


Minutes: NMEG meeting Date: Wednesday and Thursday November 6 th and 7 th , 2019 Time: 09:00 –17:00 and 09:00 – 16:00 Place: Nordic RSC offices in Copenhagen November 14 th , 2019	 NMEG Nordic Market Expert Group
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Present: Christian, Energinet, DK
Fedder, Energinet, DK
Jan, Energinet, DK
Jan, Svenska kraftnät, SE
Jari, Fingrid, FI
Jon-Egil, Statnett, NO (Convenor)
Mika, eSett, FI (GoToMeeting, day 2)
Ove, Edisys, NO (Secretary)
Teemu, Fingrid, FI
Tommy, eSett, FI (GoToMeeting, day 2)
Tuomas L, eSett, FI (GoToMeeting, day 2)
Tuomas P, eSett, FI (GoToMeeting, day 2)
Tomas

To (NMEG): Anne Stine, NO
Christian, DK
Fedder, DK
Jan, SE
Jari, FI
Jon-Egil, NO (Convenor)
Ove, NO (Secretary)
Teemu, FI

CC: Hans Erik, NO
Minna, FI

To (Invited guests): Mika, eSett, FI
Tommy, eSett, FI
Tuomas, eSett, FI

Appendix A: CIM based document for Aggregated Metered Production

Appendix B: Discussion of ways of modelling from Jan (SE)

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:

- Work Plan and budget 2020, see item 13.1 under AOB;
- My Energy Data, see item 13.2 under AOB;
- Conference related to consent management and data access in Tallinn, see item 13.3 under AOB;
- Update proposal to Energy Prognosis Document from Statnett (Stein-Ole), see item 13.4 under AOB.

2 Approval of previous meeting minutes

The minutes from previous meeting was approved without comments.

3 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 decided, discuss or inform: Continue update of BRS for NorCap.

Ove had as action from previous meeting asked Alvaro (CIM EG) to correct the Area Configuration Document, i.e. addition of a mRID of type ResourceID_string to the BorderConnection_Series class in the Area Configuration Document. After request from Alvaro, an MR (NMEG 2019/167) was also drafted and sent to Jon-Egil for submission to CIM EG September 19th.

Jon-Egil informed that the MR has been approved.

An update of the NorCap BRS will be put on the next agenda.

4 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 decided, discuss or inform: Status for a common meeting with NEAT

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.

5 Status for new host for www.ediel.org

Background: Currently Energinet is hosting www.ediel.org, but Energinet would like to find another home for the web site. Hence, Ove will create a new website based on WordPress at Webhuset.

References (links): A WordPress version of www.ediel.org can be found at <https://edieltest.org/>.

What to be decided, discuss or inform:

Ove had as action from previous meeting added the missing minutes to www.ediel.org and www.edieltest.org.

Continued action:

- Fedder, Jan (DK) and Ove will move www.ediel.org from Energinet to Webhuset.

NMEG mad a proposal for update of **E15**:

Code	Name	Description
E15	Non-profiled netted with special rules	Metering Accounting point with both consumption and/or production with special settlement rules.

Conclusion:

- It is expected that ETC will decide if code **E15** will be renamed or if a new code will be issued at their meeting end of November. For the time being we will use **E15** in the draft BRS and if needed, change it after the next ETC meeting end of November.

6.3 NBS BRS – Aggregated production

Ove had as action from previous meeting added Denmark to all code lists and artefacts in the NBS BRS and NBS and related User Guide.

eSett had as action clarified the following:

- eSett and Energinet will find out if we need to add an Asset Type (Solar, Hydro, Nuclear ...) and/or Production Type (Normal, Minor) in the Aggregated production document.

Clarification:

- From eSett’s point of view we need both: The Asset Type and also Production Type. These two would mandatory only for Aggregated production. This would have to be taken into consideration in BRS.

Conclusion:

- We keep both Asset Type and Production Type.
- eSett will verify if we need the Registration Date Time (in all ebIX® documents).

Clarification:

- At the moment NBS System (Basse) does not utilize this information. De facto, it is the same as Creation Date Time. Was the idea to remove this? From eSett’s point of view, having this node does no harm.

Conclusion:

- Since it is an ebIX® requirement, the Registration Date Time will be kept.
- eSett will verify if we can use the same Document Type for aggregate production and aggregated consumption, i.e. E31 and see the difference on the Metering point Type attribute (production or consumption).

Clarification:

- Yes, we can use the same Document Type for both, aggregate production and aggregated consumption (E31). And make the difference by utilizing the Metering point Type attribute. Production would require its own type.

