# Minutes ETC meeting, October 25th, 2022

Date: October 25th, 2022

Time: Tuesday 10:00-12:00 and 13:00 - 15:00

Place: GoToMeeting

Present: Jan (NL), EDSN

Jan (SE), Svenska kraftnät

Kees, TenneT Ove, Edisys

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

#### **Attachment:**

- 1. Appendixes for ETC minutes (docx)
- 2. ETC workplan (see ebIX® file manager at <a href="https://filemanager.ebix.org/#">https://filemanager.ebix.org/#</a>)

## 1 Approval of agenda

The agenda was approved with the following additions:

- Shall we suggest adding an association from RegisteredResource to MarketRole and/or MarketParticipant?, see item 4.2.2.
- Preparation for ebIX® Forum meeting on Thursday, see item 9.1 under AOB.

## 2 Approval of minutes from previous meetings

The minutes from previous meetings were approved with the following comments:

"Theis" is renamed to "This" in the third paragraph of item 3.

## 3 Status for a common ebIX®, EU DSO Entity, ENTSO-E (CIM EG) and ENTSOG Area project

Still waiting for participants from the EU DSO Entity.

# 4 Resolve ebIX®/IEC issues

#### 4.1 Making a European Style Downstream Market Profile (ESDMP)

## 4.1.1 MRs to WG16 CIM modelling team and Information from IEC meetings

MRs to WG16 and their status are found in a separate document "MRs from ebIX to WG16". The document can be downloaded from the ebIX® File Manager.



Minutes from WG16 meetings can be found at: WG16 / Modelling-Team-Minutes.

#### 4.1.1.1 Source and target for associations according to UML and CCTS between basic CIM (301) and ESMP (351)

Jan (SE) and Kees had as action tried finding contradictions between the usage of source and target between basic CIM (301) and ESMP (351).

Jan (SE) informed that he had brought up the question in the meeting in Medina in September, however none of the participants saw any practical problems with the issue. But even if there are no practical problems with the issue, it should be solved. Jan (SE) suggested to make suggestions for addition of a text regarding source and target in the IEC modelling guide, however the item is already covered in version 1.1. of the IEC modelling guide (February 2021):

Rule015 The source end of associations between classes in different working group sub-packages shall be owned by the dependent package.

NOTE: Following this convention may allow shortcuts in reassembling combined models, but this is not a formally documented feature of Enterprise Architect.

Rule017 Associations between classes in different IEC working group packages shall be owned by the source (dependent) working group package (i.e., for an association between e.g. an

IEC61968 class and an IEC61970 class, both association ends are owned by the IEC61968

package).

Rule083 Associations should be drawn from the dependent (source) class to the target class in

Enterprise Architect to facilitate correct dependency processing.

Note: If the source and target classes of the association are incorrect (i.e. class roles are incorrect), the direction of the association can be reversed through the Enterprise Architect

user interface.

Jan (NL) showed an example where the source and target of the association between TimeSeries and Point changes from IEC/CIM 301 (basic CIM) and 351 (ESMP).

Jan (NL) also showed that in the ESMP, there are associations (aggregation) both from TimeSeries to Point [0..\*] and from Point to TimeSeries [0..\*]. No one could see the need for the latter association.

Jan (SE) informed that the "target" should be seen as the container of what it is associated with, i.e. the TimeSeries contains all Points it is associated with, hence the TimeSeries should be the target, which is the default when making an association (aggregation to whole) in EA. However, this may seem illogical, and it is easy to understand that the usage of source and target contradicts in CIM.

#### Action:

• Jan (SE) will ask Alvaro if the aggregations with wrong source/target should be updated, such as the aggregation from TimeSeries to FlowDirection.

