Basse Data Packages

User Guide for XML Documents

1.12.2020

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1 Terms and Definitions

Table 1 Terms and definitions

Term	Definition
Basse	eSett Settlement system. Refers to the Basse System in terms of technical communication.
BRS	BRS is an abbreviation of Business Requirement Specification available at https://www.ediel.org.
BSS	BSS is an abbreviation of Balance Settlement Solution.
MPS	MPS is an abbreviation of Market Participant System – Market Participant's information system communicating with Balance Settlement System
Message	Any business data sent between MPS and Balance Settlement System. The data must conform to one of the supported data flows.
XSD	XSD is an abbreviation for XML Schema Definition. Specifies how to formally describe the elements in an Extensible Markup Language (XML) document. It can be used by programmers to verify each piece of item content in a document.
Data Packages	Data packages are a functionality that enables market participants (BRPs and DSOs) to receive settlement data by subscription. eSett defines the content of a data package and also defines when the data packages will be compiled and sent out automatically. Data packages are divided into "specific" and "generic".
Specific Data Packages	Specific data packages utilize ENTSO-E and ebiX documents (formats) defined and specified in the BRS, but adjusted for NBS purposes by Basse vendor. Data sent into Basse (via Inbound data flows) are available in the same format in form of data package sent from Basse to MPS. E.g. Consumption data reported to Basse in document NEG (ebIX® based)

	Aggregated Data per MGA (E31, E44) are available in the same format via Data Package Consumption.
Generic Data Packages	Generic data packages utilize Basse generic format capable to carry almost any Basse time series data using one simplified XML format based on ENTSO-E. Generic data packages will mainly cover settlement aggregation time series. E.g. Data Package Aggregated Consumption per BRP and MBA uses the same XML format as Aggregated Bilateral Trade Purchase per BRP and MBA.
Basse Generic Format	Simplified ENTSO-E based XML format for Basse Time Series used across multiple data packages with various content.
NBS Handbook	Overview to the Nordic Imbalance Settlement Model from market participant's perspective available at http://www.esett.com/handbook/
Inbound	Message sent from MPS to Balance Settlement System.
Outbound	Message sent from Balance Settlement System to MPS.

2 Introduction

2.1 Background

Data packages are a functionality that enables market participants, such as Balance responsible parties (BRP) and Distribution System Operators (DSO) to receive settlement data by subscription. eSett defines the content of a data package and defines when the data packages will be compiled and sent out automatically.

Data packages are divided into 2 types: "specific" and "generic".

Specific Data Packages utilize ENTSO-E and ebIX® documents (formats) defined and specified in the BRS, but adjusted for NBS purposes by Basse vendor. Data sent into Basse (via Inbound data flows) are available in the same format using data package sent from Basse to MPS. E.g. Consumption data reported to Basse in document ebIX® based NEG Aggregated Data per MGA (E31, E44) are available in the same format via Data Package 'REs consumption data per type and MGA'.

Generic Data Packages utilize Basse generic format capable to carry almost any Basse time series data using one XML format based on simplified ENTSO-E format. Generic data packages will mainly contain settlement aggregation time series. E.g. Data Package 'Aggregated Consumption per BRP and MBA' uses the same XML format as 'Aggregated Bilateral Trade Purchase per BRP and MBA'.

Data Packages are available for subscriptions in Online Service.

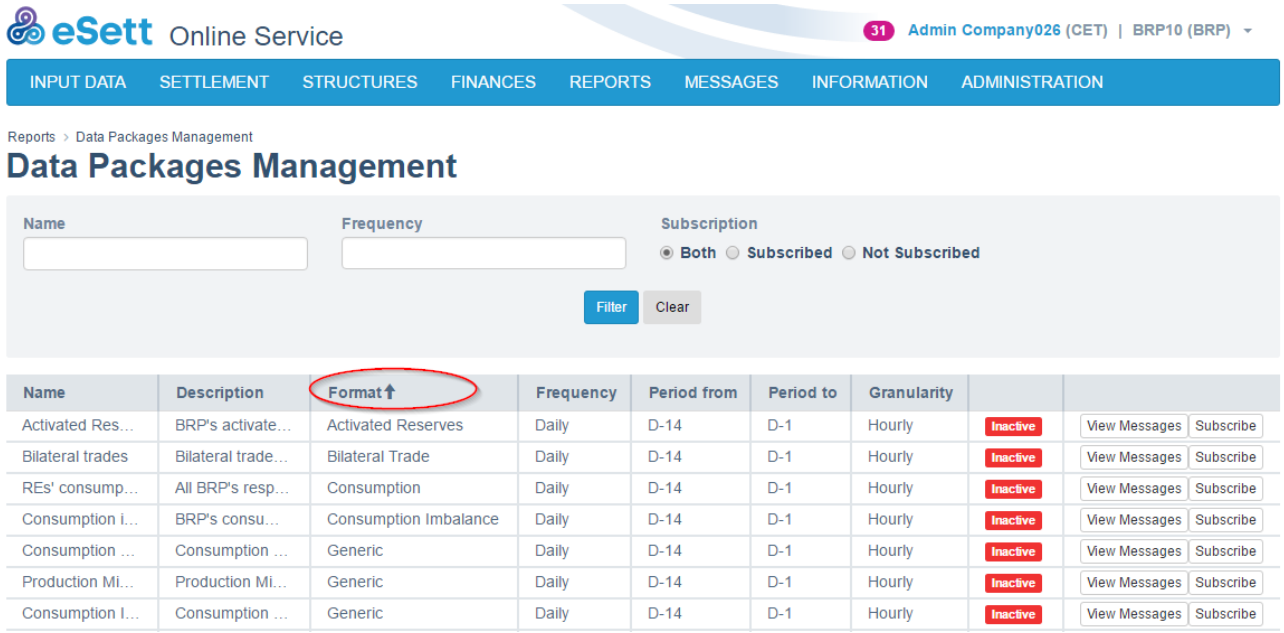


Figure 1 - Online Service Data Package Subscriptions

Column 'Format' determines the format used by each data package. View the mapping table to see what document standard each format refers to.

2.2 Summary

This document is a detailed User Guide for the Data Package documents used in the Nordic Balancing System. The focus of the document is the technical aspects of the documents to be exchanged.

Important Notice: Basse Data Packages are not involved in Acknowledgement process. Basse does not expect any acknowledgement to distributed documents.

2.3 References

Table 2 - References

Reference	Note
The BRS for Nordic Balance Settlement (NBS)	
Generic Data Packages XSD and XML Examples	Package with XSD and XML samples.
Specific Data Package XML Samples	Package with XML samples.

2.4 Change Log

Table 3 Version history

Version	Date	Author	Description
0.90	2.2.2017	Zdeněk Kroupa (Unicorn a.s.)	User Guide for Generic Data Package Documents - version for eSett commenting.
0.91	20.2.2017	Mats Elmér	Comments and changes
1.0	24.2.2017	Zdeněk Kroupa (Unicorn a.s.)	eSett comments incorporated
1.1	06.3.2017	Zdeněk Kroupa (Unicorn a.s.)	Specific Data Package Document chapter updated about used formats and XML samples.
1.2	03.4.2017	Zdeněk Kroupa (Unicorn a.s.)	4.4. Data Packages per Type chapter was added. Chapter contains description of all supported specific data packages.

1.3	18.7.2017	Zdeněk Kroupa (Unicorn a.s.)	New data packages for DSO Structure Management introduced in chapter 4 Specific Data Package Documents: • Consumption MEC • MGA Imbalance Retailer • Production Units

3 Generic Data Package Documents

3.1 Introduction

Term ‘Generic’ is used for all those Data Packages using the generic XML format *Basse Time Series Document*. Basse Data Packages are not part of an Acknowledgement process which means that Basse does not expect any acknowledgement to this document.

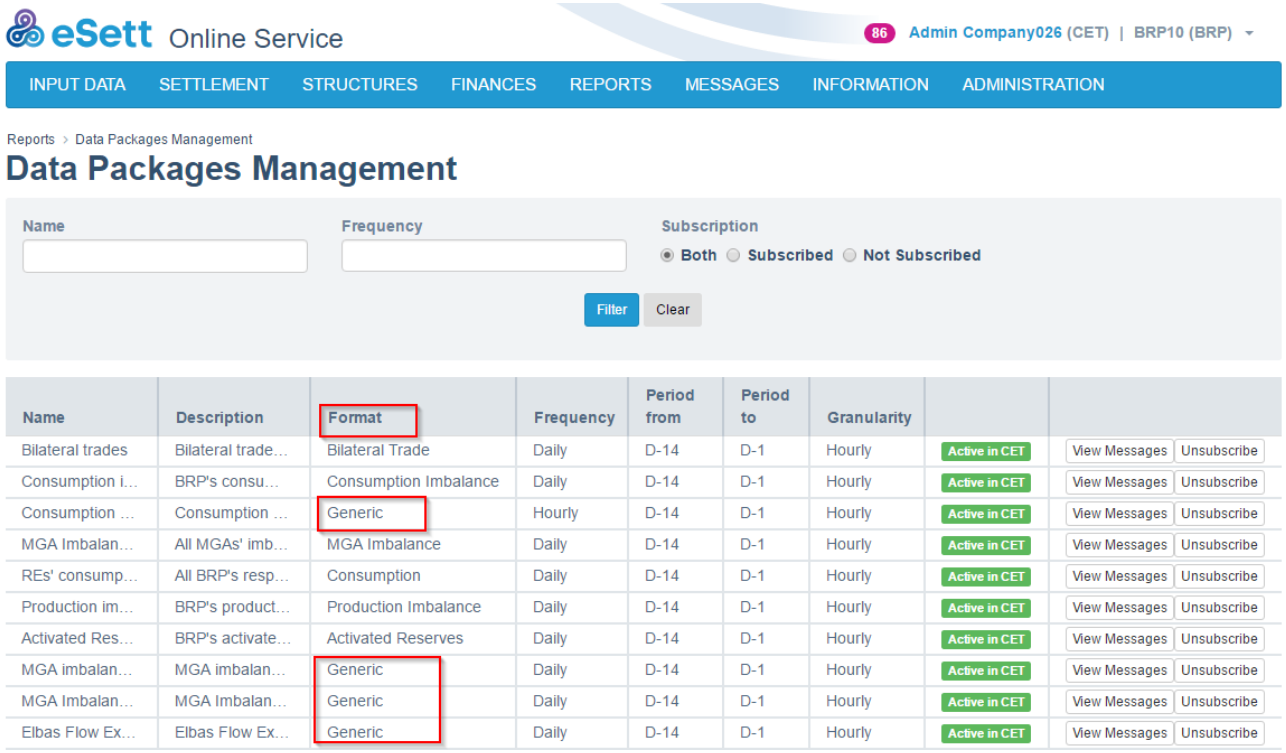
Basse Time Series Document Format is a simplified ENTSO-E based XML format that can hold almost any Basse time series data. This format is called ‘Generic’ for its capability to be populated by various settlement data without having different XSD.

Generic data packages contain various settlement data on different aggregation levels (areas, market participants or time aggregation). Receiver of this data package must adopt only one format (one XSD) with recognition what data it contains. Thus, new data package can be added without publishing new interface (XSD).

See the list of available generic data packages in General Data Package Overview.

Data Packages using Basse Time Series Documents are distinguished by value ‘Generic’ in column ‘Format’ in Online Service Data Package Management.

Figure 2 - Generic Data Packages in Online Service



Basse Time Series Document is described in following chapter.

3.2 Basse Time Series Document

Basse Time Series Document is an XML document based on ENTSO-E standards.

General XML document features:

- Data are stored in attribute ‘v’. No data are stored to child elements.