Conclusion:

- We use the same Document Type for aggregate production and aggregated consumption and see the difference on the Metering point Type attribute.

However, these updates mentioned above are not enough. Due to recent events, we would require more changes to NEG (ebIX® based) Aggregated Data per MGA (E31, E44) for Aggregated production BRS and to the User Guide.

There has been conversation on-going between TSOs and eSett regarding the structure management of production. The current way of handling the structures are seen somewhat problematic from TSOs point of view and the trend is, that the functionality should be taken into a direction, where eSett is creating the required structures for aggregated production on the go (when the message is submitted). This allows eSett to free TSOs from managing the structures and enables more agile way of reporting.

TSOs submitted their views on 6th October to eSett's questionnaire about the matter and authorized eSett to proceed with the scenario, where the structures are created with the same message as the data is reported.

Therefore, as we see it, NEG (ebIX® based) Aggregated Data per MGA (E31, E44) for Aggregated production need to be updated following way:

- Settlement Method Type and Business Type would no longer be mandatory for Aggregated production.

Conclusion:

- Settlement Method Type and Business Type are kept as required.
- The User Guide would have to be updated so, that it explained that the structures are handled also with this message. Use cases would be:

Conclusion:

- It will be noted in the BRS that new Aggregated Production Structure can be created using the NEG (ebIX® based) Aggregated Data per MGA (E31, E44) for Aggregated production. A new structure will be distinguished by MGA, RE, Asset Type, Production Type and Validity Start.
- According to our analysis, at the moment the current message would contain all the information we need to also handle the structures.

Ove had as action from previous meeting made a first draft of an updated NBS BRS, related UserGuide and XML schemas. However, Ove informed that he got problems when he should generate the ebIX® based XML schemas using the Transformation Tool (TT) – i.e. Eclipse would not start. A theory is that this is connected to new licence arrangements for Java (?). Hence, the XML schemas have been manually updated in XMLSpy.

Action:

- Ove will update the NBS BRS, send it on circulation for comment to NMEG and eSett for 14 days and thereafter publish it.

6.4 NBS BRS for TSO-MO – New data flow for Capacity Reserves

Ove had as action from previous meeting added Denmark to all code lists and artefacts in the NBS BRS for TSO/MO.

eSett presented the new data flow for Capacity Reserves and proposes to utilize existing Ediel ERRP Reserve Allocation Result Document to report the Capacity Reserves with following extensions:

1. *New Document Type* for Capacity Reserves

Conclusion:

- OK – “**A81** Contracted reserves” will be added.

2. *Direction* would have to be altered to be not mandatory [1] -> [0..1]

Conclusion:

- Will be kept required, but the neutral Direction Type “**A03** UP and DOWN” will be added.

3. *Measure Unit Quantity* would have to support kW and MW

Conclusion:

- OK – kW and MW will be added.

4. eight new *Reason Codes* would have to be introduced to the BRS to enable auction model used in Denmark:

Conclusion:

- OK – The following reason codes will be added:
 - FCR – N D-1
 - FCR – N D-2
 - FCR – N D-1 correction
 - FCR – N D-2 correction
 - FCR – D D-1
 - FCR – D D-2
 - FCR – D D-1 correction
 - FCR – D D-2 correction.

Action:

- Ove will update the NBS BRS for TSO-MO, send it on circulation for comment to NMEG and eSett for 14 days and thereafter publish it.

6.5 NBS BRS for Master Data – New Process- and Document Type Codes

Ove had as action from previous meeting updated the BRS for Master Data and the related UserGuide. The documents have been sent on circulation for comments to NMEG for two weeks and thereafter published.

CIM EG has published a new Process Type Code for Master data “**A55** Exchange of master data” and three new Document Type Codes related to the Area Configuration Document:

- B35** Area configuration document
- B36** Area Composition Document
- B37** Connected Area Document

Actions:

- If OK for eSett, Ove will update the NBS BRS for Master Data, send it on circulation for comment to NMEG and eSett for 14 days and thereafter publish it.

7 Status for MRs to ENTSO-E

Background: This is an ongoing item to handle NMEG Maintenance Requests (MR) sent to ENTSO-E/CIM EG.

References (links): The MRs can be downloaded from [Statnett's eRoom](#).

What to decided, discuss or inform: Status for the MRs sent to WG-EDI.

