


Minutes: NMEG meeting Date: Wednesday March 2 nd and Thursday March 3 rd , 2022 Time: 09:00 – 16:00 and 09:00 – 14:30 Place: Svenska kraftnäts offices in Stockholm March 14 th , 2022	 Nordic Market Expert Group
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------

Present (NMEG): Christian, Energinet
Jan (DK), Energinet
Jan (SE), Svenska kraftnät (first day)
Jon-Egil, Statnett (Convenor)
Miika, Fingrid
Ove, Edisys (Secretary)
Teemu, Fingrid

To (NMEG): Anne Stine, Elhub
Christian, Energinet
Jan (DK), Energinet
Jan (SE), Svenska kraftnät
Jon-Egil, Statnett (Convenor)
Miika, Fingrid
Ove, Edisys (Secretary)
Tage, Energinet
Teemu, Fingrid

CC: Audun, Elhub
Bent Atle, Statnett (NBM)
Fedder, Energinet
Fredrik Södö, Fingrid
Hans Erik, Elhub

To (Invited guests): Antti, eSett, FI
Tommy, eSett, FI
Tuomas L, eSett, FI
Tuomas P, eSett, FI

Appendix A: MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms
Appendix B: Possible new Asset Types used in Denmark
Appendix C: Overview of Nordic memberships in international standardisation bodies
Appendix D: Overview of the usage of xml-schemas in the Nordic countries
Attachment: None

1 Approval of agenda

The agenda was approved with the following additions:

- Inclusive Bids Identification, see item 6.2.
- NBM document for near real-time measurements, see item 6.3.
- Bidding Zone vs Scheduling Area, see item 9.8.
- New Status codes, see item 9.9.
- Rename of Market Balance Area to Bidding Zone or Scheduling Area (to remember item), see item 9.10.
- CIM document(s) for NBS documents currently based on measure documents from ebIX®, see item 13.6.
- Document for measure data from Exchange Points (from Jan (SE)), see item 17.1 under AOB.

Prioritised items:

- Item 6, Support to the NBM project – prioritised item.
- Item 6.1, Status for NBM discussion related to MR for a new attribute for the Run ID – prioritised item.
- Item 9.2, ENTSO-E: Best practice for version numbering – prioritised item.
- Item 9.3, Review BRS for Schedules to see if changes are needed, incl. related to new flexibility projects – prioritised item.
- Item 9.4, Exchange of settlement information between the Nordic TSOs – prioritised item.
- Item 9.5, Discuss: Nordic view of how to handle different code lists – prioritised item.
- Item 9.6, MRs for Asset Types and correction of Weather Process IG – prioritised item.
- Item 9.7, Usage of Reason codes in NBS BRS for TSO-MO– prioritised item.

2 Approval of previous meeting minutes

The previous meeting minutes were approved after correction of two spelling errors found by Jan (SE).

3 Status from NEX (Nordic ECP/EDX Group)

Background: NIT has taken over the responsibility for NEX (Nordic ECP/EDX Group), former "ECP/EDX Centre of Excellence". However, the group is still below NMEG in the "formal hierarchy". NMEG will be kept informed of progress in the group.

References (links):

What to decide, discuss or inform: Status from NEX.

Miika informed:

- The www.ediel.org web site has been updated with national ECP installation guides.
- Older version of ECP need upgrade, hence NEX have been working on a roadmap for this upgrade.
- Statnett has a contract template that must be signed by Norwegian users. NEX will see if this also can be used by the other Nordic countries. Jan (SE) informed that also Sweden has a draft contract available.
- There is a draft for a common Nordic ECP implementation guide. All are asked to come forward with views of there should be a common Nordic manual or national manuals.

4 NMEG-NORCAP Project

Background: NORCAP is a project run by Nordic RSC that needs a set of new CIM based documents, such as the CRAC document and the SIPS document.

References (links): None.

What to decide, discuss or inform: Update of the NorCap BRS.

The item was postponed.

Ongoing task:

- Jon-Egil will inform Ove of which documents that will contain the new resolution (P1D)
- Thereafter Ove will update the BRS and upload it to Statnett's eRoom

4.1 CNTC IG

Fedder asks if NMEG can and will help the NORCAP project to create an implementation guide for the CNTC (Coordinated Net Transfer Capacity) process, including an information model that is consistent with the ESMP?

Nothing new – item postponed.

5 Status for a common meeting with NEAT

Background: NIT has taking over from MSC as “home” for NMEG and consequently we should have a common meeting with NEAT (Nordic Enterprise Architecture Team), e.g. half day (same time and place) to see how we can cooperate.

References (links): None.

What to decide, discuss or inform: Status for a common meeting with NEAT.

Nothing new.

Ongoing task:

- Jon-Egil will check if it still is any interest for a common meeting with NEAT and if so, schedule a common meeting.

6 Support to the NBM project – prioritised item

Background: The NBM-project (Nordic Balancing Model) is going forward and there is a need for a number of new CIM based documents.

References (links): <http://nordicbalancingmodel.net/>

What to decide, discuss or inform: Status for the NBM project and possible task for NMEG.

The pending list was reviewed and updated:

- NBM ACE OL documents and Measurement Value Market Documents will be added to the Nordic Operate BRS.
- NBM Capacity Market Documents will be added to the BRS for Determine Transfer Capacity.

Ove had as action compared the documents described in the [BSP - Implementation Guide - mFRR energy activation market](#) with matching documents from BRS for the Nordic Trading System and BRS for Operate.

The following documents in BRS for Nordic Trading System have been updated to fit the mFRR energy activation market as implemented by NBM:

- IEC/CIM Reserve Bid Document (ERRP)
- IEC/CIM Bid availability document (ERRP)
- IEC/CIM Ediel Reserve Allocation Result Document (ERRP)

The following documents in BRS for Operate has been updated to fit the mFRR energy activation market as implemented by NBM:

- IEC/CIM Reserve Bid Document (ERRP)
- IEC/CIM Bid availability document (ERRP)
- IEC/CIM Ediel Reserve Allocation Result Document (ERRP)

The updates were reviewed, and some changes made. Ove will clean up some of the diagrams. We will await publication.

Action:

- Ove will clean up the BRS for the Nordic Trading System and BRS for Operate, based on the comments made during the review.
- Ove will add the “ACEOL_MarketDocument” (a small Nordic document used for sending every 10 seconds) and the ACE OL Limits document (ESS document) to the BRS for Operate.

6.1 Status for NBM discussion related to MR for a new attribute for the Run ID – prioritised item

The MR is approved by CIM EG.

Item closed.

6.2 Inclusive Bids Identification

The inclusiveBidsIdentification is added to class diagrams in “Implementation-Guide-mFRR-energy-activation-market” but not included in the CIM model from ENTSO-E nor in the class diagrams for the ERRP Reserve Bid document in the BRS for Trade. However, the inclusiveBidsIdentification attribute is need by NBM.

Jon-Egil informed that he already has submitted a MR for this, which has been rejected. However, the following sentence in the MARI documentation: “*If bid in MTU-1 was subject to direct activation the bid in MTU0 is not available*” justifies the need for the attribute, hence Jon-Egil will rephrase the MR and reopen it at the next CIM EG.

Item closed.

6.3 NBM document for near real-time measurements

Bent Atle has, in relation to item “17.1, Document for measure data from Exchange Points (from Jan (SE)), under AOB, informed that:

“NBM needs the attribute Quantity(optional) as well as the attribute Quality (optional) in the TimeSeries class, and then the Period should be optional since DateTime has too poor resolution for Period element.”

See also item 13.6, CIM document(s) for NBS documents currently based on measure documents from ebIX®.

Currently NBM has made a document that can be used both for real-time values and “normal metered values”, see [Measured Flow Point Value](#). An alternative (however, not chosen by NBM) is using the TASE2 standard for real-time data.

