Date: Monday January 30th, 2023
Time: 14:00 –15:30
Place: GoToMeeting

Present: Gerrit, EDSN
                 Jan, Svenska kraftnät
                 Sylvia, Westnetz
                 Ove, Edisys

Appendix A: EBG comments to the Harmonised Electricity Market Role Model (HEMRM)
Appendix B: EBG project and survey list
Appendix C: Mapping from ebIX® class diagrams for Validated measured data for continuous metered AP to CIM

Attachments: None

1   Approval of agenda

The agenda was approved with the following additions:
- Contact persons for BDEW datahub project, see item 12.1 under AOB.
- Possible comments to MR "ebIX® 2019/006, Add attribute nextReadingSchedule to UsagePoint"?, see item 12.2 under AOB.

2   Approval of minutes from previous meeting

The minutes from previous meeting were approved.

3   Finalise review of HEMRM definitions

The review of HEMRM role definitions were finalised, see comments in Appendix A. Next step is doing a review during the ETC meeting February 14th and 15th.

Action:
- Ove will make a draft MR for addition of Grid Connection to the HEMRM.
  - Suggestion for the definition:
    A point on the grid from where, by physically connecting to its installation(s), energy can flow into or from one or more Metering Points
- Ove will distribute the comments to ETC.

4   MR for IEC 62325-351 - ebIX 2022-030-v7 - Add GridAgreementTypeList to ESMP 20230113

The codes **E03** (Contract between Grid operator and Customer through Supplier) and **E04** (No net using contract) were discussed at the ETC meeting January 18th and EBG was asked to ask Vlatka/Joachim if it is OK for Germany

to deprecate the two codes in the ebIX® code list and to remove from a later version of the MR (or from CIM if agreed in the Retail market workgroup).

In the afternoon of January 18th, the MR was also discussed at an ENTSO-E CIM for retail market workgroup where a new proposal was raised:

Note 2023-01-18

> Proposal is to introduce a new class called Contractual Agreement? between MarketEvaluationPoint and MarketRole. This class shall have an attribute called contractKind? Contract kind is an enumeration with these values:
>
> - o Directly between
> - o between
> - o No grid access contract
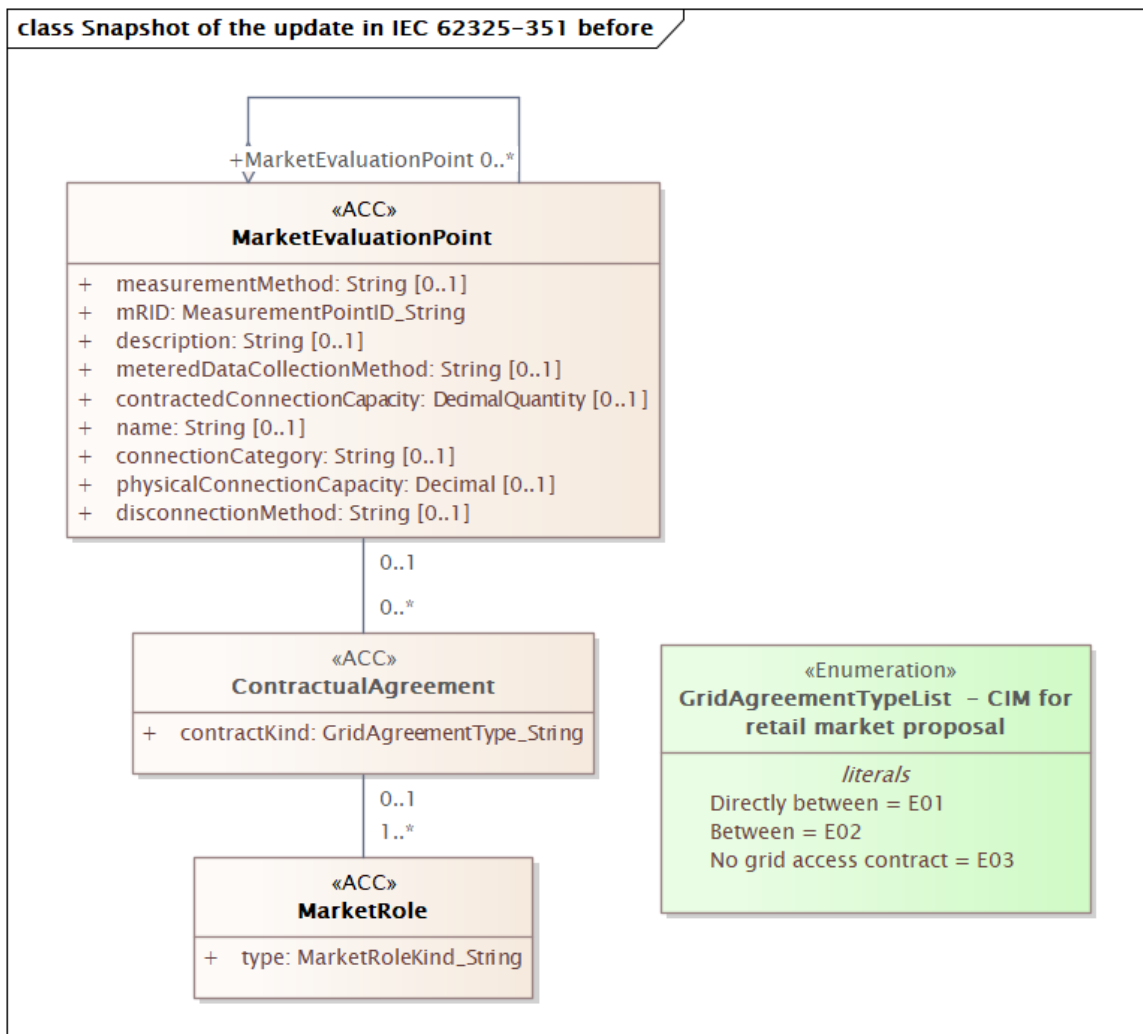
Can we agree to the new proposal from ENTSO-E?

