receiver retrieves *the Measurement Correction Report* and has a number of possibilities when doing so:
 - a via GUI³;

³ For zero or more connections.

⁴ For one connection.

- b via XML request, Measurement Correction Request⁴;
- 6 The received *Measurement Correction Report* is checked by the concerned recipient as described in the Validations chapter;
- 7 Based on these checks, the concerned recipient sends a response to the PUD. This can be an approval or a rejection, where the 'Consultation requested' option can also be highlighted. There are three response options:
 - a Confirmation/acceptance that *the Measurement Correction Report* has been successfully validated and accepted, whereby no consultation is required;
 - b A rejection:
 - i which indicates that *the Measurement Correction Report* contains semantic inaccuracies via an error code, see validations;
 - ii whereby indicating that consultation is desired for further processing of *the Measurement Correction Report* via an error code, see validations;
- 8 This rejection or approval of *the Measurement Correction Report* is sent by the appropriate recipient who is authorized and authenticated to do so, using a number of possibilities:
 - a Via GUI⁵;
 - b Via XML notification, MeasurementCorrectionResultNotification⁶;
- 9 The received rejection or approval of *Measurement Correction Report* is first syntactically validated by PUD. The other validations described in the Validations chapter are also carried out. In case of errors, the rejection or approval *Measurement Correction Report* is immediately rejected and the submitting party will be expected to correct the errors and to resubmit the rejection or approval for *Measurement Correction Report*;
- 10 The *Measurement Correction Notification* rejection or approval is prepared by PUD for the metering responsible party. The metering correction party retrieves the rejection or approval *Measurement Correction Report* and has a number of possibilities when doing so:
 - a a) via GUI⁵;
 - b via XML request, Measure Correction Result Request⁶;
- 11 If a rejection or approval of *Measurement Correction Report* has not been prepared by PUD, the metering responsible party will receive an empty message.

⁵ Per connection. In case of a rejection where the recipient is not a party registered on the connection, a rejection can only be submitted via B2B. Recipients that would like to handle this via the GUI must deal with this bilaterally with the submitting metering responsible party.

⁶ Per connection.

4 Validations

4.1 Validations PUD Measurement Correction Report

The PUD checks the following after the submitted MeasurementCorrectionNotification:

Control	Error message	XML code
The submitted Measurement Correction Report is complete and syntactically correct.	Notification incomplete or syntactically incorrect message	200
The receiving party is known in the market party register.	Recipient unknown	214
The submitting metering responsible party is known to the system operator (in the market parties register) as a legal entity.	EAN code Metering responsible party unknown	205

4.2 Validations by system operator

In response to the received MeasurementCorrectionResponse, the concerned system operator checks the following:

Control	Error message	XML code
The system operator in the message is the system operator responsible for the connection for all specified time periods.	System operator is not the responsible system operator registered for the connection for all specified periods	230
The specified consumption periods for the original and corrected quantity are within the specified start and end date of the consumption period.	Specified consumption periods for the original and corrected quantity do not fall within the specified start and end date of consumption period	630
According to the connection register, the MRP is registered as MRP on the connection during the entire message period.	The MRP is not registered as an MRP on the connection.	655
The system operator wishes to consult the concerned parties about the relevant measurement correction report.	Consultation about the Measurement Correction Report is desired	631
Message is complete and correct.	[free text field] ⁷	999

If the market party wants consultation about the proposed measurement data, the relevant error code in the rejection message must be used. However, consultation is only possible for measurement data that is proposed based on an estimate.

⁷ An explanation of error code 999 should be included in this text field.

4.3 Validations by supplier

The concerned supplier checks the following in response to the received MeasurementCorrectionResponse:

Control	Error message	XML code
The supplier in the message is the responsible supplier of the connection for all specified periods.	Supplier is not the responsible supplier registered for the connection for all specified periods	204
The specified consumption periods for the original and corrected quantity are within the specified start and end date of the consumption period.	Specified consumption periods for the original and corrected quantity are not within the specified start and end date of the consumption period	630
According to the connection register, the MRP is registered as MRP on the connection during the entire message period.	The MRP is not registered as an MV on the connection.	655
The supplier wants to consult the concerned parties about the concerned measurement correction report.	Consultation about the Measurement Correction Report is desired	631
Message is complete and correct.	[free text field] ⁸	999

If the market party wants consultation about the proposed measurement data, the relevant error code in the rejection message must be used. However, consultation is only possible for measurement data that is proposed based on an estimate.

⁸ An explanation of error code 999 should be included in this text field.

4.4 Validations by balance responsible party

In response to the received MeasurementCorrectionResponse, the concerned balance responsible party checks the following:

Control	Error message	XML code
The balance responsible party in the message is the responsible balance responsible party of the connection for all periods specified.	The balance responsible party is not the balance responsible party registered for the connection for all specified periods	207
The specified consumption periods for the original and corrected quantity are within the specified start and end date of the consumption period.	Specified consumption periods for the original and corrected quantity are not within the specified start and end date of the consumption period	630
According to the connection register, the MRP is registered as MRP on the connection during the entire message period.	The MRP is not registered as an MV on the connection.	655
The balance responsible party wishes to consult the concerned parties about the relevant measurement correction report.	Consultation about the Measurement Correction Report is desired	631
Message is complete and correct.	[free text field] ⁹	999

If the market party wants consultation about the proposed measurement data, the relevant error code in the rejection message must be used. However, consultation is only possible for measurement data that is proposed based on an estimate.

4.5 Validations PUD Result Measurement Correction Report

The PUD checks the following after the submitted rejection or approval of Measurement Correction Result Notification:

Control	Error message	XML code
The submitted MeasurementCorrectionResultNotification is complete and syntactically correct.	Notification incomplete or syntactically incorrect message	200
The PUD transaction dossier is known in PUD ¹⁰ .	Transaction dossier unknown	215

⁹ An explanation of error code 999 should be included in this text field.

¹⁰ The PUD verifies that the transaction file number in the submitted rejection or approval is known in PUD and that the information in the submitted rejection or approval belongs to the corresponding transaction file number.

5 Functional parameters

5.1 Submission *Measurement Correction Report* by metering responsible party

The following functional parameters apply to *the Measurement Correction Report*:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>	
Connection					1		
Connection EAN	N/A	Required	Yes	Yes	1	The EAN18 code of the allocation point, transfer point or connection for which the measurement correction is submitted	
Product type	N/A	Required	Yes	Yes	1	Allowed values	
						ELK	Electricity
						GAS	Gas
Connection > Mutation					1		
Reference	N/A	Optional	Yes	Yes	1	Can be filled in by submitting metering responsible party	
Transmitting EAN	N/A	Required	Yes	Yes	1	The metering responsible party that is registered on the connection for the relevant consumption period	
Receiving EAN	N/A	Required	Yes	Yes	1	The supplier EAN that is registered to the connection for the concerned usage period or The system operator registered on the connection for that usage period or The balance responsible party registered on the connection for the concerned consumption period	
MCR-ID	N/A	Required	Yes	Yes	1	A UUID as a unique identifier of the message. Determined by the submitter and used to link the Measurement Correction Report to the answer.	
Connection > System operator					1		
EAN System operator	N/A	Required	Yes	Yes	1	EAN13 code	
Connection > Measurement correction					1		

Correction explanation	N/A	Required	Yes	Yes	1	Explanation for the correction where the encountered problem is clearly described as well as the solution used to resolve the problem.
Date of detection	N/A	Required	Yes	Yes	1	The date for detecting inaccuracies in measurement data
Reason for differences	N/A	Required	Yes	Yes	n	Allowed values:
						E01 Administrative error
						E02 Back-end system configuration error
						E03 Configuration error data collection system
						E04 Configuration error KWh Meter(s)

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>	
						E05	Received data
						E06	Long-term estimate
						E07	Long-term failure
						E08	Faulty meter(s)
						E09	Incorrectly connected meter(s)
						E10	Transfer ratio
						E11	Voltage transformer(s) faulty
						E12	Power transformer(s) faulty
						E13	Short-circuit current transformer(s)
						E14	Transformer loss factor
						E99	Other
						G01	Pulse transmission
						G02	Redirection factor (pressure/temperature)
						G99	Other

Start date	N/A	Required	Yes	Yes	1	Start date of the receiving party's party's correction period to which the Measurement Correction Report relates.
End Date	N/A	Required	Yes	Yes	1	End date of the receiving party's correction period to which the Measurement Correction Report relates.
Connection > Measurement correction > Contact person					1	
Contact	N/a	Optional	Yes	Yes	1	The contact person is required if the report involves a correction of measurement data from an unmeasured connection. The contact person is the representative (name or position) of the connected party with whom the correction was coordinated.
Connection > Correction					n	
Quantity	N/A	Required	Yes	Yes	1	One quantity per consumption period.
Category	N/A	Required	Yes	Yes	1	Allowed values
						MSR Measured
						CLC Calculated
						AGR Agreed
						DBD Decided by DSO/TSO
Start date	N/A	Required	Yes	Yes	1	Start date of the consumption period
End Date	N/A	Required	Yes	Yes	1	End Date of the consumption period
Given	KV	GV	GAS	ELK	1/n	Note
Connection > Correction > Count					1	
Unit of measure	N/A	Required	Yes	Yes	1	Allowed values
						KWH active energy: Kilowatt hour (kWh)
						KWT active power: Kilowatts (kW)
						KRH reactive energy: Kilovoltampère reactive hour (kvarh)
						NM3 natural gas: Normal cubic meter (m ³ _(n))
						NMH natural gas: Normal cubic meters per hour (m ³ _(n) /hour)
Measurement direction	N/A	Dependent	N/A	Yes	1	Allowed values

						LVR	Delivery (Offtake) Convention for a net-to-net electricity transfer point: When energy flows from the grid area, the energy direction is Offtake. Residual Volume Convention: For residual volume that is added to the offtake volumes per hour, the energy direction is "Offtake".
						TLV	Return (Feed-in) Convention for a net-to-net electricity transfer point: For energy flowing into the grid area, the energy direction is Input. Residual Volume Convention: For residual volume that is deducted from the offtake volumes per hour, the energy direction is "Feed-in".
Tariff zone	N/A	Dependent	N/A	Yes	1	Allowed values	
						L	Low
						N	Normal
						T	Total
Measurement type	N/A	Required	Yes	Yes	1	Allowed values	
						ACT	Active Volume (Electricity)
						CNSO ¹¹	Own consumption (Electricity)
						KWMX ¹²	KWmax: The maximum power (peak) during period between start date and end date (Electricity)

¹¹ The measurement type CNSO is only relevant when exchanging the message *Measurement Correction Report* with the system operator. Based on the Iceg, there is no obligation to exchange this information in the *Measurement Correction Report* message.