Conclusion:

- The advice from NMEG is that NBM makes a small NBM document, dedicated for this purpose.

Item closed.

7 Status for MRs to ebIX®

Background: NMEG has sent several Maintenance Requests (MR) to ebIX and some of these have been postponed.

References (links): The MRs can be downloaded from Statnett’s eRoom

**What to decide,
discuss or inform:**

Status for MR to ETC and if needed making new MRs.

NMEG MR	Request	ebIX® status
NMEG 2020/1 (180)	Request for: 1) “Regulation Type” to identify the origin of the energy (thermal, wind, hydro and consumption) 2) “Production Category”, currently called Production Type (normal, minor) 3) Aggregation-criteria for “Type of metered data”, currently implemented as ENTSO-E Business Types (production, consumption, losses,) (The request originates from NBS)	Waiting for ebIX® RtR project to review BRS for Measure for Imbalance Settlement
NMEG 2021/2	1) Add a “Supply Start Date” to the AP Administrative Characteristics class in Alignment of AP characteristics BRS. 2) Submit a MR to IEC/TC57/WG16 for addition of association from the MktActivityRecord class to the DateAndOrTime class. (The request originates from the Swedish data hub)	Waiting for EBG to review BRS for Alignment of Accounting Point characteristics
NMEG 2021/3	1) Add a new attribute Reporting Resolution to the AP Administrative characteristics class. 2) Add a new attribute Reporting Interval to the AP Administrative characteristics class. (The request originates from the Swedish data hub)	Waiting for EBG to review BRS for Alignment of Accounting Point characteristics

Nothing new – to be followed up.

8 Status for MRs to ENTSO-E

Background: NMEG has sent several Maintenance Requests (MR) to ENTSO-E during the last years and some of these (about 10 MRs) has been postponed by CIM EG.

References (links): The MRs can be downloaded from Statnett’s eRoom.

**What to decide,
discuss or inform:**

Review and update of statuses in NMEG MR Overview document.

Status:

MR #	Status
NMEG 2020/188	See item 9.6, MRs for Asset Types and correction of Weather Process IG – prioritised item and Appendix A, MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms. 20220304: <ul style="list-style-type: none"> Postponed since Jan (SE) was sick.
NMEG 2021/193	20220304: <ul style="list-style-type: none"> Approved at ENTSO-E ESMP meeting February 25th - will be sent to CIM EG.
NMEG 2021/194	20220304: <ul style="list-style-type: none"> Approved at ENTSO-E ESMP meeting February 25th.

	<ul style="list-style-type: none"> During the meeting March 4th, proposals for better descriptions of the different quality type codes was submitted to Alvaro.
NMEG 2021/195	<p>20220304:</p> <ul style="list-style-type: none"> Approved at ENTSO-E ESMP meeting February 25th. It was a discussion if A07 (“Schedule partially accepted”) could be changed to cover this. But it is in use, so there will be a new code.
NMEG 2021/196	<p>20220304:</p> <ul style="list-style-type: none"> Not approved at ENTSO-E ESMP meeting February 25th. During the meeting March 4th proposals for a more generic text then e.g. “12,5 minutes” was submitted to Alvaro.
NMEG 2022/197	<p>See item 9.6, MRs for Asset Types and correction of Weather Process IG – prioritised item and Appendix A, MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms.</p> <p>20220304:</p> <ul style="list-style-type: none"> Postponed since Jan (SE) was sick.
NMEG 2022/198	<p>20220304:</p> <ul style="list-style-type: none"> Approved by CIM EG and updated in code list. Item closed.
NMEG 2022/199	<p>20220304:</p> <ul style="list-style-type: none"> Not approved at ENTSO-E ESMP meeting February 25th. Jon Egil will add the description of how MARI now is using linkedBidsIdentification and involve Alexander Koistinen in that if needed. I.e. why can’t linkedBidsIdentification be used?

NMEG proposal for better descriptions of the quality type codes (NMEG 2021/194):

Code	Title	Description
A01	Adjusted	The contents of the object have been adjusted.
A02	Not available	The contents of the object are not available.
A03	Estimated	The contents of the object are estimated. The code is typically used when measured values are missing and an estimate is made based on historical data.
A04	As provided	The contents of the object are as provided.
A05	Incomplete	The contents of the object are calculated based on incomplete data.
A06	Calculated	The contents of the object are calculated. The code is typically used when a value is calculated based on several other known values.

NMEG proposal for better descriptions of the Business type codes (NMEG 2021/196):

297	Faster than standard FAT	<p>Bids that can support a “Full Activation Time” (FAT) that is faster than 12,5 minutes standard FAT.</p> <p>Fast activation can be done for bids with activation time (CIM:activation_ConstraintDuration.duration) shorter than the minimum requirement for the standard product. When circumstances call for it, the TSO can order activation of such bids on a shorter notice.</p>
------------	--------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Z98	Faster than standard deactivation time	Fast deactivation can be done for bids with activation time (CIM:activation_ConstraintDuration.duration) shorter than the minimum requirement for the standard product. When circumstances call for it, the TSO can order activation of such bids on a shorter notice.
Z99	Slower than standard FAT	Bids that can support a Full Activation Time (FAT) that is slower than 12,5 minutes standard FAT .

The two proposals for better descriptions were forwarded to Alvaro.

9 Status and update of Nordic BRSs and other documents if needed

Background: NMEG is responsible for a set of BRSs that are published at www.ediel.org.

References (links): None.

What to decide,

discuss or inform: Update of BRSs and other documents if needed.

9.1 BRS for Schedules: CIM version of Outage document

Status for a request to the OPC group to agree on how to implement the CIM version of the Outage Document.

The item was postponed.

9.2 ENTSO-E: Best practice for version numbering – prioritised item

The “ENTSO-E Best practice for version numbering” is not yet approved by CIM EG. However, Jon-Egil showed a text explaining two basic principles that may be used. This is a candidate for a new chapter in the “ENTSO-E Best practice for version numbering”.

Usage of revisionNumber

The main purpose of the document mRID and the revisionNumber is to make sure that an older document is not replacing a newer one. It is also used to identify an evolution of a document. There are currently two compliant ways of using this when providing updates for a document.

- Always a unique mRID and a fixed revision number of 1
- Keeping the mRID for documents, in each context, and increasing the revision number

Which one to use is a business decision.

The combination of mRID and revision number shall always be unique.

Always a unique mRID and requiring increasing revision number is not the intended use of the revision number and should be avoided!

A document is considered out-of-order if it has the same or a lower revisionNumber than the latest received document with the **same mRID**. Likewise, a document with a **new mRID** is considered out-of-order if it covers a context and timeperiod for which data has previously been received and it has an older timestamp than the previously received data.

Documents received out-of-order should be rejected.

As a reply to receiving a market document an acknowledgement will be submitted. The acknowledgement document will have a reference back to the acknowledged document. The

information used for the reference is the mRID and revisionNumber of the original document. The acknowledgement document itself has no revisionNumber and should have a new unique document mRID.

The text from Jon-Egil was approved by the group and will be forwarded to CIM EG.

The item will be continued at next NMEG:

- A Status for “ENTSO-E Best practice for version numbering” as reviewed and agreed at NMEG meeting March 12th.
- B If approved by CIM EG: Review of text for the revisionNumber in the NMEG BRSs, to see if we are in line with the proposed “ENTSO-E Best practice for version numbering”.

9.3 Review BRS for Schedules to see if changes are needed, incl. related to new flexibility projects – prioritised item

Jan (SE) had prepared a PowerPoint presentation “*Production and consumption plans in CIM some notes from Svenska kraftnät.pptx*”, which he presented. The presentation summarised some thoughts from Jan (SE) and was intended “for information”.

The BRS for Schedules was reviewed.

Action:

- Ove will clean up the BRS for Schedules and send it on circulation for comments to NMEG before publishing.

