April 1st, 2020 ETC – ebIX® Technical Committee

Minutes ETC meeting, March 25th and 26th, 2020

Date: Wednesday and Thursday March 25th and 26th, 2020

Time: 09:30 – 11:30 and 13:00 – 15:00 (both days)

Place: GoToMeeting
Present: Jan, EDSN

Jan, Svenska kraftnät

Kees, TenneT Ove, Edisys Teemu, Fingrid

Appendixes: Appendix A, MRs for WG16

Appendix B, Status for new BIMs from EBG

Appendix C, Proposed/agreed changes to the ebIX® Business Information Model 2019.A

Appendix D, Suggestions for handling renaming MP-terms into AP-terms

Attachment: ETC workplan (see ebIX® file manager at https://filemanager.ebix.org/#)

1 Approval of agenda

The agenda was approved with the following additions:

- Where to put the ebIX® element Energy Industry Classification Type (Electricity or Gas)? See item 4.7;
- Missing codes for ebIX® BRS, see item 9.1;
- Reporting interval, see item 13.1 under AOB.

2 Minutes from previous meeting

The minutes from previous meeting was approved.

3 Resolve matters arisen from ebIX® Forum meeting the day before

Decision from ebIX® Forum March 24th:

➤ ETC was asked to go forward on drafting an eblX® way of implementing CIM in the downstream market during the ETC GoToMeetings Wednesday and Thursday March 25th an 26th. The result will be put on the agenda for the eblX® Forum meeting March 30th.

A presentation for ebIX® Forum was drafted. The presentation can be downloaded from the ebIX® File Manager.

Actions:

- Jan (SE) will contact Jean-Luc, asking for possibilities for generating non-flattened xml schemas using CIMContextor;
- We will ask the HG to make a methodology for the HRM Ove will add it to AOB on next HG meeting agenda.

Item closed.

4 Resolve ebIX®/IEC issues

4.1 Status addition of Event class

Due to the Corona virus situation, Kees dropped traveling to the WG 16 meeting.

However, the topic is on the WG16 agenda and will be handled when the world turns back to normal. The item was also added to a new Appendix A/A.1, Event class.

Item closed.

4.2 Status for MRs to WG16, see Appendix A

Status for actions:

- Kees will ask WG16:
 - o How to see the difference between a postal address and a physical address for persons (currently in CIM only available for organisation);

Status:

- Approved at Folsom meeting in March will be added to CIM.
- o What are the rules, and where do we find them, for Association end/role names?

Status:

- Started to be continued.
- Jan (SE) will submit MR ebIX® 2020/23+24+25+26 to the WG16 meeting in due time before the next meeting March 2nd, 2020, i.e. latest on Friday February 21st.

Status:

- o Done
- Jan (SE) will inform WG16 about the withdrawal of MR ebIX® 2019/01, ebIX® 2019/28 and update of MR ebIX® 2019/03 to MR ebIX® 2019/13.

Status:

o Done

From Jan (based on mail from March 12th):

Below follow draft notes that I made during the California WG16 meeting.

I also send you the latest XMI-files updated based on these changes (however, changes are not made to UsagePoint).

The current status of a set of the maintenance requests sent to IEC are:

ebIX® 2020/23: (physicalConnectionCapacity) The suggested change of Datatype from "Decimal" to "StringDecimal" was instead changed to "DecimalQuantity".

From Becky's meeting notes (mail form Jan (SE) March 19th:

| AI: UsagePoint.physicalConnectionCapacity change data type to | |
|---|-----------|
| DecimalQuantity | Good WG14 |

ebIX® 2020/24: (numberOfPhases). The attribute phaseCount will be added to UsagePoint.

From Becky's meeting notes (mail form Jan (SE) March 19th:

| UsagePoint.phaseCode is currently used by profiles with the enum | |
|--|-----------|
| AI: UsagePoint; add phaseCount attribute; data type Integer | Good WG14 |

ebIX® 2020/25: (currentLimitation) Instead of adding the attribute, we will use the existing attribute "ratedCurrent" in UsagePoint with the same kind of information.

From Becky's meeting notes (mail form Jan (SE) March 19th:

| currentLimitation can use the ratedCurrent | |
|--|--|
|--|--|

ebIX® 2020/26: (connectionCategory) It was agreed to update the definition (text in red) to "A code used to specify the connection category, e.g., low voltage or low pressure, where the usage point is defined".

From Becky's meeting notes (mail form Jan (SE) March 19th:

| AI: UsagePoint.connectionCategory, add "or low pressure" to the | |
|---|-----------|
| description | Good WG14 |

ebIX® 2019/6: (scheduledMeterReadingDate) The addition of the attribute to the class MarketEvaluationPoint will be discussed together with WG14 in future weekly meeting(s). Suggested to be a string.

From Becky's meeting notes (mail form Jan (SE) March 19th:

| AI: MarketEvaluationPoint; add a new attribute to hold the scheduled | |
|---|--------------|
| meter reading date | WG16 - MM |
| | Sent request |
| AI: Meet with WG14 Part 9 to discuss use of TimeSchedule in the model for | to David B. |
| scheduling meter reading. | Part 9 |

ebIX® 2019/7: (meterReadingPeriodicity) The addition of the attribute to the class

MarketEvaluationPoint will be discussed together with WG14 in future weekly meeting(s).