#### 4.1.2 MRs based on Dutch requirements

#### Continued actions:

- Kees will add a MR to the series of other MRs that will be sent from eblX® based on the Dutch requirements for changing the cardinality of the association between Acknowledgement\_ MarketDocument and Sender\_MarketParticipant/Receiver\_MarketParticipant from mandatory [1] into optional [0..1].
- Kees will try to come up with a refined table showing the Dutch MRs, including examples.
- Kees will investigate the usage of a reference to a related document (probably only used in the acknowledgement in the Netherlands) and see if he can find a justification of the "rename of the association named Original Market Document to something more generic".
- Jan (NL) and Kees will go through the Dutch MRs and see if more of the MRs are MRs to 62325-351 (ESMP).



Jan (NL) will investigate if the attributes measureUnit and priceMeasureUnit should be associations to the
Unit class in 301 (MeasureUnit class in ESDMP) instead of attributes in the Product class. According to Kees
the measureUnit and priceMeasureUnit should be attributes in the Product class because of normalisation
rules.

#### 4.1.3 MRs based on Nordic requirements

Ove had as action made ebIX® MR 2022/017 for addition of the attribute "connectionState" to MarketEvaluationPoint and another (2022/031) for addition of the currently used ebIX® Enn codes and sent to Jan (SE) for forwarding to ENTSO-E retail market workgroup.

This item will be renamed to review of non-submitted MRs from the ETC Excel sheet and added as a focus item on the next physical meeting.

## 4.1.4 Status for governance of reference models: basic IEC CIM and ESDMP (follow-up item on the agenda)

Alvaro is maintaining the latest version of the ESMP, based on decisions in CIM EG. Hence, these updates are extensions to the CIM 62325-351 standard. Currently the ESDMP is maintained by ETC.

Kees/Jan (SE) had as action to ask the Retail market workgroup if IEC/CIM is the common information model to be used in all new process specifications by the European TSOs. The impression is that this is true, hence the action item from earlier meetings is closed.

#### 4.1.5 Suggestions from TR 62325-103 yet to be handled

Based on "Suggestions from TR 62325-103 yet to be handled status 2022-06-22.pdf" from Jan (SE).

- At an AccountingPoint you can have values of different kind, such as Active Energy, Reactive Energy, ...
  - o Proposal: Add a Product class, with Product type and a Measure unit and associate it with TimeSeries, MarketEvaluationPoint and RegisteredResource.
  - Currently added to the "ebIX® Excel sheet" as ebIX® MR 2021/035

#### Continued action:

Jan (NL) will find a better justification for a MR for the new class Product (ebIX®/2021-035).

#### 4.1.6 Not yet mapped attributes from the BRS for Alignment of metering configuration characteristics

#### Continued action:

• Ove will make a mapping from the class diagram for metering configuration characteristics to CIM to discover need for MRs (low priority item).

#### 4.2 Status for ENTSO-E CIM EG Retail market workgroup (follow-up item on the agenda)

#### 4.2.1 MRs to ENTSO-E CIM EG Retail market workgroup

#### Ove had as action:

- Made a MR for addition of consumption, production and combined to the attribute direction in the class FlowDirection, using the ebIX® Enn codes.
- Made the following MRs to ENTSO-E Retail market workgroup:
  - Added to Accounting Point:
    - settlementMethod
    - gridAgreementType

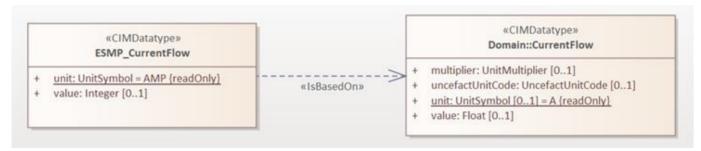


- administrativeStatus
- Added to Market Evaluation Point:
  - measurementMethod
  - meteredDataCollectionMethod
  - disconnectionMethod

eblX® Enn codes are suggested, and the MRs will be added to the Teams Excel sheet.

