Business requirements for

Measure

for

reconciliation

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C O N T E N T

A. About this document

This document is a Business Requirements Specification (BRS) for the processes related to the validated measured data for reconciliation exchanged between Metered Data Administrator and the Reconciliation Responsible.

In this BRS we use business terms for the actors, and we map them to the terms used in the Harmonised Role Model from ENTSO-E, ebIX® and EFET [2]. A party acts in the capacity of a certain role.

As a general introduction ebIX® has published a separate document "Introduction to ebIX® Business Requirements and Business Information Models" [3]. The introduction also includes the generic model elements that are not specific for a particular business process.

In line with UN/CEFACT Modelling Methodology version 2 (UMM-2) ebIX® defines the business requirements as the first step in modelling energy market processes. This document specifies an UMM Business Requirements View, which consist of the three sub views: Business Domain View, Business Partner View and Business Entity View.

The Business Information Model is in turn the basis for the creation of XML schema's and is the basis for the specification of web services. The Business Information Model and the syntax specific structures are specified by the "ebIX® Technical Committee" (ETC).

Since the ebIX® model is open for national customisation, some attributes are added as optional for usage for regional/national customisation. If used, these attributes must be specified nationally.

A.1. References

A.1.1. Standards

[1] UML Profile for UN/CEFACT's Modelling Methodology (UMM), Base Module, 2.0. (https://unece.org/trade/uncefact/umm)

[2] The Harmonized Role Model (for the Electricity Market) by ebIX®, ENTSO-E, and EFET (https://www.ebix.org/artikel/role_model)

A.1.2. ebIX® Documents

[3] Introduction to ebIX® Business Requirements and Business Information Models (https://www.ebix.org/artikel/documents)

[4] Recommended Identification Schemes for the European Energy Market (https://www.ebix.org/artikel/documents)

[5] ebIX® code lists (https://www.ebi.x.org/artikel/documents)

[6] ebIX® BRS for Validated measured data (https://www.ebix.org/artikel/documents)

[7] ebIX® Business Requirements for Settle reconciliation
(https://www.ebix.org/artikel/documents)

A.2. Main changes since last version

Old	New	Clarification	Date
		Draft for version 3.0.A	
v2r0E	v3r0A	Complete recast of the document.	20220809
v3r0A	v3r0B	Update of "chapter A About this document" to be in line with other ebIX® BRSs.	20230815
v3r0B	v3r0C	Since ebIX® is closing down from the end of 2023, the link to the ebIX® secretary has been removed.	20231218

1 Business Requirements View: Measure for reconciliation

1.1 Overview

This BRS regards the exchange of validated measured data for (profiled) Accounting Points between the Metered Data Administrator and the Reconciliation Responsible, to enable the Reconciliation Responsible to run the reconciliation (recalculation of preliminary assigned energy volumes to the Balance Responsible Party and Energy Supplier) for the Accounting Points in question. Normally the Metered Data Administrator will notify the validated measured data for the profiled Accounting Points on schedule or when received, to the Reconciliation Responsible. Occasionally the Reconciliation Responsible can request validated measured data from the Metered Data Administrator.

1.2 Basic assumptions

- The characteristics of an Accounting Point are exchanged as master data; hence these are not part of the measured data documents.
- When using the term area in this BRS we mean Metering Grid Area for the electricity market. For the gas[1] market the area may be an Aggregated Reception Station, a Calorific Value Area and/or Metering Grid Area.
- We see no need for exchange of *aggregated* measured data for reconciliation.

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[1] Where applicable, in the class diagrams, codes for gas are shown with blue background and codes for electricity are shown with red background.

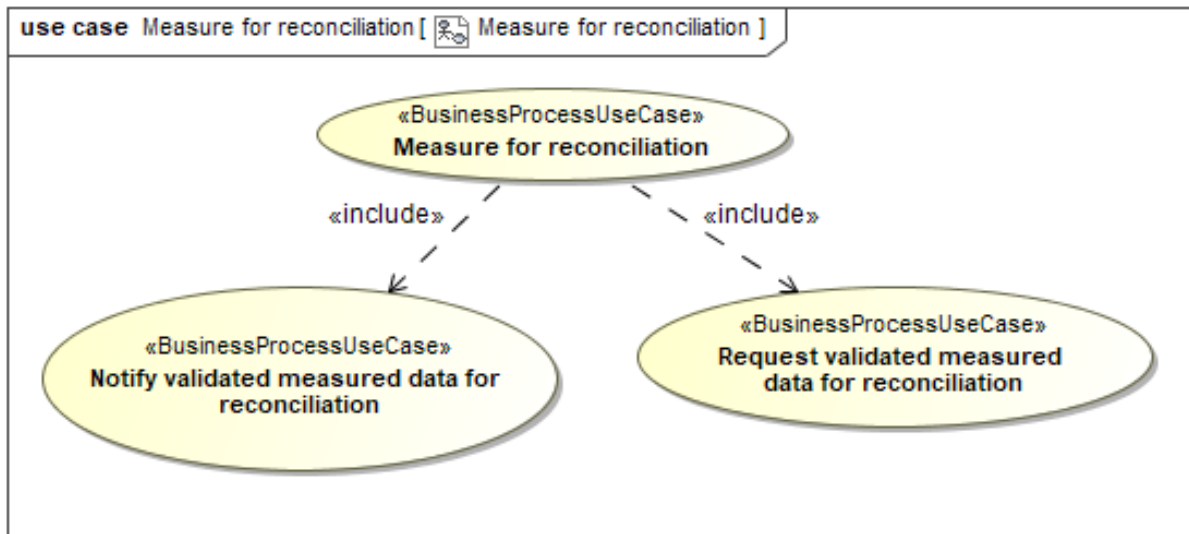## 2 Business Domain View: Measure for reconciliation (Business Process UseCase)