¹² Measurement type KWMAX is only relevant when exchanging the *Measurement Correction Report* message with the system operator. The maximum power (peak) for period between start date and end date. For very limited number of connections, this can also be a weekly peak, instead of the standard monthly peak.

Given	KV	GV	GAS	ELK	1/n	Note	
						PRDG ¹³	Gross production (Electricity)
						RACT ¹⁴	Reactive Volume (Electricity)
						FOLLOW	Gas (Gas) Redirect Volume
						PKG	Gas (Gas) Peak Load
						REVG	Gas (Gas) residual volume
Connection > Correction > Count > Energy Meter					1		
Connection > Correction > Count > Energy Meter > Generation Unit					1		
ID	N/A	Dependent	N/A	Yes	1	Unique identifier, only filled in in case of measurement correction for generation system	
Connection > Original					n		
Quantity	N/A	Required	Yes	Yes	1	One quantity per consumption period	
Category	N/A	Required	Yes	Yes	1	Allowed values	
						MSR	Measured
						CLC	Calculated
						AGR	Agreed
						DBD	Decided by DSO/TSO
Start date	N/A	Required	Yes	Yes	1	Start date of the consumption period	
End Date	N/A	Required	Yes	Yes	1	End Date of the consumption period	

¹³ The measurement type PRDG is only relevant when exchanging the *Measurement Correction Report* message with the system operator. Based on the Iceg, there is no obligation to exchange this information in the *Measurement Correction Report* message.

¹⁴ The measurement type RACT is only relevant when exchanging the *Measurement Correction Report* message with the system operator.

Connection > Original > Count					1	
Unit of measure	N/A	Required	Yes	Yes	1	Allowed values
						KWH active energy: Kilowatt hour (kWh)
						KWT active power: Kilowatts (kW)
						KRH reactive energy: Kilovoltampère reactive hour (kvarh)
						NM3 natural gas: Normal cubic meter (m ³ _(n))
						NMH natural gas: Normal cubic meters per hour (m ³ _(n) /hour)
Measurement direction	N/A	Dependent	N/A	Yes	1	Allowed values

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<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
						LVR Delivery (Offtake) (Convention for a grid-to-grid transmission point for electricity: For energy flow from the grid area, the energy direction is Offtake) Residual Volume Convention: For residual volume that is added to the offtake volumes per hour, the energy direction is "Offtake"
						TLV Return (Feed-in) (Convention for a grid-to-grid transmission point for electricity: In case of energy flow to the grid area, the energy direction is Feed-in) Residual Volume Convention: For residual volume that is deducted from the offtake volumes per hour, the energy direction is "Feed-in".
Tariff zone	N/A	Dependent	Yes	Yes	1	Allowed values
						L Low
						N Normal
						T Total
Measurement type	N/A	Required	Yes	Yes	1	Allowed values

						ACT	Active Volume (Electricity)
						CNSO ¹⁵	Own consumption (Electricity)
						KWMX ¹⁶	KWmax: The maximum power (peak) during period between start date and end date (Electricity)
						PRDG ¹⁷	Gross production (Electricity)
						RACT ¹⁸	Reactive Volume (Electricity)
						FOLLOW	Gas (Gas) Redirect Volume
						PKG	Gas (Gas) Peak Load
						REVG	Gas (Gas) residual volume
Connection > Original > Count > Energy Meter					1		

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Given	KV	GV	GAS	ELK	1/n	Note
Connection > Original > Count > Energy Meter > Generation Unit					1	
ID	N/A	Dependent	N/A	Yes	1	Unique identifier, only filled in in case of measurement correction for generation system

¹⁵ The measurement type CNSO is only relevant when exchanging the message *Measurement Correction Report* with the system operator. Based on the Iceg, there is no obligation to exchange this information in the *Measurement Correction Report* message.

¹⁶ Measurement type KWMAX is only relevant when exchanging the *Measurement Correction Report* message with the system operator. The maximum power (peak) for period between start date and end date. For very limited number of connections, this can also be a weekly peak, instead of the standard monthly peak.

¹⁷ The measurement type PRDG is only relevant when exchanging the *Measurement Correction Report* message with the system operator. Based on the Iceg, there is no obligation to exchange this information in the *Measurement Correction Report* message.

¹⁸ The measurement type RACT is only relevant when exchanging the *Measurement Correction Report* message with the system operator.

5.2 Response submitted *Measurement Correction Report* to metering responsible party

The response from PUD to the submitted Measurement Correction Report is a rejection or approval.

Rejection:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
Rejection					1	
Reason for rejection	N/A	Required	Yes	Yes	n	See <i>Validations paragraph</i>
Explanation rejection reason	N/A	Optional	Yes	Yes	n	

Approval:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
The approval does not contain any specific functional parameters.						

5.3 Request Ask prepared *Measurement Correction report* by SO/LV/BRP

Request Ask prepared *Measurement Correction Report*:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
The request does not contain any specific functional parameters.						

5.4 Request Ask prepared *Measurement Correction Report* from SO/LV/BRP

The following functional parameters apply for the response Ask prepared *Measurement Correction Report*:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
Connection					n	0 or more <i>Measurement Correction Notification(s)</i> may be ready
Connection EAN	N/A	Required	Yes	Yes	1	The EAN18 code for the allocation point, transfer point or connection for which the measurement correction is submitted

Product type	N/A	Required	Yes	Yes	1	Allowed values	
						ELK	Electricity
						GAS	Gas
Connection > Mutation					1		
Reference	N/A	Optional	Yes	Yes	1	Value present if previously entered by submitting metering responsible party	
Transmitting EAN	N/A	Required	Yes	Yes	1	The metering responsible party that is registered on the connection for the relevant consumption period	
Receiving EAN	N/A	Required	Yes	Yes	1	The supplier EAN that is registered to the connection for the concerned usage period or The system operator registered on the connection for that usage period or The balance responsible party registered on the connection for the concerned consumption period	
MCR-ID	N/A	Required	Yes	Yes	1	A UUID as a unique identifier of the message. Determined by the submitter and used to link the Measurement Correction Notification to the answer.	
Connection > Mutation > Dossier							
Dossier Number	N/A	Required	Yes	Yes	1	PUD Dossier Number	
Connection > System operator					1		
System operator EAN	N/a.	Required	Yes	Yes	1	EAN13 code	
Connection > Measurement correction					1		
Correction explanation	N/A	Required	Yes	Yes	1	Explanation for the correction where the encountered problem is clearly described as well as the solution used to resolve the problem	
Date of detection	N/A	Required	Yes	Yes	1	The date for detecting inaccuracies in measurement data	
Reason for differences	N/A	Required	Yes	Yes	n	Allowed values:	
						E01	Administrative error
						E02	Back-end system configuration error
						E03	Configuration error data collection system
						E04	Configuration error KWh Meter(s)
						E05	Received data

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>	
						E06	Long-term estimate
						E07	Long-term failure
						E08	Faulty meter(s)
						E09	Incorrectly connected meter(s)
						E10	Transfer ratio
						E11	Voltage transformer(s) faulty
						E12	Power transformer(s) faulty
						E13	Short-circuit current transformer(s)
						E14	Transformer loss factor
						E99	Other
						G01	Pulse transmission
						G02	Redirection factor (pressure/temperature)
						G99	Other
Start date	N/A	Required	Yes	Yes	1	Start date of the receiving party's party's correction period to which the Measurement Correction Notification relates.	
End Date	N/A	Required	Yes	Yes	1	End date of the receiving party's correction period to which the Measurement Correction Notification relates.	
Connection > Measurement correction > Contact person					1		
Contact person	N/A	Optional	Yes	Yes	1	The contact person is required if the report involves a correction of measurement data from an unmeasured connection. The contact person is the representative (name or position) of the connected party with whom the correction was coordinated.	
Connection > Correction					n		

Quantity	N/A	Required	Yes	Yes	1	One per consumption period
Category	N/A	Required	Yes	Yes	1	Allowed values
						MSR Measured
						CLC Calculated
						AGR Agreed
						DBD Decided by DSO/TSO
Start date	N/A	Required	Yes	Yes	1	Start date of the consumption period
End Date	N/A	Required	Yes	Yes	1	End Date of the consumption period
Given	KV	GV	GAS	ELK	1/n	Note
Connection > Correction > Count					1	
Unit of measure	N/A	Required	Yes.	Yes	1	Allowed values
						KWH active energy: Kilowatt hour (kWh)
						KWT active power: Kilowatts (kW)
						KRH reactive energy: Kilovoltampère reactive hour (kvarh)
						NM3 natural gas: Normal cubic meter (m ³ _(n))
						NMH natural gas: Normal cubic meters per hour (m ³ _(n) /hour)
Measurement direction	N/A	Dependent	N/A	Yes	1	Allowed values
						LVR Delivery (Offtake) (Convention for a grid-to-grid transmission point for electricity: For energy flow from the grid area, the energy direction is Offtake) Residual Volume Convention: For residual volume that is added to the offtake volumes per hour, the energy direction is "Offtake"

						TLV	Return (Feed-in) (Convention for a grid-to-grid transmission point for electricity: In case of energy flow to the grid area, the energy direction is Feed-in) Residual Volume Convention: For residual volume that is deducted from the offtake volumes per hour, the energy direction is "Feed-in".
Tariff zone	N/A	Dependent	N/A	Yes	1	Allowed values	
						L	Low
						N	Normal
						T	Total
Measurement type	N/A	Required	Yes	Yes	1	Allowed values	
						ACT	Active Volume (Electricity)
						CNSO ¹⁹	Own consumption (Electricity)
						KWMX ²⁰	KWmax: The maximum power (peak) during period between start date and end date (Electricity)

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Given	KV	GV	GAS	ELK	1/n	Note
						PRDG ²¹
						Gross production (Electricity)
						RACT ²²
						Reactive Volume (Electricity)
						FOLLOW
						Gas (Gas) Redirect Volume

¹⁹ The measurement type CNSO is only relevant when exchanging the message *Measurement Correction Report* with the system operator. Based on the Iceg, there is no obligation to exchange this information in the *Measurement Correction Report* message.