Basse Time Series Document Format is described in following table. Please note that

- sign [x] (e.g. [2]) in Element column determines the level in the XML structure for easy navigation

Table 4 - Basse Time Series Document Attribute Usage

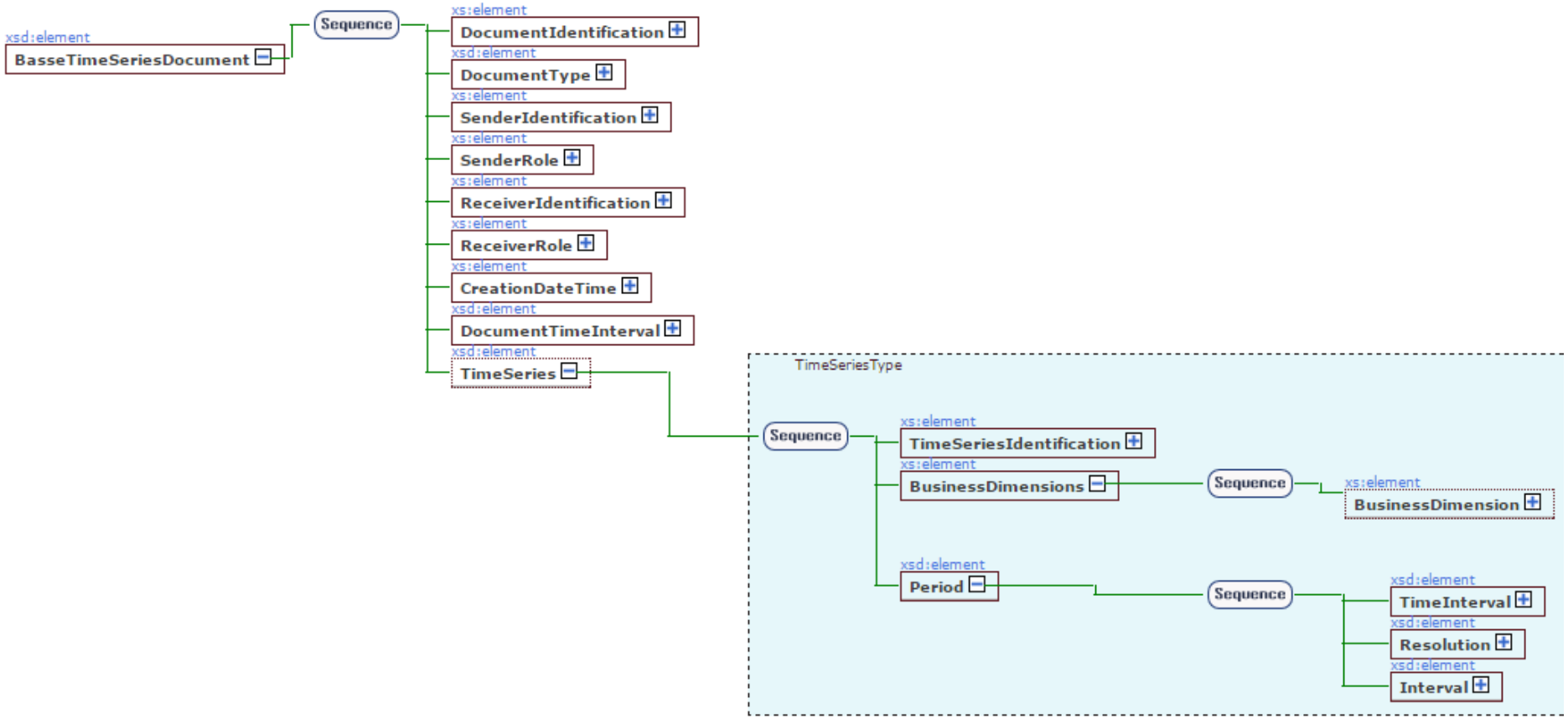
Element *Attribute*	Card.	Description	Max Size	XML Example
[1] Basse Time Series Document	[1]	The root of the document.		
[2] Document Identification	[1]	Unique identification of the business document.	A35	<DocumentIdentification v="9e4ceec7825544b7a7d7203aaa10a451">
[2] Document Type	[1]	Type of document. Document Type uniquely identifies the data package to which the market party subscribed. E.g. Document Type 'PROD_MINOR_BRP_MBA' identifies data package 'Production Minor Aggregated per BRP and MBA'. Data Package specifies what data will be populated in XML document. See Table 7 - Generic Data Package Document Types with mapping between data package name and document type. *Note: Document Type Codes List is not part of XML Scheme Definition (XSD) to allow adding a new data package without changing the interface.*	A255	<DocumentType v="GDP_PROD_MINOR_BRP_MBA"/>
[2] Sender Identification	[1]	Sender Identification is unique identification of the sender (eSett ID). ENTSO-E document code and scheme identifiers are used.	A16	<SenderIdentification v="44X-00000000004B" codingScheme="A01" />
Coding Scheme	[1]	Coding scheme for sender identification. **A01** – EIC	A3	
[2] Sender Role	[1]	The sender role, which identifies the role of the sender within the document. **A05** - Imbalance settlement responsible	A3	<SenderRole v="A05" />
[2] Receiver Identification	[1]	The receiver of the document is identified by a unique coded identification.	A16	<ReceiverIdentification v="11XHYDROENERGIEG" codingScheme="A01" />
Coding Scheme	[1]	Coding scheme for receiver identification.	A3	

		• **A01** - EIC • **A10 -** GS1 • **NFI** - Finland National coding scheme • **NSE -** Sweden National coding scheme • **NNO** Norway National coding scheme • **NDK** Denmark National coding scheme		
[2] Receiver Role	[1]	The receiver role, which identifies the role of the receiver within the document. • **A08** – Balance Responsible Party (BRP) • **A09 –** Metered Data Aggregator (DSO)	A3	<ReceiverRole v="A08" />
[2] Creation Date Time	[1]	The date and time that the document was prepared for transmission by the application of the sender. The date and time expressed in UTC as YYYY-MM-DDTHH:MM:SSZ.	A20	<CreationDateTime v="2016-02-27T07:35:08Z" />
[2] Document Time Interval	[1]	The beginning and ending date and time of the period covered by the document containing the time series. The start and end date and time is expressed as YYYY-MM-DDTHH:MMZ/YYYYMM-DDTHH:MMZ. The time is expressed in UTC.	A35	<DocumentTimeInterval v="2015-01-13T00:00Z/2015-01-13T23:00Z"/>
[2] Time Series	[1..*]	Document may contain one or more time series identified by business dimensions and time series ID.		<TimeSeries>
[3] Time Series Identification	[1]	Unique ID of the Time Series (unique over time for the sender in question)	A35	<TimeSeriesIdentification v="b4c02bbdd20e46e8b6988d859b837b5a" />
[3] Business Dimensions	[1]	Definition of business dimensions of data. The basis of the generic Basse format. Most Basse time series are defined by area, market party, type/product (e.g. Production Minor, Pumped Storage Consumption) and in addition there might be units (PU, RO). The list of these business dimensions determines the time series data. Business dimensions may vary for each data package.		<BusinessDimensions>

		See the list of business dimensions used by each data package in Table 7 - Generic Data Package Document Types.		
[4] Business Dimension	[1..*]	A reference of business dimension to which the data is bound. Business dimension contains name, value and coding scheme if it is used. See Table 5 - Business Dimension Types.		<BusinessDimension name="MBA" codingScheme="A01 v="TD_MBA1" /> <BusinessDimension name="BRP" codingScheme="A01" v="TD_BRP1" />
Name	[1]	Unique name of the business dimension, e.g. MBA, BRP etc. Different data packages use different dimensions. See Table 5 - Business Dimension Types.	A35	
Coding Scheme	[0..1]	Coding scheme is used only if an object, such as a party, a domain (area, unit) has identifier scheme to uniquely identify responsible agency for the code.	A3	
[4] Period	[1..*]	There is at least one Period class in a time series.		
[5] Time Interval	[1]	This information provides the start and end date and time of the period being reported. The start and end date and time must is expressed in UTC with the following format: YYYY-MM-DDTHH:MMZ/YYYY-MMDDTHH:MMZ.	A35	<TimeInterval v="2015-01-13T00:00Z/2015-01-13T23:00Z "/>
[5] Resolution	[1]	This information defines the resolution of a single period. The resolution is expressed in compliance with ISO 8601 in the following format: PnYnMnDTnHnMnS. Where nY expresses a number of years, nM a number of months, nD a number of days. The letter “T” separates the date expression from the time expression and after it nH identifies a number of hours, nM a number of minutes and nS a number of seconds. **PT60M (**PT1H**)** for hourly resolution, P1D – Day, P7D -Week	A14	<Resolution v="PT60M"/>
[5] Interval	[1..*]	The interval class contains the relative position within a time interval period and the value associated with that position. The position begins with 1 and increment by 1 for each subsequent position forming		<Interval>

		a series of contiguous numbers covering the complete range of the period.		
[6] Pos	[1]	This information provides the relative position of a period within a time interval. The relative position must be expressed as a numeric integer. Value beginning with 1.	I6	<Pos v="4"/>
[6] Value	[1]	A value specified for the given position. 'Name' attribute specifies type of the value (currently only quantity is supported). The maximum length of this information is 17 numeric characters (decimal point and sign, if used, included). The resolution is in **MWh** with max 6 decimals for value of type 'Quantity'.	DE17	<Value name="Q" v="26"/>
Name	[1]	Value type: **Q (**quantity**)**	A35	

Figure 3 - XML Scheme Visualization



3.2.1 **Coding Schemes**

Basse Time Series Format uses ENTSO-E coding schemes to identify uniquely the responsible agency for the code or identifier of an object, such as a party, a domain (Metering Point, Area etc.).

Coding Schemes are used currently for following objects:

- Areas (MBA, MGA)
- Market Parties (RE, BRP, DSO)

Coding Schemes are not used for code list items like e.g. Consumption types.

Coding Schemes in BASSE (EIC, GS1) are converted to ENTSO-E coding scheme according to following table.

BASSE Coding Scheme	Attribute 'codingScheme'
EIC	**A01**
GS1	**A10**
NFI	**NFI**
NSE	**NSE**
NNO	**NNO**
NDK	**NDK**

Example of BRP in BASSE (Online Service):

Code: BRP1, Coding Scheme: EIC

Data package XML document will include:

```
<ReceiverIdentification v="BRP1" codingScheme="A01" />
<BusinessDimension name="BRP" codingScheme="A01" v="BRP1" />
```

3.2.2 **Business Dimension Types**

Basse uses following list of business dimensions to describe time series in the Basse Time Series Document.

Table 5 - Business Dimension Types

XML Attribute 'Name' Value	Coding Scheme	Description
BRP	Yes	Value contains Balance Responsible Party (BRP) unique code with Coding Scheme attribute set (see Coding Schemes). XML element sample: `<BusinessDimension name="BRP" codingScheme="A01" v="BRP1" />`
RE	Yes	Value contains Retailer (RE) unique code with Coding Scheme attribute set (see Coding Schemes). XML element sample: `<BusinessDimension name="RE" codingScheme="A01" v="RE1" />`
MGA	Yes	Value contains Metering Grid Area (MGA) unique code with Coding Scheme attribute set (see Coding Schemes). XML element sample: `<BusinessDimension name="MGA" codingScheme="A01" v="MGA1" />`
MBA	Yes	Contains Market Balance Area (MBA) unique code with Coding Scheme attribute set (see Coding Schemes). `<BusinessDimension name="MBA" codingScheme="A01" v="MBA1" />`
CONSUMPTION_ TYPE	No	Identifies the type of the consumption together with Measurement Type. See Consumption Type Code List. XML element sample: `<BusinessDimension name="CONSUMPTION_TYPE" v="A04" />`
MEASUREMENT_TYPE	No	Identifies the type of consumption together with Consumption Business Type. See Consumption Type Code List. XML element sample: `<BusinessDimension name="MEASUREMENT_TYPE" v="E01" />`
PU_TYPE	No	Identifies the type of Production Unit. XML element sample: `<BusinessDimension name="PU_TYPE" v="WIND" />`

3.2.2.1 *Consumption Type Code List*

Basse consumption metering data interchange uses ebIX® format and business types.

Generic data-packages containing consumption data use ebIX business types codes published in BRS (e.g. ‘Aggregated Data per MGA (E31, E44)’) to determine the type of consumption.