Figure 1 Business Process UseCase: Measure for reconciliation

2.1 Description

UseCase description: **Measure for reconciliation**	
definition	This is the process where validated measured data from Accounting Points for reconciliation are provided from the Metered Data Administrator to the Reconciliation Responsible.
beginsWhen	This process is scheduled, triggered by the reception of new validated measured data or requested.
preCondition	Validated measured data for billing the Metering Point are available.
endsWhen	The validated measured data for reconciliation have been received by the Reconciliation Responsible.
postCondition	The Reconciliation Responsible can use the validated measured data for reconciliation.
Exceptions	For requests, validated measured data for reconciliation may be unavailable.
actions	Not applicable at this level.

2.2 Notify validated measured data for reconciliation (Business Process UseCase)
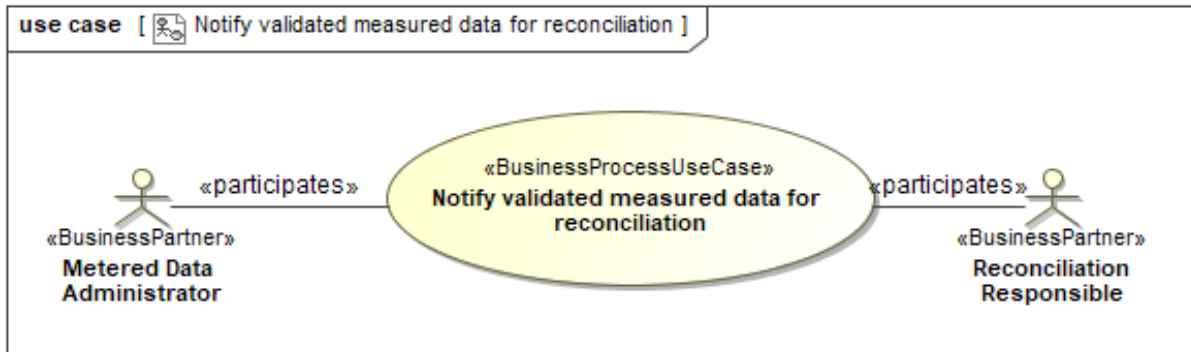

Figure 2 Business Process UseCase: Notify validated measured data for reconciliation

2.2.1 Description

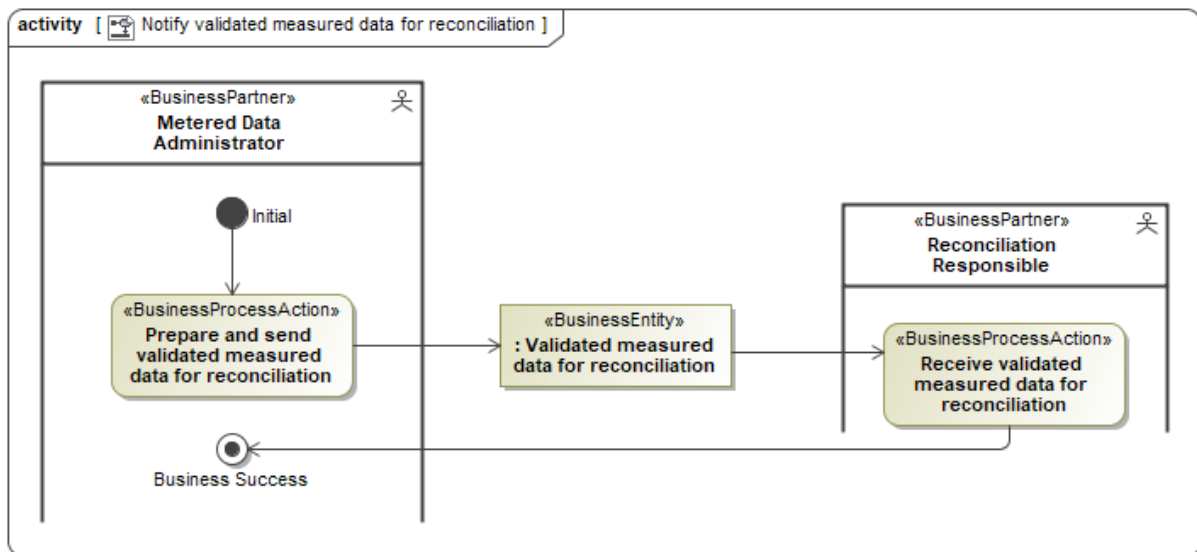| UseCase description: **Notify validated measured data for reconciliation**	
definition	In this process the Metered Data Administrator notifies validated measured data from Accounting Points for reconciliation to the Reconciliation Responsible.
beginsWhen	When the Metered Data Administrator has received new validated measured data for reconciliation or is scheduled to.
preCondition	The Metered Data Administrator has available validated measured data for reconciliation. The Metered Data Administrator knows the Reconciliation Responsible
endsWhen	When the Reconciliation Responsible has received the validated measured data for reconciliation.
postCondition	Validated measured data for reconciliation are available at the Reconciliation Responsible.
exceptions	None.
actions	See 2.2.2