### From Jan (SE) September 27<sup>th</sup>:

We should also make a datatype for CurrentFlow, it could be something like this:



#### Conclusion:

We will make a MR for addition of a datatype for CurrentFlow.

## 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.

## 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]

## **Conclusion:**

• We will make a MR for addition of phaseCount: Integer [0..1] to MarketEvaluationPoint in ESMP.



From Jan (SE) also October 19th:

Beside that I suggest writing an MR regarding "phaseCount", see above, 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:* 
  - We will make a first draft of an MR for adding ratedCurrent MarketEvaluationPoint in ESMP.
- 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:**

- This is part of the action item related to Metering configuration characteristics, see item 4.1.6
- 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.

# Action:

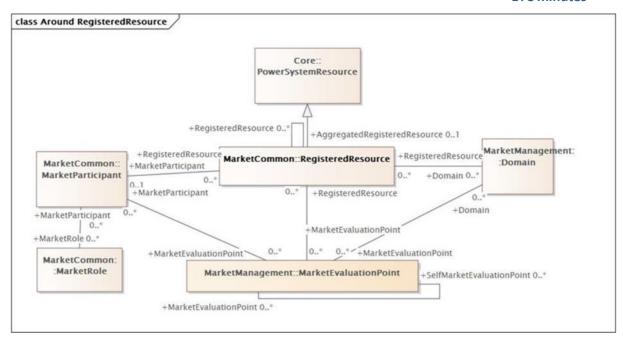
- Ove will make a first draft of a MR for addition of a datatype for CurrentFlow.
- Ove will make a first draft of a MR for addition of phaseCount: Integer [0..1] to MarketEvaluationPoint in ESMP.

# 4.2.2 <u>Shall we suggest adding an association from RegisteredResource to MarketRole and/or MarketParticipant?</u>

# From Jan (SE):

In the EG1 work, one part will be to look at master data for demand response processes. So, relevant would then be to check: to which other classes can you associate the RegisteredResource in CIM? And they are many. Here are just a very few:





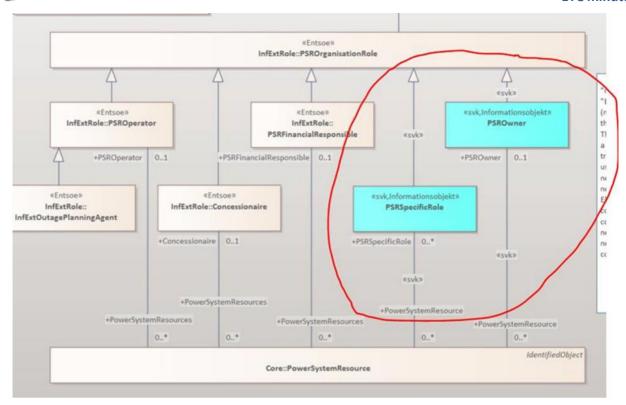
But I find here one association that I would like to be updated in CIM. It is the association from RegisteredResource to MarketParticipant. You may only specify one MarketParticipant for a RegisteredResource. Which MarketParticipant? The SGU? The BSP? The Flexibility Service Provider? The BRP? An aggregator? The owner (typically the same as the SGU, but there may be several owners of a resource)? A third party that helps some of the other actors? This tells me that there is a need (especially for the exchange of master data for a resource) to change the association between RegisteredResource & MarketParticipant to a many-to-many association. And the MarketRole will tell the role of the MarketParticipant.

However, ENTSO-E is (in their CGM-part) planning to add a sub class PSROrganisationRole to the OrganisationRole. That sub class will then also have sub classes further describing the different roles. Like a PSROperator that will have a 0..1–0..\* association with the class PowerSystemResource. Then each PowerSystemResource (i.e. then also each RegisteredResource) can have an association to each of those different sub roles. Such a sub role suggested to be added (an extension) here at Svenska kraftnät is the new role "PSROwner" that will tell who is the owner of the PowerSystemResource (or then the RegisteredResource). Below follows an internal figure showing the ENTSO-E extensions but also the internal extensions suggested here at Svenska kraftnät. With the many-to-many association between PowerSystemResource and the (local Swedish) class PSRSpecificRole, it would be possible to tell more roles related to the PowerSystemResource, like who is BRP, BSP etcetera.