Table 6 - Consumption Type Code List

Basse Measurement Type	Basse Consumption Type	XML Measurement Type Code	XML Consumption Type Code
Profiled	General	E01	A04
Profiled	Pumped	E01	B27
Profiled	Grid Losses	E01	A15
Metered	General	E02	A04
Metered	Large Installation	E02	B28
Metered	Pumped	E02	B27
Metered	Pumped Storage	E02	A07
Metered	Interruptible	E02	A72
Metered	Grid Losses	E02	A15
Metered	Production Unit Own Consumption	E02	B36

3.2.3 **Values & Units**

Rules governing values & units:

- Measurement unit for quantities is MWh
- Positive values are sent without sign and negative values are sent with a leading minus
- Number scale is six (maximum number of decimal places)

3.3 General Data Package Overview

Following table contains the list of currently available data packages using Basse Time Series Document (Generic Format). There is a mapping between Document Type, Business Dimensions used in XML and data package name as is available for subscription in Online Service.

Table 7 - Generic Data Package Document Types

Data Package Name	Recepient	Document Type	Business Dimensions
Consumption per BRP and MBA	BRP	CONS_BRP_MBA_HOUR	BRP, MBA
Consumption per type per BRP and MBA	BRP	CONS_BRP_MBA_TYPE_HOUR	BRP, MBA, CONSUMPTION_TYPE, MEASUREMENT_TYPE
Consumption per RE and MGA	BRP	CONS_RE_MGA_HOUR	RE, MGA
Production Minor per BRP and MBA	BRP	PROD_MINOR_BRP_MBA_HOUR	BRP, MBA
Production Plan per BRP and MBA	BRP	PP_BRP_MBA_HOUR	BRP, MBA
Bilateral Trade Purchase per BRP and MBA	BRP	BIT_PURCHASE_BRP_MBA_HOUR	BRP, MBA
Bilateral Trade Sales per BRP and MBA	BRP	BIT_SALES_BRP_MBA_HOUR	BRP, MBA
Day-ahead Purchase per BRP and MBA	BRP	DAY_AHEAD_PURCHASE_BRP_MBA_HOUR	BRP, MBA
Day-ahead Sales per BRP and MBA	BRP	DAY_AHEAD_SALES_BRP_MBA_HOUR	BRP, MBA
Intraday Purchase per BRP and MBA	BRP	INTRADAY_PURCHASE_BRP_MBA_HOUR	BRP, MBA
Intraday Sales per BRP and MBA	BRP	INTRADAY_SALES_BRP_MBA_HOUR	BRP, MBA
Day-ahead Flow Import per BRP and MBA	BRP	DAY_AHEAD_IMPORT_BRP_MBA_HOUR	BRP, MBA
Day-ahead Flow Export per BRP and MBA	BRP	DAY_AHEAD_EXPORT_BRP_MBA_HOUR	BRP, MBA
Intraday Flow Import per BRP and MBA	BRP	INTRADAY_IMPORT_BRP_MBA_HOUR	BRP, MBA
Intraday Flow Export per BRP and MBA	BRP	INTRADAY_EXPORT_BRP_MBA_HOUR	BRP, MBA
MGA Imbalance Surplus per BRP and MBA	BRP	MGI_SURPLUS_BRP_MBA_HOUR	BRP, MBA
MGA imbalance Deficit per BRP and MBA	BRP	MGI_DEFICIT_BRP_MBA_HOUR	BRP, MBA

Consumption Imbalance Adjustment Up per BRP and MBA	BRP	CONS_IA_UP_BRP_MBA_HOUR	BRP, MBA
Consumption Imbalance Adjustment Down per BRP and MBA	BRP	CONS_IA_DOWN_BRP_MBA_HOUR	BRP, MBA
MGA Trade Import per BRP and MBA	BRP	MGT_IMPORT_BRP_MBA_HOUR	BRP, MBA
MGA trade Export per BRP and MBA	BRP	MGT_EXPORT_BRP_MBA_HOUR	BRP, MBA
Consumption Pump Storage per BRP and MBA	BRP	CONS_PS_BRP_MBA_HOUR	BRP, MBA
Normal Production per BRP and MBA	BRP	NORMAL_PROD_BRP_MBA_HOUR	BRP, MBA
Production Imbalance Adjustment Up per BRP and MBA	BRP	PROD_IA_UP_BRP_MBA_HOUR	BRP, MBA
Production imbalance Adjustment Down per BRP and MBA	BRP	PROD_IA_DOWN_BRP_MBA_HOUR	BRP, MBA

3.4 XML Samples and XSD

Complete set of Generic Data Packages examples and XSD is available on the following link: Basse Generic Data Package XSD and XML Samples.

Each example has Document Type in the file name to identify the data package. E.g. GDP_CONS_BRP_MBA_HOUR_06_02_2017_13_41.xml refers CONS_BRP_MBA_HOUR (Consumption per BRP and MBA). File name suffix determines the creation date of the example.

4 Specific Data Package Documents

4.1 Introduction

Specific Data Packages utilize ENTSO-E and ebIX® document standards adjusted for NBS purposes by NEG organization and specified in the BRS. Data sent into Basse (via Inbound data flows) are available in the same format in specific data package sent from Basse to market party system. E.g. Consumption data reported to Basse in document ebIX® based NEG Aggregated Data per MGA (E31, E44) are available in the same format via Data Package 'REs consumption data per type and MGA'.

There is a list of supported specific data packages available for market party subscription in Online Service.

4.2 Data Package Overview

Following table describes the list of specific data packages with supported recipients (subscribers) and used document format. One format can be used by multiple data packages populated by the same type of data with different filter (e.g. Consumption - Losses, Consumption - All). Format name in this table is the format short name displayed in Online Service Data Package Management.

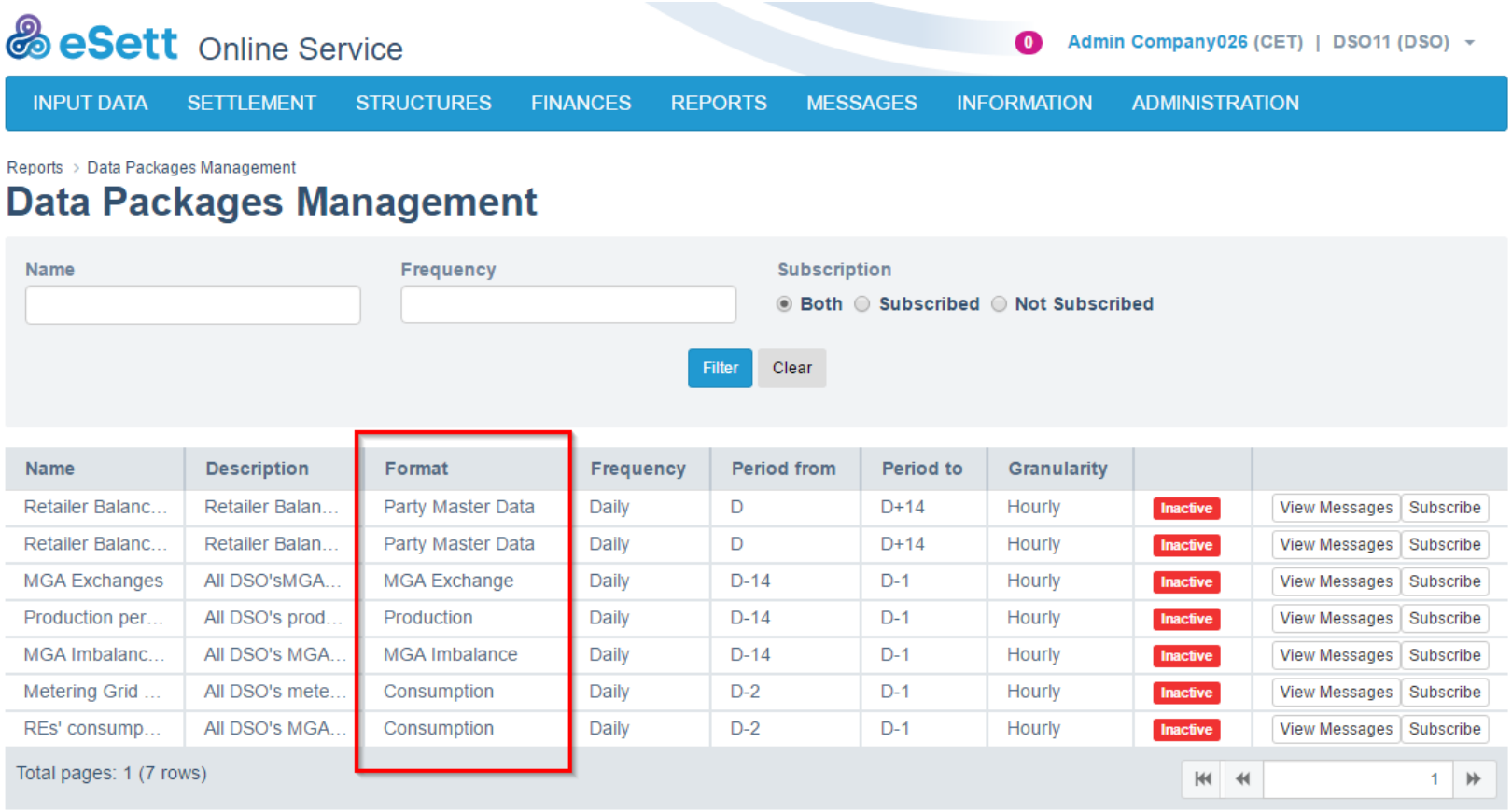
Table 8 - Specific Data Packages Overview

Name	Recipient	Format [Short Name]
Metering Grid Area (MGA) Losses per MGA	DSO	Consumption
REs' Consumption Data per Type and MGA	DSO, BRP	Consumption
MGA Imbalances	DSO, BRP	MGA Imbalance
MGA Exchanges	DSO	MGA Exchange
Production Per Production unit (PU)	DSO, BRP	Production
Production Plan per BRP and RO	BRP	Production Plan
Bilateral Trades	BRP	Bilateral Trade
Imbalance Prices per Market Balance Area (MBA)	BRP	Prices
Consumption Imbalance per BRP per MBA (Volume and Amount)	BRP	Consumption Imbalance

Production Imbalance per BRP per MBA (Volume and Amount)	BRP	Production Imbalance
Primary Frequency Containment Activated Reserves (FCR)	BRP	Activated Reserves
Secondary Frequency Restoration Reserves (FRR)	BRP	Activated Reserves
Tertiary Replacement Reserves (RR)	BRP	Activated Reserves
PX Trades – Day-ahead	BRP	PX Market Trades
PX Trades - Intraday	BRP	PX Market Trades
Retailer Balance Responsibility - Delta	DSO	Party Master Data
Retailer Balance Responsibility - All	DSO	Party Master Data
Consumption MEC (Active)	DSO	Party Master Data
Consumption MEC (Delta)	DSO	Party Master Data
Production Units (Active)	DSO	Party Master Data
Production Units (Delta)	DSO	Party Master Data
MGA Imbalance Retailer (Active)	DSO	Party Master Data
MGA Imbalance Retailer (Delta)	DSO	Party Master Data
REs' Merged Production Data per Type and MGA	BRP & DSO	Production
Capacity Reserves	BRP	Capacity Reserves

See chapter Supported Formats and BRS Mapping.

Figure 4 - Online Service Data Package Management and Format Information



4.3 Supported Formats and BRS Mapping

Following table provides the list of supported formats and mapping between data package format short name and ENTSO-E, ebIX® and NEG document including the reference to BRS.