9.4 Exchange of settlement information between the Nordic TSOs – prioritised item

Background: Svenska kraftnät is using an older ebIX[®] based xml document towards two TSOs and plan using a newer ebIX[®] and CIM based document towards a third TSO. The codes used for the two older xml exchanges are ebIX[®] codes, while the third TSO wants to use ENTSO-E codes.

An alternative is using the EAR (Energy Account Report) document, which among others is used between Energinet and TenneT and expect it to be used for the Viking-link.

References (links): None.

What to decide, discuss or inform:

Assuming we (the Nordic countries) will use EAR (in a CIM version) for most of our exchanges of settlement information between the TSOs, can we agree upon some common codes and usages of that message, instead of having bilateral agreements? And since eSett also is using that message (a namespaced version of the ENTSO-E ESP Energy Account Report version 1.2) it would be relevant to get input from eSett regarding their possible updates and change to CIM.

Bilateral discussions between Denmark and Sweden have just started, perhaps that should be “part of” a more general Nordic discussion, and documentation, of how to exchange settlement information?

At the NMEG meeting in November, it was proposed to add an in_Area and an out_Area to the EAR document. Alternatively it may be an option using the ERRP Allocation Result Document.

Action:

- All are asked to come up with lists over what is exchanged related to settlement information (what is left of MSCONS exchanges) between the Nordic countries, to be used as input for a

possible MR for addition of in_Domain and Out_Domain to the EAR document. An alternative is to use the ERRP Allocation Result Document instead.

Jan (SE) had prepared a PowerPoint presentation “Settlement information between TSOs.pptx”, which was distributed to NMEG February 28th.

Jan (SE) had also made an Excel sheet showing settlement related information exchanges with the following columns: “Description”, “Per (MP, SO...)”, “Unit”, “Parties for Svk exchange” and “Comments Svk”, also distributed to NMEG February 28th.

The item was postponed until Jan (SE) can participate.

9.5 Discuss: Nordic view of how to handle different code lists – prioritised item

The item was postponed.

9.6 MRs for Asset Types and correction of Weather Process IG – prioritised item

The Danish Asset Type List, see “Appendix B, Possible new Asset Types used in Denmark” was reviewed and ENTSO-E codes were found for most of them. Jan (DK) will as homework investigate how the remaining codes (**D03**, **D15**, **D17** and **D18**) are used and come up with proposals descriptions that can be used in MRs.

Since Jan (SE) was sick the second day, the intend review of MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms in Appendix A and the MRs for update of the Weather prognosis IG were postponed.

During the meeting, the Nordic Aset Type List was cleaned up, i.e. all codes were deprecated, since we have got formal ENTSO-E codes for them. At next meeting we will review the NMEG code list to see if there are other codes that could be deprecated.

Action:

- Ove will make a MR for removing the term “Thermal” from the code “**B45** Thermal fuel cell” in the Asset Type List.
- Ove will make a MR for renaming **B25** to “Permanent energy storage” (A permanent resource that stores energy. It could be gas, electricity, etc.)
- Ove will make a MR for a new **Bnn** “Temporary energy storage” (A temporary resource that stores energy. It could be gas, electricity, car battery etc.)
- Ove will publish the Nordic code list.
- Jan (DK) will investigate how **D03**, **D15**, **D17** and **D18** are used and come up with proposals for MRs see Appendix A/Appendix B

9.7 Usage of Reason codes in NBS BRS for TSO-MO– prioritised item

Ove had as action published the BRS with addition of down direction in Ediel ERRP Reserve Allocation Result Document and changes to the naming of Reason codes (version **2r5A**) at www.ediel.org.

Miika informed that eSett still is investigating, hence the action is postponed.

Action:

- Antti and Miika will verify if we can add **Z58** (Scheduled activation) and **Z59** (Direct activation) to the NBS BRS for TSO-MO without problems (and publish as NBS BRS for TSO-MO **v2r6A**).

9.8 Bidding Zone vs Scheduling Area

From Jan (SE):

In the past, we had a "Market Balance Area", then it was easier to know that our Nordic "prisområden", "budområden", "snittområden"... It was a Market Balance Area.

But:

With "Bidding Zone" and "Scheduling Area", my spontaneous opinion is that:

- a) What we in Swedish call "prisområden", "budområden", "snittområden", these are the areas for which you bid for the balance regulation (unless the whole country is the area), i.e. a "Bidding Zone". Or: if you send a bid for a "stasjonsgruppe", a "reglerobjekt", that object – even if it consists of several "stasjoner", can only be in a single "elområde": Bidding zone.

From Jon-Egil: In Norway, one "reglerobjekt" can reside in multiple Bidding Zones. It is indicated in the bid which area it belongs to.

- b) What we in Swedish call the "snittområde", these are the areas where the actors submit production and consumption plans (today "balansansvariga"), i.e. a "Scheduling Area" (a "planeringsområde"). Or: when you send a plan for a "stasjonsgruppe", a "reglerobjekt", that object – even if it consists of several "stasjoner", can only be in a single "snittområde": Scheduling Area.

From Jon-Egil: In Norway, one "reglerobjekt" can reside in multiple Bidding Zones. It is indicated in the plan which area it belongs to.

- c) If two actors trade energy with each other, then it does this in a "elområde", i.e. a "Bidding Zone" according to what I say under a). If they trade on the electricity exchange, well then it can be trading across "elområdesgränser".

From Jon-Egil: Correct.

How do these areas get into the settlement? And what would happen if we have different "Bidding Zone" and "Scheduling Area"?

The definition of the Scheduling Area in the Harmonised Electricity Market Role Model (HEMRM) is:

"An area within which the TSOs' obligations regarding scheduling apply due to operational or organisational needs.

This area consists of one or more Metering Grid Areas with common market rules for which the settlement responsible party carries out an imbalance settlement and which has the same price for imbalance."

This is the area with a single price for the "imbalance".

From Jon-Egil: In practice, the areas must probably be the same, the one must be a sum of the others or one must require that the "reglerobjektene" must only be inside the areas.

Then say that area "ABC" will no longer be both a Bidding Zone and a Scheduling Area, for example that we are introducing several new Scheduling Areas within a Bidding Zone. According to what I thought under c) above, two actors would still be able to trade within the same Bidding Zone without going to the power exchange. But there may be different prices for the imbalance as there are now several "planområden" within the "budområdet". What price from which area would be used for trading?

From Jon-Egil: As far as I remember, there should only be one imbalance price for one Bidding Zone.

From Bent Atle: It's another term that's being talked about here, **uncongested areas**. It will reflect the marginal price of one or more Bidding Zones.

Definition from [Explanatory document \(entsoe.eu\)](http://entsoe.eu):

uncongested area:

means the widest area, constituted by bidding zones and/or LFC areas, where the exchange of balancing energy and the netting of demands is not restricted by the cross-border capacity limits calculated in accordance with the implementation frameworks for the exchange of balancing energy from replacement reserves, from frequency restoration reserves with manual and automatic activation as well as for the imbalance netting process.

The definition of the Bidding Zone in HEMRM is:

“The largest geographical area within which market participants are able to exchange energy without capacity allocation.”

If in the future we redo our “elområden” so that the “Bidding Zone” is not (as today) the same as the “Scheduling Area”, what will it be like? Is what I said under a), b) and c) still valid? Or have I thought wrong? Before we introduced “elområden” in Sweden, we had four “snittområden” that were the areas where plans were submitted (= “Scheduling Area”), although on the other hand we did not have different prices in these four different areas...

Or is it the role model that needs to be updated?

Say that after an “elområdesöversyn” (Bidding Zone review), we in the Nordic region introduce several Bidding Zones per “planeringsområde” (Scheduling Area), then there would still be the same imbalance price in these particular Bidding Zones. That shouldn't be the case, should it? Or for what type of area should the settlement take place?

I also address these issues internally.