Ove had as action drafted the following MRs and sent them to Jon-Egil for submission to CIM EG:

- NMEG 2019/166: Rename “iec62325-451-n-weatherprognosisdocument” to “iec62325-451-n-energyprognosisdocument”
- NMEG 2019/167: Add an mRID of type ResourceID_string to the BorderConnection_Series class in the Area Configuration Document.
- NMEG 2019/168: New Role Code for “**Z05** Trader”, based on MR NEMM 2013/113B
 - The trader is used in Master Data exchanges, such as “Bilateral Trade Structure” and “Area Configuration Document” when used for MBA-MGA Relations
- NMEG 2019/169: New Business Type Codes used in BRS for Schedules and BRS for Trade:
 - Z02** Frequency bias (Nordic code)
 - Z03** Frequency Containment Reserves, Normal (**FCR-N** earlier **FNR**) (Nordic code)
 - Z06** Frequency Containment Reserves, Disturbance (FCR-D earlier FDR) (Nordic code)
- NMEG 2019/170: New Process Type Code “**Z05** Bilateral Trade” to be used in the NBS BRS (ESS)
- NMEG 2019/171: New Business Type Code “**Z64** *Internal trade difference, within a Market balance area, i.e. the difference between trades reported from an out party (seller) and an in party (buyer). The internal trade difference is the delta value between what is reported by the two Balance Responsible Parties*”. See also MR NTC 2014/126.
- NMEG 2019/172: New Business Type code “**Z52** Small scale production”, used in ESS in the NBS BRS for TSO-MO
- NMEG 2019/173: New Process Type “**Z04** Reserve option market”, used in BRS for Trade
- NMEG 2019/174: New Business Type “**Z32** System price (including volume)”, used in BRS for Trade:

The system price is an unconstrained market clearing reference price. It is calculated without any congestion restrictions by setting capacities to infinity.
- NMEG 2019/175: New Business Type “Wind Gust”, with the definition: “An increase in the speed of the wind lasting for a short period”
- NMEG 2019/176: New Document Type “Imbalance prognoses document”
- NMEG 2019/177: New Business Type “Area Imbalance”

- NMEG 2019/178: New Unit Symbol codes:

HTZ	The UnitSymbol for metered frequency (HTZ unit as per UN/CEFACT recommendation 20)
MVA	megavolt-ampere (MVA unit as per UN/CEFACT recommendation 20)
DD	degree (unit of angle) (A unit of measurement of angles expressed in a 0 to 360 degree gradient)

The MR NMEG 2019/166, NMEG 2019/167 and NMEG 2019/178 (unit symbol) were approved at the latest CIM EG. The next are on the agenda at a CIM EG ESMP meeting Friday November 8th (will formally be approved at the CIM EG December 3rd and 4th).

Ove had gone through the MR-status document and note which codes that are approved in the CC-library – and published it at [Statnett eRoom](#).

New Message Type Codes have been approved for the Area Configuration Document, see item 6.5 above. Ove had started the update of BRS for Trade, BRS for Master Data and the NMEG code list, which was reviewed and corrected. Ove will publish the Code List and, if agreed by eSett, the BRS for Master Data (see item 6.5 above). The BRS for Nordic Trading System will be reviewed at the coming NMEG meeting, see item 6.1 above.

Action (new and continued):

- Ove will upload the latest MR status document to [Statnett eRoom](#).
- Jon-Egil will go through the set of Reason Codes from the NBS BRS for TSO-MO below and suggest how to make some of them Business Types and some of them Reason Codes. Thereafter MRs will be made.

- Z22** Supportive power
- Z26** Transit triangle
- Z27** Transit redispatch
- Z28** Transit SB Loop Long
- Z29** FCR (Frequency Containment Reserve (FCR) is an automatic and momentarily regulation, to adjust the physical balance in the power system)
- Z30** FRR-A (Frequency Restoration Reserve - Automatic (FRR-A) is an automatic reserve, activated continuously by the frequency)
- Z31** FRR-M, Balancing Power (Frequency Restoration Reserve - Manual activated reserves (FRR-M), Balancing Power)
- Z34** FRR-M, Quarter regulation (Frequency Restoration Reserve - Manual activated reserves (FRR-M), Quarter regulation when TSO need transfer of production (usually start 15 min earlier))
- Z35** FRR-M, Special Regulation (Frequency Restoration Reserve - Manual activated reserves (FRR-M), Special Regulation where regulation does not affect the regulation price)
- Z36** Hour Change Regulation (to reduce problems encountered at the turn of the hour in the Nordic countries or in Finland, Fingrid reserves the right to transfer the planned changes to begin 15 minutes before or after the planned moment)
- Z37** Power Transaction (Fixed price transaction used for specific purposes outside of ordinary regulation)
- Z38** TSO Internal Countertrades (The time series concern TSO Internal Countertrades)

- Z39** Day Ahead Production Adjustment (Energy (production) moved from one hour to another to avoid major changes between hours)
- Z40** Frequency Containment Reserve, Normal operation (FCR-N).
- Z41** Frequency Containment Reserve, Disturbance (FCR-D).

