Minutes: NMEG meeting

Monday and Tuesday September 9th and 10th, 2019 Date:

Time: 09:00 -17:00 and 09:00 - 16:00 Place:

Fingrid's offices in Helsinki

Nordic Market Expert Group

NMEG

September 13th, 2019

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 (1st day) Ove, Edisys, NO (Secretary)

Teemu, Fingrid, FI

Tuomas, eSett, FI (1st day)

To (NMEG): Anne Stine, Statnett, NO

> Christian, Energinet, DK Fedder, Energinet, DK Jan, Energinet, DK Jan, Svenska kraftnät, SE

Jari, Fingrid, FI

Jon-Egil, Statnett, NO (Convenor) Ove, Edisys, NO (Secretary)

Teemu, Fingrid, FI Hans Erik, Elhub, NO

Minna, Fingrid, FI

To (Invited guests): Mika, eSett, FI

To (CC):

Tuomas, eSett, FI

Appendix A: Change proposal to the Area Configuration Document

Appendix C: Overview of Nordic memberships in international standardisation bodies **Appendix C:** Overview of Nordic memberships in international standardisation bodies

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



BRS

Documentation chain, see item 8.2, Go through the BRS changes and the suggestions Attachment:

that eSett has to the Master Data BRS documentation & XSD.



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, see item 3.1, New issues from RSC

Approval of agenda 1

The agenda was approved with the following additions:

- New issues from RSC, see item 3.1.
- Request for new Business Type Code from Denmark, see item 8.1;

- Go through the BRS changes and the suggestions that eSett has to the Master Data BRS documentation & XSD, see item 8.2;
- New Business Type for Wind gust, see item 13.1 under AOB;
- Imbalance prognosis, see item 13.2 under AOB.

2 Approval of previous meeting minutes

The minutes from previous meeting were 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.

The DLR Data Exchange will be handled by the CGMES (Common Grid Model Exchange Standard) SSH profile.

Jon-Egil had added an introduction to the IGs for the Area Configuration Market Document, which was approved at the latest CIM EG meeting. Similar has been done to the SIPS Market Document, that is on the agenda at the next CIM EG meeting.

3.1 New issues from RSC

Joao presented the latest status of the NorCap project.

From the related discussion:

- The CRAC v2.4 document is approved by CIM EG and will hopefully be approved by the MC at their next meeting in a month's time. The current published version of the document is v2.2, while the published xsd is version 2.3.
- The Area Configuration document is approved by CIM EG and will hopefully be approved by the MC today (September 10th).
- For new versions of the ENTSO-E xml schemas, the relevant mRIDs will have 60 characters.
- Fedder stressed that the mRID shall be a string representing a unique identification, without any other meaning.

During the discussions it was noted an error in the Area Configuration Document. I.e. in the BorderConnection_Series class there is a mRID of type String, which should be of type ResourceID_string.

To solve this, it was suggested to remove the mRID from the BorderConnection_Series class (leave it empty) and add the mRID from a RegisteredResource class – see class diagrams in Appendix A.

Action:

 Ove will ask Alvaro (CIM EG) to correct the Area Configuration Document and if needed make a MR for the correction.

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 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 <u>Statnett eRoom</u> – 02

Meetings).

What to decided.

discuss or inform: Review of homework and establishing a subgroup of NMEG to make CIM-XML

documents for NBS.

During day 2 it was made a first draft of a Contextual model for a CIM based document for Aggregated Metered Production, see Appendix B.

6 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 <u>www.ediel.org</u> can be found at <u>https://edieltest.org/.</u>

What to be decided, discuss or inform:

Action:

- Fedder and Ove will move www.ediel.org from Energinet to Webhuset.
- Ove will add the latest NMEG minutes to <u>www.ediel.org</u>.

7 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 and Fedder will check the dependency matrix for ESS schedule document and ESS confirmation report, chapter 7.1 and 7.3.

- 2) Fedder, Jan 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.

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

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

References (links): None.

What to decided, discuss or inform:

The NBS BRSs were updated, see item 8.2 below.

Aligning the existing Nordic BRSs with NBM is too early.

We will await update of the Nordic trading system BRS with the new enhanced Currency Exchange Rate Market Document until we have other updates or do a complete review of the BRS.

8.1 Request for new Business Type Code from Denmark

Christian asked for an extension of the code list for Business Types with a code for "small consumption". Alternatively, a new Settlement Method Code, like **D01** for flex settled consumption. The code will be used in the NBS BRS in the document NEG (ebIX® based) Aggregated Data per MGA (E31, E44).