Probably readCycle in UsagePoint can be used.

ebIX® 2019/8: (*meteredDataCollectionMethod*) There is an attribute, amrSystem, in an associated class EndDevice, could that be used? To be further discussed.

From Becky's meeting notes (mail form Jan (SE) March 19th:

| Al: Margaret to verify where the isAMR flag; EndDevice.amrSystem (string | | l |
|--|-----------|---|
| to describe the amr system). | Good WG14 | l |

ebIX® 2019/9: (*gridAgreementType*) The attribute was discussed. And "CustomerConfiguration" within IEC 61968-9 was mentioned. However, since this is for market purposes, I will in the future IEC discussions suggest adding the attribute to MarketEvaluationPoint.

eblX® 2019/11-12: (contractedConnectionCapacity) Will be added to MarketEvaluationPoint with the datatype "DecimalQuantity".

From Becky's meeting notes (mail form Jan (SE) March 19th:

Al: Margaret to verify if the customer can have multiple contracts/contacts, in EU privacy is sensitive. Customer exchange of information is typically not transferred. EU wants to access via MarketEvaluationPoint. Need is not an association to multiple - but rather an identification if directly with the DSO or with the supplier. A type attribute; currently a coded string with two values. Could be discussed with WG14 to change cardinality between UsagePoint and CustomerAgreement to use the inherited Document.type attribute.

Good WG14

The maintenance requests in green are then, according to my notes, finalised.

The other suggested changes were only mentioned, and not discussed. Will be handled at future telco meetings.

In order to handle different types of addresses for a person, and not only for an organization, the class Person will be extended with streetAddress and postalAddress.

From Becky's meeting notes (mail form Jan (SE) March 19th:

| AI: Add street address and | postal address to the class Person. | Good WG14 |
|----------------------------|-------------------------------------|-----------|
|----------------------------|-------------------------------------|-----------|

Regarding Municipality it was a long discussion and I noted that it has to be further described. Margaret Goodrich (retiring now as Model Manager for WG14) would not approve adding "municipality" to CIM since there already is a town there. Since one need was said to be for tax purposes it was discussed to add an attribute called "taxingEntity". Read more: https://www.traviscad.org/ufaqs/what-is-a-taxing-entity/. I.e. the taxingEntity would then be the local government entity.

From Becky's meeting notes (mail form Jan (SE) March 19th:

Al: Need to associate multiple towns with an address; question is how many; one or more, need to clarify the true/final requirements. Fulfills a need for multiple taxing entities per address.

Good WG14

It was a good discussion, but we did not manage to go through all suggested changes.

Continued action:

- Jan/Kees will ask WG16:
 - o What are the rules, and where do we find them, for Association end/role names?

4.3 Interim period for ebIX® migration to CIM

Status after discussion at the WG13/WG14/WG16 meeting in March; if the CIMTool will be replaced by EA Schema Composer. The CIMTool (https://wiki.cimtool.org/index.html) may be relevant for ebIX® if it doesn't flatten the xml schemas.

Information from Jan (SE), from the meeting notes (the WG13, WG14, WG16 meeting):

"Are working on getting Schema Composer to the point of being able to take over from CIM Tool (Todd is doing a bit of work on CIMTool to extend its life, help from PNNL, making it open source. One feature related to aligning CIMDataType and RDFS. Also making it more extensible.)"

Todd is one of the model managers. So, they will still do some work with CIMTool, but will most likely go over to Schema Composer.

"Are planning to ... document on mechanics of profiling"

"Next WG13/14 meeting - in Oslo, week of June 8-12"

I might then attend at some part of the week. I.e. in order to work with some of the possible adding of attributes that we want for the MarketEvaluationPoint – but that in CIM could be put into or next to UsagePoint.

This item will be taken over by an item for "Making a European Style Downstream Market Profile (ESDMP)", under the condition that ebIX® Forum approves the ETC presentation at the ebIX® Forum GoToMeeting March 30th, see item 3.

Item closed.

4.4 How to add additions to CIM

Jan had distributed several versions of CIM extensions as xmi files and an updated documentation on how to import these files to CIM.

From Jan March 20th:

Here comes three XMI files with some updates.

- 1) I have changed the layout style of new or extended classes to gray.
- 2) As last update there are dates next to each ebIX diagram, now with "20200320".
- 3) Within the general package, "Extension 20200320", I have:
 - a. added a (preliminary) note to Ext_ServiceCategory that it is intended to tell "Gas, Electricity, Water ..." i.e. the kind of utility.
 - added a note next to Ext_MarketEvaluationPoint telling: "Instead of gridAgreementType,
 use MarketEvaluationPoint.CustomerAgreement.type?" That we can discuss at the next ETC
 meeting
- 4) Within the package "ebIXACCs 20200312", I have
 - a. Updated a note next to Ext_Timeseries telling: "Should be another qualifier than "Ext". A ChangeRequest should be sent to ESMP in order to update the association to MarketEvaluationPoint" Let us discuss what the qualifier could be.
- 5) Within the package "ebIX packages 20200320", I have
 - a. Updated the diagram "Checking GUID", with a sort of check: If there is no "is based on"-association, there is an error, if the two GUIDs are not the same, then there is an error

b. All assembly modeled are updated, and for "MeteringPointCharacteristics" we got gray coloured classes. I.e. the classes are based on CIM extensions.