Table 9 – SDP Supported Formats and BRS Mapping

Format Name (Short Name)	Related ebIX®, ENTSO-E, NEG XML Document	Based on Standard	BRS Document	XML Scheme Version
Consumption	NEG Aggregated Data per MGA (E31, E44)	ebIX®	NBS BRS	20151027
MGA Imbalance	NEG ESP Energy Account Report Document (EAR)	ENTSO-E	NBS BRS	20151027
MGA Exchange	NEG Aggregated Data per Neighbouring Grid for Settlement Responsible (E31, E44)	ebIX®	NBS BRS	20151027
Production	NEG Validated Data for Settlement for Aggregator (E66, E44)	ebIX®	NBS BRS	20151027
Production Plan	ERRP Planned Resource Schedule Document	ENTSO-E	NBS BRS for TSO-MO	20151027
Bilateral Trade	ESS Schedule Document	ENTSO-E	NBS BRS	20151027
Prices	NEG ECAN Publication Document	ENTSO-E	NBS BRS for TSO-MO	20151027
Consumption Imbalance	NEG ESP Energy Account Report Document (EAR)	ENTSO-E	NBS BRS	20151027
Production Imbalance	NEG ESP Energy Account Report Document (EAR)	ENTSO-E	NBS BRS	20151027
Activated Reserves	NEG ERRP Reserve Allocation Result Document	ENTSO-E	NBS BRS for TSO-MO	20151027
PX Market Trades	ESS Schedule Document	ENTSO-E	NBS BRS for TSO-MO	20151027
Party Master Data	NEG Party Master Data Document	NEG	NBS BRS for Master Data	20161027
Merged Production	NEG - ebIX - Aggregated data for production	NEG	NBS BRS	20191206
Capacity Reserves	NEG ERRP Reserve Allocation Result Document	ENTSO-E	NBS BRS for TSO-MO	20191113

Data Packages are data exchange from Basse to Market Party. BRS does not contain attribute usage for this data exchange and are described within this document.

Data Packages per Type

4.3.1 Consumption

4.3.1.1 *SDP: Metering Grid Area (MGA) Losses per MGA*

Attribute	
Name	Metering Grid Area (MGA) Losses per MGA
Receiver	DSO
Description	All DSO's metering grid areas' (MGA) losses per MGA
Format (Short Name)	Consumption
Document Standard	NEG Aggregated Data per MGA for Settlement Responsible (E31, E44)
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all DSO consumptions of type **Losses** **Business Type = 'A15'**

4.3.1.2 *SDP: REs' Consumption Data per Type and MGA (DSO)*

Attribute	
Name	REs' Consumption Data per Type and MGA
Receiver	DSO
Description	All DSO's metering grid areas' (MGA) per MGA and Consumption Type
Format (Short Name)	Consumption
Document Standard	NEG Aggregated Data per MGA for Settlement Responsible (E31, E44)
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all DSO consumptions. DSO is Consumption MEC attribute.

1.0.1.1 SDP: REs' Consumption Data per Type and MGA (BRP)

Attribute	
Name	REs' Consumption Data per Type and MGA
Receiver	BRP
Description	All DSO's metering grid areas' (MGA) per MGA and Consumption Type
Format (Short Name)	Consumption
Document Standard	NEG Aggregated Data per MGA for Settlement Responsible (E31, E44)

Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET
Data Scope (Filter)	System selects all BRP consumptions. BRP is Consumption MEC attribute.

4.3.1.3 *Document Format Attribute Usage*

Document used for consumption data is 'NEG Aggregated Data per MGA for Settlement Responsible (E31, E44)'. Attribute usage is specified separately for document header and time series part for better navigation.

Mark [x] indicates the level in the document structure.

4.3.1.3.1 Header - NEG Aggregated Data per MGA for Settlement Responsible (E31, E44)

Attribute (XML schema)	Cl.	Value Description
Aggregated Data Per MGA For Settlement for Settlement Responsible		
[1] Header	[1]	
[2] Identification	[1]	*Unique identification of the business document.*
[2] Document Type	[1]	**E31** – Aggregated Metered Data from the Metered Data Aggregator
[2] Creation	[1]	*Document Creation Time Stamp.*
[2] Sender Energy Party	[1]	eSett Code and Coding Scheme
[2] Recipient Energy Party	[1]	Subscriber • BRP Code and Coding Scheme • DSO Code and Coding Scheme
[1] Process Energy Content	[1]	
[2] Energy Business Process	[1]	**E44** – stands for Imbalance Settlement
[2] Energy Business Process Role	[1]	**DDX** - Imbalance settlement responsible
[2] Energy Industry Classification	[1]	**23** - Electricity supply industry

[1] Payload Energy Time Series	[1..*]	*See Time Series Attribute Description*

4.3.1.3.2 Time Series - NEG Aggregated Data per MGA for Settlement Responsible (E31, E44)

Attribute (XML schema)	Cl.	Value Description
[1] Payload Energy Time Series	1..*]	
[2] Identification	[1]	Unique Time Series Identification
[2] Registration Date Time	[1]	Time of document creation.
[2] Observation Period Time Series Period	[1]	
[3] Resolution Duration	[1]	**PT1H** – for hourly data
[3] Start	[1]	Date and time for a start of a time series in format “YYYY-MM-DDTHH:MM:SSZ”
[3] End	[1]	Date and time for a end of a time series in format “YYYY-MM-DDTHH:MM:SSZ”
[2] Balance Responsible Involved Party	[0..1]	
[3] Identification	[1]	Code and Coding Scheme of BRP.
[2] Balance Supplier Involved Party	[0..1]	Not available if time series is a consumption on BRP level (Profiled Consumption in Sweden)
[3] Identification	[1]	Retailer code and coding scheme.
[2] Product Included Product Characteristics	[1]	
[3] Identification	[1]	Product: “**8716867000030**” - Energy active
[3] Unit Type	[1]	**MWH**
[2] MP Detail Measurement Metering Point Characteristics	[1]	
[3] Metering Point Type	[1]	**E17** - Consumption
[3] Settlement Method Type	[1]	**E01** - Profiled **E02** - Metered
[3] Business Type	[1]	**A04** – for General **B28** – for Large Installation **B27** – for Pumped **A15** – for Losses

		A07 – for Pumped Storage **A72** – for Interruptible
[2] Metering Grid Area Used Domain Location	[1]	Metering Grid Area of consumption.
[3] Identification	[1]	MGA Code and Coding Scheme
[2] Observation Interval Observation Period	[1..*]	
[3] Sequence	[1]	Sequence number of the observation in the time series
[3] Observation Detail Energy Observation	[1]	
[4] Energy Quantity	[1]	Positive value with maximal 6 decimals
[4] Quantity Quality	[0..1]	Quality: • **"21"** Temporary • **"56"** Estimated, approved for billing The default Quantity Quality is "**Metered**", i.e. Quantity Quality is only used if ≠ "Metered".

4.3.2 MGA Exchange Data Packages

4.3.2.1 *SDP: MGA Exchange*

Attribute	
Name	MGA Exchange
Receiver	DSO
Description	All DSO's MGA Exchanges
Format (Short name)	MGA Exchange
Document Standard	NEG Aggregated Data per Neighbouring Grid for Settlement Responsible (E31, E44)
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14

Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all DSO's MGA Exchanges (DSO is Out or In Party of MGA Exchange MEC)

4.3.2.2 *Document Format Attribute Usage*

Document used for consumption data is 'NEG Aggregated Data per Neighbouring Grid for Settlement Responsible (E31, E44)'. Attribute usage is specified separately for document header and time series part for easy navigation.

Mark [x] indicates the level in the document structure.

4.3.2.2.1 Header - NEG Aggregated Data per Neighboring Grid for Settlement Responsible (E31, E44)

Attribute (XML schema)	Cl.	Value Description
Aggregated Data Per Neighbouring Grid for Settlement for Settlement Responsible		
[1] Header	[1]	
[2] Identification	[1]	Document ID is unique identification of the business document.
[2] Document Type	[1]	**E31**
[2] Creation	[1]	Document Creation Time Stamp.
[2] Sender Energy Party	[1]	eSett Code and Coding Scheme
[2] Recipient Energy Party	[1]	DSO Code and Coding Scheme
[1] Process Energy Content	[1]	
[2] Energy Business Process	[1]	**E44** - Imbalance Settlement
[2] Energy Business Process Role	[1]	**DDX** - Imbalance Settlement Responsible
[2] Energy Industry Classification	[1]	**23 -** Electricity supply industry

[1] Payload Energy Time Series	[1..*]	*See Time Series part.*

4.3.2.2.2 Time Series - NEG Aggregated Data per Neighboring Grid for Settlement Responsible (E31, E44)

Attribute (XML schema)	Cl.	Value Description
[1] Payload Energy Time Series	[1..*]	*Each time series has an In Area (Metering Grid Area) and an Out Area (Metering Grid Area) defining the direction of the flow. There is only one time series for each exchange, i.e. netted values are exchanged.*
[2] Identification	[1]	Unique Time Series Identification
[2] Registration Date Time	[1]	Same as Document Creation date.
[2] Observation Period Time Series Period	[1]	
[3] Resolution Duration	[1]	In NBS hourly resolution is used, i.e. **PT1H** or **PT60M**
[3] Start	[1]	Date and time for the start of the time series
[3] End	[1]	Date and time for the end of the time series
[2] Product Included Product Characteristics	[1]	
[3] Identification	[1]	Product: "**8716867000030**" (Energy active)
[3] Unit Type	[1]	**MWH**
[2] MP Detail Measurement Metering Point Characteristics	[1]	
[3] Metering Point Type	[1]	**E20** - Metering Point Type (Exchange)
[2] Metering Grid Area Used Domain Location	[1]	MGA code and coding scheme for which the DSO is responsible.
[3] Identification	[1]	MGA Code and Coding Scheme
[2] In Area Used Domain Location	[1]	**In MGA**

[3] Identification	[1]	MGA Code and Coding Scheme
[2] Out Area Used Domain Location	[1]	**Out MGA**
[3] Identification	[1]	MGA Code and Coding Scheme
[2] Observation Interval Observation Period	[1..*]	*The number of occurrences with incremental sequence within Observation Time Period interval.*
[3] Sequence	[1]	Position/index in the time series.
[3] Observation Detail Energy Observation	[1]	
[4] Energy Quantity	[1]	Quantity can be positive or negative decimal number. *NOTE: Netted values are exchanged. The flow from Out Area to In Area will be reported as positive quantities, while the opposite direction will be reported as negative quantities (with a leading minus sign).*
[4] Energy Quantity	[0..1]	Quality is present only if it is different from 'Metered': • **21** Temporary • **56** Estimated (*approved for billing*)

4.3.3 Production Data Packages

4.3.3.1 *SDP: Production Per Production Unit (for DSO)*

Attribute	
Name	Production Per Production unit
Receiver	DSO
Description	All DSO's productions per production unit (PU)
Format (Short name)	Production
Document Standard	Validated Data for Settlement for Aggregator (E66, E44)

Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all DSO's productions per production unit (PU)

4.3.3.2 *SDP: Production Per Production Unit (for BRP)*

Attribute	
Name	Production Per Production unit
Receiver	BRP
Description	All productions per production unit under BRP's balance responsibility
Format (Short name)	Production
Document Standard	Validated Data for Settlement for Aggregator (E66, E44)
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all productions per production unit under BRP's balance responsibility

4.3.3.3 *Document Format Attribute Usage*

Document used for consumption data is 'Validated Data for Settlement for Aggregator (E66, E44)'. Attribute usage is specified separately for document header and time series part for easy navigation.

Mark [x] indicates the level in the document structure.

4.3.3.3.1 Header - Validated Data for Settlement for Aggregator (E66, E44)

Attribute (XML schema)	Cl.	Value Description
Validated Data for Settlement for Aggregator		
[1] Header	[1]	
[2] Identification	[1]	*Document ID Unique identification of the business document*.
[2] Document Type	[1]	**E66**
[2] Creation	[1]	Document Creation Time Stamp
[2] Sender Energy Party	[1]	Basse
[3] Identification	[1]	eSett Code and Coding Scheme
[2] Recipient Energy Party	[1]	Subscriber
[3] Identification	[1]	Receiver according to subscribed data package: • BRP Code and Coding Scheme • DSO Code and Coding Scheme
[1] Process Energy Content	[1]	
[2] Energy Business Process	[1]	**E44** - Imbalance Settlement
[2] Energy Business Process Role	[1]	**DEA** – ISR in role of Metered Data Aggregator
[2] Energy Industry Classification	[1]	**23** - Electricity supply industry
[1] Payload Energy Time Series	[1..*]	*See Time Series part*

4.3.3.3.2 *Time Series - Validated Data for Settlement for Aggregator (E66, E44)*

Attribute (XML schema)	Cl.	Value Description
[1] Payload Energy Time Series	[1..*]	Repeated for each Production MEC found for the subscriber DSO or BRP. If there are no production data within the reported period than the time series is omitted from the message. If there are missing quantities at some hours, then Missing Quantity indicator is used.
[2] Identification	[1]	Unique Time Series Identification
[2] Registration Date Time	[1]	Same as Document Creation date
[2] Observation Period Time Series Period	[1]	
[3] Resolution Duration	[1]	**PT1H** – hourly resolution
[3] Start	[1]	Date and time for the start of the time series
[3] End	[1]	Date and time for the end of the time series
[2] Product Included Product Characteristics	[1]	
[3] Identification	[1]	Product: "**8716867000030**" (Energy active)
[3] Unit Type	[1]	**MWH**
[2] MP Detail Measurement Metering Point Characteristics	[1]	
[3] Metering Point Type	[1]	**E18** - Production
[2] Metering Point Used Domain Location	[1]	Production Unit
[3] Identification	[1]	Unique identification of the Production Unit
[2] Observation Interval Observation Period	[1..*]	*The number of occurrences with incremental sequence within Observation Time Period interval*
[3] Sequence	[1]	Position/index in the time series.

