Business Requirements for

Measure

For

Labeling

Status: approved

Version: 1

Release: 0

Revision: B

Date: August, 2015

C O N T E N T

A. About this document

This document contains ebIX® Business Requirements for the processes regarding the measured data for labeling (green certificates) for electricity.

As a general introduction ebIX® has published a separate document "Introduction to ebIX® Business Requirements and Business Information Models" *(see [4])*. The introduction also includes the generic model elements that are not specific for a particular business process.

In line with UN/CEFACT Modeling Methodology version 2 (UMM-2) ebIX® defines the business requirements before starting the actual modeling. The requirements have been specified by the ebIX® work group "Exchange Metered Data" and are the basis for the Business Information Model which is published in a separate document.

The Business Information Model is in turn the basis for the creation of XML schema's and is expected to be the basis for the specification of web services in a next version of the model document. Since ebIX® supports both Edifact and XML the model will also serve as the basis for the creation of Message Implementation Guides for the mapping to Edifact UNSM's. The Business Information Model and the syntax specific structures are specified by the ebIX® "Technical Committee" (ETC).

A.1. Comments to the ebIX® model

If you have comments or suggestions to the requirements please contact any member of the project group or directly to Kees Sparreboom, kees.sparreboom@capgemini.com .

A.2. References

A.2.1. Standards

[1] UML Profile for UN/CEFACT's Modeling Methodology (UMM), Base Module, 2.0. (www.untmg.org/specifications/)

[2] UML Profile for UN/CEFACT's Modeling Methodology (UMM), Foundation Module, Candidate for 2.0. (www.untmg.org/specifications/)

[3] The Harmonized Role Model (for the Electricity Market) by ebIX®, ENTSO-E, and EFET (www.ebix.org)

A.2.2. ebIX® Documents

[4] Introduction to ebIX® Business Requirements and Business Information Models (www.ebix.org)

[5] Recommended Identification Schemes for the European Energy Market (www.ebix.org)

[6] ebIX® model for Structuring of the European Energy Market (www.ebix.org)

[7] ebIX® code lists

A.3. Participants in the project

These Business Requirements as part of the ebIX® Model for the European Energy Market *(see [4])* are made in a project with the members of EMD. For a list of members of EMD see www.ebix.org .

A.4. Main changes since last version

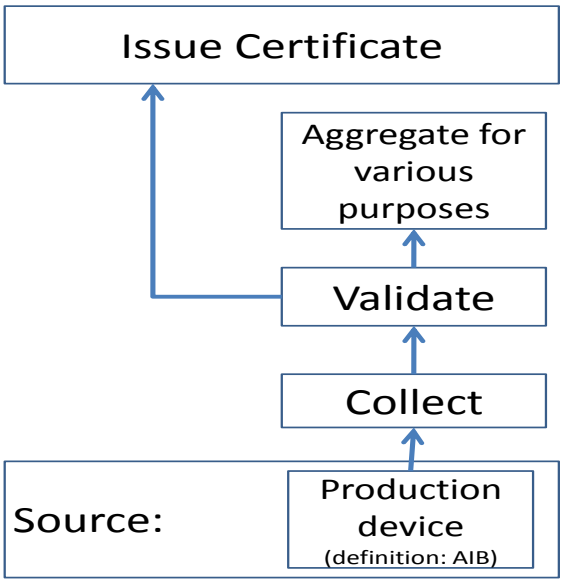
		Old	New	Clarification	Date
Start of updates for Version 0.0.-					
1.	All document			The lay-out has been brought in line with the ebIX® standard document lay-out	2010-10-27
2.	The exchange of validated data for Labeling to the Producer was removed.				2010-10-27
3.	The request for validated data for Labeling was removed.				2010-10-27
4.	For the class diagram for validated data		Either a quantity for generated or for delivered energy	Two options for the source of the collected are allowed: directly from the production device or from the register(s) for the MeteringPoint	2010-10-27
End of updates for Version 0.0.A					
5.	For the class diagram for validated data		Either a quantity for generated or for delivered energy	OCL-specification for the XOR between sources of the collected data	2011-01-18