But, as I told my colleague here at Svenska kraftnät, in the market part of CIM we already have MarketParticipant (+ MarketRole) that could tell this – however not (yet) with this many-to-many association with RegisteredResource. Anyhow, we need to be aware of that other updates of CIM are likely to happen around PowerSystemResource that also will affect RegisteredResource.

Looking at this other suggested update of CIM, we might consider within IEC 62325 to rather associate RegisteredResource with MarketRole than with MarketParticipant. But then also considering associating MarketEvaluationPoint with MarketRole.





#### Conclusion:

• Will probably be taken care of by an ENTSO-E group (ESMP?).

Item closed.

# 4.3 Preparations for coming WG16 meetings

#### 4.3.1 Addition of code list responsible attribute where missing

We should try convincing the CIM EG Retail market workgroup and WG16 that we need a code list responsible attribute together with all code list attributes.

### Examples could be:

- For the "type of AP" ebIX® would like to use **E17** consumption, **E18** production and **E19** combined to the -FlowDirection instead of the ENTSO-E codes **A01**, **A02**.... See 4.2.1, first bullet.
- For national identification or coding schemes ebIX® uses a combination of "agency identifier" and a "list identifier", e.g. the agency identifier can be ebIX® and the list identifier can be Netherlands, Sweden, Germany....

#### **Conclusion:**

- This is an issue, there are solutions for it (e.g. in CCTS), ...
- We will try to convince our colleagues in ENTSO-E, EU DSO Entity etc, when there is an opportunity.

Item closed.



## 4.4 Status for European (ebIX® and CIM EG Retail market workgroup) MRs to CIM

Review and update of Excel sheet keeping track of the MRs sent from ebIX®, via the CIM EG Retail Market workgroup to WG 16. The Excel file is uploaded to the Teams "Team" "ebIX® ETC" where Jan (NL), Jan (SE), Kees and Ove can edit the document simultaneously.

#### Continued action:

• Jan (SE) will continue the update of the dates and status for the latest submitted MRs in the common Teams Excel sheet.

#### 5 EG1 status

The item was postponed.

## 6 Resolve HG issues - Prioritised item on ETC meeting September 27<sup>th</sup>

The item was postponed.

#### 7 ebIX® Business Information Model 2022.A

The item was postponed.

## 8 Next meetings<sup>1</sup>

- Wednesday December 14<sup>th</sup> and Thursday December 15<sup>th</sup>, 09:00 16:00, Stockholm
   We will decide on November 28<sup>th</sup> if it will be a face-to-face meeting or a GoToMeeting
   Ove will send a reminder on Friday November 25<sup>th</sup>.
- January 18<sup>th</sup>, 2023, GoToMeeting
- February 14<sup>th</sup> and 15<sup>th</sup>, 2023, Amersfoort
- March 8<sup>th</sup>, 2023, GoToMeeting

#### 9 AOB

9.1 Preparation for ebIX® Forum meeting on Thursday

The ETC presentation was revied and slightly updated.

<sup>&</sup>lt;sup>1</sup> All Face-to-face meeting starts 09:00 the first day and end at 16:00 unless otherwise explicitly stated.



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

- 1) Artefacts used for MRs to WG16 shall be stored as separate packages in the common cloud EA model.
- 2) Always review existing definitions of attributes, classes etc. that are related to the MR in question and if needed propose updates to these definitions.
- 3) First investigate basic CIM to see if the object we intend to send an MR for already is available there.

  If yes, we should make a MR for 62325-351 (ESMP), if not we make a MR for both basic CIM and ESMP.