[3] Observation Detail Energy Observation	[1]	
[4] Energy Quantity	[0..1]	Quantity is not used (not available) if Quantity Missing Indicator is True.
[4] Quantity Quality	[0..1]	Quantity Quality is only used if ≠ "Metered": • **"21"** Temporary • **"56"** Estimated, approved for billing.
[4] Quantity Missing	[0..1]	**True** (Used for missing quantity – quantity is null).

4.3.4 **Merged Production Data Package**

4.3.4.1 *SDP: REs' Merged Production Data per Type and MGA (for DSO)*

Attribute	
Name	REs' Merged Production Data per Type and MGA
Receiver	DSO
Description	All DSO's metering grid areas' (MGA) per MGA, Production Type and Production Unit Type
Format (Short name)	Merged Production
Document Standard	NEG (ebIX® based) Aggregated Data per MGA (E31, E44) - production
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.

Data Scope (Filter)	System selects all DSO merged productions. DSO is merged production MEC attribute.

4.3.4.2 *SDP: REs' Merged Production Data per Type and MGA (for BRP)*

Attribute	
Name	REs' Merged Production Data per Type and MGA
Receiver	BRP
Description	REs' Merged Production Data per Type and MGA
Format (Short name)	Merged Production
Document Standard	NEG (ebIX® based) Aggregated Data per MGA (E31, E44) - production
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP merged productions. BRP is merged production MEC attribute.

4.3.4.3 *Document Format Attribute Usage*

Document used for consumption data is ‘NEG (ebIX® based) Aggregated Data per MGA (E31, E44) - production’. Attribute usage is specified separately for document header and time series part for easy navigation.

Mark [x] indicates the level in the document structure.

4.3.4.3.1 Header - NEG (ebIX® based) Aggregated Data per MGA (E31, E44) - production

Attribute (XML schema)	Cl.	Value Description

Validated Data for Settlement for Aggregator		
[1] Header	[1]	
[2] Identification	[1]	*Document ID Unique identification of the business document*.
[2] Document Type	[1]	**E31**
[2] Creation	[1]	Document Creation Time Stamp
[2] Sender Energy Party	[1]	44X-00000000004B
[3] Identification	[1]	eSett Code and Coding Scheme
[2] Recipient Energy Party	[1]	Subscriber
[3] Identification	[1]	Receiver according to subscribed data package: • BRP Code and Coding Scheme • DSO Code and Coding Scheme
[1] Process Energy Content	[1]	
[2] Energy Business Process	[1]	**E44** - Imbalance Settlement
[2] Energy Business Process Role	[1]	**DDX** - Imbalance settlement responsible
[2] Energy Industry Classification	[1]	**23** - Electricity supply industry
[1] Payload Energy Time Series	[1..*]	*See Time Series part*

4.3.4.3.2 Time Series - Validated Data for Settlement for Aggregator (E66, E44)

Attribute (XML schema)	Cl.	Value Description
[1] Payload Energy Time Series	[1..*]	
[2] Identification	[1]	Unique Time Series Identification
[2] Registration Date Time	[1]	Same as Document Creation date
[2] Observation Period Time Series Period	[1]	

[3] Resolution Duration	[1]	In NBS hourly or quarterly resolution is used, i.e. **PT1H**, **PT60M** or **PT15M**.
[3] Start	[1]	Date and time for the start of the time series
[3] End	[1]	Date and time for the end of the time series
[2] Balance Responsible Involved Party	[0..1]	
[3] Identification	[1]	Code and Coding Scheme of BRP.
[2] Balance Supplier Involved Party	[0..1]	
[3] Identification	[1]	Retailer code and coding scheme.
[2] Product Included Product Characteristics	[1]	
[3] Identification	[1]	Product: "**8716867000030**" - Energy active
[3] Unit Type	[1]	**'MWH'**
[2] MP Detail Measurement Metering Point Characteristics	[1]	
[3] Metering Point Type	[1]	**'E18'** - Production
[3] Settlement Method Type	[1]	**'E02'** – Non-profiled
[3] Business Type	[1]	"**A01**" - Production
[3] Asset Type	[0..1]	**"B14"** Nuclear **"B16"** Solar **"B20"** Other production **"Z04"** Thermal **"Z05"** Wind **"Z06"** Hydro

[3] Production Type	[0..1]	"**Z01**" – Normal "**Z02**" - Minor

4.3.5 Production Plan Data Packages

4.3.5.1 *SDP: Production Plan per BRP and RO*

Attribute	
Name	Production Plan per BRP and RO
Receiver	BRP
Description	All BRP's production plans per RO
Format (Short name)	Production Plan
Document Standard	ERRP Planned Resource Schedule Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP's production plans per RO and MBA

4.3.5.2 *Document Format Attribute Usage*

Document used for consumption data is 'ERRP Planned Resource Schedule Document'. Attribute usage is specified separately for document header and time series part for easy navigation.

Mark [x] indicates the level in the document structure.

4.3.5.2.1 Header - ERRP Planned Resource Schedule Document

Attribute (XML Schema)	Cl.	Value Description
Planned Resource Schedule Document		
[1] Document Identification	[1]	*Document ID - unique identification of the business document.*
[1] Document Version	[1]	*Document Version is Unique identification of the document. Should be fixed "1".*
[1] Document Type	[1]	**A14**
[1] Process Type	[1]	**A17**
[1] Sender Identification	[1]	eSett Code and Coding Scheme
[1] Sender Role	[1]	**A05** - Imbalance Settlement Responsible
[1] Receiver Identification	[1]	Subscriber: BRP Code and Coding Scheme
[1] Receiver Role	[1]	**A08** – Balance Responsible Party
[1] Creation Date Time	[1]	Creation Date Time (represents time stamp of file generation in UTC).
[1] Time Period Covered	[1]	Period covered by the document containing the schedule. YYYY-MM-DDTHH:MM:SSZ/YYYY-MM-DDTHH:MM:SSZ
[1] Domain	[1]	Nordic Market Area ID = "10Y1001A1001A91G"
[1] Subject Party	[0..1]	*Not used by Basse*
[1] Subject Role	[0..1]	*Not used by Basse*
[1] Planned Resource Schedule Time Series	[1..*]	*See Time Series Attributes*

4.3.5.2.2 Time Series - ERRP Planned Resource Schedule Document

Attribute (XML schema)	Cl.	Value Description
[1] Planned Resource Schedule Time Series	[1..*]	*There can be one and more Production Plans for BRP receiver. If there no data, then the data package is not sent at all.*

[2] Time Series Identification	[1]	Unique Time Series Identification
[2] Business Type	[1]	Designates resource plan type. **A01** Production **A04** Consumption – NOT USED CURRENTLY **Z52** Small scale production – NOT USED CURRENTLY
[2] Product	[1]	'**8716867000030**' - Code of the product
[2] Connecting Area	[1]	**MBA** Code and Coding Scheme
[2] Resource Object	[1]	Regulation Object (RO) Code and Coding Scheme
[2] Resource Provider	[1]	BRP Code and Coding Scheme
[2] Measurement Unit	[1]	**MWH -** Unit of measurement
[2] Object Aggregation	[1]	**A06** - Aggregation
[2] Period	[1..*]	Period with time interval and positions (sequence of hours). There can be more than one period in one time series to enable gaps in reported values.
[3] Time Interval	[1]	YYYY-MM-DDTHH:MM:SSZ/YYYY-MM-DDTHH:MM:SSZ
[3] Resolution	[1]	**PT1H** – for hourly data
[3] Interval	[1..*]	
[4] Pos	[1]	Relative position within the time interval.
[4] Qty	[1]	Production Plan Quantity in MWH with 6 decimal precision.

4.3.6 Bilateral Trades Data Packages

4.3.6.1 *SDP: Bilateral Trades Data Packages*

Attribute

Name	Bilateral Trades
Receiver	BRP
Description	Bilateral trades under BRP's balance responsibility
Format (Short name)	Bilateral Trade
Document Standard	ESS Schedule Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all Bilateral trades under BRP's balance responsibility

4.3.6.2 *Document Format Attribute Usage*

Document used for bilateral trade data is ‘ESS Scheduled Document‘.

Mark [x] indicates the level in the document structure.

Attribute (XML schema)	Cl.	Value Description
[1] Schedule Document	[1]	
[2] Document Identification	[1]	Document ID is unique identification of the document.
[2] Document Version	[1]	Document Version = ‘**1**’
[2] Document Type	[1]	**A01**
[2] Process Type	[1]	**Z05** - Bilateral Trade

[2] Schedule Classification Type	[1]	**A02 -** Summary type
[2] Sender Identification	[1]	eSett Code and Coding Scheme
[2] Sender Role	[1]	**A05** – Imbalance Settlement Responsible
[2] Receiver Identification	[1]	Subscriber BRP Code and Coding scheme
[2] Receiver Role	[1]	**A08** – Balance Responsible Party
[2] Creation Date Time	[1]	Creation Date Time (represents time stamp of file generation in UTC).
[2] Schedule Time Interval	[1]	Period covered by the document containing the schedule.
[2] Domain	[1]	Nordic Market Area ID = “10Y1001A1001A91G” with “A01” Coding Scheme
[2] Schedule Time Series	[1..*]	
[3] Senders Time Series Identification	[1]	Unique Time Series Identification
[3] Senders Time Series Version	[1]	Time Series version. For NBS: **“1”**
[3] Business Type	[1]	**A08** - Net internal trade
[3] Product	[1]	‘**8716867000030**’ - Active energy
[3] Object Aggregation	[1]	Identifies to what extent object is aggregated: **‘A01’** Area
[3] In Area	[1]	MBA Code and Coding Scheme - Market Balance Area where trade has taken place.
[3] Out Area	[1]	Out Area same as In Area
[3] In Party	[1]	**BRP** Code and Coding Scheme acting as the **Buyer** in the Bilateral Trade.
[3] Out Party	[1]	**BRP** Code and Coding Scheme acting as the **Seller** in the Bilateral Trade.
[3] Capacity Agreement Identification	[0..1]	An ID, only used when reporting trade on a Balance Supplier (Retailer) level, identifying the two involved Balance Suppliers and the related Market Balance Area. The Bilateral Trade ID will be unique in combination with In Party, Out Party and MBA.
[3] Measurement Unit	[1]	**MWH** – Unit of Measurement

[3] Period	[1..*]	Period with time interval and positions (sequence of hours). There can be more than one period in one time series due to gaps in reported values.
[4] Time Interval	[1]	The start and end date and time of the time interval of the period in question.
[4] Resolution	[1]	**PT1H**
[4] Interval	[1..*]	
[5] Pos	[1]	Relative position within the time interval.
[5] Qty	[1]	*Quantity of the product scheduled for the position.* The direction from out party (seller) to in party (buyer) is positive, while the opposite direction is negative (with minus signs)).