2.2.2 Business Process

Figure 3 Business Process: Notify validated measured data for reconciliation

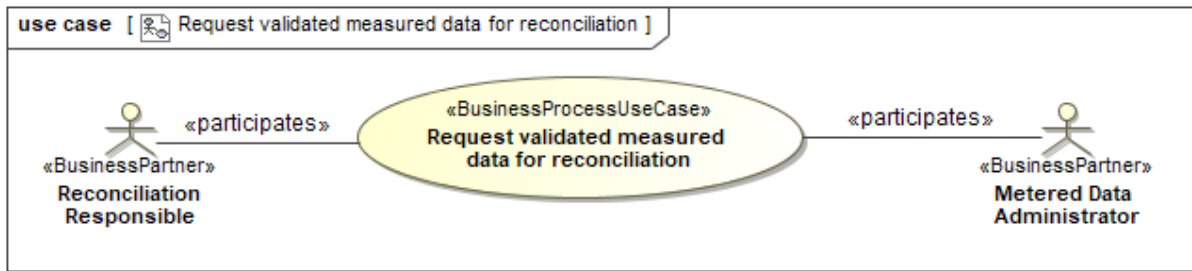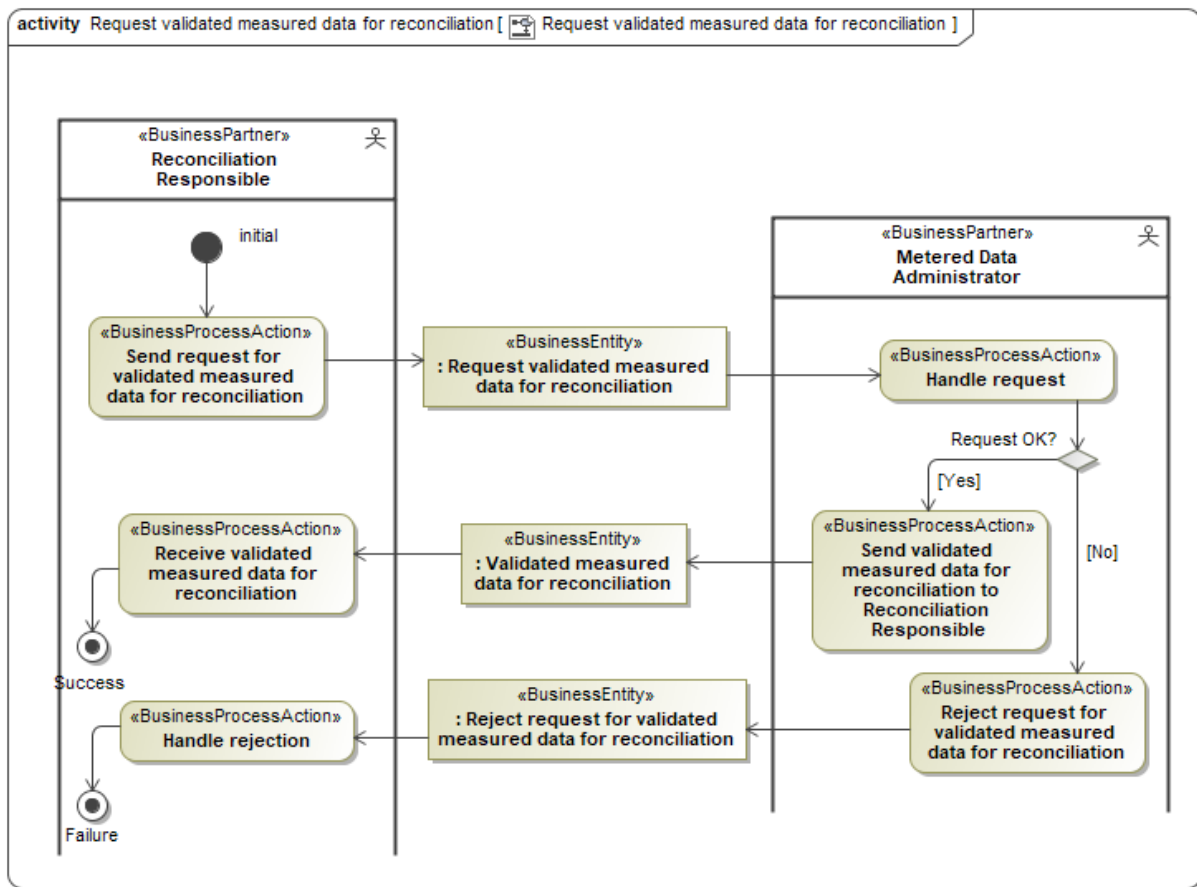## 2.3 Request validated measured data for reconciliation (Business Process UseCase)

Figure 4 Business Process UseCase: Request validated measured data for reconciliation

