Date: Monday, October 24th, 2022
Time: 14:00 –15:30
Place: GoToMeeting

Present: Bostjan, SODO
Jan, Svenska kraftnät
Gerrit, EDSN
Ove, Edisys
Teemu, Fingrid

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:

- Additions to AP characteristics, see item 11.1 under AOB.
- ENTSO-E work on prequalification of Registered Resource to be used as Reserve Resource, see item 11.2 under AOB.

During this item Ove informed that the BRS for Measure Collected Data and the BRS for Alignment of AP characteristics were published October 19th. No comments were received from ebIX® Forum or EBG members during the circulation for comments period.

2   Approval of minutes from previous meeting

The minutes from previous meeting were approved.

3   Status for "Alignment of master data for areas project" (follow up item)

Currently we have the following confirmed participants in the common European energy market "Alignment of master data for areas" project:

Name	Company	Representing
Bartosz Kwiatkowski	PSE	ebIX®
Douglas Hill	ENTSOG	ENTSOG (observer)
Gerrit Fokkema (Convenor)	EDSN	ebIX®

Jon Egil Nordvik	Statnett	ENTSO-E/CIM EG
Kees Sparreboom	TenneT	ebIX® or ENTSO-E
Ove Nesvik (Secretary)	EdiSys	ebIX®
?	?	EU DSO Entity

Still waiting for participants from the EU DSO Entity.

4   Sub APs and production-/consumption APs

Start by reviewing the survey and thereafter discuss how to structure several APs in our BRSs.

Ove had as action sent another reminder to Christian, Lukas and Teemu. Responses were received from Christian and Teemu.

The new responses were reviewed, which shows that different countries use different principles for linking Accounting Points.

Conclusion:

- We postpone the Sub-AP discussions to our next face-to-face meeting in Hamburg, December 6th and 7th.

5   Review of HEMRM definitions

Gerrit had as homework made proposals for comments to a set of HEMRM role definition, see Appendix A. The first of these were reviewed and agreed, i.e.:

- BRP
- Consent Administrator
- Data Provider
- ESCO
- Energy Supplier

6   What attributes to send in a confirmation

The item was postponed.

7   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

See Appendix C.

The item was postponed.

8   Review of ebIX domain model (low priority item)

Continued action:

- Ove will find the latest ebIX® Domain Model and merge the text with the Domain model description in the flex overview, with a special focus on settlement and billing - as input for a review session.

The item was postponed.

9   Status for addition of PSRType (Power System resource Type) to AP administrative characteristics (to remember item)

The item was postponed.

10   Meeting schedule

GoToMeetings:

- Every Monday from August 29th until December 19th, 2022, except for holydays and December 5th (day before our physical two-days meeting).

Physical meeting:

- Tuesday and Wednesday December 6th and 7th, 2022, in Hamburg.

11   AOB

11.1   Additions to AP characteristics

From Jan (SE) also October 19th:

Beside that I suggest writing an MR regarding "phaseCount", see below, I have noted some other attributes that we in Sweden would like to have in AccountingPoint (or also in MarketEvaluationPoint). One or two are probably already in the list of (future) MRs, but I have also made some more notes about what we would like to have in CIM.

1) *UsagePoint.ratedCurrent; compare with "AP PhysicalCharacteristics.CurrentLimitation" in ebIX®.*

   Conclusion:

   - Already in ebIX® BRS for AP characteristics and in CIM – missing in ESMP.
   - ETC will make a MR for the issue.

2) IdentifiedObject.description; inherited then all the way down. In Sweden (the future datahub) used, for the MeteringPoint, in words to tell where you can find the meter (i.e. a "Meter location"). Like "In the Basement...". In Denmark there is a corresponding attribute in their datahub called "Location Description" that also would be mapped to the inherited attribute description in CIM. The Danish attribute is used for the same thing (in Danish: "Eventuel beskrivelse af målers placering"). But, before writing an MR, this should first be brought to EBG (I add Gerrit as CC of this e-mail).

   Conclusion:

   - Already in ebIX® BRS for Metering configuration characteristics and in CIM.
   - ETC will try finding a solution.