Conclusion:
- EBG suggest keeping all four codes. **E03** (Contract between Grid operator and Customer through Supplier) is used by Netherlands. **E04** (No net using contract) may be used for sub-Accounting Points, where the agreement is for the main Accounting Point.
- How to describe the Dutch situation where there is a contract between the Customer and the Grid via the Energy Supplier (the Customer signs the grid connection contract by signing a contract with the Energy Supplier).

- The discussion will be continued at the physical ETC meeting February 14th and 15th.

Item closed.

5 Request for new MRs from NMEG

The item was postponed.

6 Update of BRSs – "to remember item"

The item was postponed.

7 Sub APs and production-/consumption APs

The item was postponed.

8 What attributes to send in a confirmation

The item was postponed.

9 Review of CIM definitions for classes and attributes based on mapping from ebIX® class diagrams for Validated measured data for continuous metered AP to CIM

The item was postponed.

10 Review of ebIX domain model (low priority item)

The item was postponed.

11 Meeting schedule

GoToMeetings:

- Every Monday until (including) July 3rd, 2023, except for holydays.

Physical meeting:

- Tuesday April 25th and Wednesday April 26th at Svenska kraftnäts offices in Sundbyberg (Stockholm).

12 AOB

12.1 Contact persons for BDEW datahub project

From Sylvia:

An analysis project on the data hub has been started in Germany by BDEW (Joe probably reported on it in December). It consists of 3 work packages ("Use cases data hub", "Operator model and Legal framework" and "Technology data hub"). Especially for the work package "Technology for the data hub", the implementation of the data hub in other countries would like to be considered as a basis for the implementation in Germany.

Therefore, we need contact persons for BDEW project leaders in order to exchange information and experiences.

We're considering reaching out to the contacts who participated in the survey. Does that make sense in your view? We would thus address Kalle Kukk for Estonia, Christian Odgaard for Denmark (Christian had once offered to show the data hub in Norway), Gerrit for the Netherlands and Bostjan Topolovec for Slovenia. For Austria we are missing possible contact persons. On the subject of the operator model, BDEW would like to discuss details with a contact from the Netherlands. We would also be in touch with Gerrit on this topic. From your point of view, are there any other people (possibly from other ebIX® groups) that we could recommend to the BDEW for the data hub?

A list of possible contact persons from Austria, Belgium. Denmark, Finland, Netherlands and Norway was drafted.

Item closed.

12.2 Possible comments to MR "ebIX® 2019/006, Add attribute nextReadingSchedule to UsagePoint"?

On Monday, February 13, joint Redmine cases will be discussed at the joint WG13/14/16 meeting in the US. The meeting begins at 5 CET. Among others, the MR "ebIX® 2019/006, Add attribute nextReadingSchedule to UsagePoint" is put on the agenda:

Description from "Redmine CIM Issues #5345":
This new attribute will inform the Energy supplier when the (next) reading is done. Could be a date, or a string with a format "MMDD". Example 0704 informing that regular readings are done yearly July 4th. Typically used for yearly read market evaluation points. Description of the new attribute can be: "*The indication of when the next meter reading is scheduled*". The datatype is String (to allow different use cases; 2022, July, 0704). Implementation would specify the rules as to the format of the expected next reading schedule.

Questions from Jan:

- What should be said then? How do we want it?

    Conclusion:

    - EBG supports the current proposal, including using datatype string. Alternatively, if rejected by WG14, we could ask for addition to the AccountingPoint instead.

- Should Jan and Kees also bring it to the CIM Retail group before February 13th.

    Conclusion:

    - Only if rejected by WG14.

- Are there more issues in Redmine zzzz, which we should address at the joint meeting on February 13th?

    Conclusion:

    - Probably none.

Item closed.

Appendix A   EBG comments to the Harmonised Electricity Market Role Model (HEMRM)

A.1   General comments

A copy of definitions from the network- or other codes should be avoided. In general the HEMRM definitions should be more generic and in terms and roles of the HEMRM.

The terms production and consumption should be avoided, i.e. replaced with feed in to and taken out of the grid.

In the introduction of the HEMRM it should be added definitions of often used terms, such as:

- Allocation
- Area
- Asset
- Grid, e.g.:
  > *A grid is a physical constitution (of connected galvanic cables (electricity) or pipes (gas)) to transport or distribute energy to or from other grids and/or Parties Connected to the Grid.*
- Grid connection
- Interconnected System
- Schedule
- Synchronously interconnected
- System
- Transmission capacity

A.2   Roles

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
Role	Balance Responsible Party	A Balance Responsible Party is responsible for its imbalances, meaning the difference between the energy volume physically injected to or withdrawn from the system and the final nominated energy volume, including any imbalance adjustment within a given imbalance settlement period. Note: Based on Electricity Balancing - Art.2 Definitions. **Additional information:** Responsibility for imbalances (Balance responsibility) requires a contract proving financial security with the Imbalance Settlement Responsible of the Scheduling Area entitling the party to operate in the market.	**20221017:** • Under discussion in the HG, hence we will await an EBG review until finalised there. **Hint:** "the system" will need a proper definition.

		ROLES		
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**	

TYPE	ROLE NAME	DESCRIPTION	EBG COMMENTS

Role	Balancing Service Provider	A party with reserve-providing units or reserve-providing groups able to provide balancing services to one or more LFC Operators.
		
		Additional information:
		Based on Electricity Balancing - Art.2 Definitions.
			20220620 - updated 20221031:
			• Comments already forwarded to HG.
			  a) Replace the Balancing Service Provider with the Flexibility Service Provider (FSP) and make the BSP a specialisation of the FSP, with the following definition:
			    A **Flexibility Service Provider** is a party that offers flexibility services to the energy and capacity market based on acquired (aggregated) capabilities[1]
			  b) Change the definition of the BSP to:
			    A party that offers ~~with reserve-providing units or reserve-providing groups able to provide~~ energy balancing services to ~~one or more LFC Operators~~ the energy or capacity market.