7.1 Changes to codes for weather prognosis document

From Jan (SE):

I noted in the implementation guide for Weather data

https://docstore.entsoe.eu/Documents/EDI/Library/cim_based/Weather_IG_V1r2.pdf

that there are also three other Business Type codes, not in my list below:

- B78 = Global radiation
- B79 = Diffuse radiation
- B80 = Direct solar radiation

But, what is the unit?

I think it is the same as for "Solar irradiance", if so, the text "Solar Irradiance" in the ENTSO-E implementation guide for unit codes should be changed to include "radiation" or "radiant energy" or something like that.

And probably then also in the ebIX® list of unit codes.

But, that should be verified by someone that knows more about solar power.

Reply from Lasse Diness Borup, Energinet:

Jan (SE) har ret – de tre typer har samme enhed som solar irradiance. Jeg vil tro solar irradiance og global radiation dækker over det samme.

Conclusion:

- All Business Types will use the same Unit, i.e. "irradiation".
- Item closed.

8 BRS for schedules (postponed until we start a project together with NBM)

Background: The latest version of the BRS for Schedules was published in February 2014. Since then the scheduling processes has changed and NMEG is working on updating the document.

References (links): The draft BRS can be downloaded from [NMEG working documents](#).

Action(s): The following actions will be reopened when we start a project together with NBM (Nordic Balancing Model):

- 1) Jan (SE) and Fedder will check the dependency matrix for ESS schedule document and ESS confirmation report, chapter 7.1 and 7.3.
- 2) Fedder, Jan (SE) and Jari will verify if "A09 Finalised" is (will be) used for the ERRP Planned Resource Schedule Document from BRP to SO, or if it is only "A14 Resource Provider Resource Schedule (Operational schedule)"

that will be used (as in Norway), ref. chapter 7.4 in the Schedule BRS; *SvK and Fingrid will be using A14. Energinet is pending.*

- 3) Everyone should verify and possibly update the “Used in” column in chapter 7.4.3;
- 4) Jari will find Finnish usages of Business types in chapter 7.4.4;
- 5) Everyone should verify and possibly update the “dependency matrix” in chapter 7.4.5.

What to decided, discuss or inform: Postponed until we start a project together with NBM.

9 XML schemas (postponed until we start a project together with NBM)

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

References (links):

Action(s): 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.

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

Ove informed that the document “Ediel Currency Exchange Rate Document v2-0 20190613.zip” had been corrected, i.e. corrected “Exchange” to “Exchange” in the directory name, based on a comment from Jan (SE).

10 Making a common Nordic downstream market BRS based on CIM, for exchange of metered data

Background: The topic was initiated at the NMEG meeting March 2018. A possible Nordic downstream market BRS is dependent on active involvement and ownership from the hubs.

References (links): Minutes from NMEG meeting March 7th, 2018 (see [Statnett eRoom](#) – 02 Meetings).

What to decided, discuss or inform:

- 1) Continue making a CIM based document for Aggregated Metered Production;
- 2) Discuss establishment of a subgroup of NMEG to make CIM-XML.

It was agreed to establish a NMEG CIM-XML Subgroup that will make Nordic CIM based XML documents. The NMEG CIM-XML Subgroup will give the following documents priority:

- a) NBS ebIX[®] based documents
- b) NBS documents based on older ENTSO-E schemas
- c) NBS master data documents

The members of NMEG CIM-XML Subgroup are Jan (DK), Jan (SE), Teemu and Ove. The first GoToMeeting was agreed to December 18th, 2019 from 12:00 to 14:00 (CET).

Fedder advised all to download the latest version of CimContextor and CimSyntaxGen from <https://www.entsoe.eu/digital/cim/#cim-tools>.

Members of NMEG CIM-XML subgroup are Jan (DK), Jan (SE), Teemu and Ove

11 Information (if any)

Teemu informed that the Finnish datahub project is progressing and gave a presentation of a test system that are under development. The test system will be available for a set of pilot users early next year and will in the beginning handle six of the main processes, such as request change of contract from the Energy Supplier. The intention is to include all processes after summer 2020.