So far, bids for aFRR are submitted to Svenska kraftnät for the whole of Sweden, i.e. Sweden is a “budområde” (Bidding Zone). But not really a Bidding Zone because there are limitations in the grid. But I guess the aFRR bids going forward will be submitted per Bidding Zone?

From Jon-Egil: In Norway, Bidding Zone and Scheduling Area are the same geographic region, so they use the same code.

Questions from Ove:

- Should we explain the difference between Bidding Zones and Scheduling Areas in a Nordic document, such as in the introduction in relevant BRSs or in the “Ediel Common XML rules and recommendations”?
- And maybe introduce a dictionary somewhere?

Postponed until Jan (SE) is present.

9.9 [New Status codes](#)

From Bent Atle:

Dear NMEG members,

We have created a status information document.

This document is intended for a message "StatusInfo TSO"(See attached object) that reports issue with some internal processes affecting other processes we have in common Nordic systems.

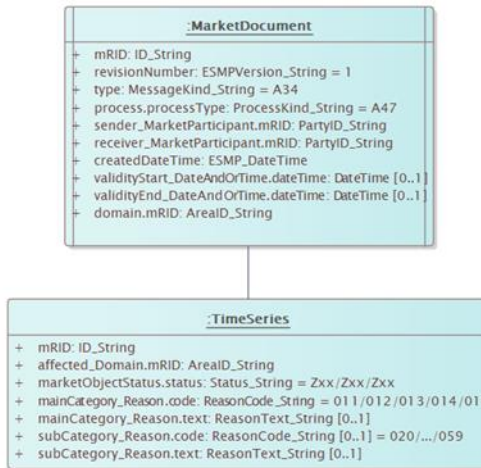
This message must be sent out by systems that experience problems, and they need to sign off on a message saying problems are over. It should have 3 severity ratings, "**Warning**" which then can be an "**Emergency**", and a third one which is a sign off with a back to normal status "**Normal**". We have put in the message that we use marketObjectStatus.status and would like to have codes for this:

https://nordic-balancing.pages.fifty.eu/information/common-guidelines.html#_statustypelist

Zxx Warning
Zxx Emergency
Zxx Normal

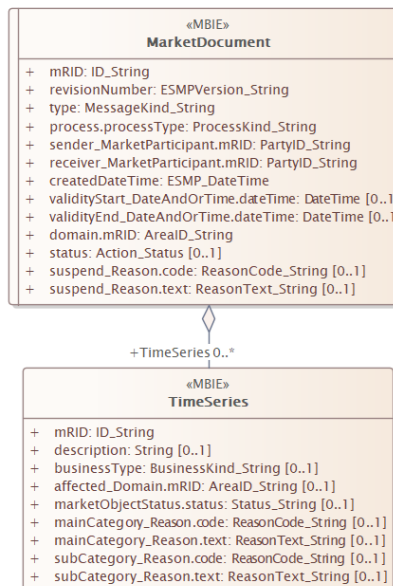
ject StatusInfo TSO

Name: Statusinfo TSO
 Author: Bent Atle Bjørtomt
 Version: 1.0
 Created: 15.02.2022 11:54:24
 Updated: 15.02.2022 14:13:42



NBM Status assembly model

Name: NBM Status assembly model
 Author: Bent Atle Bjørtomt
 Version: 1
 Created: 16.02.2022 16:11:53
 Updated: 16.02.2022 16:12:54



Conclusion:

- We will add three new Status Codes to the Nordic code list:
 Z01 Warning
 Z02 Emergency
 Z03 Normal

Item closed.

9.10 Rename of Market Balance Area to Bidding Zone or Scheduling Area (to remember item)

Action:

- Ove will go through the BRSs and other documents and change Market Balance Area to Bidding Zone or Scheduling Area. If uncertain, Ove will make a note for discussion at a later NMEG meeting. This is not a time critical action.

10 Status for Swedish Flexibility project

Background: Sweden has two ongoing “Flexibility projects” that now want to use CIM based messages for the exchanges to/from the flexibility platforms. Among others one called Stockholm flex where Vattenfall is candidate for making CIM documents for the project(s).

To keep document exchanges as harmonised as possible in the Nordic countries, NMEG has offered them NMEGs help in making the needed CIM based xml schemas.

References (links): None.

What to decide, discuss or inform: Status report from Jan (SE).

The item was postponed.

11 CIM EG, ENTSOG, EU DSO Entity and ebIX® Area project

Background: The proposed project plan for an ebIX® and CIM EG Area project was approved by ebIX® Forum at the forum meeting November 17th, 2020. ebIX® also agreed to pay for a secretary in such a project.

In the autumn 2021, ebIX® decided to also invite EASEE-gas and ENTSG.

References (links):

What to decide, discuss or inform: Status from CIM EG if they can approve a common ebIX® and CIM EG project.

The item will be discussed at the next CIM EG meeting.

Continued action:

- Jon-Egil will investigate if CIM EG is interested in a common project with ebIX®.

12 XML schemas

Background: The NMEG set of schemas, including extended table with TSO columns, are shown in Appendix D.

When we start a project together with NBM (Nordic Balancing Model), everyone are asked to find what versions of xml-schemas are used to day in different projects and come up with proposals for new schemas and/or sets of schemas that should be published at www.ediel.org.

References (links):

What to decide, discuss or inform: Verify the list of proposals for new schemas and/or sets of schemas, from the NMEG participants, which should be published at www.ediel.org.

Ongoing task:

- All are asked to find what versions of xml-schemas are used to day in different projects and come up with proposals for new schemas and/or sets of schemas that should be added to Appendix D and be published at www.ediel.org.
- Ove will update the table based on NBM documentation received from Bent Atle (NBM/Fifty), when the NMEG BRSs are updated with NBM documents.

13 NMEG CIM-XML Subgroup

Background: At the NMEG meeting November 2019, it was agreed to establish a NMEG CIM-XML Subgroup that will make Nordic CIM based XML documents. The following tasks are prioritised (updated at NMEG meeting March 2020):

- a) Update the NMEG model with the latest ebIX® extension.
- b) Make a road map for making CIM documents for the Danish Datahub version 3.0.
- c) Continue with NBS documents:
 1. NBS ebIX® based documents.
 2. NBS documents based on older ENTSO-E schemas.
 3. NBS master data documents.

The members of NMEG CIM-XML Subgroup are Christian, Jan (DK), Jan (SE), Teemu and Ove.

References (links):

What to decide, discuss or inform: Status.

Status for looking into making CIM based document to replace the ebIX® XML documents used towards eSett today.

There is a problem when CimSysntaxGen generats the local code list including the first code from the ENTSO-E code list, i.e. you get a warning in XMLspy saying that two codes have been found but one was expected.

Action:

- Ove will as Jean-Luc/Andre if the “dummy code” in the local cod list can be removed.

13.1 Report from NMEG CIM-XML Subgroup; Teams meeting January 13th. 2022

- Participants: Christian, Jan (DK), Jan (SE) and Ove.
- The main topic was handling of minor updates of the xml schemas to be used in the Danish Datahub version 3.0:
 - a) Default values are missing for some of the attributes and are wrong for others.

- b) A code list for “Process Variant Code” for RSM 14, RSM 16, RSM 17 and RSM 19 is missing.
 - c) It should be verified that all Reason code attributes are of type ReasonCode_String.
- At the NMEG meeting the day before, it was agreed that the CIM XML subgroup should investigate making CIM based document to replace the ebIX® XML documents used towards eSett today. It was agreed that Ove will make a first draft that will be discussed at the next CIM-XML Subgroup meeting.
- Next meetings:
 - Wednesday January 26th, 11:00-12:00
 - Wednesday February 2nd, 11:00-12:00

Action:

- Ove will update the CIM model:
 - Correct default values that are missing or wrong.
 - Add a code list for “Process Variant Code” for RSM 14, RSM 16, RSM 17 and RSM 19.
 - Verified that all Reason code attributes are of type ReasonCode_String.
- Ove will make a first draft of a mapping to CIM for the ebIX® based xml documents today used towards eSett.