4.3.7 Prices Data Packages

4.3.7.1 *SDP: Imbalance Prices per Market Balance Area (MBA)*

Attribute	
Name	Imbalance Prices per Market Balance Area (MBA)
Receiver	BRP
Description	Production and consumption imbalance prices per MBA
Format (Short name)	Prices
Document Standard	Publication Document
Aggregation	Time Aggregation – H (Hourly)

Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 16:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all Production and Consumption Imbalance Prices per MBA. Prices from all MBAs are selected regardless BRP is active in given MBA or not. Document contains following prices in EUR currency (Business Type): **B23** - Consumption imbalance price **B24** - Production sales imbalance price **B25** - Production purchase imbalance price

4.3.7.2 *Document Format Attribute Usage*

Document used for prices data is 'Publication Document'.

Mark [x] indicates the level in document structure.

Attribute (XML schema)	Cl.	Value Description
[1] Publication Document	[1]	
[2] Document Identification	[1]	Document ID is unique identification of the Document.
[2] Document Version	[1]	Document Version is Unique identification of the business version.
[2] Document Type	[1]	**A44** - Price document
[2] Process Type	[1]	**A30 -** Tertiary Reserves Process
[2] Sender Identification	[1]	eSett Code and Coding Scheme
[2] Sender Role	[1]	**A05** – Imbalance Settlement Responsible

[2] Receiver Identification	[1]	Subscriber **BRP** Code and Coding Scheme
[2] Receiver Role	[1]	**A08** – **BRP** (Balance Responsible Party)
[2] Creation Date Time	[1]	Creation Date Time (represents time stamp of file generation in UTC).
[2] Publication Time Interval	[1]	Period covered by the document.
[2] Domain	[1]	Nordic Market Area ID = “10Y1001A1001A91G” with “A01” coding Scheme
[2] Publication Time Series	[1..*]	Prices per price type and MBA
[3] Senders Time Series Identification	[1]	Time series ID - Unique ID of the Time Series
[3] Business Type	[1]	Price type: **B23** - Consumption imbalance price **B24** - Production sales imbalance price **B25** - Production purchase imbalance price
[3] In Area	[1]	**MBA** - Relevant Market Balance Area for the market.
[3] Out Area	[1]	Market Balance Area is same as In Area
[3] Currency	[1]	**EUR**
[3] Measurement Unit Price	[1]	**MWH**
[3] Period	[1..*]	
[4] Time Interval	[1]	The start and end date and time of the time interval of the period in question.
[4] Resolution	[1]	**PT1H**
[4] Interval	[1..*]	
[5] Pos	[1]	Relative position within the time interval
[5] Price	[0..1]	Price in EUR currency
[5] Direction	[0..1]	*Not used by this data package*

4.3.8 PX Trades Data Packages

4.3.8.1 *SDP: PX Trades - Elbas*

Attribute	
Name	PX Trades - Elbas
Receiver	BRP
Description	BRP's PX market trades (Intraday)
Format (Short name)	PX Market Trades
Document Standard	ESS Schedule Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP's PX market trades of Intraday. Document Process Type is '**A19**' (Intraday accumulated).

4.3.8.2 *SDP: PX Trades – Elspot*

Attribute	
Name	PX Trades – Day-ahead
Receiver	BRP
Description	BRP's PX market trades (Day-ahead)

Format (Short name)	PX Market Trades
Document Standard	ESS Schedule Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP's PX market trades of Day-ahead. Document Process Type is **'A01'** (Day-ahead).

4.3.8.3 *Document Format Attribute Usage*

Document used for prices data is 'ESS Schedule Document'.

Mark [x] indicates the level in the document structure.

Attribute (XML schema)	Cl.	Value Description
[1] Schedule Document	[1]	
[2] Document Identification	[1]	Document ID is unique identification of the document
[2] Document Version	[1]	Document Version is Unique identification of the business version.
[2] Document Type	[1]	**A01** - Balance Responsible schedule
[2] Process Type	[1]	**A01** (Day-ahead) – SDP PX Market Trades Day-ahead **A19** (Intraday accumulated) – SDP PX Market Trades Intraday
[2] Schedule Classification Type	[1]	**A02** (Summary type)
[2] Sender Identification	[1]	eSett Code and Coding Scheme

[2] Sender Role	[1]	**A05** - Imbalance Settlement Responsible
[2] Receiver Identification	[1]	Subscriber **BRP** Code and Coding Scheme
[2] Receiver Role	[1]	**A08** – BRP (Balance Responsible Party)
[2] Creation Date Time	[1]	Creation Date Time (represents time stamp of file generation in UTC).
[2] Schedule Time Interval	[1]	Period covered by the document containing the schedule.
[2] Subject Party	[1]	**BRP** Code and Coding Scheme. Same as the receiver.
[2] Subject Role	[1]	**A08** – BRP (Balance Responsible Party)
[2] Domain	[1]	Domain covered by the schedule document. Nordic Market Area ID = “10Y1001A1001A91G” with “A01” coding Scheme
[2] Schedule Time Series	[1..*]	
[3] Senders Time Series Identification	[1]	Time series ID - Unique ID of the Time Series
[3] Senders Time Series Version	[1]	Time Series version. For NBS: **“1”**
[3] Business Type	[1]	**A08** - Net Internal trade
[3] Product	[1]	‘**8716867000030**’ (Active energy)
[3] Object Aggregation	[1]	**A01** Area (Identifies to what extent object is aggregated)
[3] In Area	[1]	**MBA** – Market Balance Area Code and Coding Scheme
[3] In Party	[0..1]	**Retailer** Code and Coding Scheme (Trader) - the unique identification of the Retailer. This is required for PX Trade where Retailer is the trader.
[3] Measurement Unit	[1]	**MWH -** Unit of measurement
[3] Period	[1..*]	Period with time interval and positions (sequence of hours). There can be more than one period in one time series to enable gaps in reported values.
[4] Time Interval	[1]	The start and end date and time of the time interval of the period in question.

[4] Resolution	[1]	**PT1H**
[4] Interval	[1..*]	
[5] Pos	[1]	Relative position within the time interval.
[5] Qty	[1]	Quantity of the product scheduled for the position. The direction from out party (seller) to in party (buyer) is positive, while the opposite direction is negative (with minus signs)

4.3.9 Settlement Results/MGA Imbalance Data Packages

The NEG ESP Energy Account Report Document (EAR) is available in form of data package subscription.

Data packages for BRP receiver:

- Production Imbalance (result of the imbalance settlement)
- Consumption Imbalance (result of the imbalance settlement)
- MGA Imbalance (quality assurance of area balance per MGA)

Data packages for DSO receiver:

- MGA Imbalance (quality assurance of area balance per MGA)

Although all data packages use physically the one document format (EAR) they are distinguished by format short name to determine type of the report.

4.3.9.1 *SDP: Consumption Imbalance per BRP per MBA (Volume and Amount)*

Attribute	
Name	Consumption Imbalance per BRP per MBA (Volume and Amount)
Receiver	BRP
Description	BRP's consumption imbalance volumes (MWh) and amounts (EUR) per MBA

Format (Short Name)	Consumption Imbalance
Document Standard	NEG ESP Energy Account Report Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 16:00 CET Data package is not distributed when there are no data available.
Data Scope (Filter)	All BRP's consumption imbalance volumes (MWh) and amounts (EUR) per MBA

4.3.9.2 *SDP: Production Imbalance per BRP per MBA (Volume and Amount)*

Attribute	
Name	Production Imbalance per BRP per MBA (Volume and Amount)
Receiver	BRP
Description	BRP's production imbalance volumes (MWh) and amounts (EUR) per MBA
Format (Short Name)	Production Imbalance
Document Standard	NEG ESP Energy Account Report Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 16:00 CET Data package is not distributed when there are no data available.

Data Scope (Filter)	All BRP's production imbalance volumes (MWh) and amounts (EUR) per MBA

4.3.9.3 *SDP: MGA Imbalances - BRP*

Attribute	
Name	MGA imbalances
Receiver	BRP
Description	All MGAs' imbalances per MGA under BRP's balance responsibility
Format (Short Name)	MGA Imbalance
Document Standard	NEG ESP Energy Account Report Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 16:00 CET Data package is not distributed when there are no data available.
Data Scope (Filter)	All BRP MGAs' imbalances per MGA under BRP's balance responsibility

4.3.9.4 *SDP: MGA Imbalances – DSO*

Attribute	
Name	MGA imbalances
Receiver	DSO
Description	All DSO's MGAs' imbalances per MGA

Format (Short Name)	MGA Imbalance
Document Standard	NEG ESP Energy Account Report Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 16:00 CET Data package is not distributed when there are no data available.
Data Scope (Filter)	All DSO's MGAs' imbalances per MGA

4.3.9.5 *Document Format Attribute Usage*

Document used for consumption data is 'NEG ESP Energy Account Report Document'. Attribute usage is specified separately for document header and time series part is specified separately for MGA Imbalance and Settlement Results data.

Mark [x] indicates the level in the document structure.

4.3.9.5.1 Header - NEG ESP Energy Account Report Document

Attribute (XML Schema)	Cl.	Description
[1] Energy Account Report Document		
[2] Document Identification	[1]	Document ID is unique identification of the document
[2] Document Version	[1]	Fixed value "1"
[2] Document Type	[1]	**A12** - Imbalance report
[2] Document Status	[1]	**A01** - Intermediate – data package sends open settlement period ('A02' (Final) is not used)
[2] Process Type	[1]	**A06** - Imbalance settlement
[2] Classification Type	[1]	**A02** - Summary type

[2] Sender Identification	[1]	eSett Code and Coding Scheme
[2] Sender role	[1]	**A05** - (Imbalance Settlement Responsible)
[2] Receiver Identification	[1]	Data Package Subscriber – DSO or BRP code and coding scheme
[2] Receiver role	[1]	A**09** - Metered Data Aggregator for DSO subscriber **A08** - Balance Responsible Party for BRP subscriber
[2] Document Date and Time	[1]	The time stamp of the calculation (time stamp of the document creation is sufficient)
[2] Accounting period	[1]	The beginning and ending date and time of the period covered. Always the range one calculated day. YYYY-MM-DDTHH:MM:SSZ/YYYY-MM-DDTHH:MM:SSZ
[2] Domain	[1]	Nordic Market Area ID = “10Y1001A1001A91G”
[2] **Account Time Series**	[1..*]	The number of occurrences depends on the number of MGA Imbalances/Settlement Results related to the subscriber – DSO or BRP.

4.3.9.5.2 Time Series – Attribute Usage for MGA Imbalance

Attribute (XML Schema)	Cl.	Description
[2] **Account Time Series**	[1..*]	The number of occurrences depends on the number of MGA Imbalances related to the subscriber – DSO or BRP. Note that if the receiver is DSO then there can be more than one MGA Imbalance with the same MGA but with different BRP (via Retailer Balance Responsibility relation). MGA Imbalance is defined by: MGA, DSO, RE and BRP.
[3] Senders Time Series Identification	[1]	Unique Time Series Identification
[3] Business Type	[1]	**B29** - MGA imbalance
[3] Product	[1]	‘**8716867000030**’ (Active energy)
[3] Object Aggregation	[1]	**A01** (Area)
[3] Area	[1]	MGA Code and Coding Scheme

[3] Party	[1]	BRP ID: The Balance Responsible Party for which the imbalance settlement is calculated. BRP is one of the attributes of MGA Imbalance (MGA, DSO, RE, BRP).
[3] Measurement Unit	[1]	**MWH**
[3] Currency	[0..*]	*Not used for MGA Imbalance*
[3] **Period**	[1..*]	
[4] Time Interval	[1]	Time interval of reported data.
[4] Resolution	[1]	**PT1H** – hourly resolution
[4] **Account Interval**	[1..*]	
[5] Pos	[1]	Sequence number of the time interval
[5] In Qty	[1]	MGA Imbalance Deficit
[5] Out Qty	[1]	MGA Imbalance Surplus

4.3.9.5.3 Time Series – Attribute Usage for Settlement Results

Attribute (XML Schema)	Cl.	Description
[2] Account Time Series	[1..*]	Production or Consumption results per each MBA.
[3] Senders Time Series Identification	[1]	Unique Time Series Identification
[3] Business Type	[1]	B15 - Consumption deviation for Consumption Imbalance Data Package B14 - Production deviation for Production Imbalance Data Package
[3] Product	[1]	8716867000030 - Active energy
[3] Object Aggregation	[1]	A01 - Area
[3] Area	[1]	MBA Code and Coding Scheme
[3] Party	[1]	BRP Code and Coding Scheme

		The Balance Responsible Party for which the imbalance settlement is calculated. Same as receiver.
[3] Measurement Unit	[1]	MWH
[3] Currency	[0..*]	EUR
[3] Period	[1..*]	
[4] Time Interval	[1]	Time interval of reported data.
[4] Resolution	[1]	PT1H – hourly resolution
[4] Account Interval	[1..*]	
[5] Pos	[1]	Sequence number of the time interval
[5] In Qty	[1]	If Business Type = 'B15' then BRP Consumption Imbalance - *Imbalance Purchase* If Business Type = "B14" then BRP Production Imbalance - *Imbalance Purchase*
[5] Out Qty	[1]	If Business Type = 'B15' then BRP Consumption Imbalance - *Imbalance Purchase* If Business Type = "B14" then BRP Production Imbalance - *Imbalance Purchase*
[5] Settlement Amount	[1]	If Business Type = 'B15' then BRP Consumption Imbalance, *Imbalance Amount* – positive value If Business Type = 'B14' then BRP Production Imbalance, *Imbalance Amount* –negative value

4.3.10 Activated Reserves Data Packages

There are three data packages with Activated Reserves available for BRP subscribers. Each of the data package contains only one balancing type.