Role	Billing Agent	The party responsible for invoicing a concerned party.	**20221017:** • Rephrase to: ~~The~~ A party servicing the ~~responsible for~~ invoicing for one or more ~~a concerned~~ party/parties.
Role	Capacity Trader	A party that has a contract to participate in the Capacity Market to acquire capacity through a Transmission Capacity Allocator. Note: The capacity may be acquired on behalf of an Interconnection Trade Responsible or for sale on secondary capacity markets.	**20221017:** • Contract with whom?
Role	Consumer	A party that consumes energy. **Additional information:**	**20221017:** • Rephrase to:

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[1] In this document, the role Flexibility Service Provider corresponds to the *Independent aggregator*, a market participant engaged in aggregation who is not affiliated to the customer's according to the Directive (EU) 2019/944.

		ROLES	
TYPE	ROLE NAME	DESCRIPTION	EBG COMMENTS
		This is a Type of Party Connected to the Grid.	*A Party Connected to the Grid that takes energy out from the grid at an Accounting Point.* • In addition we would like to add a general definition of the term "grid" as part of the introduction to the HEMRM, e.g.: A grid is a physical constitution (of connected galvanic cables (electricity) or pipes (gas)) to distribute energy to or from other grids and/or Parties Connected to the Grid. • Alternatively use "the system" instead of "the grid", but then the system needs a proper definition too. • And remove the Additional information.
Role	Consumption Responsible Party	A Consumption Responsible Party is responsible for its imbalances, meaning the difference between the energy volume physically withdrawn from the system and the final nominated energy volume, including any imbalance adjustment within a given imbalance settlement period. **Additional information:** This is a type of Balance Responsible Party.	**20221017:** • Under discussion in the HG, hence we will await an EBG review until finalised there.
Role	Consent Administrator	A party responsible for administrating a register of consents for a domain. The Consent Administrator makes this information available on request for entitled parties in the sector.	**20221017:** • Rephrase to: A party responsible for keeping a register of consents, for a purpose and a specified period for a certain set of data for an Accounting Point or a Resource at an Accounting Point. The Consent Administrator makes this information available on request from Data Providers in the sector.
Role	Coordinated Capacity Calculator	Coordinated Capacity Calculator is the entity or entities with the task of	**20221017:** • Rephrase to:

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
		calculating transmission capacity, at regional level or above. Source: [Commission Regulation (EU) 2015/1222 (CACM).](#)	~~Coordinated Capacity Calculator is the~~ A party ~~entity or entities~~ with the task of calculating transmission capacity, at regional level or above. Source: [Commission Regulation (EU) 2015/1222 (CACM).](#) • And add a definition of transmission capacity in the introduction of the HEMRM.
Role	Coordination Centre Operator	A party responsible for the coordination of its Coordination Centre Zone in respect of scheduling, load frequency control, time deviation and compensation of unintentional deviation.	**20221017:** • Outside of ebIX® scope.
Role	Data Provider	A party that has a mandate to provide information to other parties in the energy market. Note: For example, due to [Article 2 of the European Commission Regulation 543/2013 of the 14th of June 2013](#), a data provider may be a Transmission System Operator or a third party agreed by a TSO.	**20221017:** • Mandated by whom? • Is it better to rephrase to: A party that ~~has a mandate to provide~~ provides a certain set of ~~information~~ data to other parties in the energy market. …..
Role	Energy Service Company	A party offering energy-related services to the Party Connected to Grid, but not directly active in the energy value chain or the physical infrastructure itself. **Additional info:** The Energy Service Company (ESCO) may for example provide insight services as well as energy management services.	*20221024:* • Rephrase to: A party offering energy-related services, not part of the regulated services, to the Party Connected to Grid~~, but not directly active in the value chain or the physical infrastructure itself.~~ ~~**Additional info²:**~~ ~~The Energy Service Company (ESCO) may for example provide insight services as well as energy management services.~~

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² This is just examples, hence shouldn't be there.

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**

Role	Energy Supplier	***Current definition in HEMRM 2022-01:***
		
		An Energy Supplier supplies electricity to or takes electricity from a Party Connected to the Grid at an Accounting Point.
		
		Additional information:
		
		An Accounting Point can only have one Energy Supplier.
		
		When additional suppliers are needed the Energy Supplier delivers/takes the difference between established (e.g. measured or calculated) production/consumption and the (accumulated) contracts with other suppliers.
		
		New HG agreed definition for HEMRM 2023-01:
		
		An Energy Supplier ~~supplies~~ delivers ~~electricity~~ energy to or takes ~~electricity~~ energy from a Party Connected to the Grid at an Accounting Point.
		
		Additional information:
		
		An Accounting Point can only have one Energy Supplier.
		
		When additional suppliers are needed the Energy Supplier delivers/takes the difference between established (e.g. measured or calculated) production/consumption and the (accumulated) contracts with other suppliers.
			20220620:
			
			• Comments already forwarded to HG*:*
			   ○ The second paragraph of "Additional information" must be rephrased or skipped.
			   ○ We suggest adding a paragraph explaining that if more than one Energy Supplier is needed, this may be solved by using "Sub-Accounting Points", treated as "normal Accounting Points".
			
			20221207:
			
			• Should the Energy Supplier deliver or take out to/from the **grid** instead of to/from the Party Connected to the Grid? (Makes it easier for sub-accounting points), i.e.:
			
			An Energy Supplier delivers energy to or takes energy via the grid from a Party Connected to the Grid at an Accounting Point.