Jan (SE) informed that Svenska kraftnät still is awaiting approval of the law that will mandate the datahub. The law is expected to be approved next autumn.

The Danish datahub is finalising a Customer interface, where Customers and Third Parties can get access to Customer data. First version of the system is expected to be available in December.

Jan (SE) presented a discussion mail he has sent to some IEC/WG16 members. See Appendix B, Discussion of ways of modelling from Jan (SE).

Jan (SE) also presented news from the Swedish data hub, see <https://www.svk.se/hubb>.

Jon-Egil presented an ENTSO-E tool used for presenting the Norwegian grid model.

Further, Jon-Egil informed that we will probably receive an NBM roadmap before Christmas.

Finally, Fedder showed the Danish datahub test application.

12 Next meetings

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

- Tuesday January 21st and Wednesday January 22nd, 2020 in Svenska kraftnät's offices in Sundbyberg
- Tuesday and Wednesday March 3rd and 4th in Edisys' offices in Oslo.
- Wednesday June 3rd and Thursday June 4th in Energinet's offices in Erritsø.

13 AOB

13.1 Work Plan and budget 2020

A Work Plan was drafted. The Work Plan was sent on circulation for comments to NMEG for 14 days, before presentation for NEAT.

The Work Plan included a budget for year 2020. The estimates are based on five to six two-day meetings in NMEG. In addition, there will be electronic meetings and homework.

Cost item ¹	NMEG
Working hours per participant	120 to 140 hours
Working hours for convenor	160 to 180 hours
Working hours for EDI consultant	400 hours
Cost per TSO for EDI consultant	15.000 €
Cost (venue and travel) per participant from TSO/Elhub	5.000 – 7.000 €
Cost (travel) per TSO for EDI consultant	1.500 €

Action:

- When the Work Plan has been commented by NMEG, Jon-Egil will forward it to NEAT and NIT.

Item closed.

13.2 My Energy Data

Jan (SE) had noted that the project comments to national comments to My Energy Data was published October 4th. See [57_2148e_CC.pdf](#).

Many of the Danish, Norwegian and Swedish codes have been approved, but not all.

Some changes should therefore be handled in ESMP, such as:

NO3 & SE9:

Make the Point class optional [0..*], then the document can also be used for requesting values (when you request values, there are no observations (Point class)).

NO4/NO5 & SE6:

Change the cardinality of the association from TimeSeries to MarketEvaluationPoint to [0..1].

These were not accepted. Instead, ESMP is proposed to be updated to include multiple Metering Points / Installations per time series. But then it will be an aggregated time series. Which sites that are aggregated can be seen as structural information – does it need to be sent in every message with metrics? Today, when we send PRODAT messages in Sweden, the Grid Company tells the Energy Supplier: "This plant will be included in the summation XYZ". Thus, the electricity supplier can then self-summarise the individual series and reconcile against the settlement result/settlement basis for the summarised series. Of course, the specific facilities included in a summation are not sent when the total series is dispatched.

Of course, with "My Energy Data", the use case is different. I have x number of Meters / Metering points and y number of time series that are summarized to Z time series in the message. It can be summarised production, summarised consumption excluding the time series for charging of the car that is sent separately. The question therefore is whether the structure information should/can be sent separately and whether the message with the time series needs to include an indication of each individual underlying Metering Point (Installation) and whether it should be the same message type for aggregated time series as for individual time series.

¹ One or two participants from each TSO/Elhub

SE13:

“CapacityContractKind_String” should rather be a “ContractKind_String”.

SE20:

If Currency is needed, then the list might be limited even further with just a few examples and with a reference to ISO 4217.

The proposal was not accepted. As I wrote in June to some, at least one currency is missing in CIM, some should be deleted, and others should be redefined. Why does CIM need to include the currency codes?

Another thing, the currencies definitions should be changed in CIM:

"Danish Kroner" – should be in the singular, "Danish Krone";

"Norwegian Kroner" – should be in the singular, "Norwegian Krone".;

"Swedish kroner" – should be spelled correctly, "Swedish Krona".

This is a bug in the ENTSO-E version 65 code list. Also note changes that may be applicable in all IEC 62325-451-x documents:

CZ [4]:

"Contextualises" vs "standardized". Unify whether British or US spelling will be used throughout Whole document.

Conclusion:

- Will be reopened when we have a case that need such a change

Item closed.