²⁰ Measurement type KWMAX is only relevant when exchanging the *Measurement Correction Report* message with the system operator. The maximum power (peak) for period between start date and end date. For very limited number of connections, this can also be a weekly peak, instead of the standard monthly peak.

²¹ The measurement type PRDG is only relevant when exchanging the *Measurement Correction Report* message with the system operator. Based on the Iceg, there is no obligation to exchange this information in the *Measurement Correction Report* message.

²² The measurement type RACT is only relevant when exchanging the *Measurement Correction Report* message with the system operator.

						PKG	Gas (Gas) Peak Load
						REVG	Gas (Gas) residual volume
Connection > Correction > Count > Energy Meter					1		
Connection > Correction > Count > Energy Meter > Generation Unit					1		
ID	N/A	Dependent	N/A	Yes	1	Unique identifier, only filled in in case of measurement correction for generation system	
Connection > Original					n		
Quantity	N/A	Required	Yes	Yes	1	One quantity per consumption period	
Category	N/A	Required	Yes	Yes	1	Allowed values	
						MSR	Measured
						CLC	Calculated
						AGR	Agreed
						DBD	Decided by DSO/TSO
Start date	N/A	Required	Yes	Yes	1	Start date of the consumption period	
End Date	N/A	Required	Yes	Yes	1	End Date of the consumption period	
Connection > Original > Count					1		
Unit of measure	N/A	Required	Yes	Yes	1	Allowed values	
						KWH	active energy: Kilowatt hour (kWh)
						KWT	active power: Kilowatts (kW)
						KRH	reactive energy: Kilovoltampère reactive hour (kvarh)
						NM3	natural gas: Normal cubic meter (m ³ _(n))
						NMH	natural gas: Normal cubic meters per hour (m ³ _(n) /hour)

Measurement direction	N/A	Dependent	N/A	Yes	1	Allowed values
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<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
						LVR Delivery (Offtake) (Convention for a grid-to-grid transmission point for electricity: For energy flow from the grid area, the energy direction is Offtake) Residual Volume Convention: For residual volume that is added to the offtake volumes per hour, the energy direction is "Offtake"
						TLV Return (Feed-in) (Convention for a grid-to-grid transmission point for electricity: In case of energy flow to the grid area, the energy direction is Feed-in) Residual Volume Convention: For residual volume that is deducted from the offtake volumes per hour, the energy direction is "Feed-in".
Tariff zone	N/A	Dependent	N/A	Yes	1	Allowed values
						L Low
						N Normal
						T Total
Measurement type	N/A	Required	Yes	Yes	1	Allowed values
						ACT Active Volume (Electricity)
						CNSO ²³ Own consumption (Electricity)
						KWMX ²⁴ KWmax: The maximum power (peak) during period between start date and end date (Electricity)

²³ The measurement type CNSO is only relevant when exchanging the message *Measurement Correction Report* with the system operator. Based on the Iceg, there is no obligation to exchange this information in the *Measurement Correction Report* message.

²⁴ Measurement type KWMAX is only relevant when exchanging the *Measurement Correction Report* message with the system operator. The maximum power (peak) for period between start date and end date. For very limited number of connections, this can also be a weekly peak, instead of the standard monthly peak.

						PRDG ²⁵	Gross production (Electricity)
						RACT ²⁶	Reactive Volume (Electricity)
						FOLLOW	Gas (Gas) Redirect Volume
						PKG	Gas (Gas) Peak Load
						REVG	Gas (Gas) residual volume
Connection > Original > Count > Energy Meter						1	

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Given	KV	GV	GAS	ELK	1/n	Note
Connection > Original > Count > Energy Meter > Generation Unit					1	
ID	N/A	Dependent	N/A	Yes	1	Unique identifier, only filled in in case of measurement correction for generation system

²⁵ The measurement type PRDG is only relevant when exchanging the *Measurement Correction Report* message with the system operator. Based on the Iceg, there is no obligation to exchange this information in the *Measurement Correction Notification* message.

²⁶ The measurement type RACT is only relevant when exchanging the *Measurement Correction Report* message with the system operator.

5.5 Submit Result *Measurement Correction Report* by SO/LV/BRP

The *Measurement Correction Report* result is a rejection or approval.

Rejection:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
Rejection					1	
Reason for rejection	N/A	Required	Yes	Yes	n	See <i>Validations paragraph</i>
Explanation rejection reason	N/A	Dependent	Yes	Yes	n	If the reason for rejection (error code) is 999, an explanation of the reason for rejection should be included.
Rejection > Connection					1	
Connection EAN	N/A	Required	Yes	Yes	1	The EAN18 code of the connection for which the measurement correction is submitted
Rejection > Connection > Mutation					1	
Reference	N/A	Optional	Yes	Yes	1	Present if filled by submitting metering responsible party (if MRP has supplied, then must be returned)
MCR-ID	N/A	Required	Yes	Yes	1	A UUID as a unique identifier of the message. Determined by the submitter and used to link the Measurement Correction Report to the answer.
Rejection > Connection > Mutation > Dossier					1	
Dossier Number	N/A	Required	Yes	Yes	1	PUD Dossier Number
Start date	N/A	Required	Yes	Yes	1	Date of receipt measurement correction

Approval:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
Connection					1	
Connection EAN	N/A	Required	Yes	Yes	1	The EAN18 code of the connection for which the measurement correction is submitted

Connection > Mutation					1	
Reference	N/A	Optional	Yes	Yes	1	Present if filled in by submitting metering responsible party
MCR-ID	N/A	Required	Yes	Yes	1	A UUID as a unique identifier of the message. Determined by the submitter and used to link the Measurement Correction Notification to the answer.
Connection > Mutation > Dossier					1	
Dossier Number	N/A	Required	Yes	Yes	1	PUD Dossier Number
Start date	N/A	Required	Yes	Yes	1	Date of receipt measurement correction

5.6 Answer submitted Result *Measurement Correction Report* to SO/LV/BRP

The answer from PUD to *the submitted result Measurement Correction Report* is a rejection or approval.

Rejection:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
Rejection					1	
Reason for rejection	N/A	Required	Yes	Yes	n	<i>See Validations paragraph</i>
Explanation rejection reason	N/A	Optional	Yes	Yes	n	

Approval:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
The approval does not contain any specific functional parameters.						

5.7 Request Ask prepared *Measurement Correction Report* result by metering responsible party

Request Ask prepared *Measurement Correction Report* result:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
The request does not contain any specific functional parameters.						

5.8 Request Answer prepared *Measurement Correction Report* result from metering responsible

The answer Ask prepared *Measurement Correction Report* result is a rejection or approval.

Rejection:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
Rejection					1	
Reason for rejection	N/A	Required	Yes	Yes	n	See <i>Validations paragraph</i>
Explanation rejection reason	N/A	Dependent	Yes	Yes	n	If the reason for rejection (error code) is 999, an explanation of the reason for rejection should be included.
Rejection > Connection					1	
Connection EAN	N/A	Required	Yes	Yes	1	The EAN18 code of the connection for which the measurement correction is submitted
Rejection > Connection > Mutation					1	
Reference	N/A	Optional	Yes	Yes	1	
MCR-ID	N/A	Required	Yes	Yes	1	A UUID as a unique identifier of the message. Determined by the submitter and used to link the Measurement Correction Report to the answer.
Rejection > Connection > Mutation > Dossier					1	
Dossier Number	N/A	Required	Yes	Yes	1	PUD Dossier Number

Start date	N/A	Required	Yes	Yes	1	Date of receipt measurement correction
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Approval:

<i>Given</i>	<i>KV</i>	<i>GV</i>	<i>GAS</i>	<i>ELK</i>	<i>1/n</i>	<i>Note</i>
Connection					1	
Connection EAN	N/A	Required	Yes	Yes	1	The EAN18 code of the connection for which the measurement correction is submitted
Connection > Mutation					1	
Reference	N/A	Optional	Yes	Yes	1	
MCR-ID	N/A	Required	Yes	Yes	1	A UUID as a unique identifier of the message. Determined by the submitter and used to link the Measurement Correction Report to the answer.
Connection > Mutation > Dossier					1	
Dossier Number	N/A	Required	Yes	Yes	1	PUD Dossier Number
Start date	N/A	Required	Yes	Yes	1	Date of receipt measurement correction