Role	Energy Trader	A party that is selling or buying energy.	**20221031:** This makes all Customers also Energy Traders. Maybe link it to wholesale? • Rephrase to:

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
			A party ~~that is~~ selling or buying energy in the wholesale energy market, i.e. selling or buying in large quantities with the intent to be sold again to make a profit.
Role	Grid Access Provider	A party responsible for providing access to the grid through an Accounting Point for energy consumption or production by the Party Connected to the Grid. The Grid Access Provider is also responsible for creating and terminating Accounting Points.	*20221024* **- updated 20221031***:* • Rephrase to: *A party responsible for providing a Party Connected to the Grid the ability to take energy from or feed energy into the grid through an Accounting Point.* *Additional information:* *The Grid Access Provider is also responsible for creating and terminating Accounting Points.*
Role	Imbalance Settlement Responsible	A party that is responsible for settlement of the difference between the contracted quantities with physical delivery and the established quantities of energy products for the Balance Responsible Parties in a Scheduling Area. **Note:** The Imbalance Settlement Responsible may delegate the invoicing responsibility to a more generic role such as a Billing Agent.	*20221031:* • Rephrase to: *A party responsible for determination of the difference between the nominated energy quantities and the delivered energy quantities of energy products per Balance Responsible Party in a Scheduling Area.* *Additional information:* *The Imbalance Settlement Responsible may delegate the invoicing responsibility to a more generic role such as a Billing Agent.*
Role	Interconnection Trade Responsible	Is a Balance Responsible Party or depends on one. He is recognised by the Nomination Validator for the nomination of already allocated capacity. **Additional information:** This is a type of Balance Responsible Party.	*20221207:* • This is not a definition (it contradicts itself and doesn't explain what the role does)
Role	LFC Operator	Responsible for the load frequency control for its LFC Area or LFC Block. **Additional information:** This role is typically performed by a TSO.	*20221207:* • Rephrase to: *A party responsible for the frequency control of the load of a LFC Area or a LFC Block* *Additional information:*

		ROLES	
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
			This role is typically performed by a TSO.
Role	Market Information Aggregator	A party that provides market related information that has been compiled from the figures supplied by different actors in the market. This information may also be published or distributed for general use. Note: The Market Information Aggregator may receive information from any market participant that is relevant for publication or distribution.	*20221207:* • Rephrase to: *A party publishing market related information, compiled from information supplied by different actors in the market.* ***Additional information:*** *~~The Market Information Aggregator may receive information from any market participant that is relevant for publication or distribution.~~*
Role	Market Operator	A party that provides a service whereby the offers to sell electricity are matched with bids to buy electricity. **Additional Information:** The definition above is based on [Regulation on the internal market for electricity (EU) 2019/943](#): A more detailed description: A party that provides a service of collecting offers to sell and bids to buy electricity, and matching these offers and bids in order to determine a market price at the clearing point. This activity can be conducted in the forward, days-ahead and/or intraday timeframes, and can be combined with transmission capacity allocation in the context of market coupling. This is usually an energy/power exchange or platform.	*20221207:* • Rephrase to: *A party providing services for matching offers to sell energy with bids to buy energy.* And keep the Additional information.
Role	Merit Order List Responsible	Responsible for the management of the available tenders for all Acquiring LFC Operators to establish the order of the reserve capacity that can be activated.	*20221207:* • What is meant by "….all Acquiring LFC Operators…."? • Then rephrase to the format: A party responsible…
Role	Meter Administrator	A party responsible for keeping a database of meters.	*20221207:* • Rephrase to:

		ROLES		
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
			A party responsible for administrating Meter characteristics and making these Meter characteristics available for entitled market parties.
Role	Meter Operator	A party responsible for installing, maintaining, testing, certifying and decommissioning physical meters.	*20230116:* • Rephrase to: *A party responsible for installing, maintaining, testing, certifying and decommissioning physical meters at Metering Points.*
Role	Metered Data Administrator	A party responsible for storing and distributing validated measured data.	*20221207:* • Rephrase to: *A party responsible for storing validated measured data and making these validated measured data available for entitled market parties.* ***Additional information:*** *The Metered Data Administrator is responsible for the history of measured data for a Metering Point.*
Role	Metered Data Aggregator	A party responsible for the establishment and qualification of measured data from the Metered Data Responsible. This data is aggregated according to a defined set of market rules.	*20221207:* • Rephrase to: *A party responsible for aggregating validated measured data for an area according to a defined set of market rules and making these available for entitled market parties.*
Role	Metered Data Collector	A party responsible for meter reading and quality control of the reading.	*20221212:* • Rephrase to: *A party responsible for reading a meter, including quality control of the reading and making these readings available for entitled market parties.*
Role	Metered Data Responsible	A party responsible for the establishment and validation of measured data based on the collected data received from the Metered Data Collector. The party is responsible for the history of metered data for a Metering Point.	*20221207:* • Rephrase to: *A party responsible for the validation of measured data, either received from the Metered Data Collector or estimated, and making these validated measured*

		ROLES	
TYPE	ROLE NAME	DESCRIPTION	EBG COMMENTS
			data available for entitled market parties. ***Additional information:*** *The Metered Data Responsible is responsible for determining the volume of the consumed and/or produced energy at a Metering Point.*
Role	Metering Point Administrator	A party responsible for administrating and making available the Metering Point characteristics, including registering the parties linked to the Metering Point.	***20221207:*** • Rephrase to: *A party responsible for administrating Metering Point characteristics and making these characteristics available for entitled market parties.* ***Additional information:*** *The Metering Point Administrator is responsible for registering the parties linked to a Metering Point.*
Role	Model Merging Agent	A party responsible for establishing a merged model and ensuring its completeness, consistency and quality. **Additional information:** The definition is based on CGM BP IG.	***20221207:*** • Rename "model" to "grid model" both in the name and definition. This makes it easier for non CGM experts to know what the role does.
Role	Modelling Authority	A party accountable for the sourcing, consistency and quality of one or more model datasets.	***20221207:*** • See previous comment.
Role	Nominated Electricity Market Operator	An entity designated by the competent authority to perform tasks related to single day-ahead or single intraday coupling. Source: Commission Regulation (EU) 2015/1222 (CACM). **Additional Information:** A NEMO performs MCO (Market Coupling Operator) and CCP (Central Counter Party) functions. A NEMO runs a power exchange related to day-ahead or intraday market. A NEMO is a type of Market Operator.	***20221207:*** • Rename "entity" to "party".