3) UsagePoint.nominalServiceVoltage; compare with "AP PhysicalCharacteristics.VoltageLevel" in ebIX®. However. in ebIX® that is just specified as a "level", e.g., high or low and that would then be mapped to UsagePoint. ConnectionCategory in CIM. In the Swedish datahub we intend to specify the Voltage level as an integer. E.g., 400000 for 400 kV. Is anyone else using "VoltageLevel" from the ebIX® model like this? Do we need two attributes in our ebIX® model, one with codes (high, low...) and one as an integer? Also, then to be brought to EBG. The reason for the Energy supplier to get this kind of information is to use this for the tariffs. But it is also used by the datahub for statistical purposes.

Conclusion:

- In ebIX® BRS as a code (low, medium and high).
- Not used as a number in Finland, Netherlands or Norway.
- Uncertain what the requirements will be from new datahub in Sweden.
- Will be discussed when someone has a need for it.

When going through the list of attributes to be used by the Swedish datahub, I also noted some that I couldn't directly map to IEC CIM. But that will be something for the future.

From Jan (SE) October 19th:

For your information there has been an update of the class UsagePoint in version …iec61968cim14v00…

That class now contains a new attribute that we would like to inherit in MarketEvaluationPoint/AccountingPoint i.e. an update would be relevant in ESMP. See figure below with all attributes in UsagePoint found in version 14. The only new attribute is phaseCount: Integer [0..1]

Description: Number of potential phases the Usage Point supports, typically 0, 1 or 3.

This will fit our need where we now in the ebIX® model have an attribute "Number of phases". So instead of trying to use phaseCode and thinking of either changing the list of enumerations or use some "ABCX" to tell the number, there is now an attribute that fits our need.

We will come back with an MR for an update of ESMP regarding this.

Conclusion:

o ETC will make a MR for the issue.

class Meter Reading

IdentifiedObject

Metering::UsagePoint

- + amiBillingReady: AmiBillingReadyKind [0..1]
- + checkBilling: Boolean [0..1]
- + connectionCategory: String [0..1]
- + connectionState: UsagePointConnectedKind [0..1]
- + disconnectionMethod: String [0..1]
- + estimatedLoad: CurrentFlow [0..1]
- + grounded: Boolean [0..1]
- + isSdp: Boolean [0..1]
- + isVirtual: Boolean [0..1]
- + minimalUsageExpected: Boolean [0..1]
- + nominalServiceVoltage: Voltage [0..1]
- + outageRegion: String [0..1]
- + phaseCode: PhaseCode [0..1]
- + phaseCount: Integer [0..1]
- + physicalConnectionCapacity: DecimalQuantity [0..1]
- + ratedCurrent: CurrentFlow [0..1]
- + ratedPower: ActivePower [0..1]
- + readCycle: String [0..1]
- + readRoute: String [0..1]
- + serviceDeliveryRemark: String [0..1]
- + servicePriority: String [0..1]

Item closed.

11.2 ENTSO-E work on prequalification of Registered Resource to be used as Reserve Resource

From Alvaro October 21st:

After finishing the work on the resource planning IG it was agreed to continue the work on the prequalification part. This is the process that aims to certify that a Registered Resource can be used as a Reserve Resource. The plan is to have the starting call on **November 9 from 9:00 to 10:00 CET** and have bi-weekly meetings later on. We can agree on a different timeslot depending on the group members availability. In case that you are interested in participating, please let me know by the end of next week (**November 28**). Colleagues from the business side are more than welcome in the group.

For Kees and Jan only:

We are going to start the work on the prequalification IG. Plan is to use the ebIX BRS for prepare and aggregate flexibility resources as basis amongst others. I think that would be really good if you could participate in the group so you can provide some feedback here. Thanks!

From Jan October 24th:

    I did not participate in the ebIX work.

    And the 9th of November I have another appointment.

    (However, I plan to sneak out from that full-day conference and join our other meeting that day at 15:00.)

    One of the EG1 work streams is about Demand response, that I would assume will be using "Registered resource". Even though they in the beginning have focused on the DSO level, and not at the TSO level. But I am not involved in that work stream. Only in Master data and Supply switching.

    However, the Master data work stream will of course include the needs for Demand response. And in a prequalification process that you describe here, would also include similar kind of Master data. So, even if cannot participate, it would be of interest to see: what will be the needed Master data to exchange?