6 Sequence Diagram

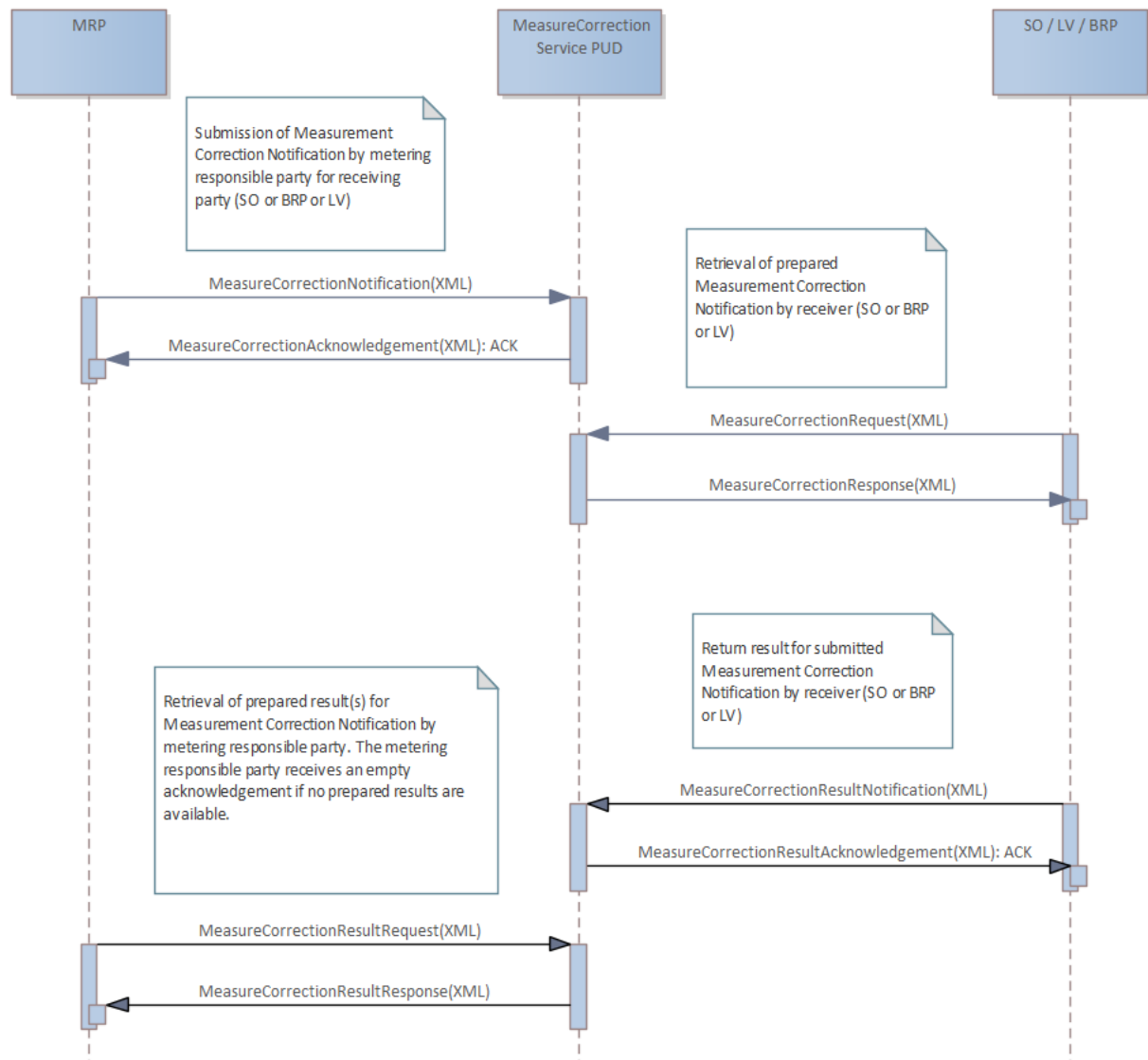
6.1 Explanation

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 messages between objects. The messages in the sequence diagram are explained in more detail in the chapter Information Model. Further details about message standards and the means of application are described in NEDU/EDSN Design choices.

6.2 Exchange *Measurement Correction Report*

The following interaction diagram concerns the "Exchange Measurement Correction Report" process initiated by the BRP via the XML notification MeasureCorrectionNotification for receiving Party (SO or BRP or LV). Upon acceptance of XML notification MeasureCorrectionNotification, confirmation is returned from PUD via the MeasurementCorrectionAcknowledgement, and *the Measurement Correction Report* is prepared for the concerned party.

sd Exchange MCR



7 Properties web service Measurement Correction (QoS)

Measurement Correction Report	
Service	MeasureCorrection
CMF Service ID	BSCMF0060
Description	Exchange <i>Measurement Correction Report</i> via PUD
Service transaction pattern	Notification
Precondition(s)	<i>Measurement Correction Notification</i> is submitted by a metering responsible party that is authorized and authenticated to do so.
Trigger	Metering responsible party offers <i>Measurement Correction Notification</i> to PUD.
Post condition(s)	- Offered <i>Measurement Correction Report</i> rejected; or - Offered <i>Measurement Correction Report</i> delivered.
Service usage	
Pattern of use	Working days from 08:00 am – 10:00 pm (local time resp CET or CEST)
Average load	100 <i>Measurement Correction Report</i> messages per month
Peak load	150 <i>Measurement Correction Report</i> messages per month
Period peak load	Between the tenth and last working day of the month, following the month to which the data relates.
Period of inactivity	Working days from 22:00 – 08:00 (local time resp CET of CEST), Saturday, Sunday and public holidays: offered <i>Measurement Correction Report</i> is handled to "best effort".
Max. response time	85 seconds
Time-out	In case of a time-out (SOAP Fault 5): - Offer again every 5 minutes (with <u>a new UUID</u>) for 15 minutes; - If the request cannot be completed successfully, it is recommended to wait a certain period before offering it again (with <u>new</u> UUID). If this "retry" fails, then escalate. It is recommended to contact EDSN Administration in this case.
Web service	
WSDL	MeasureCorrection_2.wsdl
Version	2.0.0
Date	09/03/2022
Soap address	../b2b/synchronous/ResponderMeasureCorrectionRespondingActivity
Operation MeasureCorrectionNotification	
User	MRP
Function	Submitting <i>Measurement Correction Report</i>
Business service classification (A, B, C)	B
Weighting (I, II, III, IV)	III
Response time	Max 14 seconds.
Soap action	MeasureCorrectionNotification
Input message	MeasureCorrectionNotificationEnvelope
XSD	MeasureCorrectionNotification_2p0.xsd

	Output message	MeasureCorrectionAcknowledgementEnvelope
	XSD	MeasureCorrectionAcknowledgement_1p0.xsd
Operation MeasureCorrectionRequest		
User		SO, LV, BRP
Function		Retrieve <i>Measurement Correction Report</i>
Business service classification (A, B, C)		B
Weighting (I, II, III, IV)		III
Response time		Max 14 seconds.
Soap action		MeasureCorrectionRequest
	Input message	MeasureCorrectionRequestEnvelope
	XSD	MeasureCorrectionRequest_1p0.xsd
	Output message	MeasureCorrectionResponseEnvelope
	XSD	MeasureCorrectionResponse_2p0.xsd
Operation MeasureCorrectionResultNotification		
User		SO, LV, BRP
Function		Submitting <i>Measurement Correction Result Notification</i>
Business service classification (A, B, C)		B
Weighting (I, II, III, IV)		I
Response time		Max 4 seconds.
Soap action		MeasureCorrectionResultNotification
	Input message	Measurement CorrectionResultNotificationEnvelope
	XSD	MeasureCorrectionResultNotification_2p0.xsd
	Output message	Measurement CorrectionResultAcknowledgmentEnvelope
	XSD	MeasureCorrectionResultAcknowledgement_1p0.xsd
Operation MeasurementCorrectionResultRequest		
User		MRP
Function		Get <i>Measurement Correction Report</i> result
Business service classification (A, B, C)		B
Weighting (I, II, III, IV)		III
Response time		Max 14 seconds.
Soap action		MeasureCorrectionResultRequest
	Input message	Measurement CorrectionResultRequestEnvelope
	XSD	MeasureCorrectionResultRequest_1p0.xsd
	Output message	Measurement CorrectionResultResponseEnvelope
	XSD	MeasureCorrectionResultResponse_2p0.xsd

8 Information Model

8.1 Explanation

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" messages 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:

- **Enumeration data type (EDT):** A fixed number of values, one of these values can be the element.
- **Composite data types (CDT):** A composition of several (fixed) elements, which is reused more frequently (e.g. address).
- **Logical Data types (LDT):** A defined set of properties of the element such as minimum length, maximum length, pattern.
- **Personal Data (PG):** An optional attribute that can be added to EDT, CDT or LDT indicating that the element involves personal data.

For more information on data types, refer to NEDU/EDSN Design choices.

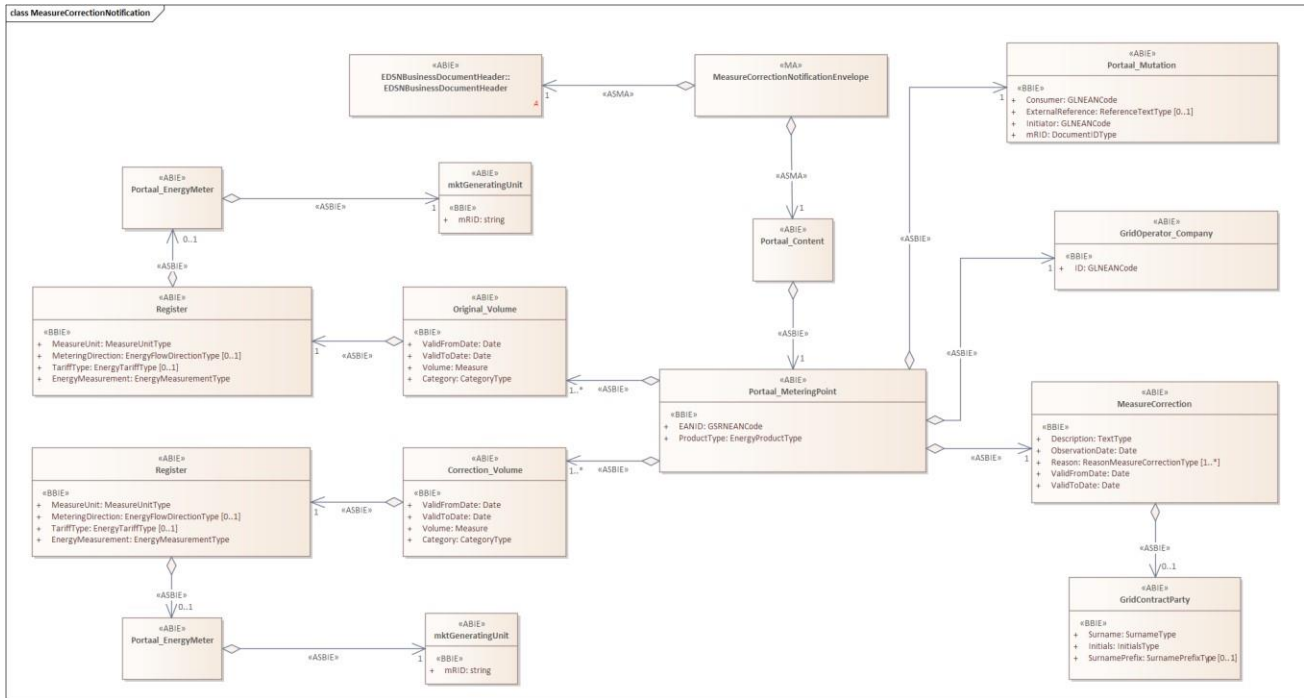
Detailed information on the values of the data types is available as a PDF document on mijnEDSN: EDSN Enumeration Specification (EDT).

EDSN Complex Data Type Specification (CDT).

EDSN Logical Data Type Specification (LDT).