13.3 Conference related to consent management and data access in Tallinn

Elering is arranging a conference on this topic, in Tallinn on 28 November: <https://energydata2019.eu/>. The conference is about consent management and data access. The focus is 1) on regulation for consent management and 2) achieving consent management and data access in practice.

Action:

- All should investigate internally if this conference is of interest.

Item closed.

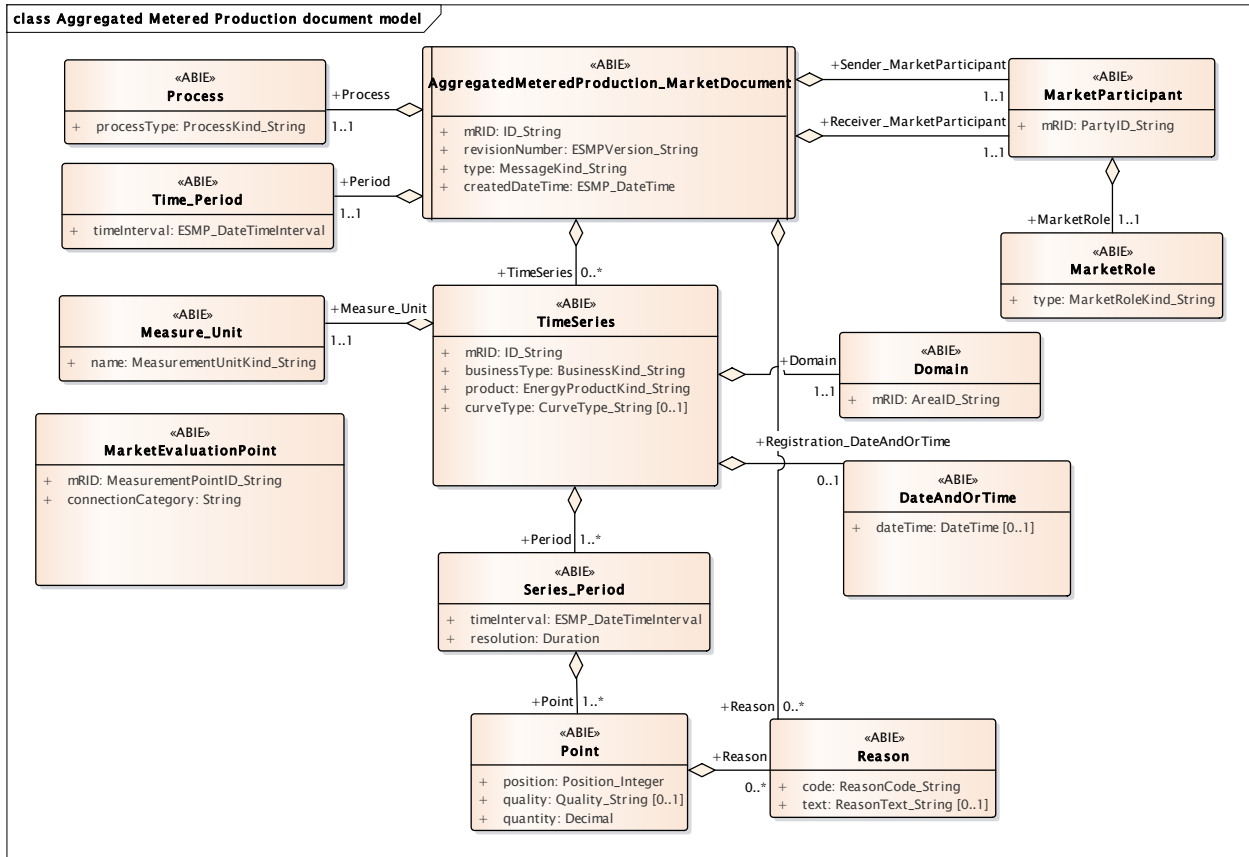
13.4 Update proposal to Energy Prognosis Document from Statnett (Stein-Ole)

Stein-Ole from Statnett sent an update proposal to the Energy Prognosis Document during the meeting. However, since the request was received so late, the item will be postponed until next NMEG meeting.

Conclusion:

- Postponed until next meeting

Appendix A CIM based document for Aggregated Metered Production



Appendix B Discussion of ways of modelling from Jan (SE)

Dear friends,

I will not be able to join the modelling meeting today, but I would like to give in input for a, suggested, discussion we can have at the WG 16 meeting in Brussels in November.

I am thinking of different ways of modelling in CIM, and when to use which one. This is also linked to the discussion I started a few weeks ago: how can CIM be the reference model we want it to be?