13.2 Report from NMEG CIM-XML Subgroup; Teams meeting January 26th, 2022

- Participants: Christian, Jan (DK), Jan (SE) and Ove.
- Jan (DK) asked why some attributes have a defined maxLength and others don’t. Ove informed that all attributes having a Metering Point ID, Party IS, Area IED etc. should have a maxLength defined, while attributes where there are no requirements to the length of the content, such as mRID, should be of type string without any maxLength.
- It was also discussed if we should change the current xml code list structure where we use three linked code list schemas. Instead we can add the ENTSO-E codes (from ESMP) to the Danish and ebIX® code lists in the ESDMP profile and generate one “Ediel code list” containing all the code lists. This will among others give us the following advantages:
 - a) We maintain the code lists one place, i.e. in the EA ESDMP profile.
 - b) We can use the same code list for json and xml.

13.3 Report from NMEG CIM-XML Subgroup; Teams meeting February 2nd, 2022

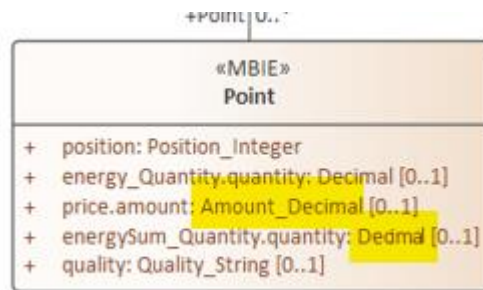
- Participants: Christian, Jan (DK), Jan (SE) and Ove.
- The first part of the meeting was used to discuss questions from people testing the Danish implementation of the new xml schemas.
- Thereafter, it was agreed that we merge the ENTSO-E codes (from ESMP) to the Danish and ebIX® code lists in the ESDMP profile and generate one “Ediel code list”.
- The last part of the meeting was used for trying to solve Jason issues. Jan (SE) has managed to install Jason on his PC without having to run any installation programs. The same was tried for Jan (DK), however without success.

13.4 Report from NMEG CIM-XML Subgroup; Teams meeting February 10th, 2022

- Participants: Christian, Jan (DK), Jan (SE), Jon-Egil and Ove.
- It was decided to run the next NMEG meeting as a face-to-face meeting at Svenska kraftnät's offices in Sundryberg.
- The first part of the meeting was used to discuss a first draft of a mapping to CIM for the ebIX® based xml documents today used towards eSett.
- Some questions from Jan (DK) to be discussed:

a) Decimal

- In RSM-019 Notify wholesale services “decimal” and “Amount decimal” are used, is the latter a type just like Integer?
- What is the difference between the 2?
- Is there any limit to how many decimal places can be used?

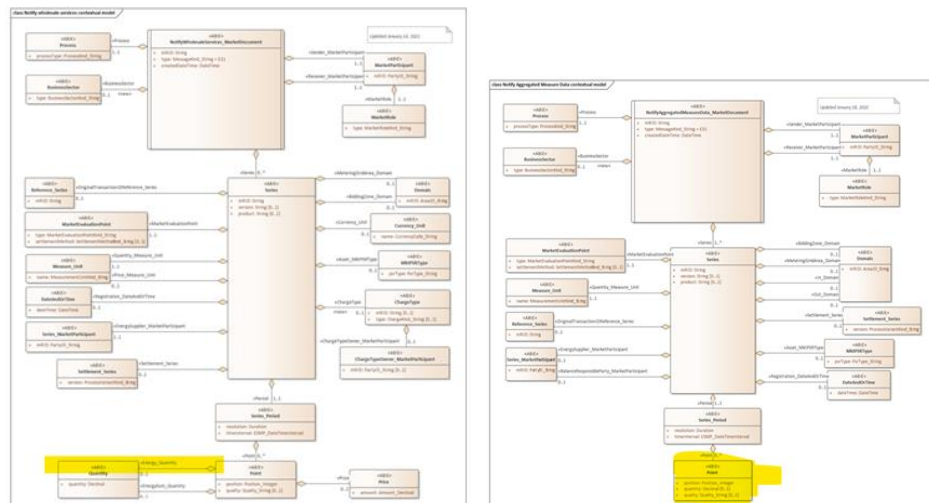


Answer:

- Amount is a standard primitive data type, while "Amount_Decimal" is defined by IEC (ENTSO-E) with some limitation – as far as Ove can see it has an OCL statement "inv: self->TotalDigits(17)". The data types come from ESMP – in other words, we (NMEG) are not responsible for using different data types here.

b) Quantity

- Naming is inconsistent. The entire "Period" block has the same structure as in an RSM-014 (same classes). But in RSM-014 (Notify Aggregated Time Series), quantity is called "quantity" and in RSM-019 (Notify wholesale services) it has changed its name to "energy_Quantity.quantity." Can you explain **to me why there's a difference in structure?**



Answer:

- The reason is that in RSM-019 there are two quantities and then they must be qualified to be able to tell the difference between the quantities. If you want to have the same name, there is an option to model RSM-014 equally with RSM-019 – in other words, "quantity" will then be renamed to "energy_Quantity.quantity".

c) Qualification of attributes

- In "RSM-021 Request change Accounting Point characteristics assembly model" the "Metering point type" is called only "type", while in "RSM-019 Notify wholesale services assembly model" it is called marketEvaluationPoint.type.

```

AP characteristics.xml | Request change billing master data.xml | Request change Customer characteristics.xml | Request change of price list.xml
<?xml version="1.0" encoding="UTF-8"?>
<Sample XML file generated by XMLSpy v2021 rel. 3 (x64) (http://www.altova.com)-->
<RequestChangeAccountingPointCharacteristics_MarketDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema
:mRID>253698245</cim:mRID>
<cim:type>E58</cim:type>
<cim:process.processType>E02</cim:process.processType>
<cim:businessSector.type>23</cim:businessSector.type>
<cim:sender_MarketParticipant.mRID codingScheme="A10">5799999933318</cim:sender_MarketParticipant.m
<cim:sender_MarketParticipant.marketRole.type>DDM</cim:sender_MarketParticipant.marketRole.type>
<cim:receiver_MarketParticipant.mRID codingScheme="A10">5790001330552</cim:receiver_MarketParticipa
<cim:receiver_MarketParticipant.marketRole.type>DDZ</cim:receiver_MarketParticipant.marketRole.type>
<cim:createdDateTime>2022-12-17T09:30:47Z</cim:createdDateTime>
<cim:MktActivityRecord>
<cim:mRID>25361487</cim:mRID>
<cim:validityStart_DateAndOrTime.dateTime>2022-12-17T23:00:00Z</cim:validityStart_DateAndOrTime
<cim:MarketEvaluationPoint>
<cim:mRID codingScheme="A10">579999993331812345</cim:mRID>
<cim:type>E17</cim:type>
<cim:settlementMethod>E02</cim:settlementMethod>
<cim:meteringMethod>D01</cim:meteringMethod> <!-- målepunktsart -->
<cim:connectionState>D03</cim:connectionState> <!-- tilslutningsstatus -->
<cim:readCycle>PT1H</cim:readCycle> <!-- Aflsningsfrekvens -->
<cim:netSettlementGroup>6</cim:netSettlementGroup>
<cim:nextReadingDate>--12-17</cim:nextReadingDate> <!-- Medsendes kun for nettoafregningsgr
<cim:meteringGridArea.Domain.mRID codingScheme="NDR">244</cim:meteringGridArea.Domain.mRID>
<cim:originalTransactionIDReference_Series.mRID>253698</cim:originalTransactionIDReference_Series.mRID> <!-- kun
<cim:MarketEvaluationPoint.type>E17</cim:MarketEvaluationPoint.type> <!-- Bruges ikke i månedssummer -->
<cim:MarketEvaluationPoint.settlementMethod>E02</cim:MarketEvaluationPoint.settlementMethod> <!-- Bruges ikke i m
</cim:chargeType.mRID>25361478</cim:chargeType.mRID>

```

Like this:

```

<cim:originalTransactionIDReference_Series.mRID>253698</cim:originalTransactionIDReference_Series.mRID> <!-- kun
<cim:MarketEvaluationPoint.type>E17</cim:MarketEvaluationPoint.type> <!-- Bruges ikke i månedssummer -->
<cim:MarketEvaluationPoint.settlementMethod>E02</cim:MarketEvaluationPoint.settlementMethod> <!-- Bruges ikke i m
</cim:chargeType.mRID>25361478</cim:chargeType.mRID>

```

Answer:

- The reason is that in RSM-021 the "type" attribute is located directly in the MarketEvaluationPoint class, hence no qualification is needed, while in RMS-019 the "type" attribute is located in the Series class, hence it must be qualified by MarketEvaluationPoint.

d) RSM-019 – NotifyWholesaleServices

- Is it correct that "Point" has cardinality 0..*?