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

8.2 Notification – MeasureCorrectionNotification



Correction (Correction_Volume)

Given	Data type	XML element	Multiplicity	Description
Start date	Date	ValidFromDate	1..1	Consumption period Start Date (LDT1).
End Date	Date	ValidToDate	1..1	Consumption period End Date (LDT1).
Quantity	Measure	Volume	1..1	Quantity (LDT2).
Category	CategoryType	Category	1..1	CIM: High-level nature of the reading value quality (LDT1).

Contact person (GridContractParty)

Given	Data type	XML element	Multiplicity	Description
Name contact person	SurnameType	Surname	1..1	Last name. Max 24 characters (LDT2).(PG)
Initials contact person	InitialsType	Initials	1..1	Initials. Max 5 characters (LDT2).(PG)
Prefix contact person	SurnamePrefixType	SurnamePrefix	0..1	Prefix. Max 4 characters (LDT2).(PG)

System Operator (GridOperator_Company)

Given	Data type	XML element	Multiplicity	Description
Market Party EAN	GLNEANCode	ID	1..1	Unique identification of the market party (LDT1).

Measurement Correction (MeasureCorrection)

Given	Data type	XML element	Multiplicity	Description
Correction explanation	TextType	Description	1..1	Explanation of the correction where the encountered problem is described explicitly as well as the solution used to resolve the problem (LDT3).
Date finding	Date	ObservationDate	1..1	The date on which the measurement data (LDT1) was found to be incorrect.
Reason	ReasonMeasure CorrectionType	Reason	1..*	Measurement error reason Code (LDT2).
Start date	Date	ValidFromDate	1..1	Start date of the period covered by the correction (LDT1).
End Date	Date	ValidToDate	1..1	End date of the period covered by the correction (LDT1).

(Measurement Correction Notification Envelope)

Given	Data type	XML element	Multiplicity	Description
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Generation Unit (mktGeneratingUnit)

Given	Data type	XML element	Multiplicity	Description
ID	string	mRID	1..1	Master resource identifier issued by a model authority. The mRID is unique within an exchange context. Global uniqueness is easily achieved by using a UUID, as specified in RFC 4122, for the mRID. The use of UUID is strongly recommended. For CIMXML data files in RDF syntax conforming to IEC 61970-552 Edition 1, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.

Generation Unit (mktGeneratingUnit)

Given	Data type	XML element	Multiplicity	Description
ID	string	mRID	1..1	Master resource identifier issued by a model authority. The mRID is unique within an exchange context. Global uniqueness is easily achieved by using a UUID, as specified in RFC 4122, for the mRID. The use of UUID is strongly recommended. For CIMXML data files in RDF syntax conforming to IEC 61970-552 Edition 1, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.

Original (Original_Volume)

Given	Data type	XML element	Multiplicity	Description
Start date	Date	ValidFromDate	1..1	Consumption period Start Date (LDT1).
End Date	Date	ValidToDate	1..1	Consumption period End Date (LDT1).
Quantity	Measure	Volume	1..1	Quantity (LDT2).
Category	CategoryType	Category	1..1	CIM: High-level nature of the reading value quality (LDT1).

Content Portal message (Portal_Content)

Given	Data type	XML element	Multiplicity	Description
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Energy meter (Portal_

Given	Data type	XML element	Multiplicity	Description
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Energy meter (Portal_

Given	Data type	XML element	Multiplicity	Description
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Connection (Portal_Metering Point)

Given	Data type	XML element	Multiplicity	Description
Connection EAN	GSRNEANCode	EANID	1..1	Each connection to the network of the system operator has a Unique EAN18 code according to the national guideline (LDT1).(PG)

Product type	EnergyProductType	Product type	1..1	Type of connection: Electricity or Gas (LDT2).(PG)
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Mutation (Portal_Mutation)

Given	Data type	XML element	Multiplicity	Description
Receiving market party	GLNEANCode	Consumer	1..1	Receiving market party (LDT1).
Given	Data type	XML element	Multiplicity	Description
Reference	Reference TextTtype	ExternalReference	0..1	Own reference of the initiating market party to simplify its own internal process. Max. 60 characters (LDT2).
Sending market party	GLNEANCode	Initiator	1..1	Sending (requesting) market party (LDT1).
Identification MCR	DocumentIDType	mRID	1..1	Identification of the Measurement Correction Report (a UUID). Determined by the submitter and used to link the Measurement Correction Report to the answer.

Count (Register)

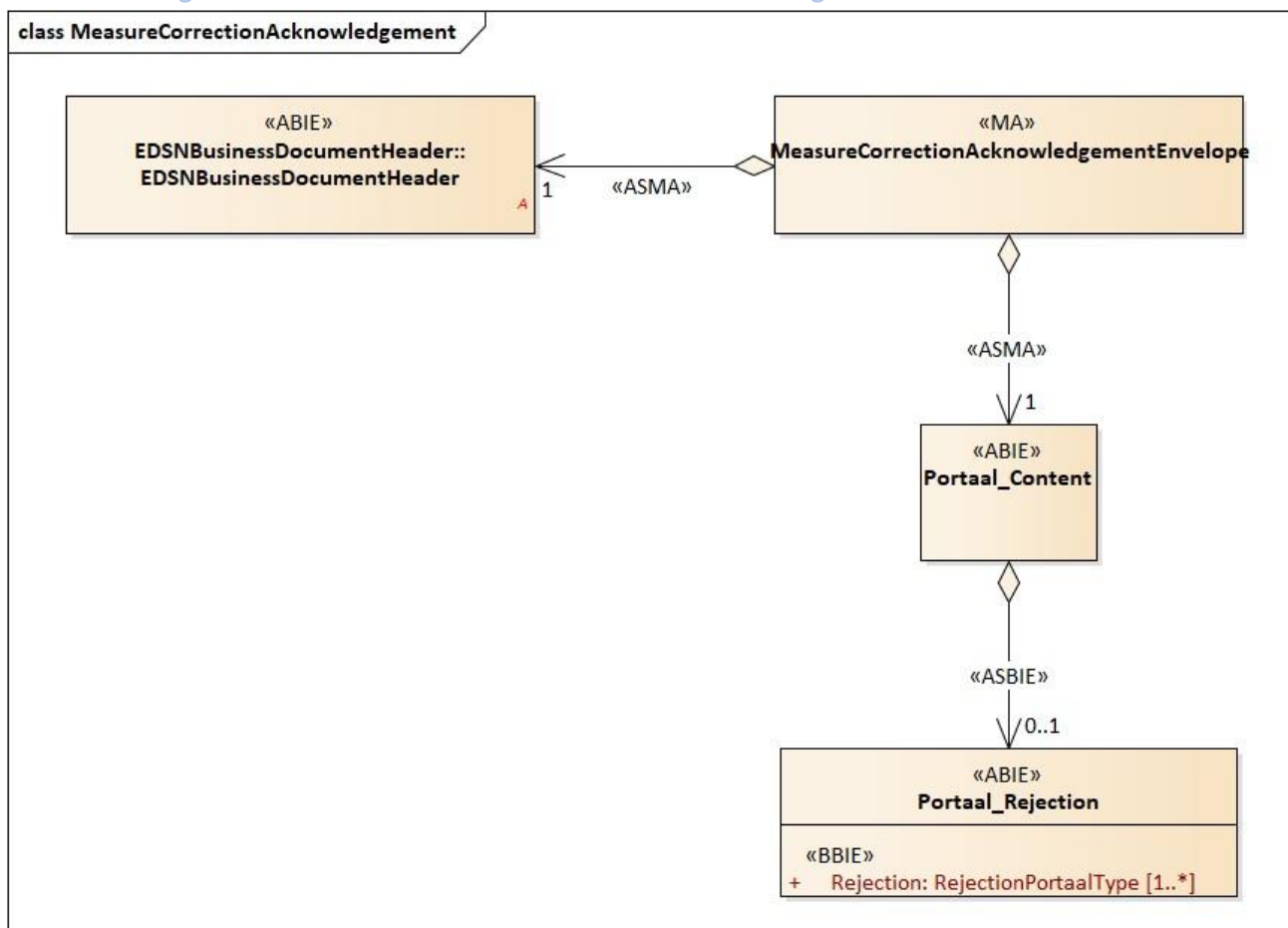
Given	Data type	XML element	Multiplicity	Description
Unit of measure	MeasureUnitType	MeasureUnit	1..1	Unit of measure for count (LDT2).
Measurement direction	EnergyFlowDirectionType	MeteringDirection	0..1	Metering direction of the count (LDT2).
Tariff zone	EnergyTariffType	Tariff Type	0..1	Tariff zone of the count (LDT2).
Measurement type	EnergyMeasurementType	EnergyMeasurement	1..1	Measurement type: energy active, energy reactive (blind), own consumption, gross production or KWmax (maximum power (peak) for period between start date and end date (LDT2).

Count (Register)

Given	Data type	XML element	Multiplicity	Description
Unit of measure	MeasureUnitType	MeasureUnit	1..1	Unit of measure for count (LDT2).
Measurement direction	EnergyFlowDirectionType	MeteringDirection	0..1	Metering direction of the count (LDT2).

Tariff zone	EnergyTariffType	Tariff Type	0..1	Tariff zone of the count (LDT2).
Measurement type	EnergyMeasurementType	EnergyMeasurement	1..1	Measurement type: energy active, energy reactive (blind), own consumption, gross production or KWmax (maximum power (peak) for period between start date and end date (LDT2).