I also send you an update of the description how to import the XMI files, including how you could remove the red rectangle next to each package. While still working with the separate xmi files that rectangle could be kept – it makes it easier, I think, to import – and export – updates. I.e. working together with separate xmi files. In Enterprise architect it is called "Controlled Packages". But once we are more or less done – or once you locally start to make your own local extensions – I think it is wise to change the type of package to a more normal package than a "Controlled Package".

In the Word file I also changed the order of how to import the XMI files. First you start with the basic extension. Then you add the ebIX ACCs and last you add the XMI file with the (draft) contextual and assembly models.

To be continued.

4.5 ebIX® strategy for alignment with CIM

ebIX® strategy for alignment with CIM was handled under item 3. Item closed.

4.6 Report from WG16 meeting in California

Kees had sent a report by mail:

I promised to report from the wg16 discussion regarding our presentation.

There has been some discussion for each topic. The main discussion was about governance. And then not so much about change in governance because of our layered customisation, but about the IEC-procedures and voting rights (stating that these cannot be changed because of the European Commission).

During the presentation Eric Lambert introduced the EU Bridge project. In this Bridge report similar recommendation have been made as in the EG1 report. Was interesting to follow, because the reference to this Bridge report helped especially the US-members to become convinced that something is happening in Europe. At that was my impression.

We have talked about a pilot project on the basis as we had sketched. And Jan added there some remarks on the work that being done in the Nordic countries to draft XML schema's on the basis of IEC elements.

All in all, the overriding number of remarks/comments were positive (both from our European colleagues and also from the others).

Conclusion for our work in wg16: we agreed to continue, but in the weekly web meetings.

Item closed.

4.7 Where to put the ebIX® element Energy Industry Classification Type (Electricity or Gas)?

An option is using the Service Category, but it is connected to the Usage Point, hence maybe too "low" in the hierarchy (we would like the attribute to be on header level – to be used for routing purposes).

Due to lack of time, the item was postponed.

5 Problems with TT (Eclipse)

Continued action:

• Kees will contact In4Mate asking if they have a solution for how to open Eclipse.

Due to lack of time, the item was postponed.

6 Review of BIMs from EBG

Due to lack of time, the item was postponed.

7 Resolve HG issues

7.1 Status for new project for alignment of Area configuration

Vlatka is invited (and Kees is a member of CIM EG) to a CIM EG meeting April 3rd, 2020 where the project will be discussed.

In the case ENTSO-E will not participate, an alternative is that ebIX® do the project on our own or together with the BRIDGE initiative. In this case we can define general principles for master data for areas and thereafter a more detailed study for those areas ebIX® has a responsibility for, such as Metering Grid Areas.

ebIX® forum has agreed the following priorities:

- Prioritised option: A joint project with ENTSO-E;
- Alternative option: Doing it on our own or together with the BRIDGE initiative;
- How to go forward will be decided after the meeting with CIM EG April 3rd, 2020;

8 Status for harmonisation of the electricity and gas role models

Due to lack of time, the item was postponed.

9 ebIX® Business Information Model 2019.A

9.1 Missing codes for ebIX® BRSs

The ebIX® BRS for Manage Aps has been sent to ebIX® Forum for approval, but several Document Name codes and Business reason codes are missing. Hence, "Appendix A - Header and Context information for the class diagrams" in the BRS was reviewed and missing codes were issued where applicable. In addition, some comments were made:

The following Document Name Codes were created for the request and response (Confirm/Reject)
 Creation of an AP:

E82 Request include Metering Point in MP administration **E83** Response request include Metering Point in MP administration

For Connect, Disconnect and Decommission APs ETC suggest using the Document Name codes

E58 Request change MP characteristics

E59 Response request change MP characteristics

This implies that a "Connection Status" must be added to the four Request/Response Business Transaction Patterns: Crate, Connect, Disconnect and Decommission Aps.

This probably also implies that the BRS must be re-reviewed by EBG.

Also, BRS for Alignment of Metering Configuration Characteristics was missing some Document Name Codes. These were also added to the ebIX® model:

E84 Request change metering configuration characteristics

E85 Response request change metering configuration characteristics

E86 Request update metering configuration characteristics

E87 Response request update metering configuration characteristics

In addition, the new Role codes from UN/CEFACT, which was requested in the autumn 2019 were added:

| Roles | New CEFACT code | |
|-------------------------------|-----------------|--|
| Balancing Service Provider | DGG | |
| Consent Administrator | DGH | |
| Energy Service Company (ESCO) | DGI | |
| Resource Aggregator | DGJ | |
| Resource Provider | DGK | |

9.2 Use of XOR in combination with cardinalities

Continued action:

- Kees will make a proposal for update the "ebIX® introduction to Business Requirements and Information Models" with a chapter explaining the relationship between cardinalities and OR/XOR, including:
 - o XOR and cardinality of [1] lead to a required choice in the XML schema;
 - o XOR and cardinality of [0..1] lead to an optional choice in the XML schema.

