


Minutes ETC meeting, October 20 th , 2023	 European forum for energy Business Information eXchange
November 16 th , 2023	ETC – ebIX[®] Technical Committee

Date: Friday October 20th, 2023

Time: 11:00 – 15:30

Place: GoToMeeting

Present: Jan (NL), EDSN
Jan (SE), Svenska kraftnät
Kees, ebIX[®]
Ove, ebIX[®]

Appendix A: ebIX[®] rules for how to make MRs to WG16

Appendix B: Mapping from ebIX[®] class diagrams for Validated measured data for continuous metered AP to CIM

Attachment:

1. ETC workplan (see ebIX[®] file manager at <https://filemanager.ebix.org/#>)

1 Approval of agenda

The agenda was approved with the following additions:

- New draft CIM from Becky, see item 4.
- Self-association to MP/AP in the HEMRM, see item 11.1 under AOB.

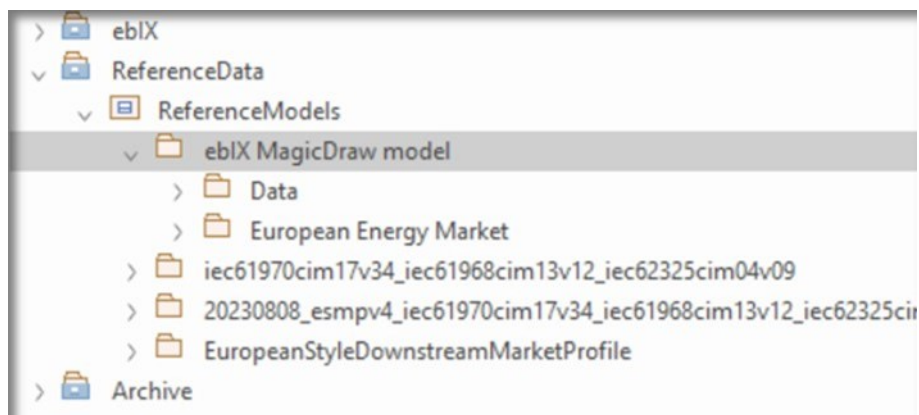
2 Approval of minutes from previous meetings

The minutes from previous meetings were approved.

3 Resolve matters related to close down of ebIX[®]

Jan (NL) has added the ebIX[®] Model (coming from MD) to the ebIX[®] EA cloud directory at EDSN:

- The specified action under 3.1 from previous meeting minutes: “Jan (NL) will add the ebIX[®] Model (coming from MD) to the ebIX[®] EA cloud directory at EDSN” is done without import error messages.



Ove has verified the result, and it seems that the import corresponds with the EA repository Ove created by exporting the MagicDraw model.

It was agreed to publish the latest versions of the ebIX® model in EA and MD format at the ebIX® web site by the end of the year. The publication of the latest versions of the ebIX® model was added to the ebIX® ending plan.

4 New draft CIM from Becky

Jan (SE) informed that Becky has published a preliminary version of the next CIM where many of our additions are available

See [WG16](#) > [Shared Documents](#) > [CIM-Modeling-Team-Workspace](#) > [draft-CIM-Models](#) > [CIM04](#)

<http://iectc57.ucaiug.org/WG16/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2fWG16%2fShared%20Documents%2fCIM%2dModeling%2dTeam%2dWorkspace%2fdraft%2dCIM%2dModels%2fCIM04&FolderCTID=%2f7b1C3B4B5B%2d27BC%2d4DA7%2d9C09%2d1EBE98574A9E%7d>

She has asked Alvaro and Jan (SE) to check it out. Presumably, Becky thinks it should be ready, and merged with WG14 and WG13 models, by the WG13/14/16 meeting later in October.

Jan (SE) informed that he had reported back to Becky that the following are missing:

- The association between MarketEvaluationPoint and MktPSRType.
- flowCategory in Accounting Point.