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
Role	Nomination Validator	Has the responsibility of ensuring that all capacity nominated is within the allowed limits and confirming all valid nominations to all involved parties. He informs the Interconnection Trade Responsible of the maximum nominated capacity allowed. Depending on market rules for a given interconnection the corresponding System Operators may appoint one Nomination Validator.	*20221207:* • Rephrase to: *A party responsible for ensuring that all capacity nominated for an interconnection is within the allowed limits and confirming all valid nominations to all involved parties. The party informs the Interconnection Trade Responsible of the maximum nominated capacity allowed.* ***Additional information:*** *Depending on market rules for a given interconnection the corresponding System Operators may appoint one Nomination Validator.* • The interconnection needs to be defined.
Role	Party Administrator	A party responsible for maintaining party characteristics for the energy sector.	*20221207:* • Rephrase to: *A party responsible for administrating party characteristics and making these party characteristics available for entitled energy market parties.*
Role	Party Connected to the Grid	A party that contracts for the right to take out or feed in energy at an Accounting Point.	*20221212:* • Rephrase to: *A party that contracts with the Grid Access Provider for the right to take energy out from the grid or feed energy into the grid at an Accounting Point.*
Role	Producer	A party that generates electricity. **Additional information:** This is a type of Party Connected to the Grid. The definition is based on [Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU, Article 2 (Definitions).](#)	*20221212:* • Rephrase to: *A Party Connected to the Grid that feeds energy into the grid at an Accounting Point.*

ROLES			
TYPE	ROLE NAME	DESCRIPTION	EBG COMMENTS
Role	Production Responsible Party	A Production Responsible Party is responsible for its imbalances, meaning the difference between the energy volume physically injected to the system and the final nominated energy volume, including any imbalance adjustment within a given imbalance settlement period. **Additional information:** This is a type of Balance Responsible Party.	<< under discussion at HG>>
Role	Reconciliation Accountable	A party that is financially accountable for the reconciled volume of energy products for a profiled Accounting Point.	*20230109:* • We suggest removing the Reconciliation Accountable, since this not is a role in itself, it is either the Energy Supplier or the BRP.
Role	Reconciliation Responsible	A party that is responsible for reconciling, within a Metering Grid Area, the volumes used in the imbalance settlement process for profiled Accounting Points and the actual measured quantities. Note: The Reconciliation Responsible may delegate the invoicing responsibility to a more generic role such as a Billing Agent.	*20221212:* • Rephrase to: *A party that is responsible for reconciling, within a Metering Grid Area, the energy volumes used for imbalance settlement for profiled Accounting Points against the actual validated measured energy volume for these Accounting Points.* *Additional information*: *The Reconciliation Responsible may delegate the invoicing responsibility to a more generic role such as a Billing Agent.*
Role	Reserve Allocator	Informs the market of reserve requirements, receives bids against the requirements and in compliance with the prequalification criteria, determines which bids meet requirements and assigns bids.	*20221212:* • Needs to be discussed in the market, since it is very vague.
Role	Resource Aggregator	A party that aggregates resources for usage by a service provider for energy market services. Note:	*20220620:* • Comments already forwarded to HG: o We are missing the "bigger picture", i.e. we should look at all the new roles identified in the flex arena. We

		ROLES	
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
		In the current version, the only service provider in HRM is the Balancing Service Provider.	question if a Resource Aggregator really is needed, as we see no need for a role for purely aggregation of Resources. It must at least be linked to the Service Provider roles, such as the BSP role. However, it would probably be better to replace the Resource Aggregator with the FSP (Flexibility Service Provider) or one or more Service Providers that also do the aggregation. We think that in the future it will be difficult to differentiate between different kinds of flexibility service providers and that an FSP will offer services in multiple 'flexibility domains', as for Congestion, Frequency, etc. **20220627:** • Comments already forwarded to HG**:** a) We support moving of the association to go to the Resource instead of the Accounting Point. b) The text "… to aggregate within …. Resource" sounds strange. We suggest removing the "Additional information". In general we think the roles and domains needed for energy flexibility services should be more generic than in the current HEMRM.
Role	Resource Capacity Mechanism Operator	A party responsible to operate the resource capacity mechanism in a member state. **Additional information:** It can either be the TSO or an independent party. A Resource Capacity Mechanism Operator can contract one or several Resource capacity market units, and a resource capacity market unit can only be contracted by one Resource Capacity Mechanism Operator.	

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
Role	Resource Provider	A role that manages a resource and provides production/consumption schedules for it, if required.	**20230109:** • We are uncertain of the meaning of "manages" in this context and we doubt it is the Resource Provider that sends (regular/daily) schedules for the Resource. • Rephrase to**:** *A party that provides a Resource, at an Accounting Point, to a Flexibility Service Provider.*
Role	Scheduling Agent	The entity or entities with the task of providing schedules. Source: [System Operation Guideline, Commission Regulation (EU) 2017/1485.](#) **Additional information:** A party that is responsible for the schedule information and its exchange on behalf of a Balance Responsible Party.	**20230109:** • We suggest replacing the "incomplete" copy of the definition from the SOGL, since gives not a good picture of the role. • We would also suggest adding a definition of "schedule" somewhere in the HEMRM, e.g. as part of the introduction. • Rephrase to**:** *A party responsible for exchanging schedules for a set of Accounting Points on behalf of a Balance Responsible Party.*
Role	Scheduling Area Responsible	A party responsible for the coordination of nominated volumes within a scheduling area. **Additional information:** This role is typically performed by a TSO.	**20230116:** • What does coordination mean here (collection, aggregation, distribution ….)?
Role	System Operator	A party responsible for operating, ensuring the maintenance of and, if necessary, developing the system in a given area and, where applicable, its interconnections with other systems, and for ensuring the long-term ability of the system to meet reasonable demands for the distribution or transmission of electricity. **Additional information:**	*20230116:* • Add a definition of "the system" in the introduction of the HEMRM. • Can we rename "given area" to "geographical area"? • Can we rename "other systems" to "systems in other geographical areas"?

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
		The definition is based on [DIRECTIVE 2009/72/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, Article 2 (Definitions).](#)	
Role	Trade Responsible Party	A party who can be brought to rights, legally and financially, for any imbalance between energy nominated and consumed for all associated Accounting Points. Note: A power exchange without any privileged responsibilities acts as a Trade Responsible Party. **Additional information:** This is a type of Balance Responsible Party.	**20230116:** • Can we rename "who can be brought to rights," to "responsible" (will make it more readable)?