Due to lack of time, the item was postponed.

9.3 Continue review and update of version 2020.A

Review of proposed updates in Appendix C and Appendix D.

Due to lack of time, the item was postponed.

9.4 Comment to Settlement Method Code E15

Due to lack of time, the item was postponed.

10 Code lists from Magic Draw model in Word format

Due to lack of time, the item was postponed.

11 Review of ETC workplan

See ebIX® File Manager.

Due to lack of time, the item was postponed.

12 Next meetings

- Wednesday April 22nd, 12:00 14:00, GoToMeeting
- Wednesday and Thursday May 13th and 14th, 2020, Svenska kraftnät's offices in Sundbyberg (Stockholm).
- Tuesday and Wednesday June 23rd and 24th, 2020, Warszawa at "innogy Polska IT Support" (new company name) Towarowa 7A or Holliday Inn, Twarda 52.
- Wednesday and Thursday November 18th and 19th, 2020, Fingrid's offices in Helsinki moved to BDEW's offices in Berlin.

All meeting starts 09:00 the first day and end at 16:00 unless otherwise explicitly stated.

13 AOB

13.1 Reporting interval

From Jan:

In Sweden we are reporting (currently in the PRODAT messages, and in the future to/from the datahub) several things about the accounting point. Four or five things of those that we intend to report to/from the datahub I don't find in ebIX.

One of these things is the "Reporting interval" that we today send in PRODAT. I.e. the values are typically collected daily or monthly. But when are they reported? You are, depending on some rules, allowed just to send the hourly values once a month.

For accounting points part of the imbalance settlement, they must be reported daily (i.e. quarterly values or hourly values). For accounting points part of the reconciliation, hourly values might be reported daily, but you are allowed to send them once a month. But: as a supplier I want to know that. Will I get the values once a month, or will I get them daily? For accounting points part of the reconciliation, monthly values will be sent once a month. (Perhaps we also have some rules when sending values to the customer — perhaps using the same standard and format as sending to suppliers — that those values might be sent more seldom.)

Anyhow, we then have an attribute that can be translated into "Reporting interval" or "Reporting frequency". Has this been discussed in ebIX? Perhaps it is only we in Sweden that informs the supplier how often he will get timeseries for a specific accounting point. If so, this attribute – and some others – will be of the kind "local extension to CIM" (whenever we will use CIM....).

Replay from Ove:

I believe we have these elements:

| Scheduled Meter Reading Date | The indication of when the regular meter reading is scheduled. |
|------------------------------|--|
| Meter Reading Periodicity | The length of time between the regular meter readings. |

Replay from Jan:

In today's PRODAT messages we have:

- First meter reading Date, optional. And I don't think in use.
- Report start date, optional (will tell when you first start to send the metered values). I don't think it is in use.
- Meter reading frequency, required. Back in 2005 we changed this from telling how often you read the values to how often you send them.

In the datahub we will (at least) have

- Metering interval
- · Reporting interval

I.e. how often will you do the metering (every 15 minutes, once an hour, monthly). And, how often will you send those values (once a day, every month...).

If "Meter Reading Periodicity" in ebIX® is used for telling how often you report the values, the name is not good. But perhaps then it is implemented differently in different countries... And how can we in the ebIX® model tell that we e.g. have quarterly values? (or hourly, monthly, yearly).

Due to lack of time, the item was postponed.

Appendix A MRs for WG16

A.1 Event class

The request for an Event class has been submitted as PowerPoint presentation and is part of the TR.

To be followed up.

A.2 MRs related to new class MarketEvaluationPointCharacteristic

| MR# | ebIX® element | To do | Definition | Status |
|-----------------------------|--|---|--|---|
| ebIX® 2019/1 | Market Evaluation Point Characteristic | Add a new MarketEvaluationPoi ntCharacteristic class | The relevant administrative characteristics of a Market Evaluation Point. | Submitted to WG16 20200219: Will be withdrawn. Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint 20200221: Withdrawn. Item closed |
| ebIX [®] 2019/2 | Balance Group ID | Add new association from MarketEvaluationPoint class [01] to the Domain class [01], where the association end name at the Domain side is BalanceGroup | | TBD |
| ebIX® 2019/3 | Metering Point Type | Add marketEvaluationPoi ntType attribute (string) to the MarketEvaluationPoi ntCharacteristic class | A code specifying the direction of the active energy flow for the Market Evaluation Point(s), such as consumption, production or combined. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. |

| MR# | ebIX® element | To do | Definition | Status |
|-----------------------------|------------------------------------|--|---|---|
| ebIX® 2019/4 | Metering Method | Add new meteringMethod attribute (string) in the MarketEvaluationPointCharacteristic class [01] | A code specifying how the energy volumes are established for the Market Evaluation Point(s), such as continuous- non- continuous- or not- metered. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. |
| ebIX® 2019/5 | Settlement Method | Add new settlementMethod attribute (string) in the MarketEvaluationPointCharacteristic class [01] | A code specifying how the energy volumes are treated for settlement for the Market Evaluation Point(s), such as profiled or non- profiled. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. |
| ebIX [®] 2019/6 | Scheduled Meter Reading Date | Add new scheduledMeterRea dingDate attribute (string) in the MarketEvaluationPoi ntCharacteristic class [01] | The indication of when the regular meter reading is scheduled. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. 20200326: Will be discussed with WG14 in future weekly meeting(s). Suggested to be a string. |