8.3 Acknowledgement notification - MeasureCorrectionAcknowledgement



(Measure Correction Acknowledgement Envelope)

Given	Data type	XML element	Multiplicity	Description
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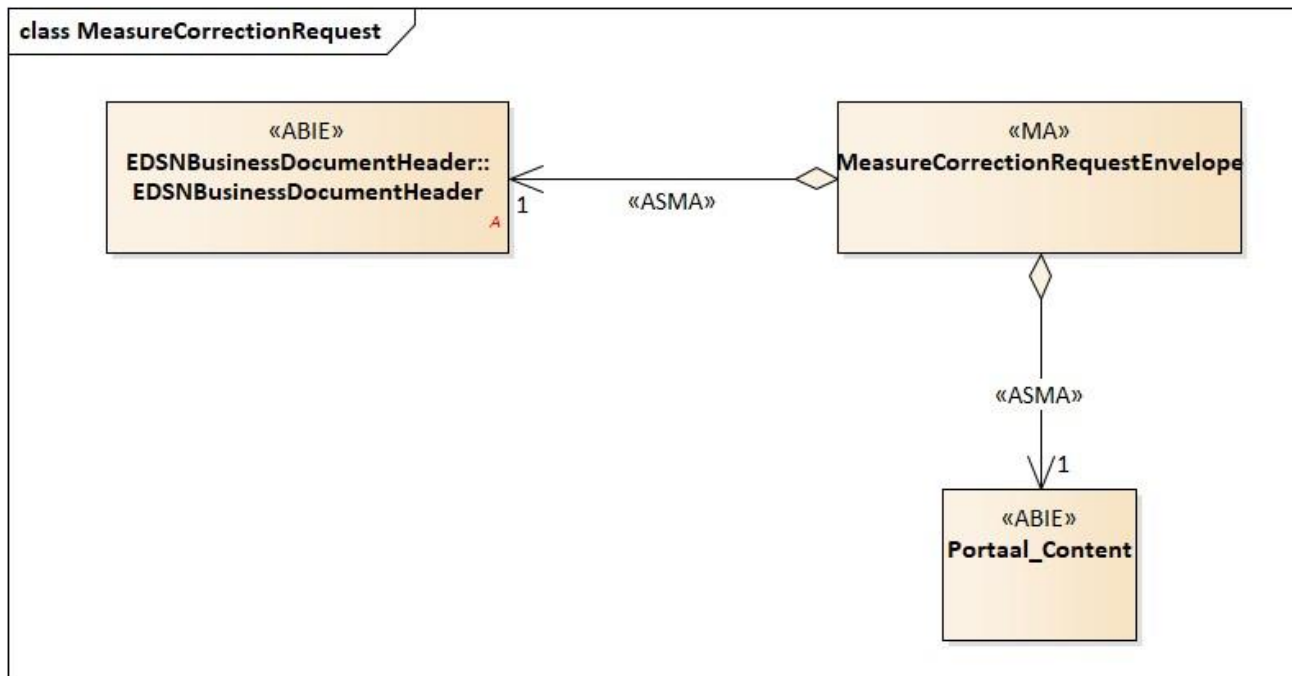
Content Portal message (Portal_Content)

Given	Data type	XML element	Multiplicity	Description
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Rejection (Portal_

Given	Data type	XML element	Multiplicity	Description
Rejection	RejectionPortal Type	Rejection	1..*	A rejection to a question or request (CDT).

8.4 Request Measurement Correction Report - MeasureCorrectionRequest



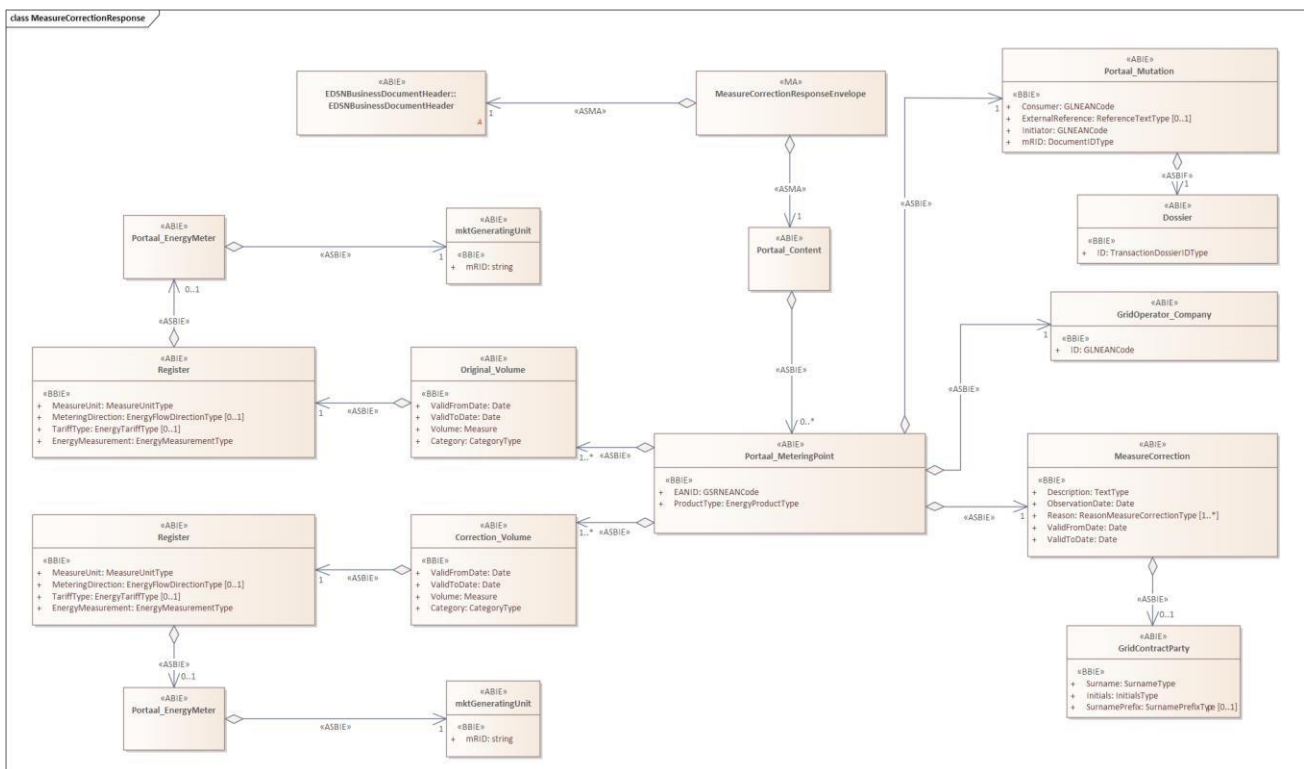
(MeasureCorrectionRequestEnvelope)

Given	Data type	XML element	Multiplicity	Description
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Content Portal message (Portal_Content)

Given	Data type	XML element	Multiplicity	Description
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8.5 Answer Measurement Correction Report – MeasureCorrectionResponse



Correction (Correction_Volume)

Given	Data type	XML element	Multiplicity	Description
Start date	Date	ValidFromDate	1..1	Consumption period Start Date (LDT1).
End Date	Date	ValidToDate	1..1	Consumption period End Date (LDT1).
Quantity	Measure	Volume	1..1	Quantity (LDT2).
Category	CategoryType	Category	1..1	CIM: High-level nature of the reading value quality (LDT1).

Dossier (Dossier)

Given	Data type	XML element	Multiplicity	Description
Dossier Number	TransactionDossierIDType	ID	1..1	Unique identification of the dossier. Max. 11 characters (LDT2).

Contact person (GridContractParty)

Given	Data type	XML element	Multiplicity	Description
Name contact person	SurnameType	Surname	1..1	Last name. Max. 24 characters (LDT2).(PG)
Initials contact person	InitialsType	Initials	1..1	Initials. Max. 5 characters (LDT2).(PG)

Prefix contact person	SurnamePrefixType	SurnamePrefix	0..1	Prefix. Max. 4 characters (LDT2).(PG)
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System Operator (GridOperator_Company)

Given	Data type	XML element	Multiplicity	Description
Market Party EAN	GLEANCode	ID	1..1	Unique identification of the market party (LDT1).

Measurement Correction (MeasureCorrection)

Given	Data type	XML element	Multiplicity	Description
Correction explanation	TextType	Description	1..1	Explanation of the correction where the encountered problem is described explicitly as well as the solution used to resolve the problem (LDT3).
Date finding	Date	ObservationDate	1..1	The date on which the measurement data (LDT1) was found to be incorrect.
Reason	ReasonMeasure CorrectionType	Reason	1..*	Code reason measurement error: (LDT2).
Start date	Date	ValidFromDate	1..1	Start date of the period covered by the correction (LDT1).
End Date	Date	ValidToDate	1..1	End date of the period covered by the correction (LDT1).

(MeasureCorrectionResponseEnvelope)

Given	Data type	XML element	Multiplicity	Description
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Generation Unit (mktGeneratingUnit)

Given	Data type	XML element	Multiplicity	Description
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ID	string	mRID	1..1	Master resource identifier issued by a model authority. The mRID is unique within an exchange context. Global uniqueness is easily achieved by using a UUID, as specified in RFC 4122, for the mRID. The use of UUID is strongly recommended. For CIMXML data files in RDF syntax conforming to IEC 61970-552 Edition 1, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.
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Generation Unit (mktGeneratingUnit)

Given	Data type	XML element	Multiplicity	Description
ID	string	mRID	1..1	Master resource identifier issued by a model authority. The mRID is unique within an exchange context. Global uniqueness is easily achieved by using a UUID, as specified in RFC 4122, for the mRID. The use of UUID is strongly recommended. For CIMXML data files in RDF syntax conforming to IEC 61970-552 Edition 1, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.

Original (Original_Volume)

Given	Data type	XML element	Multiplicity	Description
Start date	Date	ValidFromDate	1..1	Consumption period Start Date (LDT1).
End Date	Date	ValidToDate	1..1	Consumption period End Date (LDT1).
Quantity	Measure	Volume	1..1	Quantity (LDT2).
Category	CategoryType	Category	1..1	CIM: High-level nature of the reading value quality (LDT1).

Content Portal message (Portal_Content)

Given	Data type	XML element	Multiplicity	Description
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Energy meter (Portal_

Given	Data type	XML element	Multiplicity	Description
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Energy meter (Portal_

Given	Data type	XML element	Multiplicity	Description
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Connection (Portal_Metering Point)

Given	Data type	XML element	Multiplicity	Description
Connection EAN	GSRNEANCode	EANID	1..1	Each connection to the network of the system operator has a Unique EAN18 code according to the national guideline (LDT1).(PG)
Product type	EnergyProductType	Product type	1..1	Type of connection: Electricity or Gas (LDT2).(PG)

Mutation (Portal_Mutation)

Given	Data type	XML element	Multiplicity	Description
Receiving market party	GLNEANCode	Consumer	1..1	Receiving market party (LDT1).
Given	Data type	XML element	Multiplicity	Description
Reference	Reference TextType	ExternalReference	0..1	Own reference of the initiating market party to simplify its own internal process. Max. 60 characters (LDT2).
Sending market party	GLNEANCode	Initiator	1..1	Sending (requesting) market party (LDT1).
Identification MCR	DocumentIDType	mRID	1..1	Identification of the Measurement Correction Report (a UUID). Determined by the submitter and used to link the Measurement Correction Report to the answer.