5 Resolve ebIX®/IEC issues

5.1 Making a European Style Downstream Market Profile (ESDMP)

5.1.1 [Status and possible review of MRs where CIM for retail market wg need more information - focus item](#)

Ove had updated the MR 2023-016, i.e. Skipped the RegisterMultiplier class and instead added a multiplier attribute to the Register class of type Decimal.

Action:

- Jan (SE) will submit ebIX® MR 2023-016 to the CIM for retail market wg.

Item closed.

5.1.2 [MRs based on Dutch requirements](#)

Continued actions:

- 1) Kees will add a MR to the series of other MRs that will be sent from ebIX® based on the Dutch requirements for changing the cardinality of the association between Acknowledgement_MarketDocument and Sender_MarketParticipant/Receiver_MarketParticipant from mandatory [1] into optional [0..1].
- 2) Kees will try to come up with a refined table showing the Dutch MRs, including examples.
- 3) Kees will investigate the usage of a reference to a related document (probably only used in the acknowledgement in the Netherlands) and see if he can find a justification of the “rename of the association named Original Market Document to something more generic”.
- 4) Jan (NL) and Kees will go through the Dutch MRs and see if more of the MRs are MRs to 62325-351 (ESMP).
- 5) Jan (NL) will verify if MR 2021/044 (Addition of association from Register to Product) still is valid.

Ove had as action made a first draft of the three ebIX® MRs 2021/035, 2021/038 and 2021/040 and sent them for comments to the core ETC members on October 3rd.

Action:

- Jan (SE) will submit ebIX® MRs 2021/035, 2021/038 and 2021/040 to the CIM for retail market wg.

5.1.3 [Review of non-submitted MRs from the ETC Excel sheet - focus item](#)

Unresolved items:

- Status for request from Jan (SE)/Kees to Alvaro to change the direction of the association from MarketEvaluationPoint to MktActivityRecord in ESMP, ref. MR 2022/012.

Ove had as action drafted:

- 1) MR 2022/014 (Add an association from MktActivityRecord to ChargeGroup) and sent it to ETC for comments).
- 2) MR 2023/019 (Add explanatory text to the longitude, latitude and altitude attributes in PositionPoint, in ESMP).

Also the ebIX® MR 2023/018 was agreed submitted to the CIM for retail market wg.

Jan (SE) noted that the name attribute in the ChargeType class asked for in ebIX® MR 2022/024 (used in ebIX® MR 2022/020) had a cardinality of [1], which should have been [0..1], which resulted in the following two tasks:

- 1) ebIX® MR 2022/020, which not yet has been discussed in the CIM for retail market wg, was updated during the meeting.
- 2) Since this MR already has been agree in the CIM for retail market wg, Jan (SE) will add a note in Redmine regarding ebIX® MR 2022/024 (“**Note:** the cardinality of the name attribute should be changed to [0..1]”).

Action:

- Jan (SE) will submit ebIX® MR 2022/014, MR 2023/018 and MR 2023/019 to the CIM for retail market wg.

5.1.4 [MRs related to Accounting Point Characteristics](#)

Ove had as action started on a draft document describing the mapping from the Accounting Point Characteristics class diagram to CIM, which was reviewed.

The document has one paragraph for each class in the ebIX® class diagram for Accounting Point Characteristics. Ove had suggested a mapping from the eight first classes to the related «ACC» in ESMP. However, it was agreed also adding a mapping to basic CIM.

Action:

- Ove will continue the mapping from the Accounting Point Characteristics class to CIM and map to both basic CIM and ESMP.

5.2 [Status for ENTSO-E CIM EG Retail market workgroup \(follow-up item on the agenda\)](#)

Ove had cleaned up the MR 2022-030 (Add GridAgreementTypeList to ESMP) and forwarded it to ETC for review before submission to CIM for Retail market subgroup.