| MR# | ebIX® element | To do | Definition | Status |
|-----------------------------|--------------------------------------|---|--|---|
| ebIX® 2019/7 | Meter Reading Periodicity | Add new meterReadingPeriodi city attribute (string) in the MarketEvaluationPoi ntCharacteristic class [01] | The length of time between the regular meter readings. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. 20200326: Will be discussed with WG14 in future weekly meeting(s). Probably readCycle in UsagePoint can be used. |
| ebIX® 2019/8 | Metered Data Collection Method | Add new meteredDataCollecti onMethod attribute (string) in the MarketEvaluationPointCharacteristic class [01] | A code specifying how a Metered Data Collector collects data from the Meter for the Market Evaluation Point, such as Automatic or Manually. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. 20200326: The attribute, amrSystem, in class EndDevice, is an alternative. To be further discussed. |
| ebIX [®] 2019/9 | Grid Agreement Type | Add new gridAgreementType attribute (string) in the MarketEvaluationPointCharacteristic class [01] | Specification of type of grid contract, such as if the contract is directly between the Grid Company and the Grid Customer, or through the Energy Supplier. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. |

| MR# | ebIX® element | To do | Definition | Status |
|---------------------------|--|--|---|--|
| ebIX® 2019/10 | Administrative Status | Add new administrativeStatus attribute (string) in the MarketEvaluationPointCharacteristic class [01] | A code specifying whether (or not) the Market Evaluation Point is active part of the imbalance settlement. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. |
| ebIX® 2019/11 | Contracted Connection Capacity | Add new contractedConnection Capacity attribute (string) in the MarketEvaluationPointCharacteristic class [01] | Quantitative information about the capacity of the connection that is contracted for the Market Evaluation Point. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. |
| ebIX [®] 2019/12 | Contracted Connection Capacity Measure Unit | Add new contractedConnection Capacity MeasureUnit attribute (uncefactUnitCode) in the MarketEvaluationPointCharacteristic class [01] | The unit of measure used for the Contracted Connection Capacity. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. 20200326: Could be discussed with WG14 to change cardinality between UsagePoint and CustomerAgreement to use the inherited Document.type attribute. |

| MR# | ebIX® element | To do | Definition | Status |
|------------------------------|---------------------------|--|---|--|
| ebIX® 2019/13 | Disconnection Contract | Add new disconnectionContra ct attribute (Boolean) in the MarketEvaluationPointCharacteristic class [01] | Disconnection Contract indicates if there is a contract at the Market Evaluation Point for disconnection as a result of the demand side management or the load management for the Market Evaluation Point. The element is Boolean and is used for both gas and electricity. | Submitted to WG16 20200219: Instead of creation of a new class MarketEvaluationPointCharacteri stic, we will ask for addition of the attributes to MarketEvaluationPoint. 20200221: MR sent to WG16. |
| ebIX [®] 2019/14 | Energy Label | Add a new EnergyLabel class | A class indicating the origin of the energy produced at this Market Evaluation Point | Planned submitted to WG16 Q1/2020 |
| ebIX [®] 2019/15 | Energy Label | Add new association from MarketEvaluationPointCharacteristic class [01] to the EnergyLabel class [0*] | | Planned submitted to WG16 Q1/2020 |
| ebIX® 2019/16 | Technology | Add new technology attribute (string) in the EnergyLabel class [01] | An indication of the technology of the energy production, or part of the energy production, that is potentially fed into the grid at this Market Evaluation Point. It is advised to use code from the AIB-EECS-FS05 code list. | Planned submitted to WG16 Q1/2020 |

| MR# | ebIX® element | To do | Definition | Status |
|------------------------------|-----------------------|--|---|--------------------------------------|
| ebIX [®] 2019/17 | Fuel | Add new fuel attribute (string) in the EnergyLabel class [01] | An indication of the fuel used for the energy production, or part of the energy production, that is potentially fed into the grid at this Market Evaluation Point. It is advised to use code from the AIB-EECS-FS05 code list. | Planned submitted to WG16 Q1/2020 |
| ebIX® 2020/18 | Metering Grid Area | Add new association from MarketEvaluationPoi nt class [01] to the Domain class [01], where the association end name at the Domain side is MeteringGridArea | A Metering Grid Area is a physical area where consumption, production and exchange of (electrical) energy can be metered. It is delimited by the placement of meters for period measurement (continuous metering) for input to, and withdrawal from the area. It can be used to establish the sum of consumption and production with no period measurement (profiled Market Evaluation Point s) and network losses. | TBD |
| ebIX [®] 2020/19 | Identification | Use mRID attribute in the Domain class | The unique identification of the Metering Grid Area to which this Market Evaluation Point belongs. | TBD |
| ebIX [®] 2020/20 | MGA Name | Use name attribute in the Domain class | The name, in clear text, of the Metering Grid Area. | TBD |