2.3.1 Description

UseCase description: **Request validated measured data for reconciliation**	
definition	The Reconciliation Responsible requests validated measured data from a set of Accounting Points for reconciliation from the Metered Data Administrator.
beginsWhen	The Reconciliation Responsible has a need for the validated measured data for reconciliation.
preCondition	The Reconciliation Responsible is authorised to request the validated measured data for reconciliation. The Metered Data Administrator knows to which data the Reconciliation Responsible is entitled.
endsWhen	The Metered Data Administrator has sent the validated measured data for reconciliation to the Reconciliation Responsible.
postCondition	The Reconciliation Responsible has the requested validated measured data for reconciliation.
exceptions	The request has been rejected (no data available).
actions	See 2.3.2

2.3.2   Business Process

Request validated measured data for reconciliation

3 Business Partner View

3.1 Business Partners Measure for Reconciliation

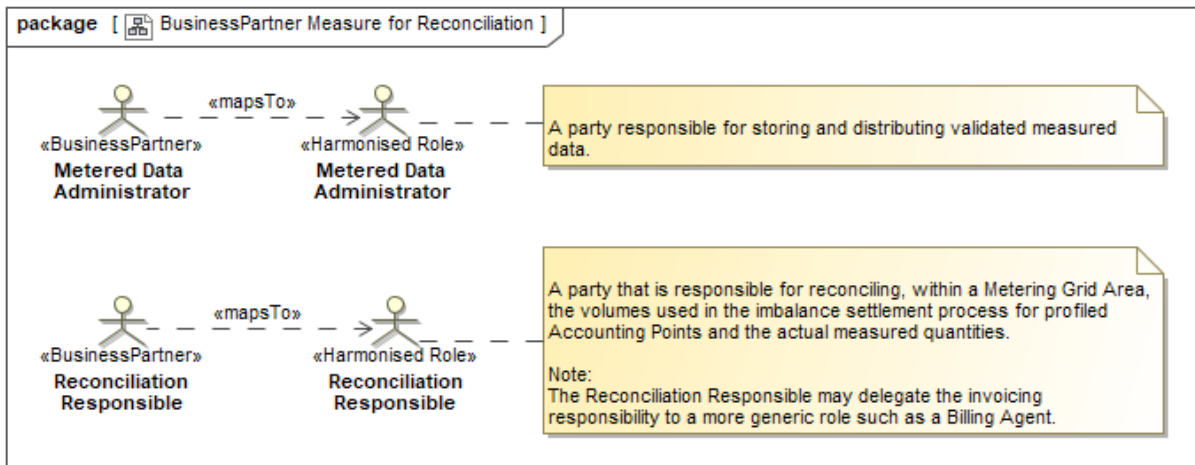**Figure 5 Business Partner View:** Measure for Reconciliation

4   Business Entity View

A general introduction to the Business Entity View can be found in the Introduction to ebIX® Business Requirements and Business Information Models (https://www.ebix.org/artikel/documents) [3].