Action:

- Jan (SE) will submit ebIX® MR 2022-030 to the CIM for retail market wg.

5.3 Preparations for coming WG16 meetings

The table below shows the agenda for the joint WG13/14/16 meeting next week. The most interesting item for ebIX® seems to be Monday afternoon (morning local time): mRID Topic Revisited (2 hrs.):

	Monday 23-Oct-2023	Tuesday 24-Oct-2023	Wednesday 25-Oct-2023	Thursday 26-Oct-2023	Friday 27-Oct-2023
Time US / PARIS	WG13 WG14 WG16 Frostbite 1 & 2	WG13 WG14 WG16 WG21 Frostbite 1 & 2	WG13 WG14 WG16 WG21 Frostbite 1 & 2	WG13 WG14 WG16 Frostbite 1 & 2	WG13 - NMM Bahman
08:00am/15:00	Arrival OSI	Arrival OSI	Arrival OSI	Arrival OSI	Arrival OSI
08:30am/15:30	Introduction to session modeling topics/priorities.	IEC TC57 Joint WG General Meeting (1.5 hrs.) · CAG Report, Liaison Reports, IEC docs status, (all things IEC related)	DER Modeling Proposal: “Grand Unified Theory of DERs in the CIM” (Scott Coe)	DER Modeling session (Cont.)	NMM Track
09:00am/16:00	mRID Topic Revisited (2 hrs.)				
09:30am/16:30	(All WGs members who have interest in this topic should plan to attend. It is a follow up from the Oslo meetings)				
10:00am/17:00	CIM MM: Presentation on Oct 3-5 th Modeling Workshop Outcomes (Henry)	UCA Joint WG Meeting (2 hrs.) · CIM Model Manager’s report (1 hrs.) · UCA SharePoint / Prolaborate report – Margaret · Others	Presentation of the Latest Protection Equipment Harmonization Proposal (Tikoshi / Svein Olsen / Tom Berry)	Modeling session for Protection Equipment Harmonization Proposal (Cont.)	
10:30am/17:30					
11:00am/18:00					
11:30am/18:30					
LUNCH BREAK					

Time US / PARIS	WG13 WG14 WG16 Frostbite 1 & 2	WG13 Frostbite 1 & 2	WG14 Honey-crisp 1	WG13 WG14 WG16 WG21 Frostbite 1 & 2	WG14 Honey-crisp 1	WG13 WG14 WG16 Frostbite 1 & 2	WG13 - NMM Bahman
1:00pm/20:00	CIM MM ½ Day Session – · <u>Joint Topic:</u> Discussion on existing Modelling Guidelines and conflicts introduced as part of European extensions introduced in CIM17. Broad CIM MM consensus needed on a path forward. · <u>Joint Topic:</u> ALineSegment cleanup (WG14)	WG13 Topic: NMM metadata (1.5 hrs.) (All WG13 attend)	WG14 – Plenary	DER Modeling session (Cont.)	Part 9 – Breakout Session	DER Modeling session (Cont.)	(If needed)
1:30pm/20:30							
2:00pm/21:00							
2:30pm/21:30							
3:00pm/22:00		WG13 Topic: CIM18 Planning – What to include in the upcoming 301, 452, 453, 456 CDVs and when to submit (1 hr.) (All WG13 attend)	Part 4 – Breakout Session	Modeling session for Protection Equipment Harmonization Proposal (Cont.)		Modeling session for Protection Equipment Harmonization Proposal (Cont.)	

3:30pm/22:30	needs to sign off on changes that will be required in the CIM Enterprise package)	WG13 Topic:					
4:00pm/23:00		Complete Redmine issues review if not covered Monday PM					
4:30pm/23:30							

6 EG1 status

Due to a reorganisation within the EU system, SGTF and EG1 will end, and the tasks will be taken over by the “Smart Energy Expert Group” (SEEG). The SEEG will take over the responsibility for the IAs (IRs), however within a new organisation and with a new call for participants.