| MR# | ebIX® element | To do | Definition | Status |
|-----|------------------------------------|---|---|--------|
| | Aggregated Reception Station | Add new association from MarketEvaluationPoint class [01] to the Domain class [01], where the association end name at the Domain side is AggregatedReceptionStation. Remark: The ARS is expected to be replaced by the CVA, hence to be deprecated from the ebIX® business requirements and NOT to be added to CIM. | An administrative entity that represents one or more reception (and distribution) stations for gas (which are physical installations). This entity functions as the exchange point between grids where calorific value and volumes are established. | TBD |
| | Identification | Use mRID attribute in the Domain class. Remark: The ARS is expected to be replaced by the CVA, hence to be deprecated from the ebIX® business requirements and NOT to be added to CIM. | The unique identification of the Aggregated Reception Station to which this Market Evaluation Point belongs. | TBD |

| MR# | ebIX® element | To do | Definition | Status |
|------------------------------|-------------------------|---|---|--------|
| ebIX [®] 2020/21 | Calorific Value Area | Add new association from MarketEvaluationPoint class [01] to the Domain class [01], where the association end name at the Domain side is CalorificValueArea | A Calorific Value Area is a predefined set of Market Evaluation Points for which the same established calorific value is applied. | TBD |
| ebIX® 2020/22 | Identification | Use mRID attribute in the Domain class | The unique identification of the Calorific Value Area to which this Market Evaluation Point belongs. | TBD |

A.3 MRs related to additions to the class Usage Point

| MR# | ebIX® element | To do | Definition | Status |
|------------------------------|--|---|--|--|
| | Connection Status | Already there; Use connectionState attribute in UsagePoint | State of the usage point with respect to connection to the network. | Already approved |
| | Disconnection Method | Already there; Use disconnectionMetho d attribute in UsagePoint | Is an indication of how the usage point is physically connected or disconnected. | Already approved |
| | Capacity of the Accounting Point | Already there; Use physicalConnectionC apacity attribute in UsagePoint | Quantitative information about the maximum physical capacity of the connection for the UsagePoint. | Already approved |
| ebIX [®] 2020/23 | Capacity of the Accounting Point | Change the datatype for physicalConnectionC apacity from "Decimal" to "StringDecimal" (to include the unit) | | Action: Jan (SE) will send the DMR to WG16 to be handled at the meeting March 2 nd . 20200221: MR sent to WG16. 20200326: Approved, but changed from "StringDecimal" to "DecimalQuantity". Item closed. |
| ebIX [®] 2020/24 | Number of phases | Add new numberOfPhases attribute (integer) in the UsagePoint class [01] Remark: We have noted the phaseCode, but it is not clear how it serves our purpose. | The number of phases in the UsagePoint, either 1 or 3. | Action: Jan (SE) will send the DMR to WG16 to be handled at the meeting March 2 nd . 20200221: MR sent to WG16. 20200326: Approved, the attribute phaseCount will be added to UsagePoint. Item closed. |

| MR# | ebIX® element | To do | Definition | Status |
|------------------|---------------------------------------|--|--|--|
| ebIX® 2020/25 | Current limitation | Add new currentLimitation attribute (CurrentFlow) in the UsagePoint class [01] | The current limitation, i.e. maximum current or fuse size, for the UsagePoint in Ampere. | Action: Jan (SE) will send the DMR to WG16 to be handled at the meeting March 2 nd . 20200221: MR sent to WG16. Most likely this change request can be withdrawn. 20200326: We will use the existing attribute "ratedCurrent" in UsagePoint". Item closed. |
| | Current limitation Measure Unit | Implicit given by the data type (CurrentFlow), which always is Ampere | The measure unit used for the current limitation, i.e. Ampere | |
| ebIX® 2020/26 | connectionCat | Rephrase the definition: "A code used to specify the connection category, e.g., low voltage or low pressure, where the usage point is defined." | | Action: Jan (SE) will send the DMR to WG16 to be handled at the meeting March 2 nd . 20200221: MR sent to WG16. 20200326: The definition will be updated: "A code used to specify the connection category, e.g., low voltage or low pressure, where the usage point is defined". Item closed. |
| ebIX® 2020/27 | Pressure level | Add new pressureCategory attribute (integer) in the UsagePoint class [01] Remark: In Europe level (high, medium, low) is used, | A code specifying the gas pressure in the grid to which the installation of the UsagePoint is connected. | |

| MR# | ebIX® element | To do | Definition | Status |
|------------------------------|---|---|------------|---|
| ebIX [®] 2019/28 | MarketEvaluat ionPointChara cteristic | Add new association from MarketEvaluationPoi nt class [0*] to the MarketEvaluationPoi ntCharacteristic class [0*] | | Submitted to WG16. 20200221: Withdrawn. |

Appendix B Status for new BIMs from EBG

See draft BIMs, approved BIMs and workplan at the ebIX® File Manager.