Answer:

- If the Point represents an observation in time series – yes, then it must be repeatable. The reason for having the lower cardinality at zero is to be in line with ebIX®.

e) RSM-022 – AccountingPointCharacteristics

- why isn't the message called NotifyAccountingPointCharacteristics?

Answer:

- The naming is taken from ebIX®. The reason is that the document also can be a response to request and then the "notify" seems wrong.

f) RSM-022 – AccountingPointCharacteristics

- Is it correct that Series" has cardinality 0..*?

Answer:

- The reason for having the Estimated annual volume and to have it repeatable is to be in line with ebIX®.
 - And a question from Ove:
 - a) Currently, "urn-entsoe-eu-local-extension-types.xsd" contains all the codes from NMEG's Nordic code list in addition to Danish, ebIX® and UN/CEFACT codes for the ENTSO-E defined codes. Should we remove the codes that are NOT relevant to Datahub and move the remaining ones to "urn-entsoe-eu-wgedi-codelists.xsd"? In this case we will maintain all codes in EA and "urn-entsoe-eu-local-extension-types.xsd" becomes an "empty" code list.
- Conclusion:**
- Yes!

Actions:

- Ove will clean up the mapping to CIM for the ebIX® based xml used by eSett and distribute it to NMEG for discussion at the next face-to-face meeting.
- Ove will remove the codes that are NOT relevant to the Danish Datahub from urn-entsoe-eu-local-extension-types.xsd and move the remaining ones to urn-entsoe-eu-wgedi-codelists.xsd.

13.5 Report from NMEG CIM-XML Subgroup; Teams meeting February 22nd, 2022

- Participants: Christian, Jan (DK), Jan (SE) and Ove.
- It was a short meeting, since there were no new issues related to the schemas for the Danish Datahub and the homework related to CIM schemas for NBS was finished at the previous meeting.

13.6 CIM document(s) for NBS documents currently based on measure documents from ebIX®

Since the NMEG CIM-XML subgroup has almost finalised the first task, i.e. to make a set of CIM documents that can be used by the Danish Datahub version 3.0, the group has drafted a document that describes a proposal for CIM documents for the NBS ebIX® based documents.

The "Memo - CIM for NBS 20220211.docx" was reviewed and it was agreed to ask Jan (SE), as member of CIM EG Retail market subgroup, to bring the NBS requirements into this group when defining the new "CIM EG measurement document". Especially it was noted that we need:

- A Metering Grid Area in addition to In- and Out-Area, to say which MGA that is responsible for the reporting.
- Settlement method.
- Registration date time.
- Quantity missing (Boolean) (if need by eSett?).
- Some way to identify the metering point type (production, consumption or combined).
- Business type:
 - A04** Consumption (general consumption)
 - A07** Net production/consumption (Pumped storage (from combined generator/pump - only in Norway))
 - A15** Losses
 - A72** Interruptible Consumption
 - B27** Pumped
 - B28** Large installation consumption
 - B36** Production Units own consumption (Only used in Finland)

14 Review of documents from CIM EG subgroups and IEC groups

Background: At the NMEG meeting August 2020 it was agreed that NMEG needs to be more proactive regarding commenting on new ENTSO-E and IEC documents. Hence it is added a fixed item on the NMEG agenda for review of documents from CIM EG subgroups and IEC groups that is of interest for the Nordic market.

References (links):

What to decide, discuss or inform: Review of documents from CIM EG subgroups that is of interest for the Nordic market.

14.1 Prepare Nordic positions before coming CIM EG meetings

No items to discuss.

15 Information (if any)

Minna is now running the support centre of the Finish datahub, hence she will be replaced Fredrik.

16 Next meetings and decide if next meeting will be a face-to-face meeting or GoToMeeting

NMEG scheduled face-to-face meetings¹:

- Wednesday 1st and Thursday 2nd of June 2022, Fingrid's offices in Helsinki

Ove will make a Doodle poll for a GoToMeeting in April: 20th, 21st or 22nd, 10:00 – 12:00 and 13:00 – 15:00.

17 AOB

17.1 Document for measure data from Exchange Points (from Jan (SE))

Svenska kraftnät had comments to the "Accounting & FSKAR IG" document regarding the "SOMA" exchange within the RGCE region that was discussed recently at the CIM EG meeting. SOMA stands for "System Operator meter alignment process." Our suggestion from Svenska kraftnät was to align the document used for "SOMA" exchanges of metered data for an Exchange point with what we exchange in the Nordic area to eSett. See the NBS BRS. But also now from Svenska kraftnät to some of our (non-Nordic) TSO neighbours. To eSett we exchange a lot of metered data per exchange points, especially then between DSOs. But here, in the RGCE process, it is only about exchanges between TSOs. And their exchange points.

One of the Swedish comments was actually that you should rather talk about Exchange points, and not Accounting points. And that seems to be accepted, even though the FSKAR documents very much talk about "accounting points" when they really mean "exchange points". How that will be updated we will see. In the attached file the yellow parts will most likely be changed to "Exchange point", with a new code for objectAggregation telling "Exchange point". As you can see in the Excel sheet there are three types of documents intended to use one and the same MarketDocument.

- 1) SOMA – with the metered data per exchange point (to be checked by the other TSO)

¹ Unless otherwise explicitly stated, the face-to-face meetings start at 09:00 (CET) the first day and end 16:00 (CET) the second day.

- 2) SOAM – “System Operator Accounting data Matching”, the process where you agree upon the exchanges
- 3) SOVA – “System Operator Validated Accounting Values”, the process where you provide the validated values to be used for invoicing to the “Coordination Centre Operator”.

We don't have the latter role in the Nordic. And are doing this probably a bit different.

Anyhow, what the working group now decided was to change from using the message type EAR for 2) and 3) to use the same kind of document as used in 1).