7 Update of ebIX® code list

Ove informed that an updated code list has been published:

- Addition of new Energy Product Identifier:
 - Capacitive reactive power
 - Capacitive inductive power
 - Water
- Addition of Energy Label Fuel Type Codes

Continued action:

- Jan (SE) will try finding time to do some QA on the code list as homework

7.1 Status for GS1 product code for hydrogen

Douglas from ENTSOG has promised to ask Gasunie if they are able to issue a GS1 product code for hydrogen.

Nothing new – to be continued.

8 Resolve HG issues

8.1 BRP vs Energy Trader

The item was postponed.

8.2 Status for harmonisation of the electricity and gas markets role models

Nothing reported.

8.3 Suggestions for HEMRM extensions

The intention with this item is to describe the roles not suitable for HEMRM / HGRM, such as Hub, DSO, TSO etc., based on the tables from Kees below.

Business roles	Implementation-dependent roles	Roles linked to physical devices
HRM / GRM	Exchange architecture:	

This is already available in the present HRM and GRM (maybe with the exception of the meter-related roles which may have to be moved to the physical devices)	<ul style="list-style-type: none"> • Document exchange • Web service • Data sharing 	
	System/device roles	

Market roles	(System)-Operational Roles
<p>Technology independent roles</p> <p>This is already available in the present HRM and GRM (maybe with the exception of the meter-related roles which may have to be moved to the physical devices)</p>	<p>linked to physical devices</p> <p>Example:</p> <ul style="list-style-type: none"> • Grid Operator • Meter Operator
<p>Implementation-dependent roles</p> <p>Example: Exchange architecture:</p> <ul style="list-style-type: none"> • Document exchange • Web service • Data sharing <p>Example of roles:</p> <ul style="list-style-type: none"> • Datahub • Platform 	

Conclusion:

- Ove will add the two tables above to next HG agenda.

Item closed.

8.4 Status for HG (and ENTSO-E) discussions related to MR for the new domain (or CIM object) Grid Connection

No news.

9 ebIX® Business Information Model 2022.A

9.1 Use of XOR in combination with cardinalities

ebIX® will not have time to deal with this item before it closes.

Item is closed.

9.2 Continue review and update of version 2022.A

ebIX® think time is running out for dealing with this item before it closes, however Ove will go through the ETC appendixes to see if anything should be discussed at our next meeting.

Action:

ebIX®/ETC

- Ove will go through the ETC appendixes to see if anything should be discussed at our next meeting.

10 Next meetings¹

- Wednesday November 22nd, 10:00 – 15:00, 2023, GoToMeeting
- Friday December 8th, 10:00 – 15:00, 2023, GoToMeeting

11 AOB

11.1 Self-association to MP/AP in the HEMRM

From HG minutes 25th February 2022: ebIX® MR for addition of a self-association to the Metering Point:

ebIX® had submitted the MR “ebIX® HG 2022/001” for addition of a self-association to the Metering Point:

- The background for this maintenance request is the need for addition of links to other MarketEvaluationPoints (= Metering Point in the HEMRM), such as a “Parent MarketEvaluationPoint”, one or more “Child MarketEvaluationPoints” or one or more “Linked MarketEvaluationPoints”.
- An example of links between MarketEvaluationPoints is the handling of metering in non-concessional Metering Grid Areas (MGAs) in Sweden, where “Sub Accounting Points” from a non-concessional MGA are associated to an Accounting Point that is part of the concessional grid, such as metered data from production facilities within an industrial grid.
- Another example is Customers having both production and consumption where there are different Energy Suppliers for the two directions, hence there is a need to link the consumption Accounting Point and the production Accounting Point.
- KS thinks we should investigate if we need the self-association for the Metering Point or if it should be a self-association to the Accounting Point instead. In the Netherlands there is an ongoing discussion related to links between Exchange Points but was not sure if this can be solved by a self-association to the Metering Point.
- JO suggested to change the MR to be a request for a self-association to the Accounting Point instead of the Metering Point. It is easy to later on move the self-association to the Metering Point if needed, since it then will be inherited to the Accounting Point and therefore not give problems for older applications.