4.3.10.1 *SDP: Primary Frequency Containment Reserves (FCR)*

Attribute	
Name	Primary Frequency Containment Reserves (FCR)

Receiver	BRP
Description	All BRP's activated reserves of type FCR (Frequency Containment Reserve). FCR is an automatic and momentarily regulation, to adjust the physical balance in the power system.
jooFormat (Short Name)	Activated Reserves
Document Standard	NEG ERRP Reserve Allocation Result Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP's activated reserves of FCR sub-type. Data Scope: Reason Code = 'Z29'
Attribute Usage Specifics	Document contains following business types: • Process Type = 'A28' (Primary Reserve Process) • Business Type = 'A11' (Primary Control) • Reason Code = 'Z29' (FCR)

4.3.10.2 *SDP: Secondary Frequency Restoration Reserves (FRR)*

Attribute	
Name	Secondary Frequency Restoration Reserves (FRR)
Receiver	BRP

Description	All BRP's activated reserves of type FRR-A (Frequency Restoration Reserve - Automatic). FRR-A is an automatic reserve, activated continuously by the frequency.
Format (Short Name)	Activated Reserves
Document Standard	NEG ERRP Reserve Allocation Result Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP's activated reserves of sub-type FRR-A. Data Scope: Reason Code = 'Z30'
Attribute Usage Specifics	Document contains following business types: • Process Type = 'A29' (Secondary Reserve Process) • Business Type = 'A12' (Secondary Control) • Reason Code = 'Z30' (FRR-A)

4.3.10.3 *SDP: Tertiary Replacement Reserves (RR)*

Attribute	
Name	Tertiary Replacement Reserves (RR)
Receiver	BRP
Description	All BRP's activated reserves of type RR (Tertiary Control)
Format (Short Name)	Activated Reserves

Document Standard	NEG ERRP Reserve Allocation Result Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP's Tertiary activated reserves. Activated Reserves are filtered by Balancing Sub-service (Reason Code) listed below. Data Scope: Reason Code in (’Z31’, ’Z34’, ’Z35’, ’Z36’, ‘Z37’, ‘Z38’, ‘Z39’)

Attribute Usage Specifics	Document contains following business types:
	• Process Type = ‘A30’ (Tertiary Reserve Process)
	• Business Type = ‘A10’ (Tertiary Control)
	• Reason Code in
	  ○ ’Z31’ - FRR-M, Balancing Power (for Norway the code means Ordinary regulation)
	  ○ ’Z34’ - FRR-M, Quarter regulation
	  ○ ’Z35’ - FRR-M, Special Regulation (for Norway the code means Specially regulation)
	  ○ ’Z36’ - Hour Change Regulation (for Norway the code means Move of production)
	  ○ ‘Z37’ - Power Transaction
	  ○ ‘Z38’ - TSO Internal Countertrades
	  ○ ‘Z39’ - Day Ahead Production Adjustment (for Norway the code means Production smoothing)

4.3.10.4 *Document Format Attribute Usage*

Document used for activated reserves data is 'ERRP Planned Resource Schedule'. Attribute usage is specified separately for document header and time series part for easy navigation.

Mark [x] indicates the level in document structure.

4.3.10.4.1 Header - ERRP Planned Resource Schedule

Attribute (XML schema)	Cl.	Value Description
[1] Reserve Allocation Result Document	[1]	
[2] Document Identification	[1]	Document ID - Unique identification of the business document.
[2] Document Version	[1]	Version = "**1**"
[2] Document Type	[1]	**A38** - Document Type
[2] Process Type	[1]	Process Type set according to data package type: **A28 –** SDP Activated Reserves Primary **A29 –** SDP Activated Reserves Secondary **A30 –** SDP Activated Reserves Tertiary
[2] Sender Identification	[1]	eSett Code and Coding Scheme
[2] Sender Role	[1]	**A05** - Imbalance Settlement Responsible
[2] Receiver Identification		BRP Code and Coding scheme
[2] Receiver Role	[1]	**A08** – Balance Responsible Party
[2] Creation Date Time	[1]	Creation Date Time (represents time stamp of file generation in UTC).
[2] Reserve Bid Time Interval	[1]	Period covered by the document containing the schedule. YYYY-MM-DDTHH:MM:SSZ/YYYY-MM-DDTHH:MM:SSZ
[2] Domain	[1]	Domain covered by the schedule document. Nordic Market Area ID = 10Y1001A1001A91G

[2] Reserve Allocation Result Time Series	[0..*]	*See Time Series Attributes*

4.3.10.4.2 Time Series - ERRP Planned Resource Schedule

Attribute (XML schema)	Cl.	Value Description
[2] Reserve Allocation Result Time Series	[0..*]	For each activated reserve occurs twice. Once with Up values and second with Down values.
[3] Time Series Identification	[1]	Time series ID - Unique ID of the Time Series (unique over time for the sender in question)
[3] Tendering Party	[1]	BRP Code and Coding scheme (same as Receiver)
[3] Business Type	[1]	Business Type set according to Data Package Type: **A10 –** SDP Activated Reserves Tertiary **A11 –** SDP Activated Reserves Primary **A12 –** SDP Activated Reserves Secondary
[3] Acquiring Area	[1]	Same MBA as the Connecting Area
[3] Connecting Area	[1]	Market Balance Area Code and Coding Scheme
[3] Measure Unit Quantity	[1]	**MWH** - Unit of measurement
[3] Currency	[1]	**EUR**
[3] Reserve Object	[0..1]	Regulation Object (RO) Code and Coding Scheme
[3] Direction	[1]	**A01** - Up **A02** - Down
[3] **Reason**	[1]	
[4] Reason Code	[1]	**A10** - **Tertiary control:** • ‘Z31’ - FRR-M, Balancing Power • ‘Z34’ - FRR-M, Quarter regulation • ‘Z35’ - FRR-M, Special Regulation • ‘Z36’ - Hour Change Regulation • ‘Z37’ - Power Transaction

		• 'Z38' - TSO Internal Countertrades • 'Z39' - Day Ahead Production Adjustment **A11 - Primary control:** • 'Z29' - FCR **A12 - Secondary control:** • 'Z30' - FRR-A
[3] Period	[1..*]	
[4] Time Interval	[1]	Period covered by the document containing the schedule.
[4] Resolution	[1]	**PT1H** – for hourly data
[4] Interval	[1..*]	
[5] Pos	[1]	Relative position of a period within the time interval.
[5] Qty	[1]	Activated Reserves - Up/Down Quantity
[5] Settlement Amount	[1]	Activated Reserves - Up/Down Amount

4.3.11 Capacity Reserves Data Packages

There are three data packages with Capacity Reserves available for BRP subscribers. Each of the data package contains only one balancing type.

4.3.11.1 *SDP: Primary Frequency Containment Reserves (FCR)*

Attribute	
Name	Primary Frequency Containment Reserves (FCR) – contracted reserves
Receiver	BRP
Description	All BRP's contracted reserves of type FCR (Frequency Containment Reserve). FCR is an automatic and momentarily regulation, to adjust the physical balance in the power system.
Format (Short Name)	Contracted Reserves

Document Standard	NEG ERRP Reserve Allocation Result Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, morning 04:20 Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP's contracted reserves of FCR sub-type. Data Scope: Reason Code in ('Z29', 'Z42', 'Z43', 'Z44', 'Z45', 'Z46', 'Z47', 'Z48', 'Z49')

Attribute Usage Specifics	Document contains following business types:
	• Process Type = 'A28' (Primary Reserve Process)
	• Business Type = 'A11' (Primary Control)
	• Reason Code in
	  ○ 'Z29' - FCR
	  ○ 'Z42' – FCR-N, D-1
	  ○ 'Z43' – FCR-N, D-2
	  ○ 'Z44' – FCR-N, D-1, correction
	  ○ 'Z45' – FCR-N, D-2, correction
	  ○ 'Z46' – FCR-D, D-1
	  ○ 'Z47' - FCR-D, D-2
	  ○ 'Z48' - FCR-D, D-1, correction
	  ○ 'Z49' - FCR-D, D-2, correction

4.3.11.2 *SDP: Secondary Frequency Restoration Reserves (FRR)*

Attribute	
Name	Secondary Frequency Restoration Reserves (FRR) – contracted reserves
Receiver	BRP
Description	All BRP's activated reserves of type FRR-A (Frequency Restoration Reserve - Automatic). FRR-A is an automatic reserve, activated continuously by the frequency.
Format (Short Name)	Contracted Reserves
Document Standard	NEG ERRP Reserve Allocation Result Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, morning 04:20 Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP's contracted reserves of sub-type FRR-A. Data Scope: Reason Code = ‘Z30’
Attribute Usage Specifics	Document contains following business types: • Process Type = ‘A29’ (Secondary Reserve Process) • Business Type = ‘A12’ (Secondary Control)

	• Reason Code = ‘Z30’ (FRR-A)

4.3.11.3 *SDP: Tertiary Replacement Reserves (RR)*

Attribute	
Name	Tertiary Replacement Reserves (RR) – contracted reserves
Receiver	BRP
Description	All BRP's activated reserves of type RR (Tertiary Control)
Format (Short Name)	Contracted Reserves
Document Standard	NEG ERRP Reserve Allocation Result Document
Aggregation	Time Aggregation – H (Hourly)
Time Period From	D-14
Time Period To	D-1
Time Trigger (Words)	Daily basis, morning 04:20 Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all BRP's contracted reserves of sub-type FRR-A. Data Scope: Reason Code = ‘Z30’
Attribute Usage Specifics	Document contains following business types: • Process Type = ‘A29’ (Secondary Reserve Process)

	• Business Type = ‘A12’ (Secondary Control) • Reason Code = ‘Z30’ (FRR-A) ○

4.3.11.4 *Document Format Attribute Usage*

Document used for Capacity reserves data is ‘ERRP Planned Resource Schedule’. Attribute usage is specified separately for document header and time series part for easy navigation.

Mark [x] indicates the level in document structure.

4.3.11.4.1 Header - ERRP Reserve Allocation Result Document

Attribute (XML schema)	Cl.	Value Description
[1] Reserve Allocation Result Document	[1]	
[2] Document Identification	[1]	Document ID - Unique identification of the business document.
[2] Document Version	[1]	Version = “**1**”
[2] Document Type	[1]	‘**A81**’ - Document Type
[2] Process Type	[1]	Process Type set according to data package type: **‘A28’ –** SDP Contracted Reserves Primary **‘A29’ –** SDP Contracted Reserves Secondary **‘A30’ –** SDP Contracted Reserves Tertiary
[2] Sender Identification	[1]	eSett Code and Coding Scheme
[2] Sender Role	[1]	‘**A05**’ - Imbalance Settlement Responsible
[2] Receiver Identification		BRP Code and Coding scheme
[2] Receiver Role	[1]	‘**A08**’ – Balance Responsible Party
[2] Creation Date Time	[1]	Creation Date Time (represents time stamp of file generation in UTC).