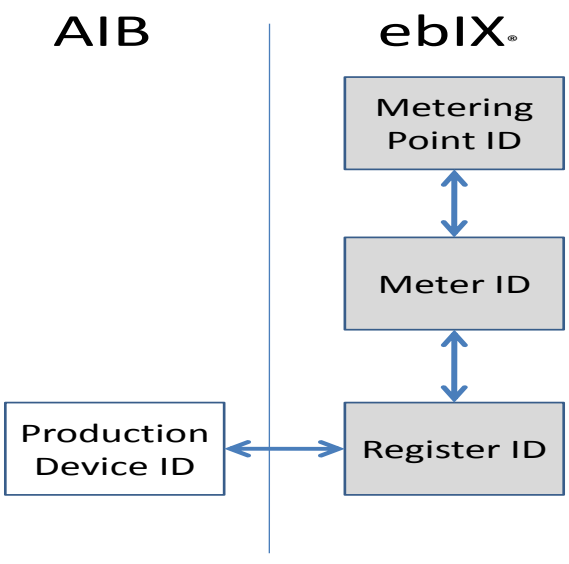
End of updates for Version 0.0.B					
6.	For the class diagram for validated data			Some textual changes in the naming of the classes	2011-03-16
End of updates for Version 1.0.-					
7.	Paragraph on references			The list of references has been limited to references directly relevant for a document containing business requirements	2013-07-02
8.	UseCase "Validate Measurements"		The generic UseCase "Validate Measurements" replaces specific validation processes.	The generic process for "Validate Measurements" is specified in the document Introduction to ebIX® Business Requirements and Business Information Models (www.ebix.org)	2013-07-02
9.	All activity diagrams have been brought in line with the rules stated in the Introduction to ebIX models			One-way processes have final node in receiving swim lane; two-way processes have final node in triggering (sending) swim lane	2013-07-02
10.	All class diagrams		A table with semantic definitions of classes and properties has been added	To bring model documents for ebIX® CuS and ebIX® EMD in line	2013-07-02
11.	All class diagrams, all classes for "….-additions"		The properties Sector and Reason have been deleted	As a consequence of modeling for web services as one of the implementation options	2013-07-02

12.	Class diagram "Validated data for Labeling….", class "Identification through Meter/Register" has been replaced by a direct use of the classes for Meter and Register			Register/meter cluster is just used as such and dependency is specified in table with element definitions.	2013-07-02
13.	Class diagram "Validated data for Labeling…."		Added two classes for additions	As a consequence of modeling for web services as one of the implementation options	2013-07-02
End of updates for Version 1.0.A					
14.	References			Links to referenced documents have been updated.	2015-08-15
End of updates for Version 1.0.B					

1. Scope of the Business Requirements

These Business requirements specify the exchange of validated data for the purpose of the creation of green certificates. These requirements are derived from the available documentation as published by AIB. We therefore assume, that collected data may either be obtained from registers directly linked to the production device or from register(s) linked to the Metering Point. The validated data are always exchanged per Metering Point, but the specification of the source has two options and therefore the type of quantity will have two options (either a generated quantity taken from the registers linked to the production device or a delivered quantity as established for the Metering Point).