4.1   Validated measured data for reconciliation (Class Diagram)
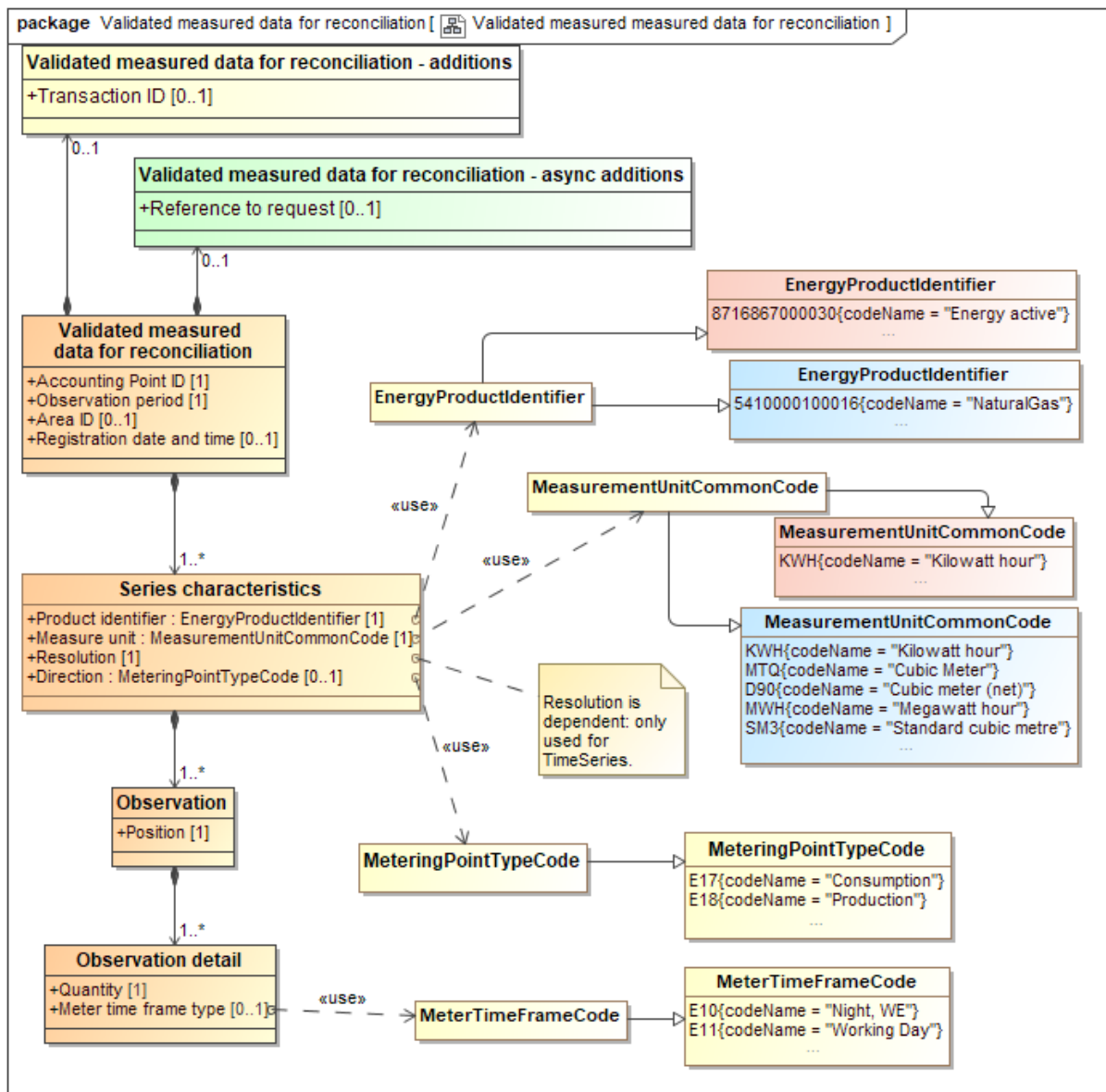

Figure 6 Class diagram: Validated measured data for reconciliation

4.1.1   Element definitions: Validated measured data for reconciliation

«Business entity» Validated measured data for reconciliation	Sector[2]	The information set sent by a Metered Data Administrator to the Reconciliation Responsible to enable the reconciliation of imbalance for this Metering Point.
Accounting Point ID		The unique identification of the Accounting Point for which these validated measured data for reconciliation were measured.
Area ID		The unique identification of the area where the Accounting Point is linked to.
Observation Period		The specific period of time for the validated measured data for reconciliation.
Registration Date and time		The date and time of the validation (and storage in the database) of this set of validated measured data for reconciliation.
Series characteristics		The characteristics of this set of validated measured data for reconciliation, such as product and flow direction.
Product Identifier		A code specifying the energy product for the quantity in this observation period.
Measure unit		The unit of measure used for the quantity in this observation.
Resolution		The resolution of this set of validated measured data for reconciliation expressed as a duration between the start and end of subsequent observations within this set of validated measured data for reconciliation.
Direction		A code specifying the direction of the flow of the energy to (consumption) or from (production) the Accounting Point measured in this observation period.
Observation		A set of one or more validated quantities of energy and its characteristics for a detail period. The detail set may be a part of a wider (e.g. 24 hour) set of such quantities.
Position		The ordinal position of this observation in this set of validated measured data for reconciliation.
Observation detail		A validated quantity of energy and its characteristics for a detail period. The validated quantity of energy and its characteristics may be a part of a set.
Quantity		The validated quantity of energy for this observation.
Meter time frame Type		A code specifying the Meter Time Frame for the validated quantity of energy in question.

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[2] It is assumed that Accounting Points are uniquely dedicated to either electricity or to gas.

Validated measured data for reconciliation - additions		Additional information, related to Validated measured data for reconciliation, the use of which may be agreed on a national level. This is however not used when specifying the payload in the ebIX® model.
Transaction ID		The unique identification of this set of information as given by the Metered Data Administrator.
Validated measured data for reconciliation - async additions		Additional information, related to validated measured data for reconciliation, needed when using asynchronous communication. This is however not used when specifying the payload in the ebIX® model but is used when specifying the document in the ebIX® model.
Reference to Request		Information about the request for this set of validated measured data which uniquely identifies it.

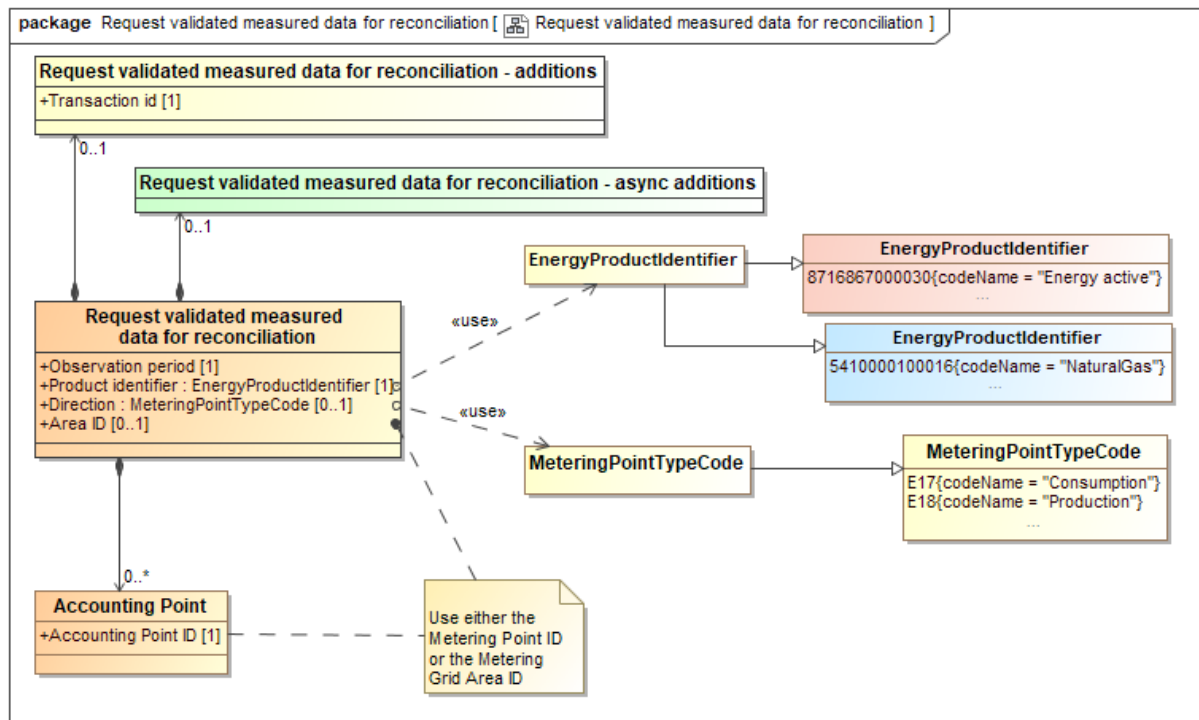## 4.2 Request Validated measured data for reconciliation (Class Diagram)