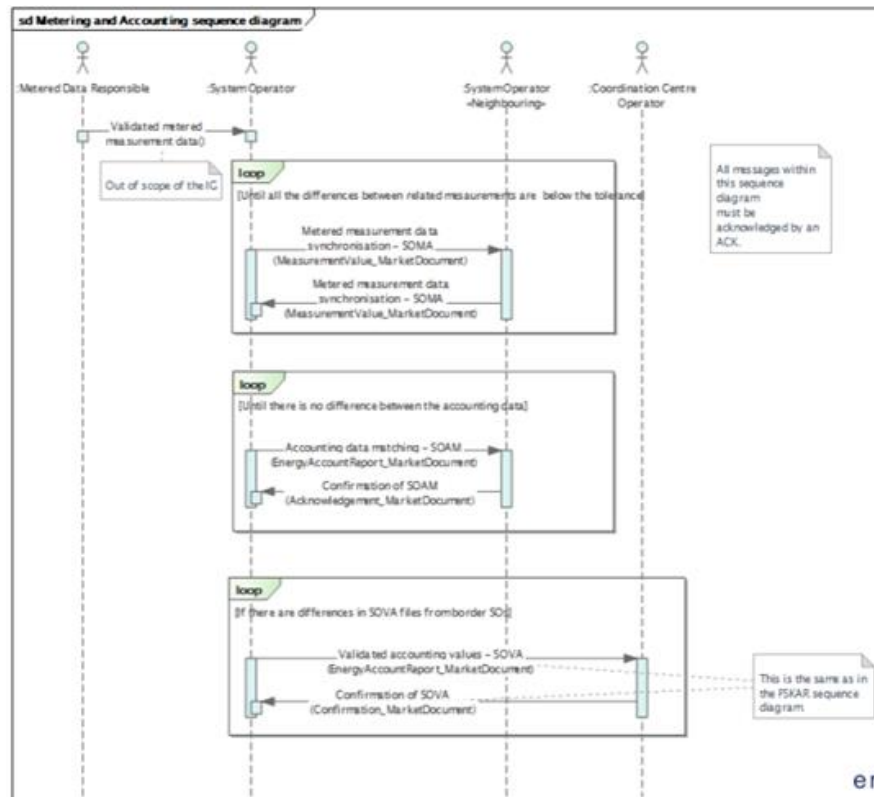
But what should it be called?

In the attached Excel sheet it is currently called “MeasurementValidation_MarketDocument”. But the group want to use another name, perhaps more generic or perhaps more specific. And they also asked me: what would we suggest from the Nordic? One name of the document that (Jan (SE) think) was mentioned was “Accounting data for FSKAR”, but we are not calling the overall process for “FSKAR” in the Nordic. What would be our suggestion of the name? In my opinion it should be possible to use the document for

- a) Exchanges for exchange points between the Nordic TSOs (like in RGCE)
- b) Exchanges for exchange points between metering grid areas that Nordic actors sends to datahubs
- c) Exchanges for exchange points between metering grid areas that Nordic actors / datahubs sends to eSett
- d) Bilaterally agreed exchanges for exchange points sent between Nordic actors
- e) Exchanges for exchange points sent between a Nordic TSO and another (non Nordic) TSO.
- f) Exchanges like the ones listed above when there is a process to agree upon the exchange between the two areas, and then send the result further (like it could be to send the values to eSett after having agreed bilaterally).

Next meeting in the “Accounting and FSKAR” group, where Jan (SE) now participate in this current phase of updating the RGCE guides, is next Thursday February 10th. So Jan (SE) would like to get comments before that.

To the right Jan (SE) add a figure describing the part of the FSKAR process that describe the exchanges relevant here.



The document was further discussed at a meeting in the sub group regarding the updates of the “FSKAR IG” and the message for the “SOMA”, “SOAM” and “SOVA” processes regarding exchanges between the TSOs February 17th.

A big part of the meeting was about the naming of the document with metered data. Jan (SE) didn’t like the suggestion “MeasurementValidation_MarketDocument” because it sounds like the message is part of a validation process. And it is, for the continental TSOs. But Jan (SE) would like to use the message also for already validated metered data for exchange points that we send to eSett, not only then for TSO-exchanges, but also for “DSO-TSO” and “DSO-DSO” exchanges.

In the draft it was suggested to have “in_Domain” and “out_Domain” as optional. One benefit was making the document possible not only to be used for metered data for an exchange point, but also for production or consumption metering points. However, if having to specify a metering grid area for that (that may be required in some exchanges), at time series level, you would have to specify both in- and out_domain which would be against any business requirement.

The discussion ended up in requiring “in_Domain” and “out_Domain” and change the name of the document to “MeasurementForExchangePoint”. Then it is clear that it does not cover also measurements for household customers – where you may have registers with meter readings that you would like (or have) to exchange. Exchanges that we can come back to in the (near) future working more with the retail market.

The item will be brought to next CIM EG meeting mid-March.

New information from Jan (SE) March 2nd:

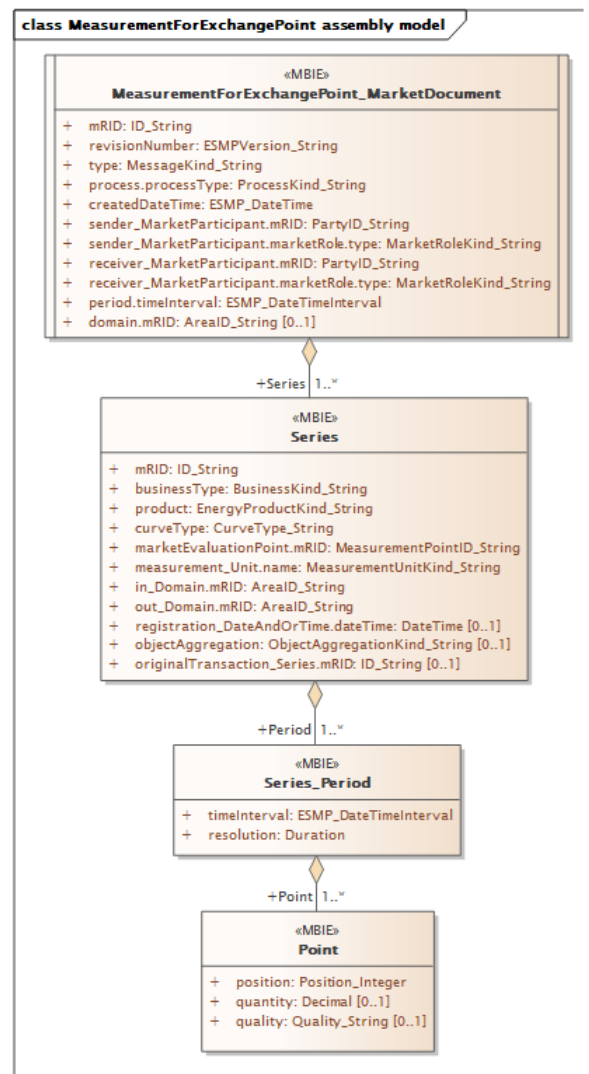
The group has been doing a final review on the IG. Notes from Pascal on the difference per oriented border and absolute and percentage tolerances were included in the IG. The group also amended some typos found by Andreas.

After that, Jan presented some slides which described some different exchanges of metered data per metering points, and with some possible names for the document (message) to be exchanged. Once reviewed the group agrees to have document focused on Exchange Points. Therefore the document is agreed to be renamed to MeasurementForExchangePoint and make the two in and out domain attributes at Series class mandatory. Please find below a snapshot of the final document.

As all the pending comments and clarifications are solved, it is proposed to close the group. Alvaro will submit the updated IG and schema document to the next CIM EG that will take place on the 15 and 16 of March. If agreed by CIM EG, then they will be sent to the SOC of 27th of April for approval.

Alvaro will also escalate to CIM EG the update of RG CE Annex 3 (Policy on Accounting and Settlement) to consider the replacement of Accounting Point by Exchange Point and also the change of the communication channel from Electronic Highway to OPDE.

Item closed.



Appendix A MR NMEG 2022/197 – Swedish Asset Types - mFRR bids/Flexibility platforms

This is a proposal for resending of NMEG 2020/188.