2. Business Requirements View: Measure for Labeling

2.1. Measure for Labeling (Business Process UseCase)

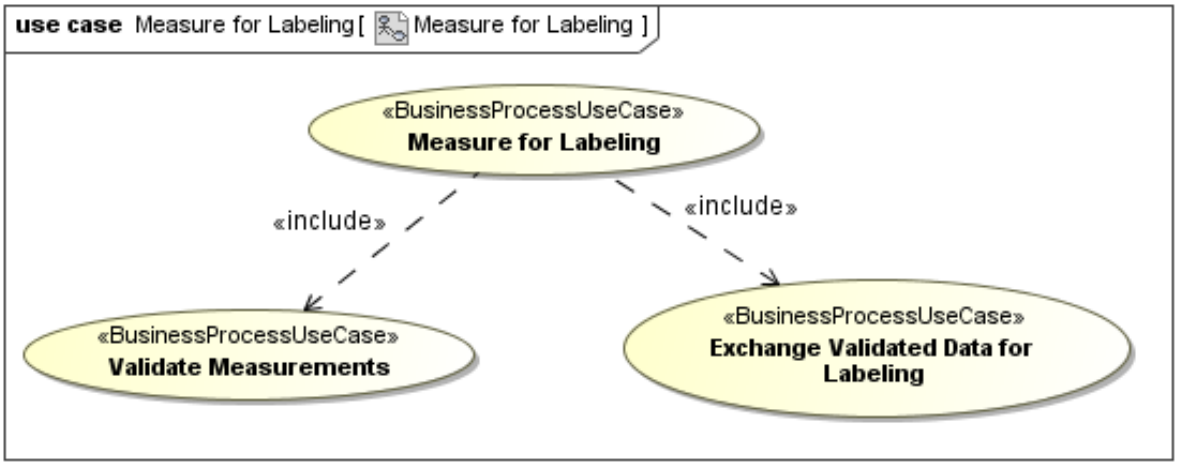


Figure 1 Measure for Labeling

2.1.1. Description

UseCase description: Measure for Labeling	
definition	Provides validated data for use in the labeling process to partners involved in this process.
beginsWhen	The timing of the various processes is guided by a time schedule (nationally defined). As a general rule can be stated, that the processes are executed on a monthly basis.
preCondition	Collected data are available. Partners responsible for the execution of the processes should have access to relevant master data.
endsWhen	All processes included in the time schedule have been executed.
postCondition	All validated metered data are available at the partners so that the labeling process can be executed and the results can be verified.
Exceptions	• No master data available • Production device is not qualified
actions	*See 2.1.2*

2.1.2. Business Process

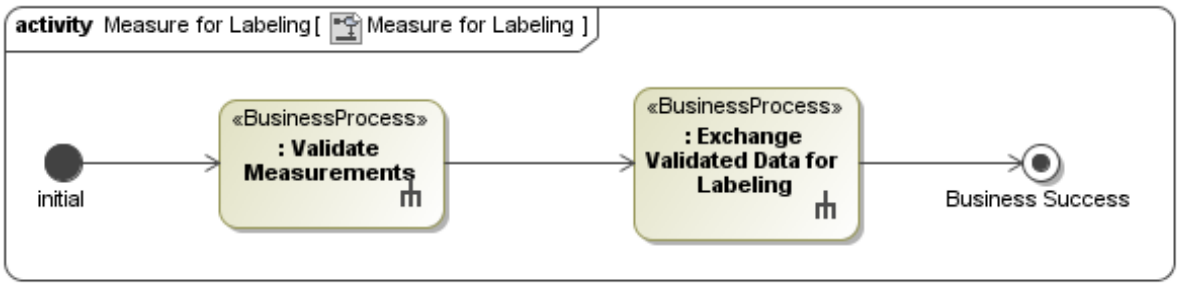


Figure 2 BP Measure for Labeling

2.1.3. Validate Measurements (Business Process UseCase)

This process is described in the Introduction to ebIX® Business Requirements and Business Information Models (www.ebix.org), see [4].