Count (Register)

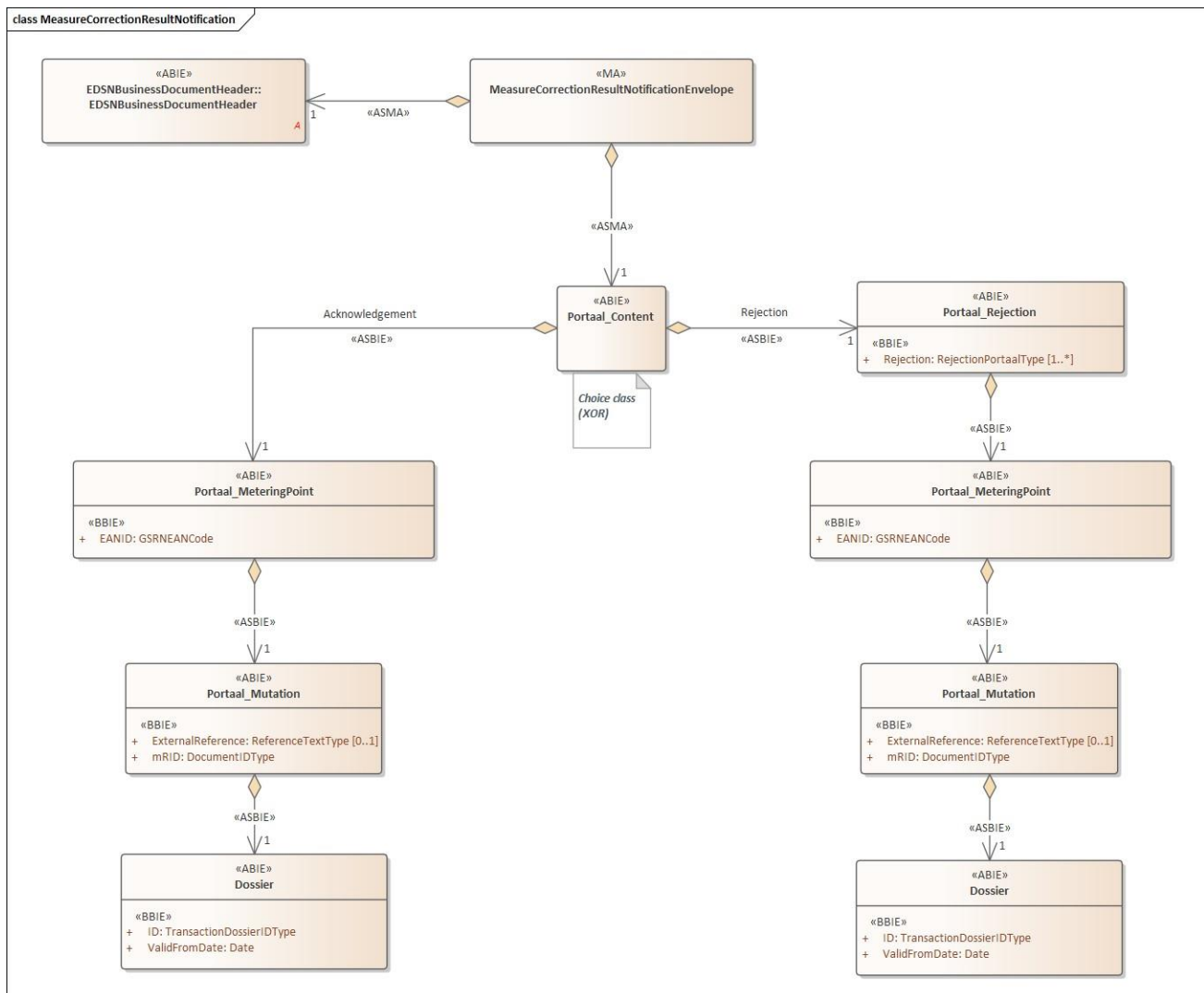
Given	Data type	XML element	Multiplicity	Description
Unit of measure	MeasureUnitType	MeasureUnit	1..1	Unit of measure for count (LDT2).
Measurement direction	EnergyFlowDirectionType	MeteringDirection	0..1	Metering direction of the count (LDT2).
Tariff zone	EnergyTariffType	Tariff Type	0..1	Tariff zone of the count (LDT2).

Measurement type	EnergyMeasurementType	EnergyMeasurem ent	1..1	Measurement type: energy active, energy reactive (blind), own consumption, gross production or KWmax (maximum power (peak) for period between start date and end date (LDT2).
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Count (Register)

Given	Data type	XML element	Multiplicity	Description
Unit of measure	MeasureUnitType	MeasureUnit	1..1	Unit of measure for count (LDT2).
Measurement direction	EnergyFlowDirectionType	MeteringDirection	0..1	Metering direction of the count (LDT2).
Tariff zone	EnergyTariffType	Tariff Type	0..1	Tariff zone of the count (LDT2).
Measurement type	EnergyMeasurementType	EnergyMeasurem ent	1..1	Measurement type: energy active, energy reactive (blind), own consumption, gross production or KWmax (maximum power (peak) for period between start date and end date (LDT2).

8.6 Notification - MeasurementCorrectionResultNotification



Dossier (Dossier)

Given	Data type	XML element	Multiplicity	Description
Dossier Number	TransactionDossierIDType	ID	1..1	Unique identification of the dossier. Max. 11 characters (LDT2).
Start date	Date	ValidFromDate	1..1	Dossier Start Date, is the date when the transaction is carried out (LDT1).

Dossier (Dossier)

Given	Data type	XML element	Multiplicity	Description
Dossier Number	TransactionDossierIDType	ID	1..1	Unique identification of the dossier. Max. 11 characters (LDT2).
Start date	Date	ValidFromDate	1..1	Dossier Start Date, is the date when the transaction is carried out (LDT1).

(MeasureCorrectionResultNotificationEnvelope)

Given	Data type	XML element	Multiplicity	Description
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Content Portal message (Portal_Content)

Given	Data type	XML element	Multiplicity	Description
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Connection (Portal_Metering Point)

Given	Data type	XML element	Multiplicity	Description
Connection EAN	GSRNEANCode	EANID	1..1	Each connection to the network of the system operator has a Unique EAN18 code according to the national guideline (LDT1).(PG)

Connection (Portal_Metering Point)

Given	Data type	XML element	Multiplicity	Description
Connection EAN	GSRNEANCode	EANID	1..1	Each connection to the grid of the system operator has a unique EAN18 code according to the national guideline (LDT1). (PG)

Mutation (Portal_Mutation)

Given	Data type	XML element	Multiplicity	Description
Reference	Reference TextType	ExternalReference	0..1	Own reference of the initiating market party to simplify its own internal process. Max. 60 characters (LDT2).
Identification MCR	DocumentIDType	mRID	1..1	Identification of the Measurement Correction Report (a UUID). Determined by the submitter and used to link the Measurement Correction Report to the answer.

Mutation (Portal_Mutation)

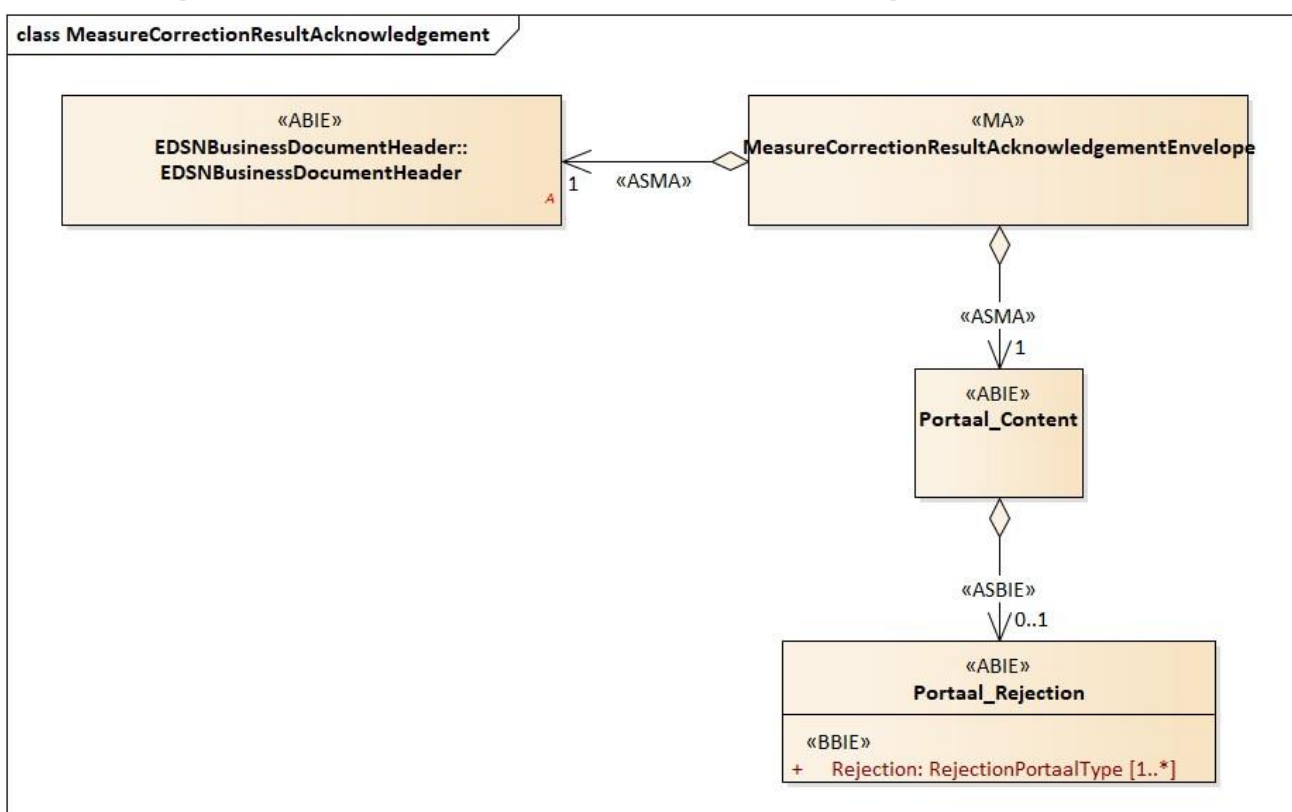
Given	Data type	XML element	Multiplicity	Description
Reference	Reference TextType	ExternalReference	0..1	Own reference of the initiating market party to simplify its own internal process. Max. 60 characters (LDT2).