Conclusion:

• We introduce the Settlement Method Code **Z01**:

	Name Description				
Z01 Flex settled		Consumption or production from small continuously read			
		Accounting Points			

Action:

 Jan (SE) and Ove will try to get the ebIX® Code list updated with the new code Settlement Method Code "Z01 Flex settled".

8.2 Go through the BRS changes and the suggestions that eSett has to the Master Data BRS documentation & XSDs

Mika informed that eSett has been testing the so-called area snapshot process together with Statnett in order to go live with this process. The goal is, that Statnett would start to send the MBA Master Data, MGA Master Data, MBA-MGA Relations and MGA-MGA Oriented Border messages in production.

During the testing eSett came up with a situation, that currently NOA (Statnett's system) provides MGA Master Data file, where there is also Country attribute included. According to the current version of Exchange of Master Data BRS documentation the Country attribute is supposed to be used only in with MBAs.

Conclusion:

- The "Note:" in the BRS related to Country was changed to "Only Must be used for MBAs";
- "DK Denmark" was added as Country Code.

Mika showed a presentation with the planned changes to the BRS and the status for introduction of ECP/EDX, see embedded file in the header of these minutes.

The BRS for NBS was reviewed and a new document was added: "NEG (ebIX® based) Aggregated Data per MGA (E31, E44) for Aggregated production" with the following comments:

- It must be decided if we need an Asset Type, such as Solar, Hydro, Nuclear etc.
- It must be decided if we need a Production Type, i.e. Normal or Minor. The Production Type will
 probably not be needed for Denmark but may be a requirement from eSett. If made required,
 Denmark will always use "Normal".
- In the not too far future, maybe end 2020, it might need to add BSP as an additional role in the timeseries level (in addition to BS and BRP).

During the review of the BRS for Master Data it was discussed if we should rename MBA to Bidding Zone or Scheduling Area, however this was postponed. It was also discussed if we should include the CIM version of the Area Configuration Document, however also this was postponed.

Actions:

- 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.
- eSett will verify if we need the Registration Date Time (in all ebIX® documents).
- 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).

- Ove will add Denmark in all code lists and artefacts in the three NBS BRSs and User Guides.
- Ove will update the BRS for Master Data and TSO-MO communication and send them on circulation for comments to NMEG for two weeks before publishing them.
- Ove will make a first draft of an updated NBS BRS when eSett and Energinet has verified the action items.

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 <u>www.ediel.org</u>.

For information, a new Currency Exchange Document, version 2.0, has been published.

10 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): MRs are published at State

What to decided,

discuss or inform: Status for the MRs sent to WG-EDI and review of Appendix A from the agenda.

Jon-Egil informed that the new Area Configuration Document has been approved by CIM EG. Further, CIM EG has approved the NMEG MRs: 163, 164 and 165.

The Items in Appendix A from the agenda was reviewed and the appendix was removed:

Actions:

- Ove will make an MR for "**205** Trader", based on MR NEMM 2013/113B.
 - o The trader is used in Master Data exchanges, such as:
 - Bilateral Trade Structure
 - Area Configuration Document when used for MBA-MGA Relations
- Ove will make MRs for the following "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)

- Ove will make a MRs for the Process Type code "**Z05** Bilateral Trade" is used in the NBS BRS (ESS)
- Ove will make a MRs for the 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.
- Ove will make a MRs for the Business Type code "**Z52** Small scale production" is used in ESS in the NBS BRS for TSO-MO
- Ove will make a MR for Process Type "204 Reserve option market" to be used in BRS for Trade
- Ove will make a MR for Process Type "205 Bilateral Trade" to be used in BRS for Trade and BRS for NBS
- Ove will make a MR for Business Type "**Z32** System price (including volume)" to be 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.

- Ove will go through the MR-status document and note which codes that are approved in the CC-library.
- Ove will make MRs for the codes above.
- A new Message Type Code is approved for the Area Configuration Document, but not yet issued. Ove will update BRS for Trade, BRS for Master Data and the NMEG code list when issued.
- 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.
 - **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 regelation 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).

11 Information (if any)

No extra information.

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.

- NMEG meeting, Tuesday November 5th and Wednesday November 6th, 2019, in Nordic RSC offices in Copenhagen.
- Tuesday January 21st and Wednesday January 22nd, 2020 in Svenska kraftnät's offices in Sundbyberg
- Tuesday and Wednesday March 3rd and 4th in Oslo (place to be decided).

13 AOB

13.1 New Business Type for Wind gust

From Jan:

Sweden will start to collect weather information from SMHI (using a web service) in a new format, however not CIM. But I have presented the Weather document from CIM for SMHI and they will, most likely, implement it after summer.

Among the data we would like to get from SMHI is wind gusts. Svenska: vindbyar.