2.1.4. Exchange Validated Data for Labeling (Business Process UseCase)

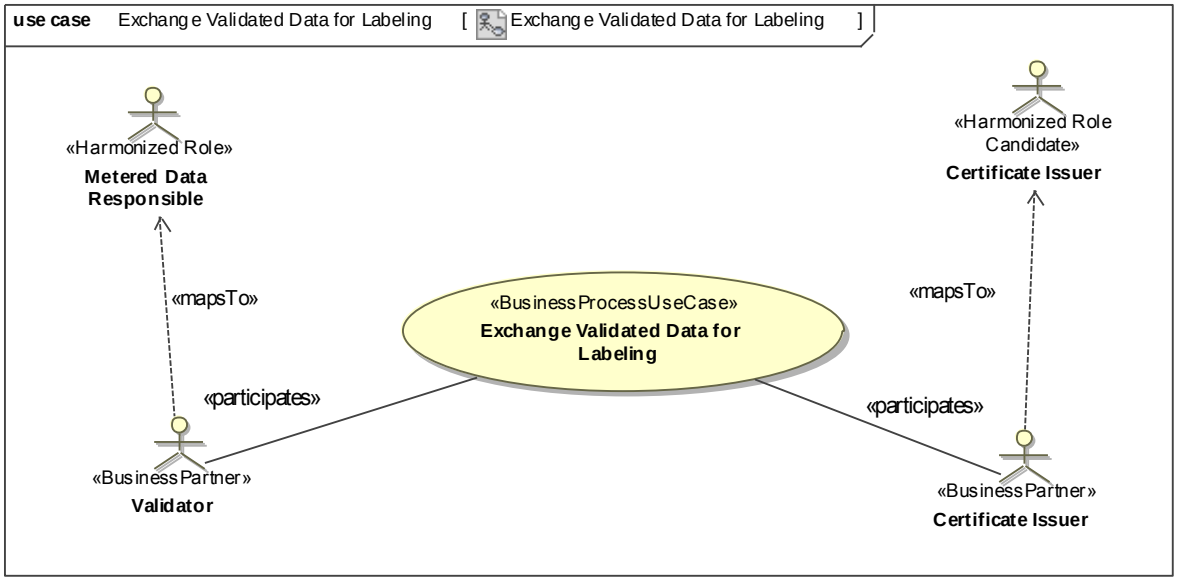


Figure 3 Exchange Validated Data for Labeling

2.1.4.1. Description

UseCase description: Exchange Validated Data for Labeling	
definition	Validator sends validated data to Certificate Issuer
beginsWhen	Validator decides to.
preCondition	Validated Data are available.
endsWhen	The reception of the validated data has been acknowledged by the Certificate Issuer.
postCondition	Validated Data are available for the Certificate Issuer.

exceptions	none
actions	*See 2.1.4.2*

Remarks:

- The <<BusinessPartner>> Producer (<<Harmonized Role>> is Party Connected to the Grid) is to be regarded as the owner of the data, but this does not imply that for process reasons the validated data are sent to this <<BusinessPartner>>.
- It is assumed for these Business Requirements that the Certificate Issuer enables the Producer to keep track of the process (e.g. to be informed about the changes in the status of its account and thereby to keep track of the exchange of validated data on its behalf.)