Figure 7 Class diagram: Request Validated measured data for reconciliation

4.2.1 Element definitions: Request Validated measured data for reconciliation

«Business entity» Request validated measured data for reconciliation	Sector[3]	The information set to be sent by Reconciliation Responsible to the Metered Data Administrator when requesting validated measured data for reconciliation.
Observation Period		The specific period of time for the requested validated measured data for reconciliation.
Product Identifier		A code specifying the energy product for the quantity in the requested observation period.
Direction		A code specifying the direction of the flow of the energy to (consumption) or from (production) the Accounting Point measured in this observation period.
Area ID		The unique identification of the Metering Grid Area where the validated measured data for reconciliation is requested for.

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[3] It is assumed that Accounting Points are uniquely dedicated to either electricity or to gas.

«Business entity» Accounting Point		An entity where energy products are measured or computed.
Accounting Point ID		The unique identification of the Accounting Point for which the validated measured data are requested.
Request validated measured data for reconciliation - Additions		Additional information, related to request validated measured data for reconciliation the use of which may be agreed on a national level. This is however not used when specifying the payload in the ebIX® model.
Transaction ID		The unique identification of this request as given by the Reconciliation Responsible.
Request validated measured data for reconciliation - Async Additions		Additional information, related to request validated measured data for reconciliation, needed when using asynchronous communication. This is however not used when specifying the payload in the ebIX® model but is used when specifying the document in the ebIX® model.

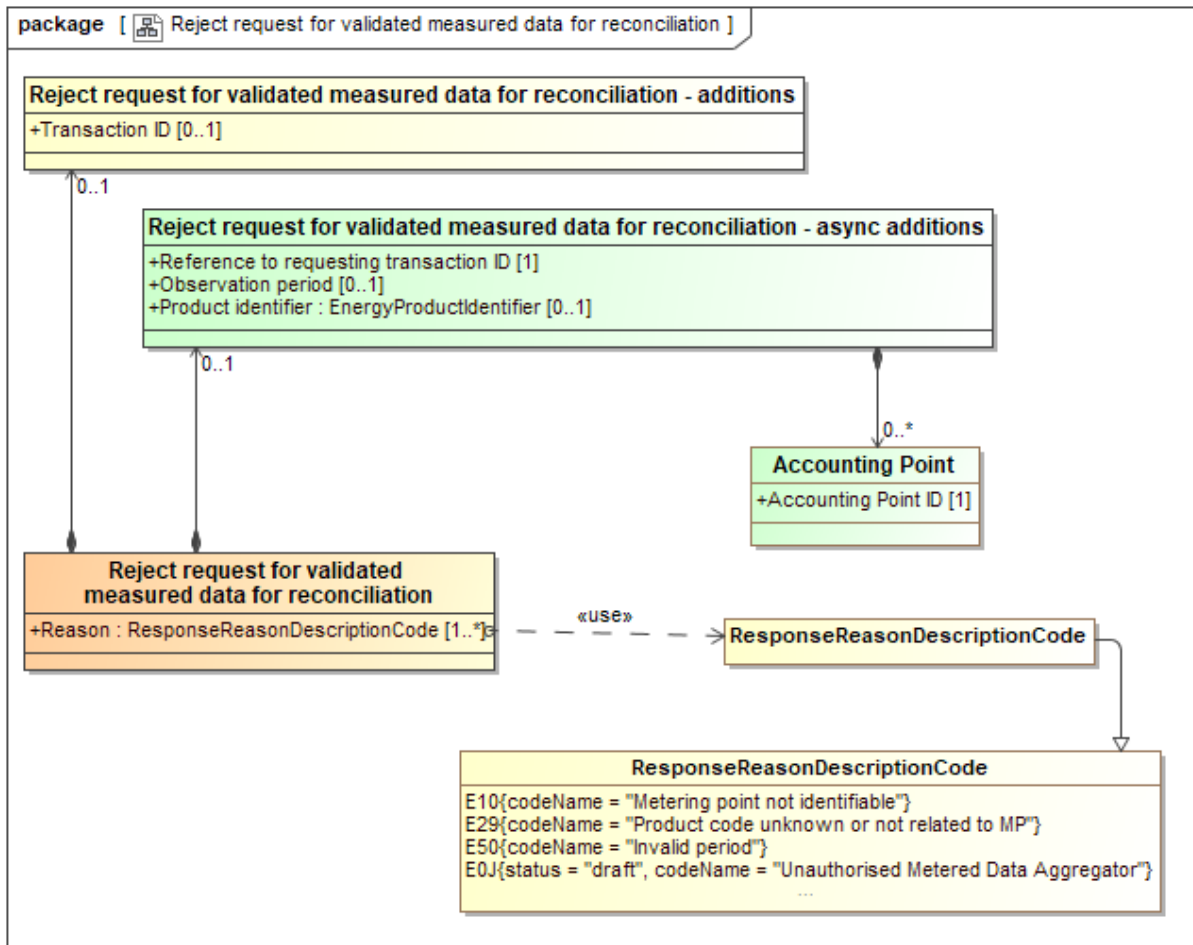## 4.3 Reject request validated measured data for reconciliation (Class Diagram)