If “objects” that we are using cannot be found (directly) in CIM (IEC 62325-301): should we add them? Or when is it more appropriate only to add them in a profile?

One thing we have not used in ebIX® modelling work but we find in CIM, and I find useful, is the inheritance.

Another thing I find in CIM is that sometimes specific classes are created, and sometimes not – in the latter case you might only have a list of codes not making it possible to distinguish between (similar types of) objects directly in the model.

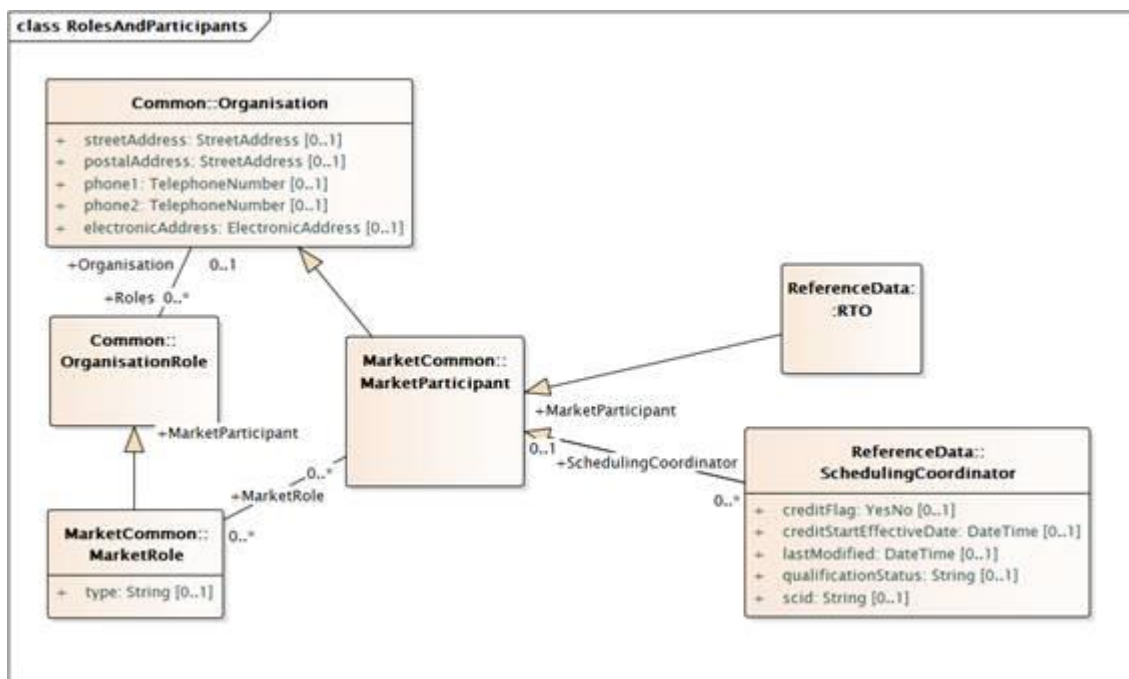
Let me now look at the two ways I think is used when modelling in CIM.

An example of the latter case could be the different types of roles for actors we are having in the market. I.e. you have the class MarketParticipant with an association to MarketRole.

However, there are also two specific roles in CIM, see figure below, i.e. SchedulingCoordinator and RTO.

When should you create roles like “RTO” and “SchedulingCoordinator” in CIM (in our case in IEC 62325-301), and when do you not need to do that?

A short answer would be: if adding attributes, you should create a new inherited class. But RTO does not have any new attributes?



An existing class in CIM is “Customer” – a class Inheriting from OrganisationRole (not shown above). I would say we should use “Customer” also in the market part of CIM, and not specify him as a type of MarketParticipant.

But another important role in the market is not part of CIM, e.g. the energy supplier. He will then just be a “MarketParticipant”, or?

Another way of modelling than having codes where you in the example above don’t see the different Market roles, is to have different classes for different (but similar) types of objects.

For instance, make a diagram of all classes inheriting directly from the class “Document”, and you will get more than 40 different inherited classes in the diagram. Doing the same, but starting from “MarketDocument”, you will just get one extra class (“MarketAgreement”).