- 1. Alignment of characteristics for a Customer linked to an AP:
 - o At this meeting we will finalising the associations not yet added:
 - Association from «ABIE» Customer Party to «ABIE» Contact;
 - Association from «ABIE» Customer Party to «ABIE» Domain Location (AP);
 - Association from «ABIE» Customer Party to «ABIE» Metering Point Address;
 - Association from «ABIE» Customer Party to «ABIE» Communication;
 - Association from «ABIE» Contact «ABIE» Communication;
 - Association from «ABIE» Communication to «ABIE» Communication Preference;
- 2. Change of TCR:
 - o The BIM is ready for review.
- 3. Alignment of Metering Configuration Characteristics:
 - o The Business Choreography View is ready for review, but Ove has some questions regarding the Business Information View:
 - How to map Snap Shot Date?
 - Most of the attributes in Meter, Register, Conversion factor, Placement Information and Gateway are missing.
 - We mis a Role Code for ESCO.
 -
- 4. Alignment of AP Characteristics:
 - o Notify AP Characteristics:
 - We must remove Voltage Level, Pressure Level and Physical Status Type from «ABIE»
 AdministrativeMeteringPoint Characteristic.
 - The Capacity of AP Measurement Unit in AP Physical Characteristics and Contracted Connection Capacity Measurement Unit in AP Administrative Characteristics are currently mapped to the Energy Product Characteristics Quantity Unit, which requires a Product Code, but since we also use the Energy Product Characteristics in the Reconciliation Information with several Product Types this seems a bit strange (six different Product Types instead of one; Connection Capacity). Should we add MeasurementUnitCommon_CodeType to unitCode in «BDT» MeasureType instead?
 - Where to map the Capacity of the Accounting Point (in «ABIE» PhysicalMeteringPoint Characteristic)?
 - The content of the MeteredDataCollectionMethod_CodeType shoul be MeteredDataCollectionMethodCode (from ebIX® Original) and not AdministrativeStatusCode (from ebIX® Subset)
 - Missing a «BBIE» for MGA Name.
 - o Request AP Characteristics:
 - How to map Initiator ID?
 - o Reject Request AP Characteristics:
 - Ready for review.
 - o Request Change AP Characteristics from GAP:

- Same comments/questions as for Notify MP Characteristics
- o Request Change AP Characteristics from BS:
 - Missing the ID Scheme Type Code + the Reference code qualifier (CEFACT) + the Assembled ID Scheme Type Code (Kees' homework).
- o Request Creation of new AP
 - Missing an association for GAP from MP_Event to Energy Party
 - Missing an association from MP_Event to MP Address
 - Document Name Code is missing for all connection documents (Create, Connect, Disconnect and Decommission)
 - The Reason Code should be reviewed for all connection documents (Create, Connect, Disconnect and Decommission)
- o Confirm Request Creation of new AP
 - Missing an association for GAP from Response_Event to Energy Party

Appendix C Proposed/agreed changes to the ebIX® Business Information Model 2019.A

C.1 UN/CEFACT DMR

1) Verify that addition of an ASCC between the ACC Event and the ACC Address is on the list of ebIX® changes to UN/CCL

Status 20190424:

o Postponed

C.2 General question for later elaboration

Can we remove the Document Name Code from the ebIX® models?

Status:

• The question will be kept for later elaboration

C.3 BRS for Request Change grid responsibility

- a) ETC is asked to find Document Name codes for:
 - o Request change grid responsibility;
 - o Response change grid responsibility;
 - o Notify change grid responsibility;
- b) And Business Reason codes for Change grid responsibility.

C.4 Requests from EMD

a) How to represent the exchange of calorific value in ABIEs

C.5 General model updates

- a) Replace the ACCs, BCCs etc. in the current CEFACT Profile with the "CEFACT Profile_Recast.mdzip" from Belgium and add generalisation from the "ebIX® assembled code list" to the related Belgian code list, received from Thibaut.
- b) Make the usage of "Time of Use" and "Meter Time Frame" consistent
 - o Check what is agreed with IEC in the TR
 - o Check what is the significance of "Time of Use"/"Meter Time Frame" in the proposal from Atrias
 - o Make the ebIX® model (Business requirements view and BIES) in line with the Atrias proposal
- c) At previous meeting, the ABIE MeteringPoint_Characteristic was split into AdministrativeMeteringPoint_Characteristic and PhysicalMeteringPoint_Characteristic. Due to this change, both the MDS and the EMD part of the ebIX® model must be corrected. Ove had corrected the MDS part, but noted that also the EMD document "Mapping Validated Data for Labeling for Certificate Issuer" needs to be corrected.

Homework 20190612:

- o Kees will review the "BRS for Validated Data for Labeling for Certificate Issuer" and prepare a discussion for ETC.
- d) Clean up of not used national enumerations