Role	Transmission Capacity Allocator	The Transmission Capacity Allocator manages, on behalf of the System Operators, the allocation of available transmission capacity for a Bidding Zone Border. He offers the available transmission capacity to the market, allocates the available transmission capacity to individual Capacity Traders and calculates the billing amount of already allocated capacities to the Capacity Traders.
		
		Additional Information:
		
		The single allocation platform established by all TSOs for Forward Capacity Allocation performs the role of a Transmission Capacity Allocator.
			20230116:
			
			• It should be added a definition of "allocation" in the introduction to the HEMRM.
			
			• *A party who, on behalf of one or more System Operator(s):*
			  o *allocates available transmission capacity for a Bidding Zone Border to individual Capacity Traders,*
			  o *offers the available transmission capacity to the market and*
			  o *calculates the billing amount of already allocated capacities to the Capacity Traders.*
			
			• What is meant with "all System Operators", "all European System Operators"?

A.3 Domains

TYPE	DOMAIN NAME	DESCRIPTION	EBG COMMENTS
Domain	Accounting Point	A domain under balance responsibility where Energy Supplier change can take place and for which commercial business processes are defined. **Additional information:** This is a type of Metering Point.	**20230116:** • Rephrase to: *A Metering Point under balance responsibility where commercial business processes are defined, such as change of Energy Supplier.*
Domain	Bidding Zone	The largest geographical area within which market participants are able to exchange energy without capacity allocation. **Source:** Commission Regulation (EU) 543/2013.	**20230116:** • *A set of Metering Grid Areas within which market participants are allowed to exchange energy without restrictions (e.g. capacity restrictions).*
Domain	Bidding Zone Border	Defines the aggregated connection capacity between two Bidding Zones. A market area (Which defines the aggregated connection capacity between two Bidding Zones) where the transmission capacity between the Bidding Zones is given to the Balance Responsible Parties according to rules carried out by a Transmission Capacity Allocator. Trade between Bidding Zones is carried out on a bilateral or unilateral basis.	**20230123:** • Rephrase to: *The collection of Exchange Points between two Bidding Zones, where the transmission capacity between the Bidding Zones is given to the Balance Responsible Parties according to rules carried out by a Transmission Capacity Allocator.*
Domain	Capacity Calculation Region	The Capacity Calculation Region is the geographic area in which coordinated capacity calculation is applied. **Source:** Commission Regulation (EU) 2015/1222 (CACM). **Additional information:** The transmission capacity between Bidding Zones, included in the Capacity Calculation Region, is given to the Balance Responsible Parties through an implicit capacity	**20230123:** • Rephrase to: *A geographical area in which the capacity calculation is coordinated between the TSOs.* ***Based on:** Commission Regulation (EU) 2015/1222 (CACM).* ***Additional information:*** *The transmission capacity between Bidding Zones, included in the Capacity Calculation Region, is given to the Balance Responsible Parties*

		DOMAINS		
TYPE	**DOMAIN NAME**	**DESCRIPTION**	**EBG COMMENTS**	
		allocation process or through an explicit allocation auction.	*through an implicit capacity allocation process or through an explicit allocation auction.*	
Domain	Control Area	A coherent part of the interconnected system, operated by a single System Operator and shall include connected physical loads and/or generation units if any. **Additional information:** Source: [Commission Regulation (EU) 543/2013]().	**20230123:** • We have difficulties understanding this definition. Can it be made clear?	
Domain	Coordination Centre Zone	The composition of a number of LFC Blocks under the responsibility of the same Coordination Centre Operator.	**20230123:** • Rephrase to: *A set of one or more LFC Blocks under the responsibility of the same Coordination Centre Operator.*	
Domain	Exchange Point	A domain for establishing energy exchange between two Metering Grid Areas. **Additional information:** This is a type of Metering Point.	**20230116:** • Rephrase to: *A Metering Point for establishing energy exchange between two Metering Grid Areas.*	
Domain	FRR Sharing Region	A set of LFC Areas of the same synchronous area, but not necessarily the same Bidding Zone. All LFC Areas of a FRR Sharing Region share a certain amount of FRR with each other. **Additional information:** Based on: [System Operation Guideline, Commission Regulation (EU) 2017/1485](), Article 168.	**20230123:** • Rephrase to: *A set of one or more LFC Areas of the same synchronous area sharing a certain amount of FRR with each other.* ***Additional information:*** *Based on: [System Operation Guideline, Commission Regulation (EU) 2017/1485](), Article 168.* *The LCF Areas are not necessarily within the same Bidding Zone.*	
Domain	LFC Area	A part of a synchronous area or an entire synchronous area, physically	**20230123:**	

DOMAINS			
TYPE	**DOMAIN NAME**	**DESCRIPTION**	**EBG COMMENTS**
		demarcated by points of measurement at interconnectors to other LFC Areas, operated by one or more TSOs fulfilling the obligations of load-frequency control. **Source:** System Operation Guideline, Commission Regulation (EU) 2017/1485.	• Rephrase to: *A part of a synchronous area or an entire synchronous area operated by one or more TSOs fulfilling the obligations of load-frequency control.* *Additional information:* *An LFC area is physically demarcated by points of measurement at interconnectors to other LFC Areas.*
Domain	LFC Block	A part of a synchronous area or an entire synchronous area, physically demarcated by points of measurement at interconnectors to other LFC Blocks, consisting of one or more LFC Areas, operated by one or more TSOs fulfilling the obligations of load-frequency control. **Source:** System Operation Guideline, Commission Regulation (EU) 2017/1485.	**20230123:** • Rephrase to: *A set of one or more LFC areas.*
Domain	Metering Grid Area	A Metering Grid Area is a physical area where consumption, production and exchange can be measured. It is delimited by the placement of meters for continuous measurement for input to, and withdrawal from the area. **Additional information:** It can be used to establish volumes that cannot be measured such as network losses.	**20230116:** • Rephrase to: • *A Metering Grid Area is a physical grid where all energy in- and out-feed is measured. It is physically demarcated by points of measurement for continuous measurement of energy flow in to or out of the Metering Grid Area.* *Additional information:* *It can be used to establish volumes in that grid area that cannot be measured such as grid losses.* • Make clear definitions in the introduction of the HEMRM of consumption, production, exchange and grid.
Domain	Metering Point	An entity where energy products are measured or computed.	**20230116:** • Rephrase to:

DOMAINS			
TYPE	**DOMAIN NAME**	**DESCRIPTION**	**EBG COMMENTS**
			A (virtual) point associated to a Grid Connection in a Metering Grid Area, where the volume(s) of energy fed in to or taken out of the grid are measured or computed.
Domain	RGCE Interconnected Group	The composition of a number of Coordination Centre Zones, operating under RGCE (Regional Group Continental Europe) rules, where the exchange and compensation programmes within the zone must sum up to zero.	**20230130:** • Outside of ebIX® scope.
Domain	Scheduling Area	An area within which the TSOs' obligations regarding scheduling apply due to operational or organisational needs. This area consists of one or more Metering Grid Areas with common market rules for which the settlement responsible party carries out an imbalance settlement and which has the same price for imbalance. **Source:** System Operation Guideline, Commission Regulation (EU) 2017/1485. **Additional information:** This covers both Imbalance Area and Imbalance Price Area from the Electricity Balancing Guideline (2017/2195).	**20230123:** • Rephrase to: An area consisting of one or more Metering Grid Areas with common market rules for which the Imbalance Settlement Responsible party carries out imbalance settlement and which has the same price for imbalance. **Source:** System Operation Guideline, Commission Regulation (EU) 2017/1485. **Additional information:** An area within which the TSOs' obligations regarding scheduling apply due to operational or organisational needs. This covers both imbalance area and imbalance price area from the Electricity Balancing Guideline (2017/2195).
Domain	Synchronous Area	An area covered by synchronously interconnected LFC blocks. **Note:** Examples of Synchronous Areas are Continental Europe, Great Britain,	**20230130:** • Add a definition of "synchronously interconnected" to the introduction of the HEMRM.

DOMAINS			
TYPE	**DOMAIN NAME**	**DESCRIPTION**	**EBG COMMENTS**
		Ireland-Northern Ireland, Nordic and the power systems of Lithuania, Latvia and Estonia, together referred to as 'Baltic' which are part of a wider synchronous area (IPS/UPS). **Source:** [Requirements for Generators. Art. 2 - Definitions](#)	

A.4   Resources

RESOURCES			
TYPE	**RESOURCE NAME**	**DESCRIPTION**	**EBG COMMENTS**
Resource	Reserve Resource	A resource technically pre-qualified using a uniform set of standards to supply reserve capabilities to a System Operator and is associated with one or more tele-measuring devices. **Additional information:** This is a type of Resource.	*20230130:* • Rephrase to: *A Resource that participates in an energy flexibility market, supplying reserve power.* **Additional information.** In order to participate in the energy flexibility market the Resource needs to be measured and to be qualified for the grid.

Resource	Resource	A market representation of an asset or a group of assets related to the energy industry.
		
		Additional information:
		A Resource represents for example grid assets, consumption assets or production assets, such as generating units, consumption units, energy storage units or virtual power plants.
			20230130:
			• Rephrase to:
			
			  An asset or a group of assets delivering energy services.
			
			  Additional information:
			
			  A Resource represents for example grid assets, energy generating units, energy consuming units, energy storing units or a virtual power plant.
			
			• Nice examples, but strange in the HEMRM structure (not many examples in other roles and domain definitions).

RESOURCES			
TYPE	**RESOURCE NAME**	**DESCRIPTION**	**EBG COMMENTS**
Resource	Resource Capacity Market Unit	An aggregated Resource that can aggregate one or several Resources, and a Resource can form part of only one Resource Capacity Market Unit. **Additional information:** A Resource Capacity Market Unit may participate in the domestic Capacity Remuneration Mechanism and in the foreign Capacity Remuneration Mechanism if the direct cross border participation is applied. The Resource Capacity Market Operator together with the TSO where the Resource Capacity Market Unit is located is responsible for carrying out availability checks and maintaining data in the Registry.	*20230130:* • A Resource Capacity Market Unit sounds like what is called a Pool and used in the ebIX® BRS for Prepare and aggregate Resources for flexibility services: *"**A pool** is a collection of one or more Resources that is used by a Flexibility Service Provider to offer one or more flexibility products to the market".*

A.5   Accounts

ACCOUNTS			
TYPE	**ACCOUNT NAME**	**DESCRIPTION**	**EBG COMMENTS**
Account	Balance Group	An energy account under responsibility of a Balance Responsible Party used to determine imbalance considering predefined inputs and outputs within a specific Scheduling Area.	*20230130:* • The definition is unclear – please consider rephrasing.

Appendix B   EBG project and survey list

B.1   Potential projects

#	Project description	Priority	Start
A)	Review what attributes to send in a confirmation (e.g. all from the request, only approve/disapprove or some core attributes, such as AP)	High	After finalising RtR
B)	Review and propose update to the HEMRM, based on new procedures from ETC and EBG, ref minutes from ebIX® Forum meeting March 24th, 2020, including: • Update definition of Accounting Point in the HRM based on the flex project. • Make a preproposal for update of the definition of the «Harmonised Role» Resource Provider. Among others we think it is the BRP that sends schedules and not the Resource Provider and we think the term "manages" could be clarified.	High	After finalising RtR
C)	Efficient data alignment, including the possibility to request historical and/or future master data. See "very general" data act from EU: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13045-Data-Act-amended-rules-on-the-legal-protection-of-databases_en	Not prioritised	EBG must do a survey for the need of such a project
D)	Discuss differentiation of data sets per Entitled Role when aligning master data (e.g. when referencing notification of AP master data in a BRS) based on GDPR	High	After A) and B)
E)	Making a BRS for alignment of Exchange Point characteristics	High	Hopefully a part of the common energy market area project
F)	Making an introduction to the ebIX® BRSs, including an overview of the BRSs and a short description.	In finalising RtR	TBD
G)	Review of MR NMEG 2021/3 – Addition of a Reporting resolution and Reporting Interval to the AP Administrative Characteristics class. in Alignment of AP characteristics BRS	Medium	After finalising RtR
H)	It is assumed that the EC will decide to use IEC basic CIM as the reference Information Model, hence we should bring our definitions in line with IEC CIM. This can be done by changing our definitions, or by submitting maintenance requests to IEC TC57/wg16 (eventually to be forwarded by wg16 to wg14).	Medium	After A), B) and G)
I)	Update of Gas Role Model with addition of Aggregated Reception Station, Calorific Value Area and Temperature Area for gas.	Low	When the Gas Role Model starts adding domains.
J)	Investigate if services, such as flex-services should be added to BRS for Measure for billing. If so, we need to add a Resource ID to the class diagram(s) and extend the Basic assumption chapter.	This is a to-remember item	When the flex project is finalised