Conclusion:

- JO will change the MR to be a request for a self-association to the Accounting Point instead of to the Metering Point and thereafter submit the MR to IEC/WG16.
- For the time being we don’t do anything with the HEMRM.

Action:

- The ebIX® Business Group (EBG) is asked to investigate the consequences for a self-association to the Accounting Point, i.e. how to implement it as master data.

After a brief investigation, it looks like the action item above was forgotten, i.e. it doesn’t seem that EBG has investigated the issue.

Conclusion:

- We ask EBG to discuss the topic.
- We reopen the topic in HG if agreed in EBG.

Item closed.

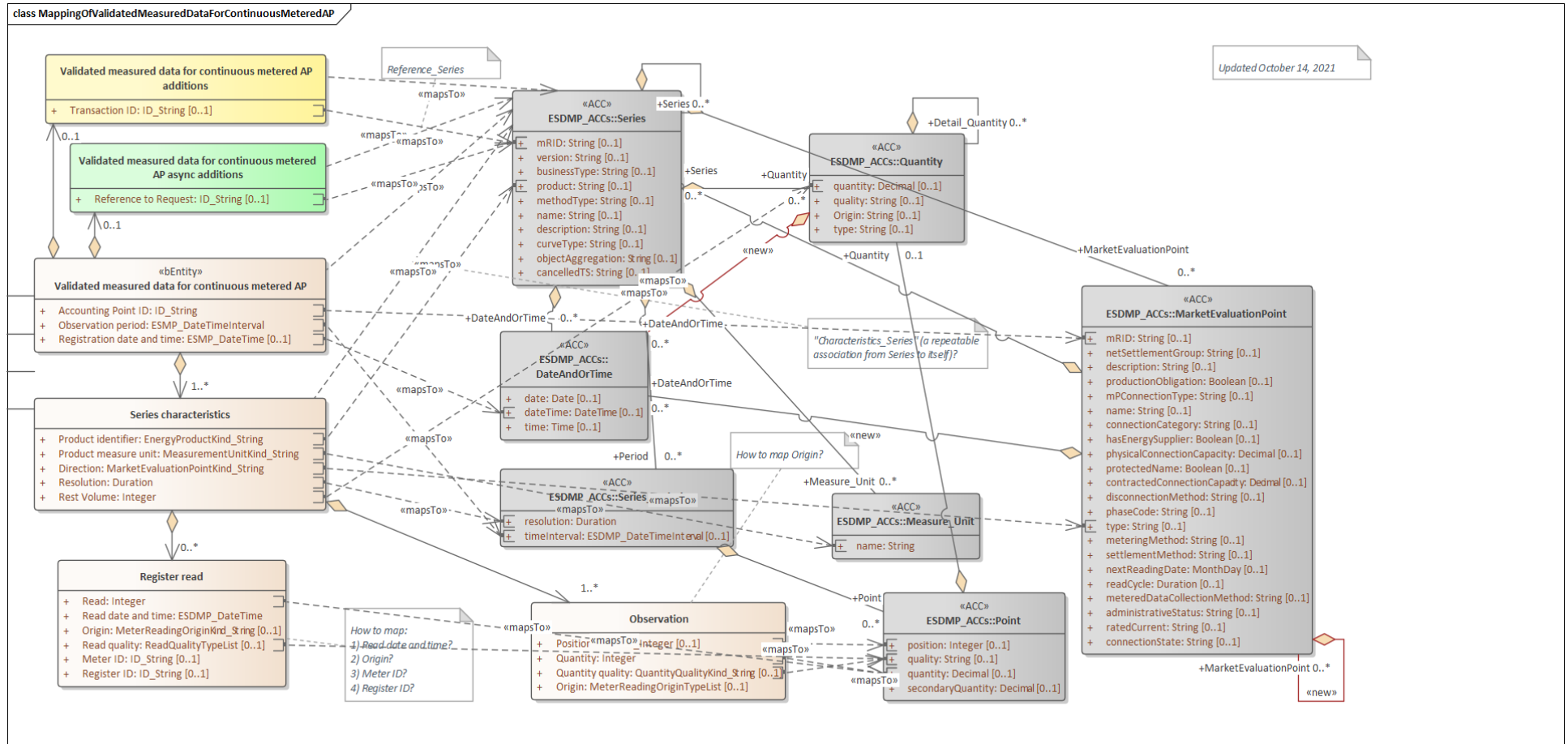
¹ All Face-to-face meeting starts 09:00 the first day and end at 16:00 unless otherwise explicitly stated.