The wind prognosis could tell a mean value or an interval (and/or probabilities) but in the gusts, the wind speed could be much higher. However we do not find wind gusts in the code lists from ENTSO-E.

Is it a new unit (meter per second in the gusts)? With Business type: wind speed?

Is it a new Business type: wind gust? With unit m/s.

I will contact SMHI and get their input on that. Then we at a NMEG meeting can bring it up, check if another TSO wants this and then ask ENTSO-E for a possible new code.

PS: we will import this kind of information, and of course other weather information, into e.g. Fifty. Will Statnett do the similar?

I got this list (the first column) from a colleague working with SMHI (Sveriges meteorologiska och hydrologiska institut).

Let me just comment some of the items. The agreement what to get from SMHI is not yet finalized, so the list may be updated.

I have asked my colleague to get definitions (or links to definitions), and some background (reasons) in order to be able to send in MRs.

Parameter	ENTSO-E code	Title
Temperatur	B49	Air temperature
Vindhastighet (vektorbeskrivning)		
Vindriktning (vektorbeskrivning)		
Byvind		
Wind Chill Index		
Global instrålning	B48	Solar irradiance
Cloud cover eller Cloud area fraction (high, medium, low)	(B50)	Cloudiness
Luftfuktighet	B51	Air humidity
Lufttryck	B52	Atmospheric pressure
Regn		
Snö		
Snödjup/nysnö ([])		
Molnvatten		
Molnis		
Graupel (nedisning, [])		

Currently I find the following Business types in the ENTSO-E list (could be more codes), from B46–B53 (see also above):

Wind speed

Wind direction

Solar irradiance

Air temperature

Cloudiness

Air humidity

Atmospheric pressure

Precipitation

From Wikipedia:

wind gust

A brief increase in the <u>speed</u> of the <u>wind</u>, usually lasting less than 20 seconds. Gusts are more transient than <u>squalls</u>. They are usually only reported by weather stations when the maximum or peak wind speed exceeds the average wind speed by 10–15 knots (12–17 mph).

Action:

• Ove will make a MR to CIM EG for Wind Gust, with the definition:

An increase in the speed of the wind lasting for a short period.

13.2 Imbalance prognosis

From mail exchange between Stein-Ole (Statnett) and Jan (Svk):

Stein-Ole: We will exchange a balance forecast with a 5-minute resolution, and for two hours ahead. For each bid area, an imbalance should be set with a confidence interval. I have tried to find an existing CIM document for this and landed on

<u>EnergyPrognosis MarketDocument (CIM)</u>. In that regard, I see that it is not trivial to find appropriate codes for all required fields. First of all this applies to Document Type, Business Type, and Asset Type. Do you know what codes could fit? Alternatively, we need to define local codes. What are you thinking?

Immediately I think it would have been nice to have a type that deals with forecasts and different Business Types that cover weather, consumption, imbalance etc.

Jan: Between which should the forecast be exchanged? Between us TSOs?

The document you are linking to is intended for e.g. communications from Det Norske Meteorological Institute to Statnett. But the content is certainly close to what you want to exchange. If there are no ENTSO-E codes, we in NMEG can eventually request new codes from CIM-EG – provided that the needs are clearly described.

Stein-Ole: This is in the first-place information to be exchanged between local TSO functions related to NBM. It is not certain that CIM is the most appropriate, but also thinking that this may be interesting information for other systems as well. Then it will be advantageous if the format is uniquely defined

Example xml from Jon-Egil:

Conclusion:

- NMEG will send MRs to CIM EG for addition of the following new codes:
 - Document Type (Message Type)

Bnn	Imbalance prognosis	A document to provide the prognosis of energy
	document	imbalances for a given period.

o Business Type

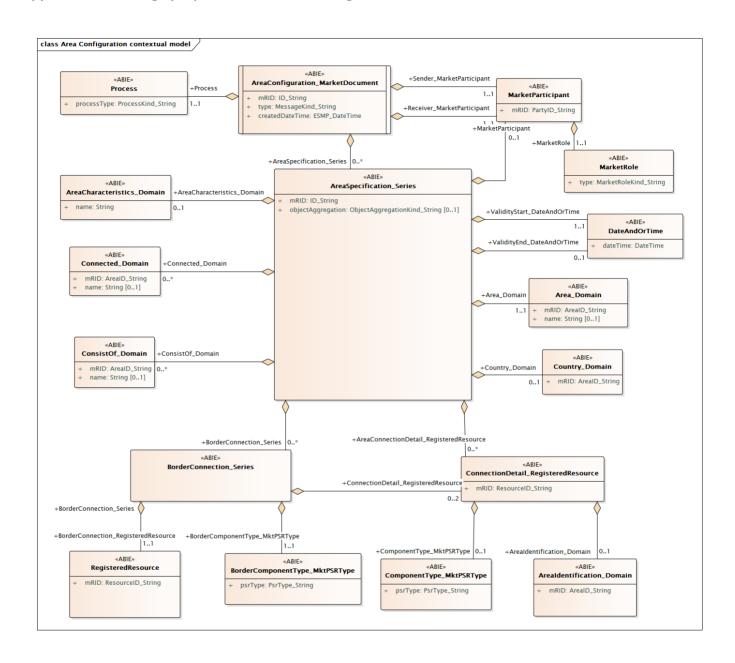
Bnn	Area imbalance	A time series concerning imbalance between
		planned consumption, production and exchange in
		an Area.