The MR originates from different kinds of offers Svenska kraftnät will get in the mFRR bids sent from “Flexibility platforms” starting in December 2020 in Sweden. These can be separate into six different categories (in Swedish):

1. Aggregerad kommersiell värmelast (värmepumpar i kontorsbyggnader)
2. Aggregerade elfordonsladdare (främst kommersiella men även privata)
3. Aggregerade privata värmepumpar
4. Reservkraft
5. Kraftvärme
6. Kommersiell last (industri)

Date of submission:	<i>nn/nn/2022</i>
Submittor Name:	Jon-Egil Nordvik
Organisation:	Statnett on behalf of the Nordic TSOs (Energinet, Fingrid, Statnett and Svenska kraftnät)
E-mail:	jon-egil.nordvik@statnett.no

Maintenance Request title:	NMEG 2022/197		
Impacted document/schema:	ENTSO-E code list		
Clause/Paragraph/Figure/Table:	Asset Type code list		
Description of issue:			
(Business requirement, reason for request, documentation/schema change request or impact)			
Reserve bids in the Nordic mFRR market, from “Flexibility platforms”, are separated into six different categories:			
<ol style="list-style-type: none"> 1. Aggregated commercial heat load (heat pumps in office buildings) 2. Aggregated electric vehicle chargers (mainly commercial but also private) 3. Aggregated private heat pumps 4. Reserve power 5. Cogeneration (Combined Heat and Power) 6. Commercial load (industry) 			
Hence, new Asset Type codes are needed.			
Proposed resolution:			
1. Add the following Asset Type codes to the ENTSO-E code list.			
ENTSO-E Code List change request			
Type of code	Code⁽²⁾:	Definition:	Description:
Asset Type List		Aggregated commercial heat load	A resource using aggregated commercial heat load, including heat pumps in office buildings, for energy.
Asset Type List		Aggregated electric vehicle chargers	A resource using aggregated electric vehicle chargers, commercial and private, for energy.
Asset Type List		Aggregated private heat pumps	A resource using aggregated private heat pumps for energy.
Asset Type List		Reserve power	A resource using reserve power for energy.

² The “Code” field is to be completed in the case of modifications to existing codes.

Asset Type List		Cogeneration (Combined Heat and Power)	A resource using cogeneration, combined heat and power, for energy.
Asset Type List		Commercial load (industry)	A resource using commercial load (industry), for energy.

Appendix B Possible new Asset Types used in Denmark

The following Asset types are used in Denmark:

Danish codes		ENTSO-E codes	
D01	Steam turbine with back-pressure mode	B39	Thermal steam turbine with back-pressure turbine (open cycle)
D02	Gas turbine	B38	Thermal combined cycle gas turbine with heat recovery
D03	Combined cycle		
D04	Combustion engine gas	B04	Fossil Gas
D05	Steam turbine with condensation / steam	B40	Thermal steam turbine with condensation turbine (closed cycle)
D06	Boiler	B46	Thermal steam engine
D07	Stirling engine	B44	Thermal Stirling engine
D08	Permanent connected electrical energy storage facilities		MR will be sent for renaming B25 to "Permanent energy storage"
D09	Temporarily connected electrical energy storage facilities		MR for new code will be sent to CIM EG "Temporary energy storage"
D10	Fuel Cells	B45	Thermal fuel cell
D11	Photo voltaic cells	B28	Solar photovoltaic
D12	Wind turbines	B30	Wind unspecified
D13	Hydroelectric power	B31	Hydro-electric unspecified
D14	Wave power	B34	Marine wave
D15	Mixed production		
D16	Production with electrical energy storage facilities		
D17	Power-to-X		
D18	Regenerative demand facility		
D19	Combustion engine – diesel	B06	Fossil Oil
D20	Combustion engine - bio	B01	Biomass
D99	Unknown technology	B20	Other unspecified

Appendix C Overview of Nordic memberships in international standardisation bodies

Name	Member of
Anders (SE)	CGMES, ESMP
Anne Stine	NMEG, ebIX®
Bertil (SE)	EBG
Christian	NMEG, ebIX® observer (?)
Fedder	NMEG, CIM EG, IEC/WG16, CSSG, EEAT, ENTSO-E CIM tools, CIO/LIO
Jan (SE)	NMEG, HG, ebIX®, IEC/WG16+14, ESMP
Jon-Egil	NMEG, CIM EG, IEC/WG16, ESMP, CCC, CIO/LIO, TPC
Martin (SE)	CCC
Miika	CIM EG, NEX
Moustafa (SE)	CGMES
Oscar	CIO/LIO, ebIX®, CIM EG
Ove	NMEG, HG, ebIX®, IEC/WG16
Svein (NO)	IEC/WG14+13, CGMES
Teemu	NMEG, CIM EG, EBG, ETC, CIO/LIO

Abbreviations:

CCC	Coordinated Capacity Calculation (project under CIM EG)
CGMES	Common Grid Model Exchange Standard (subgroup under CIM EG)
CIO/LIO	Central Issuing Office / Local Issuing Office
CSSG	Communication Standards (subgroup under CIM EG)
Dc	ENTSO-E Digital committee
EBG	ebIX® Business Group
EEAT	ENTSO-E Enterprise Architecture Team (subgroup under Dc)
ESMP	European Style Market Profile (subgroup under CIM EG)
ETC	ebIX® Technical Committee
HG	ebIX®, EFET and ENTSO-E Harmonisation Group
MC	ENTSO-E Market Committee
MIT	Market Integration and Transparency (subgroup under MC)
NEX	Nordic ECP/EDX Group
TPC	Transparency Platform Coordinators (subgroup under MIT)

Appendix D Overview of the usage of xml-schemas in the Nordic countries

#	XML schema	BRS	Version used by					
			NBS	NMA	Energinet	Fingrid	Statnett	Svk
1.	NEG ECAN publication document	NBS BRS for TSO/MO	1.0					1.0, 7.0
2.	NEG ERRP Reserve Allocation Result Document	a) NBS BRS for TSO/MO b) BRS for Trade	1.0					1.0
3.	NEG Area Specification Document	a) NBS BRS for Master Data b) BRS for Trade	1.0 ³	2.0 (CIM)				
4.	NEG Bilateral Trade Structure Document	NBS BRS for Master Data	1.0					
5.	NEG Party Master Data Document	NBS BRS for Master Data	1.0					
6.	NEG Resource Object Master Data Document	NBS BRS for Master Data	1.1					
7.	ENTSO-E Acknowledgement Document	NEG Common XML rules and ...	6.0					7.0 (not complete)
8.	ENTSO-E ERRP Planned Resource Schedule Document	NBS BRS for TSO/MO	5.0					
9.	NEG ERRP Planned Resource Schedule Document	BRS for Schedules						
10.	ENTSO-E ERRP Resource Schedule Confirmation Report	BRS for Schedules	No NEG version					
11.	ENTSO-E ESS Anomaly Report	BRS for Schedules	No NEG version					
12.	ENTSO-E Outage document	BRS for Schedules	No NEG version					
13.	NEG ESP Energy Account Report Document	NBS BRS	1.0					
14.	ENTSO-E ESS Confirmation Report	NBS BRS	4.1					5.0
15.	ENTSO-E ESS Schedule Document	a) NBS BRS b) NBS BRS for TSO/MO	4.1					5.0
16.	ebIX® Aggregated Data per MGA for Settlement for Settlement Responsible	NBS BRS	2013pA					
17.	ebIX® Aggregated Data per Neighbouring Grid for Settlement for Settlement Responsible	NBS BRS	2013pA					
18.	ebIX® NEG Confirmation of Aggregated Data per Neighbouring Grid for ISR	NBS BRS	2013pA					
19.	ebIX® Validated Data for Settlement for Aggregator	NBS BRS	2013pA					
20.	NEG ECAN Allocation Result Document	BRS for Trade						
21.	NEG Currency Exchange Rate Document	BRS for Trade						
22.	NEG Auction Specification	BRS for Trade						
23.	NEG Spot Market Bid Document	BRS for Trade						
24.	ENTSO-E ERRP Reserve Bid Document	BRS for Trade						1.0
25.	ENTSO-E ERRP Activation Document	BRS for Operate						5.0 (not complete)

³ The NBS version 1.0 is using dateTimeType for Validity Start/End (error correction), while the MO version 1.0 is using dateType. dateTimeType will be used from version 2.0.

26.	Capacity Market Document	???							7.1, 8.0
-----	--------------------------	-----	--	--	--	--	--	--	-----------------