Appendix A ebIX® rules for how to make MRs to WG16

- 1) Artefacts used for MRs to WG16 shall be stored as separate packages in the common cloud EA model.
- 2) Always review existing definitions of attributes, classes etc. that are related to the MR in question and if needed propose updates to these definitions.
- 3) First investigate basic CIM to see if the object we intend to send an MR for already is available there.
If yes, we should make a MR for 62325-351 (ESMP), if not we make a MR for both basic CIM and ESMP.

Appendix B Mapping from ebIX® class diagrams for Validated measured data for continuous metered AP to CIM

The mapping will be reviewed by ETC, while EBG will look into the definitions of classes and attributes to see if we need to update the ebIX® definitions or if we should send maintenance requests to IEC for update of the CIM definitions.



BRS attribute	BRS definition	CIM attribute	CIM definition
<p>«Business entity»</p> <p>Validated measured data for continuous metered AP</p>	The information set sent by a Metered Data Responsible to the Metered Data Administrator when exchanging validated measured data for continuous metered AP	Series	A set of similar physical or conceptual objects defined for the same period or point of time.
Accounting Point ID	The unique identification of the Accounting Point to which the validated measured data are attributed.	MarketEvaluationPoint / mRID	<p>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.</p> <p>For CIMXML data files in RDF syntax conforming to IEC 61970-552, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.</p>
Observation period	The specific period of time the validated measured data have been measured, calculated or estimated for.	Series_Period / timeInterval	The start and end date and time for a given interval.
Registration date and time	The date and time of the validation (and storage in the database) of this set of validated measured data.	DateAndOrTime / dateTime	Date and time as per ISO 8601 YYYY-MM-DDThh:mm:ss.sssZ.
Series characteristics	The characteristics of this set of validated measured data, i.e., the product and flow direction.	Series	A set of similar physical or conceptual objects defined for the same period or point of time.
Product identifier	A code specifying the energy product for the quantities in this set of validated measured data.	Series / product	The type of the product such as Power, energy, reactive power, transport capacity that is the subject of the time series.
Product measure unit	The unit of measure used for the quantities in this set of validated measured data.	Measure_Unit / name	The coded representation of the unit.
Direction	<p>A code specifying the direction of the energy flow that was measured with this validated measured data.</p> <p>A flow from the Accounting Point into the Metering Grid Area is defined as production and a flow from the Metering Grid Area into the Accounting Point is defined as consumption.</p>	MarketEvaluationPoint / type	Specifies if the Market Evaluation Point is an Exchange Point or an Accounting Point.