Figure 8 Class diagram: Reject request validated measured data for reconciliation

4.3.1 Element definitions: Reject request validated measured data for reconciliation

«Business entity» Reject request validated measured data for reconciliation	Sector[4]	The response sent by the Metered Data Administrator to Reconciliation Responsible when not in the position to respond with the requested validated measured data for reconciliation.
Reason		A code specifying (one of) the reason(s) for rejecting the request for validated measured date for imbalance settlement.

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[4] It is assumed that Accounting Points are uniquely dedicated to either electricity or to gas.

Reject request validated measured data for reconciliation - additions		Additional information, related to the rejection of the request for validated measured data for reconciliation, the use of which may be agreed on a national level. This is however not used when specifying the payload in the ebIX® model.
Transaction ID		The unique identification of this response as given by the Metered Data Administrator.
Reject request validated measured data for reconciliation - async additions		Additional information, related to the rejection of the request for validated measured data for reconciliation, needed when using asynchronous communication. This is however not used when specifying the payload in the ebIX® model but is used when specifying the document in the ebIX® model.
Reference to requesting transaction ID		Information about the request leading to this response, which uniquely identifies it.
Observation Period		The specific period of time the validated measured data for reconciliation was requested for.
Product Identifier		A code specifying the energy product for the quantity in the requested observation period.
«Business entity» Accounting Point		An entity where energy products are measured or computed.
Accounting Point ID		The unique identification of the Accounting Point for which the validated measured data were requested.

Appendix A. Header and Context information for the class diagrams

A.1. Header and Context Information attributes definitions

Class/attribute	Sector[5]	Description
Header and Context Information		The set of information specifying the information to be added to this payload to enable the exchange as a document.
Document Type		A code representing the document type used for the exchange of this set of information.
Business Reason		A code representing the business reason for the exchange of this set of information.
Ancillary Business Process Role		A code representing the market role taking part in this exchange together with the Responsible Role, responsible for the process/this exchange.

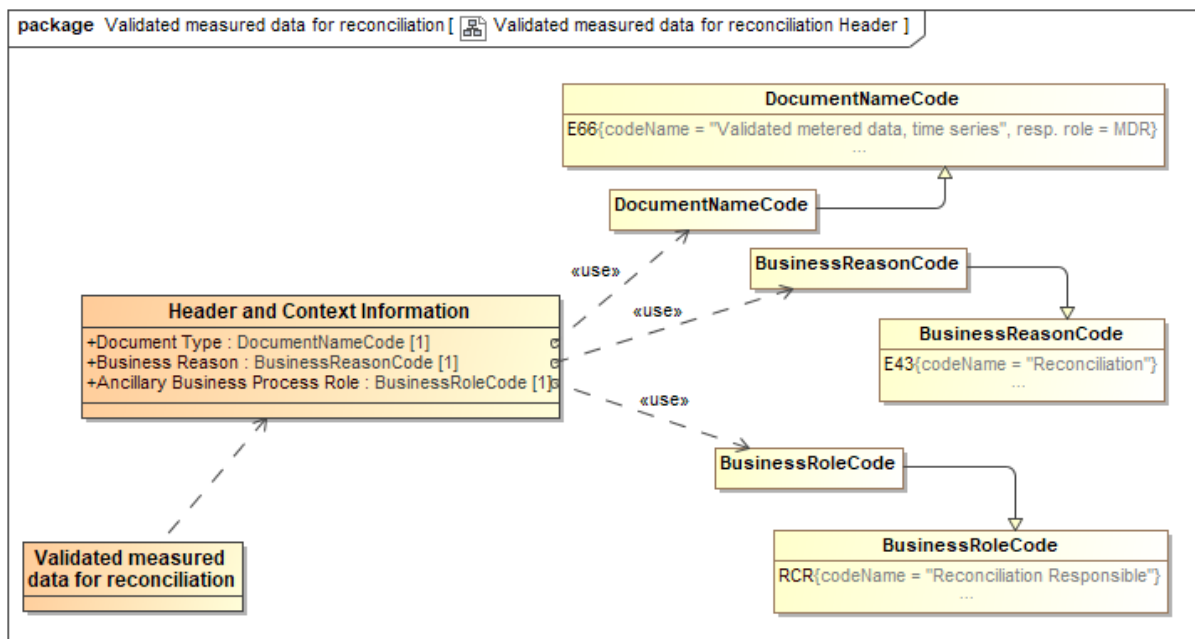### A.2. Validated measured data for reconciliation

Figure 9 Class diagram: Header and Context Information: Validated measured data for reconciliation

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[5] It is assumed that Metering Points are uniquely dedicated to either electricity or to gas.