Identification MCR	DocumentIDType	mRID	1..1	Identification of the Measurement Correction Report (a UUID). Determined by the submitter and used to link the Measurement Correction Report to the answer.
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Rejection (Portal_Rejection)

Given	Data type	XML element	Multiplicity	Description
Rejection	RejectionPortalType	Rejection	1..*	A rejection to a question or request (CDT).

8.7 Acknowledgement notification - MeasureCorrectionResultAcknowledgement



(MeasureCorrectionResultAcknowledgementEnvelope)

Given	Data type	XML element	Multiplicity	Description
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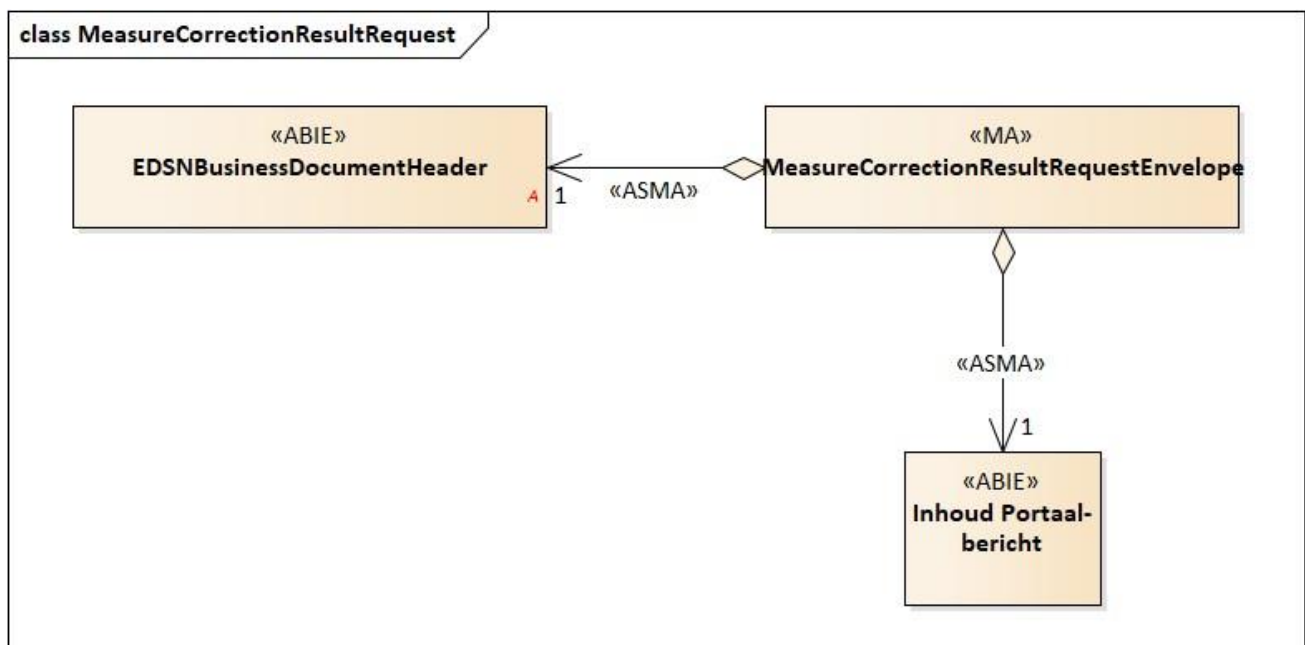
Content Portal message (Portal_Content)

Given	Data type	XML element	Multiplicity	Description
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Rejection (Portal_

Given	Data type	XML element	Multiplicity	Description
Rejection	RejectionPortalType	Rejection	1..*	A rejection to a question or request (CDT).

8.8 Request Measurement Correction Report result - MeasureCorrectionResultRequest

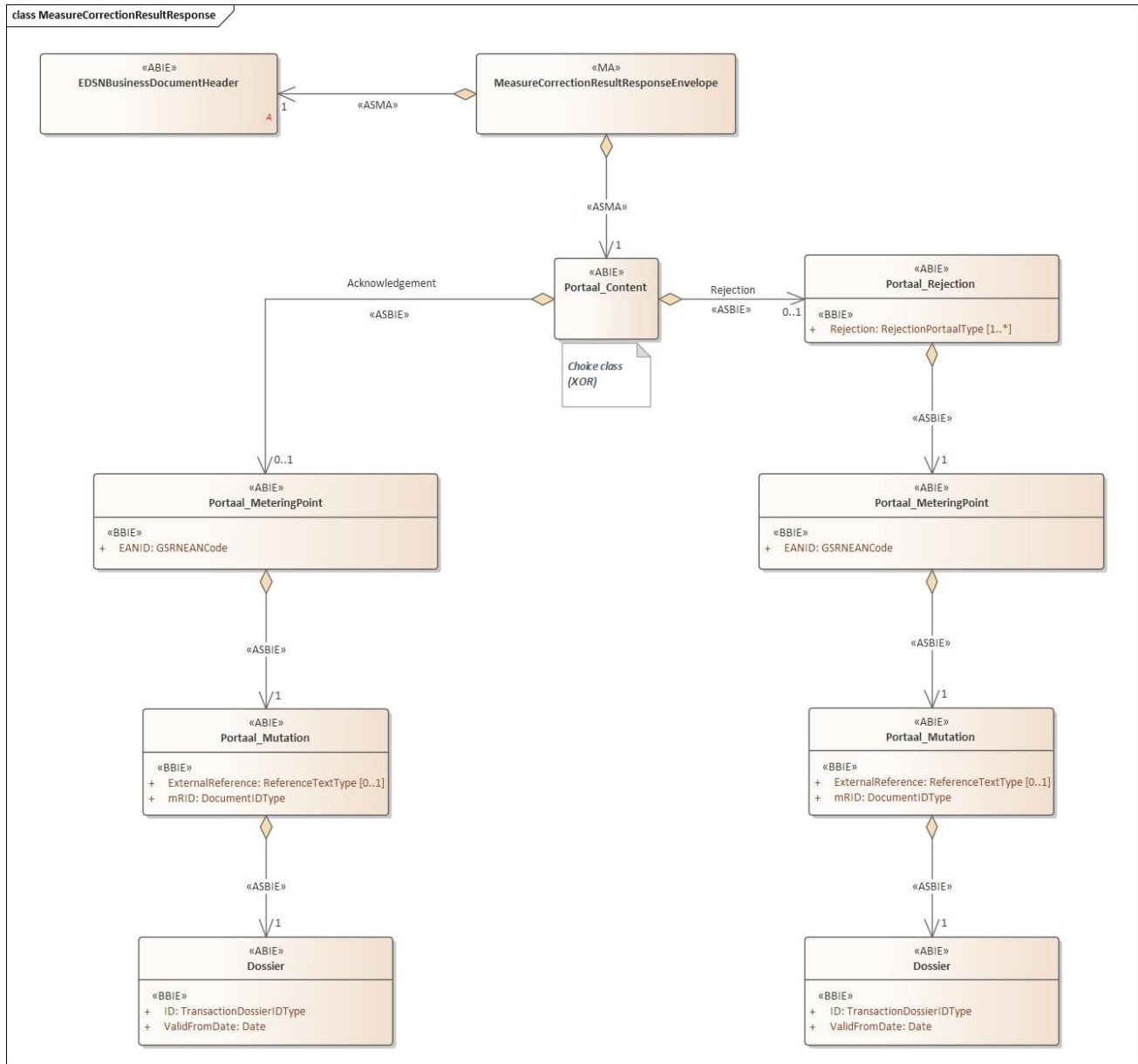


Given	Data type	XML element	Multiplicity	Description
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Content Portalmessage (Portal_Content)

Given	Data type	XML element	Multiplicity	Description
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8.9 Response Measurement Correction report result - MeasureCorrectionResultResponse



Dossier (Dossier)

Given	Data type	XML element	Multiplicity	Description
Dossier Number	TransactionDossierIDType	ID	1..1	Unique identification of the dossier. Max. 11 characters (LDT2).
Start date	Date	ValidFromDate	1..1	Dossier Start Date, is the date when the transaction is carried out (LDT1).

Dossier (Dossier)

Given	Data type	XML element	Multiplicity	Description
Dossier Number	TransactionDossierIDType	ID	1..1	Unique identification of the dossier. Max. 11 characters (LDT2).
Start date	Date	ValidFromDate	1..1	Dossier Start Date, is the date when the transaction is carried out (LDT1).

(MeasureCorrectionResultResponseEnvelope)

Given	Data type	XML element	Multiplicity	Description
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Content Portal message (Portal_Content)

Given	Data type	XML element	Multiplicity	Description
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Connection (Portal_Metering Point)

Given	Data type	XML element	Multiplicity	Description
Connection EAN	GSRNEANCode	EANID	1..1	Each connection to the network of the system operator has a Unique EAN18 code according to the national guideline (LDT1).(PG)

Connection (Portal_Metering Point)

Given	Data type	XML element	Multiplicity	Description
Connection EAN	GSRNEANCode	EANID	1..1	Each connection to the network of the system operator has a Unique EAN18 code according to the national guideline (LDT1).(PG)

Mutation (Portal_Mutation)

Given	Data type	XML element	Multiplicity	Description
Reference	Reference TextType	ExternalReference	0..1	Own reference of the initiating market party to simplify its own internal process. Max. 60 characters (LDT2).
Identification MCR	DocumentIDType	mRID	1..1	Identification of the Measurement Correction Report (a UUID). Determined by the submitter and used to link the Measurement Correction Report to the answer.

Mutation (Portal_Mutation)

Given	Data type	XML element	Multiplicity	Description
Reference	Reference TextTtype	ExternalReference	0..1	Own reference of the initiating market party to simplify its own internal process. Max. 60 characters (LDT2).
Identification MCR	DocumentIDType	mRID	1..1	Identification of the Measurement Correction Report (a UUID). Determined by the submitter and used to link the Measurement Correction Report to the answer.

Rejection (Portal_Rejection)

Given	Data type	XML element	Multiplicity	Description
Rejection	RejectionPortal Type	Rejection	1..*	A rejection to a question or request (CDT).