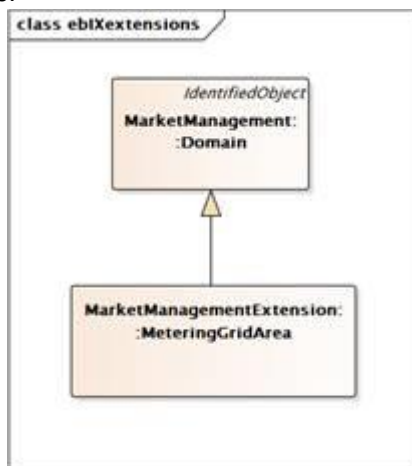
I know that we are having a lot of different (Market)documents, but we don’t find them separated in CIM (IEC 62325-301). And probably we shouldn’t. When needed (in some cases I would say we don’t exchange documents, but just the payload), the type of document can be found.

Looking to other classes inheriting in CIM you can for instance look at “Equipment”. Out of nine classes inheriting from Equipment, three is not adding any new attributes – so that is not the reason for having them as separate classes.

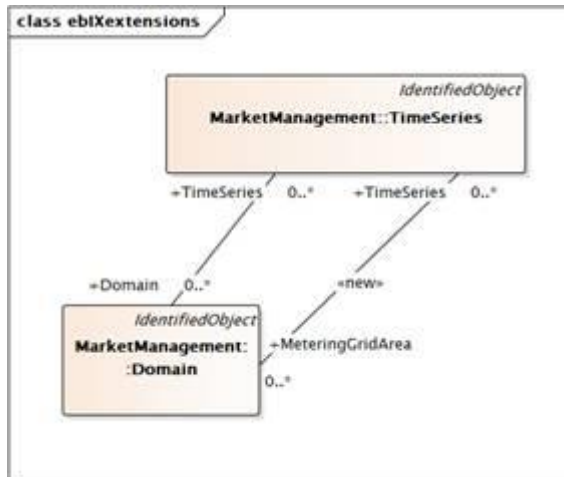
That some classes in IEC 62325-301 inheriting from other parts of CIM doesn’t add any attribute could be of “historical reasons”, nowadays you would not have added a new class within IEC 62325-301 unless you need new attributes – or associations.

A third example could be the different kinds of areas we are having. In Europe we have areas we typically call “MeteringGridArea” – areas used very much when sending structure information and when doing settlement and reconciliation; e.g. you aggregate per all “MarketEvaluationPoints” in this area per energy supplier and/or balance responsible party (per consumption or production and other aggregation criteria). In CIM we find “Domain”, but how can we specify the “MeteringGridArea” in (basic) CIM?

Like this:



Or like this:



Or in other ways?

Making an inherited class would be needed if special attribute(s) or associations are needed, not found in the parent class.

There are of course other kinds of areas (BiddingZones, SchedulingAreas, LFC areas...), but the MeteringGridArea is very much in use, and should then most likely be found in CIM.

So: If we add an attribute like "Concessional" (Boolean) – and then just for "MeteringGridAreas" – then that would result in a new class.

Another information – most likely associated to Domain and not an attribute since we would like to inform about it also for other things than domains, e.g. for single market evaluation points or in documents – would be something telling: what is the utility? Is it gas, electricity, water...?

Some of you are experts in the field, and some have probably worked on – and made comments to – the not yet finalized IEC 62361-101 standard that was supposed to describe how to make CIM profiles. But my focus is not profiles, it is the basic CIM. However an input from you experts in the discussion could be: when is it better not to put a class in basic CIM, but rather in the profile or the implementation? Without having problems mapping the business requirements to (basic) CIM. E.g. you don't find the "Energy supplier" in CIM; but you find "MarketParticipant" + "MarketRole" and can map him to both classes – and in an implementation you might get both an "EnergySupplier_MarketParticipant" and a "BalanceResponsible_MarketParticipant" (etcetera for other needed roles in the specific exchange).

Appendix C Overview of Nordic memberships in international standardisation bodies

Name	Member of
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
Jari	NMEG, CIM EG, ETC
Jon-Egil	NMEG, CIM EG, IEC/WG16, ESMP, CCC, CIO/LIO, TPC
Martin (SE)	CCC
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, 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)
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	MNA	Energinet	Fingrid	Statnett	Svk
1.	NEG ECAN publication document	NBS BRS for TSO/MO	1.0					
2.	NEG ERRP Reserve Allocation Result Document	a) NBS BRS for TSO/MO b) BRS for Trade	1.0					
3.	NEG Area Specification Document	a) NBS BRS for Master Data b) BRS for Trade	1.0 ²	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					
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					
15.	ENTSO-E ESS Schedule Document	a) NBS BRS b) NBS BRS for TSO/MO	4.1					
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						
25.	ENTSO-E ERRP Activation Document	BRS for Operate						

² 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.