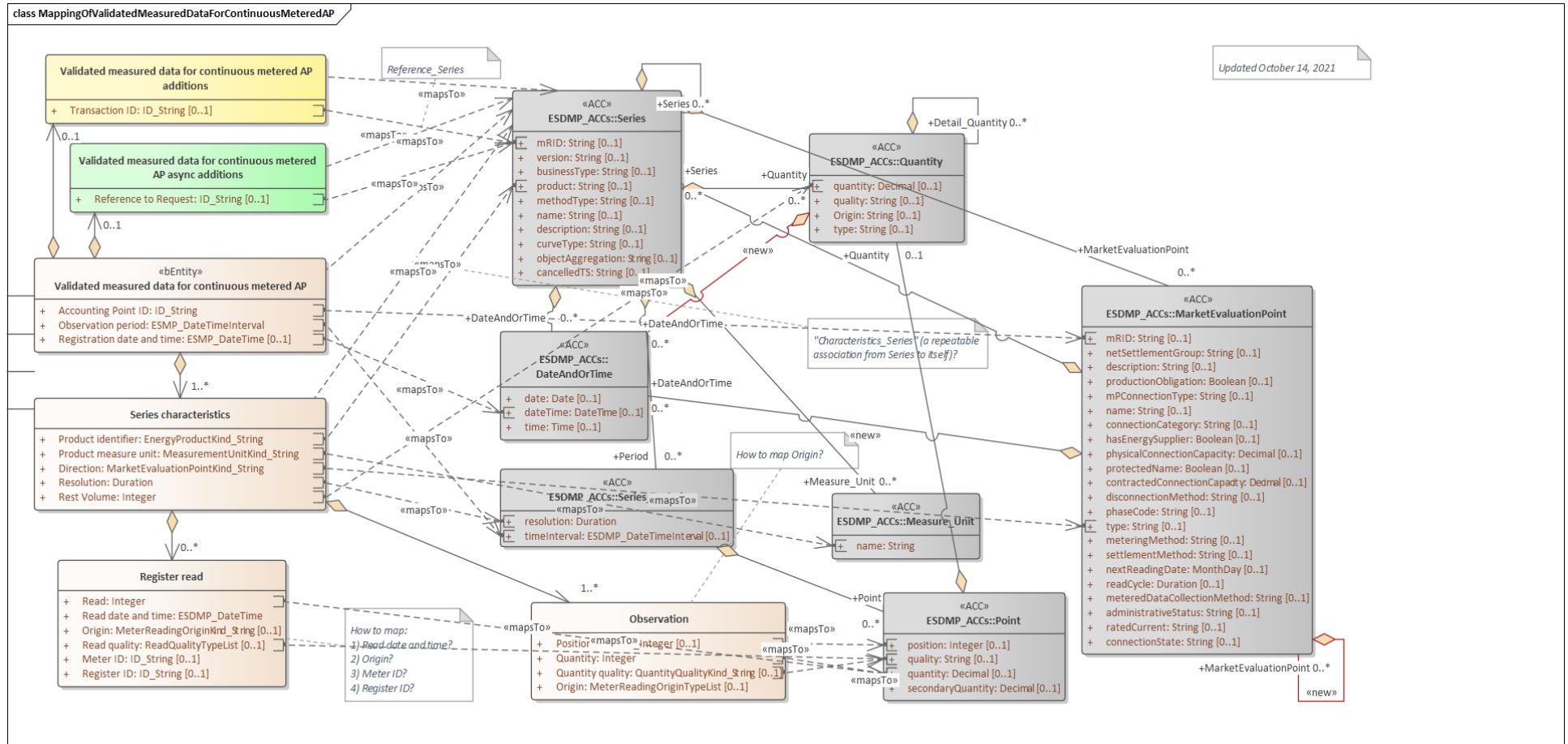| #	Project description	Priority	Start
K)	Verify extensions to the definitions of roles with the group harmonising the electricity and gas markets role models before adding the extension to the role definitions in a BRS to include gas.	Continuous	When updating role definitions in BRSs
L)	Review of BRS for Settle for Reconciliation, ref. minutes from EBG meeting October 10th, 2022.	Low	Autumn 2024

B.2   Approved (and running) projects

#	Project	Members	Status	Start	End
A)	RtR, Role-to-Role (hub)	All EBG	Start October 2018	Q4 2018	Q4 2021
B)	Common energy market area project	**EBG:** Bartosz, Boštjan (?), Gerrit, Kees and Ove. **"External":** Douglas (ENTSOG), Jon-Egil (ENTSO-E/CIM EG) and ? from EU DSO Entity	Hopefully start October 2022	October 2022?	?

B.3   Surveys

#	Survey	Status
A)	Datahub	20220609: Third version sent to ebIX® members for update

Appendix C   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
«Business entity» Validated measured data for continuous metered AP	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	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, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.
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	A code specifying the direction of the energy flow that was measured with this validated measured data. 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.	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	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). The Observation Period must contain a whole number of observations as derived from the resolution. The resolution is expressed in compliance with ISO 8601 in the following format: PnYnMnDTnHnMnS. For example **PT15M** for 15 minutes resolution.	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	The quantity value. The association role provides the information about what is expressed.
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[3]	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	

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[3] 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	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, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.
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	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, the mRID is mapped to rdf:ID or rdf:about attributes that identify CIM object elements.

class MappingOfValidatedMeasuredDataForContinuousMeteredAP

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