BRS attribute	BRS definition	CIM attribute	CIM definition
Resolution	<p>The resolution is the time between two observations, leading to the number of observations in this timeseries (calculated from the Observation Period divided by the Resolution).</p> <p>The Observation Period must contain a whole number of observations as derived from the resolution.</p> <p>The resolution is expressed in compliance with ISO 8601 in the following format:</p> <p style="text-align: center;">PnYnMnDTnHnMnS.</p> <p>For example PT15M for 15 minutes resolution.</p>	Series / resolution	The number of units of time that compose an individual step within a period.
Rest Volume	The Rest Volume is used for a volume that cannot be related to the 'normal' measured time series observations, i.e., the difference, for the Observation Period, between the start and end meter read and the aggregated volume from the exchanged time series.	Quantity / quantity	<p>The quantity value.</p> <p>The association role provides the information about what is expressed.</p>
Register read	A read from the register of the Meter linked to the Accounting Point and characteristics of the read. This read is at the basis of the validated measured data in the Observation.	N/A	
Read ²	The value as read from or calculated for the register, for this Read date and time in the Observation period.	Point / quantity	Principal quantity identified for a point.
Read date and time	The timestamp of the moment in time when the value was registered in the Register of the Meter or the value was calculated for.	N/A	
Origin	A code specifying the role of the party that has retrieved or calculated the read.	N/A	
Read quality	The quality of this read, such as estimated, remotely read or physically read.	Point / quality	The quality of the information being provided. This quality may be estimated, not available, as provided, etc.
Meter ID	The unique identification of the Meter linked to the Accounting Point, which contains the register that has been read.	N/A	

² If the Register read is missing, the Meter Reading Origin Code shall be “**E28** From Metered Data Responsible” and the Quantity Quality Code shall be “**56** Estimated”.

BRS attribute	BRS definition	CIM attribute	CIM definition
Register ID	The unique identification of the Register within the Meter, where this data has been read from or is estimated for.	N/A	
Observation	One validated measured value within a timeseries.	N/A	
Position	The ordinal position of this Observation in this Observation Period for this set of validated measured data.	Point / position	A sequential value representing the relative position within a given time interval.
Quantity	The validated quantity of energy for this Observation.	Point / quantity	Principal quantity identified for a point.
Quantity quality	The quality of this quantity (volume), such as validated (default value, hence not sent), estimated, or temporary.	Point / quality	The quality of the information being provided. This quality may be estimated, not available, as provided, etc.
Origin	A code specifying the role of the party delivering the Quantity.	N/A	
Validated measured data for continuous metered AP additions	Additional information, related to validated measured data, the use of which may be agreed on a national level.	Series	A set of similar physical or conceptual objects defined for the same period or point of time.
Transaction ID	The unique identification of this set of information as given by the Metered Data Responsible.	Series / mRID	<p>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.</p> <p>For CIMXML data files in RDF syntax conforming to IEC 61970-552, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.</p>
Validated measured data for continuous metered AP async additions	Additional information related to validated measured data needed when using asynchronous communication.	Series	A set of similar physical or conceptual objects defined for the same period or point of time.
Reference to request	Information about the request for this set of validated measured data for continuous metered AP which uniquely identifies it.	Series / mRID	<p>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.</p> <p>For CIMXML data files in RDF syntax conforming to IEC 61970-552, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.</p>

class MappingOfValidatedMeasuredDataForContinuousMeteredAP

Target \ Source	1 DateAndOrTime	2 MarketEvaluationPoint	3 Measure_Unit	4 Point	5 Quantity	6 Series	7 Series_Period
1 Observation				Maps To Quant... → quantity Maps To Position → position Maps To Quantity → quantity			
2 Register read				Maps To Read → quantity Maps To Read ... → quantity			
3 Series characteristics		Maps To Direct... → type	Maps To Produ... → name		Maps To Rest V... → quantity	Maps To Produ... → product Maps To →	Maps To Resol... → resolu...
4 Validated measured dat...	Maps To Regist... → dateTi...	Maps To Accou... → mRID				Maps To →	Maps To Obser... → timel...
5 Validated measured dat...						Maps To Trans... → mRID Maps To →	
6 Validated measured dat...						Maps To → Maps To Refer... → mRID	