2.1.4.2. Business Process

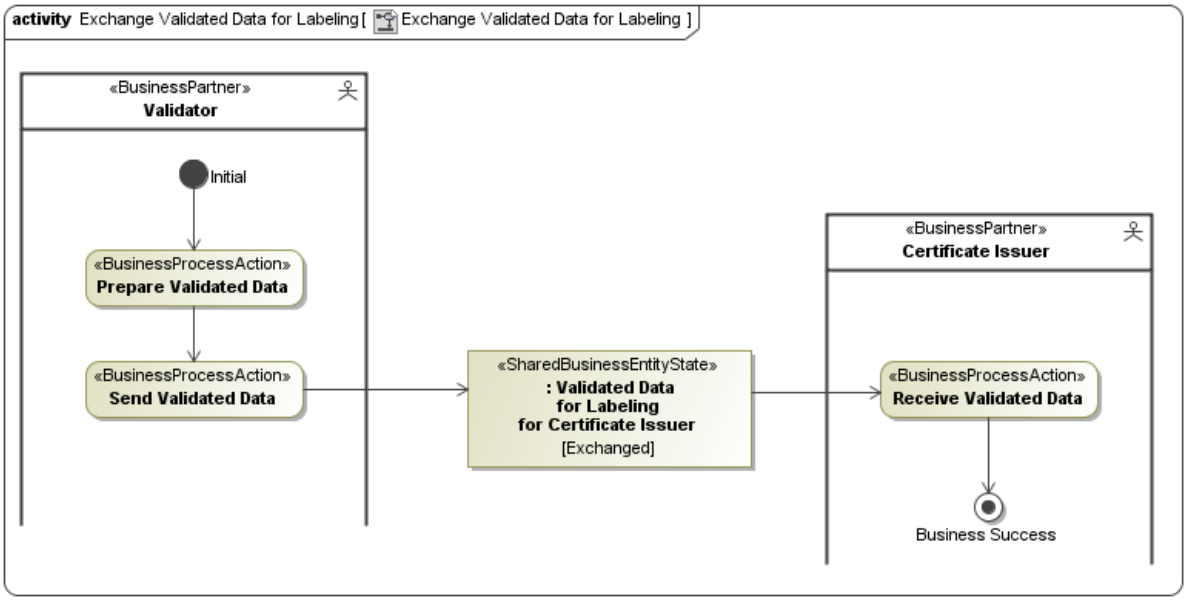


Figure 4 BP Exchange Validated Data for Labeling

2.2. Business Partner View

2.2.1. Business Partners Measure for Labeling

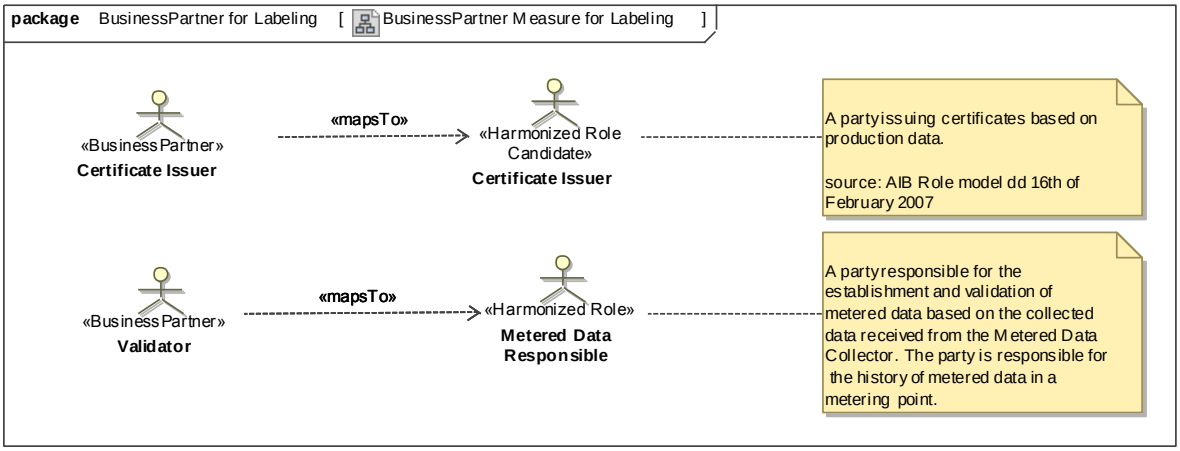


Figure 5 Business Partners Measure for Labeling

2.3. Business Entity View

2.3.1. Validated Data for Labeling to Certificate Issuer (Class Diagram)

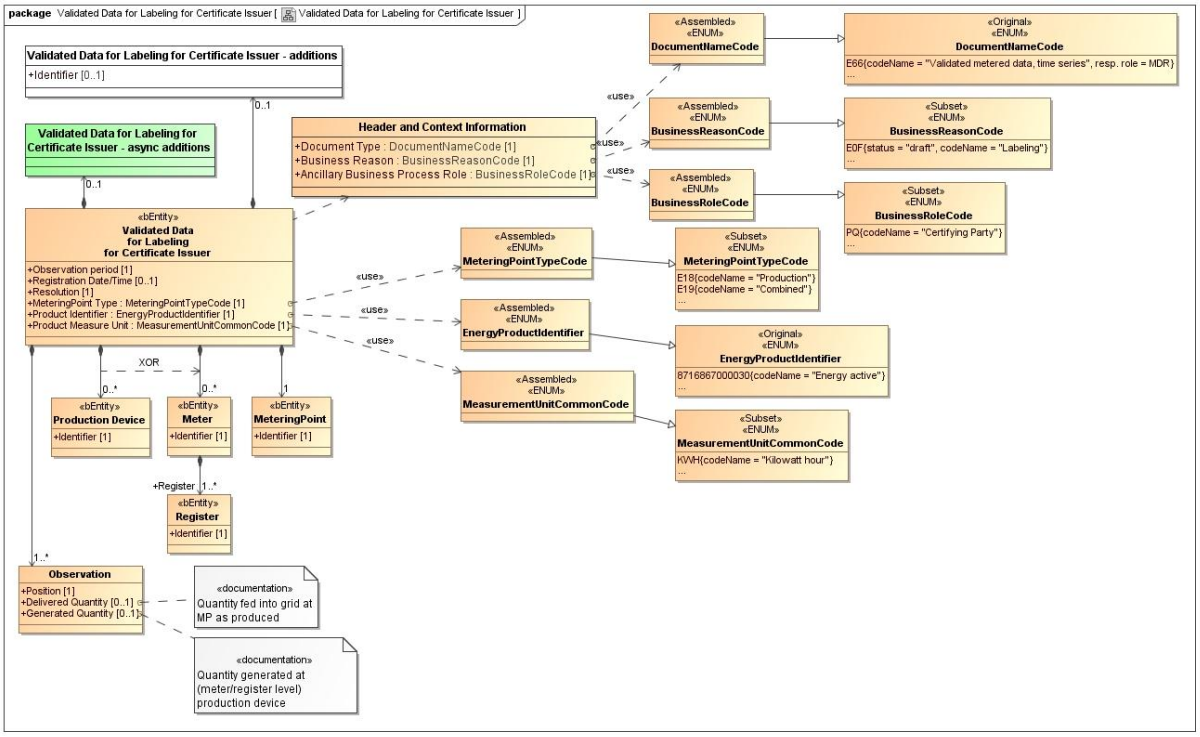


Figure 6 Validated Data for Labeling for Certificate Issuer

Element definitions, Validated Data for Labeling for Certificate Issuer	
«Business entity» Validated Data for Labeling for Certificate Issuer	The information set sent by a Validator responsible for the validation of measured data for a generation installation at a Metering Point in order to enable the issuance of certificates specifying the origin of the generated power.
Observation Period	A specific period of time describing the duration of this set of validated data.
Registration Date/Time	The date time of the validation (and storage in the database) of this set of validated data.
Resolution	The resolution of this set of validated data expressed as a duration between the start and end of subsequent observations within this set of validated data.
MeteringPoint Type	A code specifying the direction of the active energy flow in this Metering Point, such as consumption, production or combined.
Product Identifier	A code specifying the energy product for the quantity in this time series.
Product Measure Unit	The unit of measure used for the quantity in this time series/set of measured data.

«Business entity» Metering Point	An entity where energy products are measured or computed.
Identifier	The unique identification of the Metering Point to which the validated data are attributed.