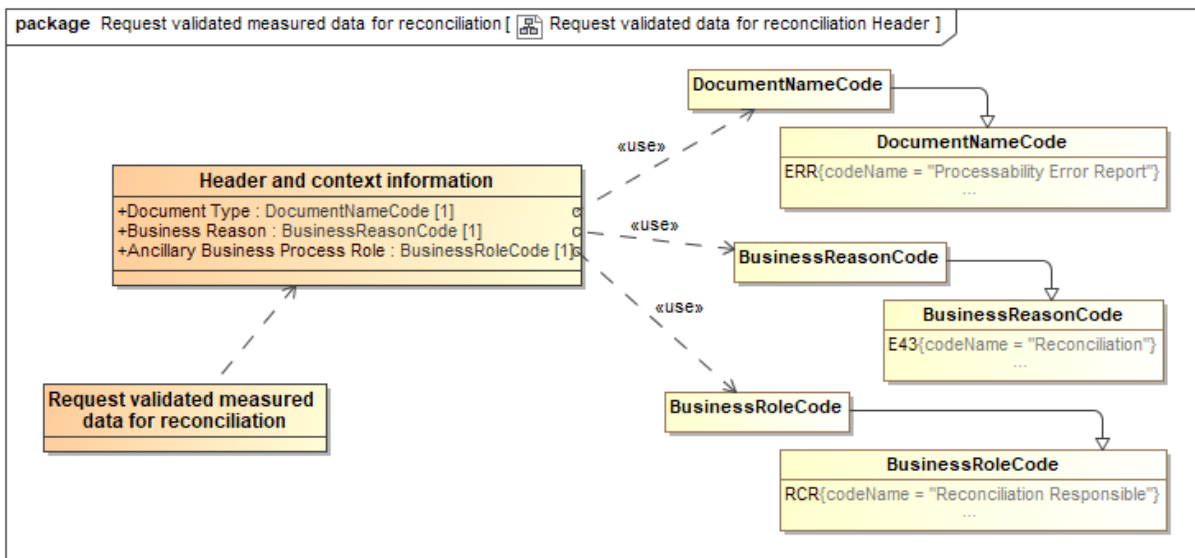## A.3. Request validated measured data for reconciliation

Figure 10 Class diagram: Header and Context Information: Request validated measured data for reconciliation

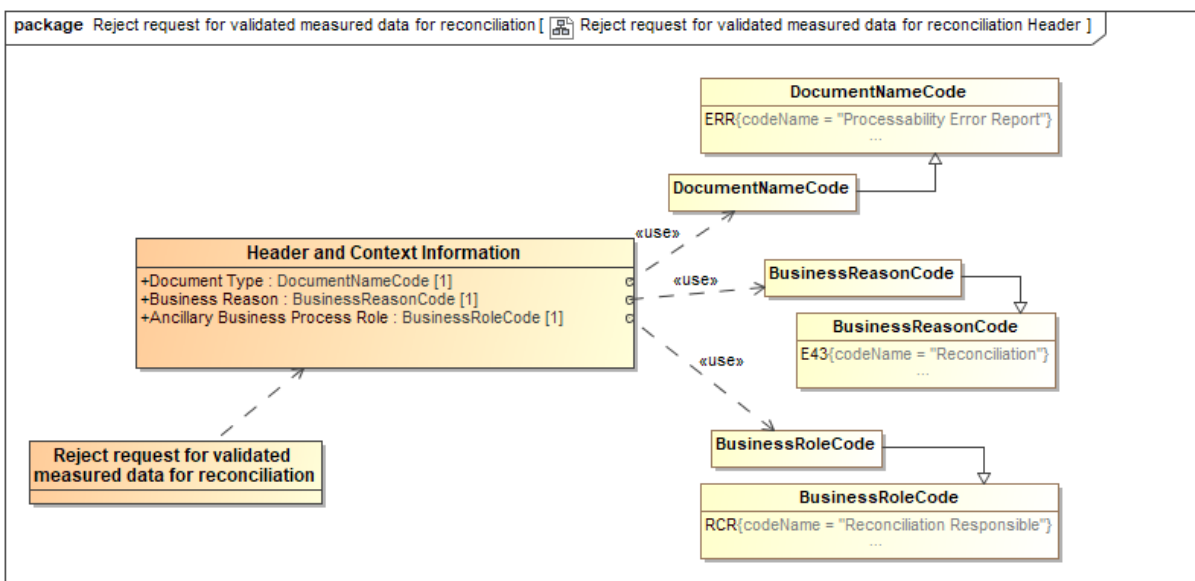## A.4. Reject request for validated measured data for reconciliation

Figure 11 Class diagram: Header and Context Information: Reject request for validated measured data for reconciliation