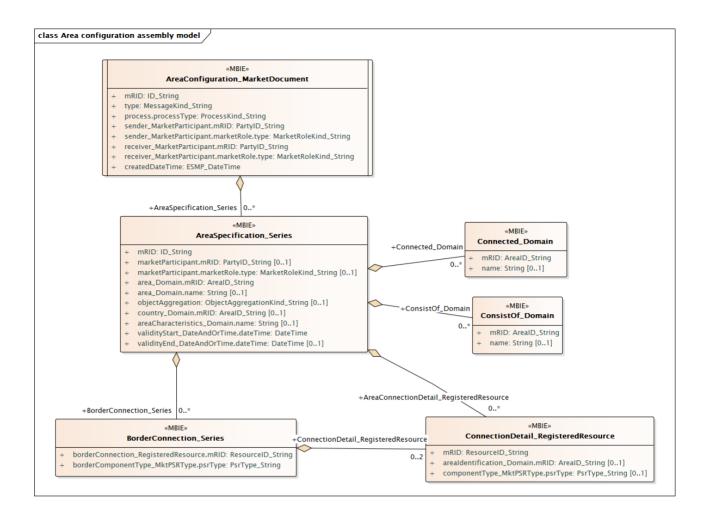
Action:

- Ove will make MRs for:
 - o New Document Type "Imbalance prognoses document"
 - New Business Type "Area Imbalance"
 - o Renaming the

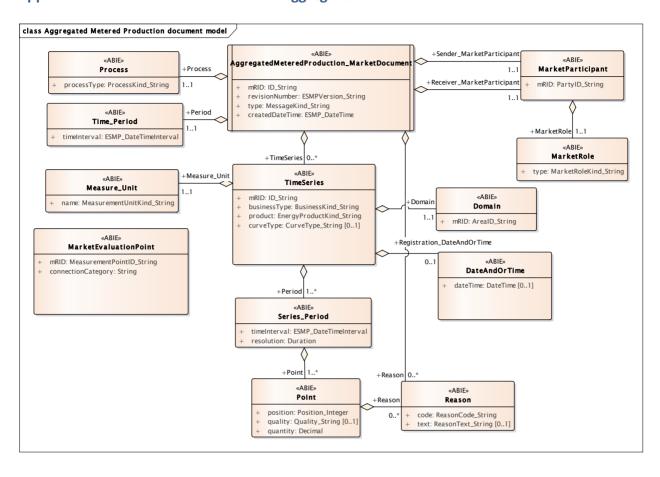
iec62325-451-n-weatherprognosisdocument to iec62325-451-n-energyprognosisdocument

Appendix A Change proposal to the Area Configuration Document





Appendix B CIM based document for Aggregated Metered Production



Appendix C Overview of Nordic memberships in international standardisation bodies

Name	Member of				
Anne Stine	NMEG, eblX [®]				
Bertil (SE)	EBG				
Christian	NMEG, ebIX® observer (?)				
Fedder NMEG, CIM EG, IEC/WG16, CSSG, EEAT, ENTSO-E CIM tools, CIC					
Jan 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 (proi	ject under CIM EG)
			,	([-]	1000 0

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

ESMP 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

	VA 41	ppc.	Version used by						
#	XML schema	BRS	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	1.0						
		b) BRS for Trade							
3.	NEG Area Specification Document	a) NBS BRS for Master Data	1.0 ¹	2.0					
		b) BRS for Trade		(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	4.1						
		b) NBS BRS for TSO/MO							
16.	ebIX® Aggregated Data per MGA for Settlement for Settlement	NBS BRS	2013pA						
	Responsible								
17.	ebIX® Aggregated Data per Neighbouring Grid for Settlement for	NBS BRS	2013pA						
	Settlement Responsible								
18.	ebIX® NEG Confirmation of Aggregated Data per Neighbouring Grid	NBS BRS	2013pA						
	for ISR								
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							

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¹ 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.