«Business entity» Production Device	A physical installation for the generation of electric power. Production Device is dependent: only used when proper identification of the Production Device is available.
Identifier	The unique identification of this Production Device.
«Business entity» Meter	A physical device containing one or more registers.
Identifier	The unique identification of the Meter that contains the register that has been read. Meter is dependent: only used when proper identification of the Production Device is not available
«Business entity» Register	A physical or logical counter measuring energy products.
Identifier	The unique identification of the Register that has been read.
Observation	One (combination of) validated values. The value(s) may be a part of a set of validated data.
Position	The ordinal position of this observation in this set of validated data.
Delivered Quantity	The validated quantity of energy for this observation as delivered at the Metering Point.
Generated Quantity	The validated quantity of energy for this observation as generated by the Production Device and as measured by the register.
Validated Data for Labeling for Certificate Issuer Additions	Additional information, related to Validated Data for Labeling for Certificate Issuer, the use of which may be agreed on a national level. This is however not used when specifying the payload in the ebIX® model.
Identifier	The unique identification of this set of information as given by the Validator.
Validated Data for Labeling for Certificate Issuer Async Additions	Additional information, related to Validated Data for Labeling for Certificate Issuer, 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.
	none

2.3.1.1. Validated Data for Labeling to Certificate Issuer (State Diagram)

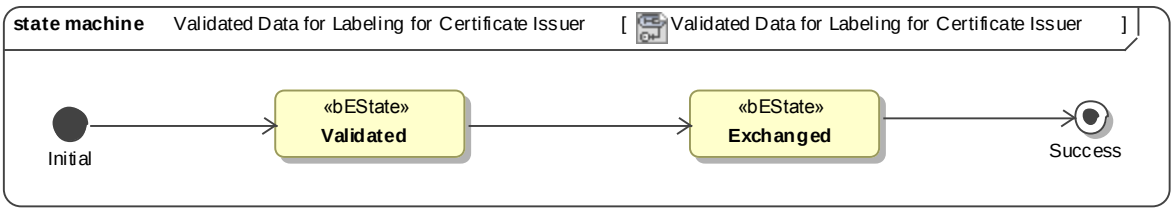


Figure 7 Validated Data for Labeling for Certificate Issuer