    Regarding what could be needed to update in CIM and ESMP regarding RegisteredResource, I have so far noted three things:

        1) There are a lot of attributes in RegisteredResource, but ESMP does not use them (yet), those attributes should be checked when going through the needs we have

        2) There is in CIM, but not in ESMP, an association from RegisteredResource to e.g. ResouceCertification. I think we should look into that class when telling if a resource is qualified or not, and for which market (FCR, mFRR, ...)

        3) A RegisteredResource is only associated with one MarketParticipant. Then you cannot describe: who is the BRP associated with the RegisteredResource, who is the BSP, who is the SGU, who is reporting the (realtime?) values for the RegisteredResource? Who is aggregating the resource with other resources? Who is the Flexibility service provider? I think we need a many-to-many association in CIM between RegisteredResource and MarketParticipant.

    So, yes, I am interested, but have too many meetings/activities already, but I can perhaps look at your results.

From Alvaro October 21st:

    Thanks for your email and your suggestions on the registered resource. They look pretty reasonable for me so we will look at them when the group will be launched.

    If you have any other colleague from SvK or Vattenfall interested on the topic, please feel free to forward them this email.

    You can also forward this email to the ebIX® colleagues that worked on the BRS so they can join the group as well.

Action:

- Ove will forward the mail to the flex group.

Item closed.

TYPE	ROLE NAME	DESCRIPTION	EBG COMMENTS
		ROLES	
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

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:
			
			• 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.

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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
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:** This is a Type of Party Connected to the Grid.	**20221017:** • Rephrase to: A party that consumes energy taken from the grid. …. • 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.
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.

Commented [GF1]: Or "the system"
But then th system needs a proper definition too.

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
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 calculating transmission capacity, at regional level or above. Source: Commission Regulation (EU) 2015/1222 (CACM).	**20221017:** • Rephrase to: ~~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	*20221024:* •Rephrase to:

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

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.
			20220620:
			
			• Comments already forwarded to HG*:*
			   o The second paragraph of "Additional information" must be rephrased or skipped.
			   o 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".

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

TYPE	ROLE NAME	DESCRIPTION	EBG COMMENTS
		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.	
Role	Energy Trader	A party that is selling or buying energy.	This makes all Customers also Energy Traders Maybe link it to wholesale?
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:* • Rephrase to: A party responsible for ~~providing~~ giving a party 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. Commented [GF2]: Access to the grid means: the ability to take energy from or put energy on the grid
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.	Under review at HG?
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.	This is not a definition
Role	LFC Operator	Responsible for the load frequency control for its LFC Area or LFC Block.	A party having (a) LFC Area(s) and/or (a) LFC Block(s) that is responsible for the

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
		Additional information: This role is typically performed by a TSO.	frequency control of the load of that/those Areas and/or Blocks
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.	
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.	
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.	
Role	Meter Administrator	A party responsible for keeping a database of meters.	

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
Role	Meter Operator	A party responsible for installing, maintaining, testing, certifying and decommissioning physical meters.	
Role	Metered Data Administrator	A party responsible for storing and distributing validated measured data.	
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.	
Role	Metered Data Collector	A party responsible for meter reading and quality control of the reading.	
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.	
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.	
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.	
Role	Modelling Authority	A party accountable for the sourcing, consistency and quality of one or more model datasets.	
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:**	

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
		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.	
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.	
Role	Party Administrator	A party responsible for maintaining party characteristics for the energy sector.	
Role	Party Connected to the Grid	A party that contracts for the right to take out or feed in energy 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).	
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:**	

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
		This is a type of Balance Responsible Party.	
Role	Reconciliation Accountable	A party that is financially accountable for the reconciled volume of energy products for a profiled Accounting Point.	
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.	
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.	
Role	Resource Aggregator	A party that aggregates resources for usage by a service provider for energy market services. Note: In the current version, the only service provider in HRM is the Balancing Service Provider.	***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 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

ROLES			
TYPE	**ROLE NAME**	**DESCRIPTION**	**EBG COMMENTS**
			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, such as:
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.	
Role	Resource Provider	A role that manages a resource and provides production/consumption schedules for it, if required.	
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.	
Role	Scheduling Area Responsible	A party responsible for the coordination of nominated volumes within a scheduling area.	