«ABIF» AdministrativeMeteringPoint Characteristic «BBIE»+MeteringPoint Type: ebix:org::BDT::MeteringPointType CodeType «BBIE»+MeteringMethod_Type: ebix:org::BDT::MeteringMethod_CodeType «BBIE»+SettlementMethod_Type: ebix:org::BDT::SettlementMethod_CodeType «BBIE»+GridConnectionContract_Type: ebix:org::BDT::GridAgreementTypeDescription_CodeType [0..1] «BBIE»+Tax_Type: ebix:org::BDT::CodeType [0..1] «BBIE»+AdministrativeStatus_Type: ebix:org::BDT::Administrative_Status_CodeType [0..1] «BBIE»+ContractedConnectionCapacity_Value: ebix:org::BDT::MeasureType [0..1] «BBIE»+ScheduledMeterReading_Date : ebix:org::BDT::DateTimeType [0..1] «BBIE»+MeterReadingFrequency Duration: ebix:org::BDT::DurationType [0..1] «BBIE»+StandardLoadProfile_Type: ebix:org::BDT::StandardLoadProfile_CodeType [0..1] «BBIE» + Metered Data Collection Method Code Type: ebix:org::BDT:: Metered Data Collection Method Code Type [0..1] +MeteringGridArea_Used: ebix:org::ABIE::Domain_Location [0..1] +BalanceGroup_Used : ebix:org::ABIE::Domain_Location [0..1] +ContractedConnectionCapacity_Included: ebix:org::ABIE::Product_Characteristic [0..1] +AggregatedReceptionStation_Used: ebix:org::ABIE::Domain_Location [0..1] +CalorificValueArea_Used: ebix:org::ABIE::Domain_Location [0..1] +Labelling_Included : ebix:org::ABIE::Generation_Characteristic [0..*] BBE»+PhysicalStatus Type BBIE»+VoltageLevel_Type RBBIE»+PressureLevel_Type

e) In the file generic\ebIX_ValidatedDataForBillingEnergy_2016pA.xsd I read

```
xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:rsm="un:unece:260:data:EEM" ... and later

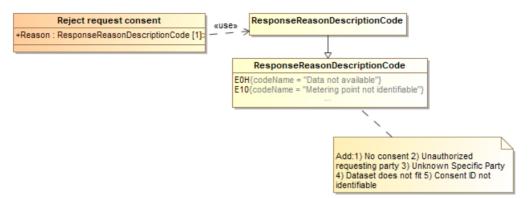
<xsd:element name="ValidatedDataForBillingEnergy" type="crs:ValidatedDataForBillingEnergyType"/>...

<xsd:element ref="crs:Header" minOccurs="0" maxOccurs="1"/>
```

The namespaces doesn't match. Should be "rsm" or "crs" in both places, not different.

C.6 Code request from EBG

- 1) For all Reason codes, change (added at ETC meeting 20190212):
 - o Balance Supplier to Energy Supplier;
 - o Metering Point to Accounting Point.
- 2) Add remining Reason codes, ref BRS for Customer consent:
 - a. Dataset does not fit
 - b. Consent ID not identifiable



- 3) ETC will be asked to rename the following Response Reason Description Codes:
 - o E10: "Metering Point ..." to "Accounting Point"
 - o E16: "Unauthorised Balance Supplier" to "Unauthorised Energy Supplier"
 - o E18: "Unauthorised Balance Responsible" to "Unauthorised Balance Responsible Party"
- 4) ETC will be asked to rename the Business Role Code Transport Capacity Responsible Party to Shipper:

```
BusinessRoleCode

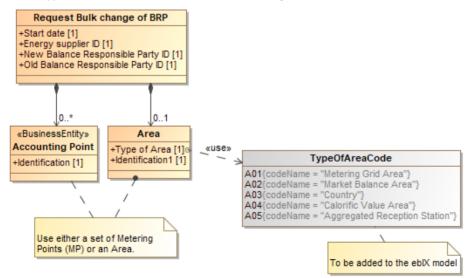
DDQ{codeName = "Balance power supplier"}
TCR{codeName = "Transport capacity responsible party"}
...
```

5) For ETC: Can we rename Balance power supplier to Energy Supplier?

```
BusinessRoleCode

DDQ{codeName = "Balance power supplier"}
...
```

6) Add a Type of Area code, ref BRS for Bulk change of BRP:

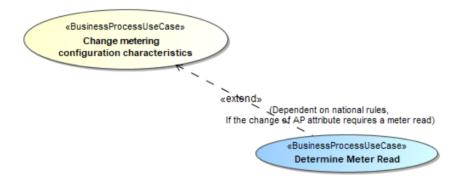


- 7) New Document Name Codes
 - a. Request consent
 - b. Response request consent

- c. Notify consent
- d. Termination of consent
- e. Notify withdrawal of consent
- f. Request termination of consent
- g. Response request termination of consent
- h. Request withdrawal of consent
- i. Response request withdrawal of consent
- j. Notify termination of consent
- k. Request valid consent
- I. Response request valid consent
- 8) New Business Reason Codes
 - a. Consent administration
 - b. Change of Shipper
- 9) New Document Name Codes
 - a. Specific Party

C.7 «extend» request from EBG

- 1) Add an extension from UC "Change metering configuration characteristics" to "Determine Meter Read";
- 2) Add an extension from UC "Bulk change of BRP" to "Determine Meter Read";
- 3) Remove one out of two extensions from UC "Bulk change of Shipper" to "Determine Meter Read".



C.8 New codes from Sweden

1. In 6.1.1.2 in the (soon) published code list I find the list of Swedish "Document Name Code". A new code will be used now in April 2019: **S08** Accepted bids. (We are using this code in UTILTS messages sent in Operation phase. Earlier we have just used UTILTS in the metering and settlement phases.)

C.9 Codes without a code name

1. All codes without a code name should be deprecated.

Appendix D Suggestions for handling renaming MP-terms into AP-terms