TYPE	ROLE NAME	DESCRIPTION	EBG COMMENTS
		ROLES	
		Additional information: This role is typically performed by a TSO.	
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:** 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.	Upstream role – second priority.
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	Upstream role – second priority.

ROLES			
TYPE	ROLE NAME	DESCRIPTION	EBG COMMENTS
		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.	

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

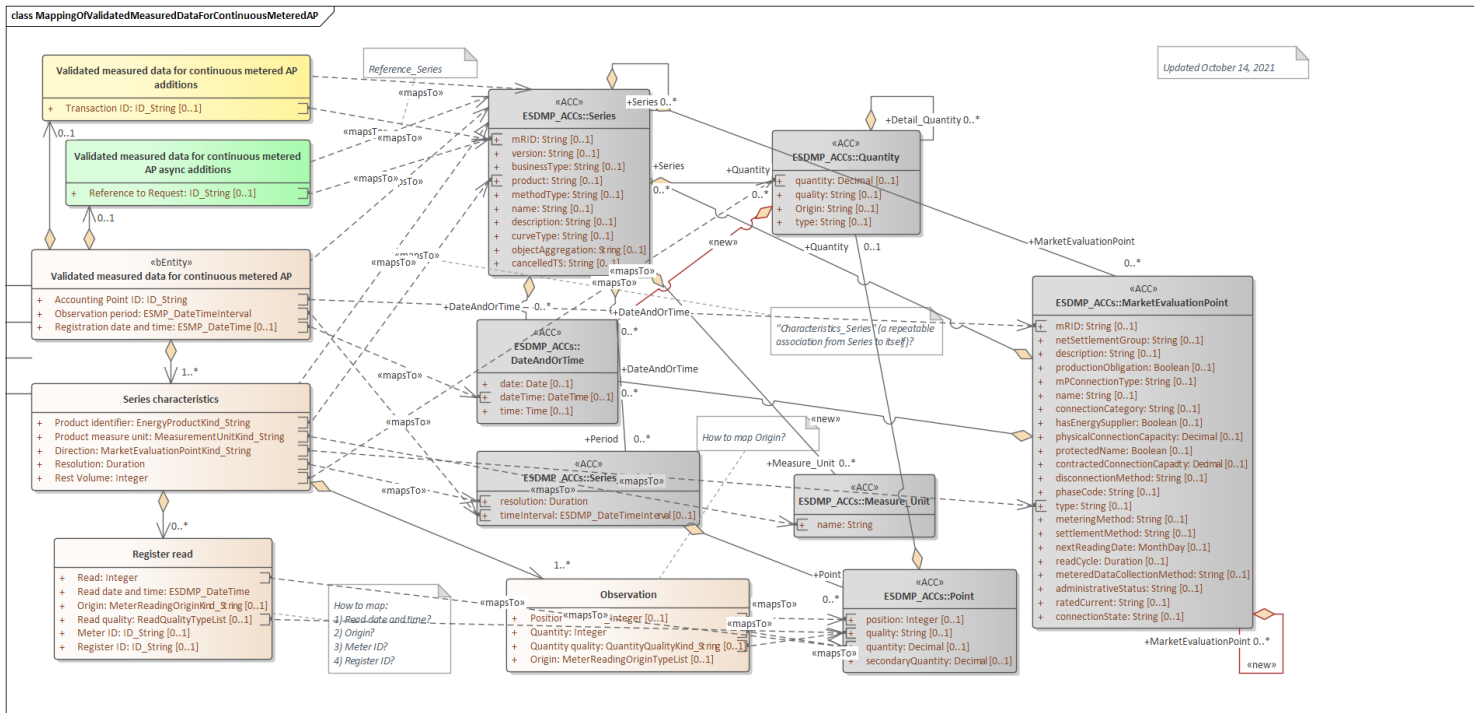| #	Project description	Priority	Start
K)	Verify extensions to the definitions of roles with the group harmonising the electricity and gas markets role models before adding the extension to the role definitions in a BRS to include gas.	Continuous	When updating role definitions in BRSs
L)	Review of BRS 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

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

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