[2] Reserve Bid Time Interval	[1]	Period covered by the document containing the schedule. YYYY-MM-DDTHH:MM:SSZ/YYYY-MM-DDTHH:MM:SSZ
[2] Domain	[1]	Domain covered by the schedule document. Nordic Market Area ID = 10Y1001A1001A91G
[2] Reserve Allocation Result Time Series	[0..*]	*See Time Series Attributes*

4.3.11.4.2 Time Series - ERRP Reserve Allocation Result Document

Attribute (XML schema)	Cl.	Value Description
[2] Reserve Allocation Result Time Series	[0..*]	For each Contracted reserve occurs either once or twice. Two occurrences are for Contracted Reserves with both direction types (A01 - Up, A02 – Down) and one occurrence for Contracted Reserves with single direction type (A03 – Up and Down, A01 – Up).
[3] Time Series Identification	[1]	Time series ID - Unique ID of the Time Series (unique over time for the sender in question)
[3] Tendering Party	[1]	Tendering party must be BRP ID. See Business Validations.
[3] Business Type	[1]	Business Type set according to Data Package Type: **'A10' –** SDP Activated Reserves Tertiary **'A11' –** SDP Activated Reserves Primary **'A12' –** SDP Activated Reserves Secondary
[3] Acquiring Area	[1]	Same MBA as the Connecting Area
[3] Connecting Area	[1]	Market Balance Area Code and Coding Scheme
[3] Measure Unit Quantity	[1]	**'MAW'** - Unit of measurement (Megawatt)
[3] Currency	[1]	**'EUR'**
[3] Direction	[1]	**'A01'** Up **'A02'** Down '**A03**' Up and Down

[3] **Reason**	[1]	
[4] Reason Code	[1]	**'A11' Primary control:** • 'Z29' - FCR • 'Z42' – FCR-N, D-1 • 'Z43' – FCR-N, D-2 • 'Z44' – FCR-N, D-1, correction • 'Z45' – FCR-N, D-2, correction • 'Z46' – FCR-D, D-1 • 'Z47' - FCR-D, D-2 • 'Z48' - FCR-D, D-1, correction • 'Z49' - FCR-D, D-2, correction **'A12' Secondary control:** • 'Z30' (FRR-A) **'A10' Tertiary control:** • 'Z31' - FRR-M, Balancing Power (for Norway the code means Ordinary regulation) • 'Z35' - FRR-M, Special Regulation (for Norway the code means Specially regulation)
[3] Period	[1..*]	
[4] Time Interval	[1]	Period covered by the document containing the schedule.
[4] Resolution	[1]	'**PT1H**' – for hourly data
[4] Interval	[1..*]	
[5] Pos	[1]	Relative position of a period within the time interval.
[5] Qty	[1]	Contracted Reserves – Up Quantity and/or Down Quantity or Quantity
[5] Settlement Amount	[1]	Contracted Reserves – Up Amount and/or Down Amount or Amount

4.3.12 Party Relations (RBR) Data Packages

4.3.12.1 *SDP: Retailer Balance Responsibility – All*

Attribute	
Name	Retailer Balance Responsibility – All
Receiver	DSO
Description	All DSO's Retailer Balance Responsibilities (RBR) valid sometime in upcoming 14 days (at least some period).
Format (Short Name)	Party Master Data
Document Standard	NEG Party Master Data Document
Aggregation	N/A
Time Period From	D
Time Period To	D+14
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all RBRs which are in DSO's MGAs via time dependent MGA-DSO relation. RBR validity is filtered together with MGA-DSO validity to return only RBRs in MGAs for which is DSO responsible in searched period.

4.3.12.2 *SDP: Retailer Balance Responsibility - Delta*

Attribute	
Name	Retailer Balance Responsibility – Delta

Receiver	DSO
Description	All DSO's Retailer Balance Responsibilities (RBR) starting or ending in upcoming 14 days.
Format (Short Name)	Party Master Data
Document Standard	NEG Party Master Data Document
Aggregation	N/A
Time Period From	D
Time Period To	D+14
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data package is not distributed when there are no data reported.
Data Scope (Filter)	System selects all RBRs starting or ending in upcoming 14 days which are in DSO's MGAs via time dependent MGA-DSO relation. RBR is returned to DSO even though DSO MGA responsibility starts/ends within different period of RBR validity.

4.3.12.3 *Document Format Attribute Usage*

Retailer Balance Responsibility (RBR) relations use document standard NEG Party Master Data Document specified in NBS BRS Master Data.

Mark [x] indicates the level in document structure.

Attribute (XML schema)	Cl.	Value Description
[1] Party Master Data Document	[1]	Document header
[2] Document Identification	[1]	Document ID - Unique identification of the business document.
[2] Document Type	[1]	**Z18 -** Party Relation Master Data Document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive) **Z19 -** Party Relation Master Data Document containing all valid master data within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)

[2] Process Type	[1]	**Z07** - Master data
[2] Sender Identification	[1]	***eSett*** *Code and Coding Scheme*
[2] Sender Role	[1]	**A05** - Imbalance settlement responsible
[2] Receiver Identification	[1]	**DSO** subscriber code and coding scheme
[2] Receiver Role	[1]	**A26** - Metering Point Administrator
[2] Creation Date Time	[1]	The date and time of the document creation. The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ
[2] Party Details	[1..*]	*Repeated for each DSO's RBR*
[3] Subject Party	[1]	**BRP** Code and Coding Scheme of Retailer Balance Responsibility
[3] Subject Party Role	[1]	**A08** - Balance Responsible Party (BRP)
[3] Metering Grid Area Identification	[1]	**MGA** Code and Coding Scheme of Retailer Balance Responsibility
[3] Validity Start	[1]	RBR **Validity Start** *Date and time of validity start in UTC, format "YYYY-MM-DDTHH:MMZ".*
[3] Validity End	[0..1]	RBR **Validity End** If validity end is infinite, then this element is omitted. *Date and time of validity end in UTC, format "YYYY-MM-DDTHH:MMZ".*
[3] Business Type	[1]	Retailer Balance Responsibility Imbalance Type: **A01** – for Retailer Balance Responsibility for Production **A04** – for Retailer Balance Responsibility for Consumption
[3] Related Party	[0..*]	Always occurs once per one Retailer Balance Responsibility
[3] Related Party	[1]	**Retailer** Code and Coding Scheme of Retailer Balance Responsibility
[3] Related Party Role	[1]	**A12** - Retailer

4.3.13 Consumption MEC Data Packages

XML sample of Consumption MEC structure is available on Ediel.org in common package 'Complete set of NBS Documents': file 'NEG Retailer Consumption MD from ISR 20170329'.

4.3.13.1 *SDP: Consumption MEC – Active*

Attribute	
Name	Consumption MEC (Active)
Receiver	DSO
Description	DSO's Consumption MECs which are valid sometime within the configured period. Data package is populated with Consumption MEC validities as they are currently in Basse. *Note: BRP level MECs (maintained by TSO in Sweden) are also involved.*
Format (Short Name)	Party Master Data
Document Standard	NEG Party Master Data Document
Aggregation	N/A
Time Period From	D
Time Period To	D+14
Time Trigger (Words)	Daily Basis, delivered till 07:00 CET Data Package is distributed only if any data found.
Data Scope (Filter)	System selects all DSO Consumption MECs (DSO is strong attribute of the MEC) valid sometime within the configured period.

4.3.13.2 *SDP: Consumption MEC - Delta*

Attribute

Name	Consumption MEC (Delta)
Receiver	DSO
Description	DSO's Consumption MECs starting or ending within the configured time period. Data package is populated with Consumption MEC validities as they are currently in Basse. *Note: BRP level MECs (maintained by TSO in Sweden) are also involved.*
Format (Short Name)	Party Master Data
Document Standard	NEG Party Master Data Document
Aggregation	N/A
Time Period From	D
Time Period To	D+14
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data Package is distributed only if any data found.
Data Scope (Filter)	System selects all DSO Consumption MECs (DSO is strong attribute of the MEC) starting or ending within the configured period.

4.3.13.3 *Document Format Attribute Usage*

Consumption MEC use document standard NEG Party Master Data Document specified in NBS BRS Master Data.

Mark [x] indicates the level in document structure.

Attribute (XML schema)	Cl.	Value Description
[1] Party Master Data Document	[1]	Document header
[2] Document Identification	[1]	Document ID - Unique identification of the business document.
[2] Document Type	[1]	**Z20** - Retailer consumption master data document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)

		Z21 - Retailer consumption master data document containing all valid master data within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)
[2] Process Type	[1]	**Z07** Master data
[2] Sender Identification	[1]	**eSett** code and coding scheme
[2] Sender Role	[1]	**A05** Imbalance Settlement Responsible
[2] Receiver Identification	[1]	**DSO** code and coding scheme (Subscriber)
[2] Receiver Role	[1]	**A26** Metering Point Administrator (DSO)
[2] Creation Date Time	[1]	The date and time that the document was prepared for transmission by the application of the sender. The date and time is expressed in UTC as YYYY-MM-DDTHH:MM:SSZ.
[2] Party Details	[1..*]	Repeated for each DSO's Consumption MEC.
[3] Subject Party	[1]	**Retailer (RE)** Code and Coding scheme or **BRP** Code and Coding scheme in case of BRP level consumption (no Retailer)
[3] Subject Party Role	[1]	**A12** Balance Supplier (Retailer) **A08** Balance Responsible Party (for BRP level consumption)
[3] Metering Grid Area Identification	[1]	**MGA** Code and Coding scheme
[3] Validity Start	[1]	Consumption MEC Validity Start expressed in UTC as YYYY-MM-DDTHH:MM:SSZ7
[3] Validity End	[0..1]	Consumption MEC Validity End expressed in UTC as YYYY-MM-DDTHH:MM:SSZ7. Omitted if Validity End is unlimited.
[3] Business Type	[1]	**A04** - Consumption (total consumption) – General **A07** - Net production/consumption – Pumped Storage **A15** - Losses

		A72 - Interruptible Consumption **B27** - Pumped **B28** - Large installation consumption **B36 -** Production Units Own Consumption (Only used in Finland)
[3] Settlement Method	[0..1]	**E01** Profiled **E02** Non-profiled (Metered)
[3] Reference	[0..1]	Consumption **MEC ID**
[3] Related Party	[0..*]	A BRP responsible for Consumption Retailer in given MGA (MEC attribute). Not available for BRP level consumption. Occurs always once per Party Details.
[3] Related Party	[1]	**BRP** Code and Coding Scheme
[3] Related Party Role	[1]	**A08** Balance Responsible Party

4.3.14 MGA Imbalance Retailer Data Packages

XML sample of MGA Imbalance Retailer structure is available on Ediel.org in common package 'Complete set of NBS Documents': file 'NEG Retailer Consumption MD from ISR 20170329'.

4.3.14.1 *SDP: MGA Imbalance Retailer – Active*

Attribute	
Name	MGA Imbalance Retailer (Active)
Receiver	DSO
Description	All DSO's MGA Imbalance Retailers which are valid sometime within the configured Period. Data package is populated with MGA Retailer relations and validities as they are currently in Basse.

Format (Short Name)	Party Master Data
Document Standard	NEG Party Master Data Document
Aggregation	N/A
Time Period From	D
Time Period To	D+14
Time Trigger (Words)	Daily Basis, delivered till 07:00 CET Data Package is distributed only if any data found.
Data Scope (Filter)	System selects all DSO's MGA Imbalance Retailers valid sometime within the configured Period.

4.3.14.2 *SDP: MGA Imbalance Retailer - Delta*

Attribute	
Name	MGA Imbalance Retailer (Delta)
Receiver	DSO
Description	All DSO's MGA Retailers starting or ending within the configured period. Data package is populated with MGA Retailer relations and validities as they are currently in Basse.
Format (Short Name)	Party Master Data
Document Standard	NEG Party Master Data Document
Aggregation	N/A
Time Period From	D
Time Period To	D+14
Time Trigger (Words)	Daily basis, delivered till 07:00 CET

	Data Package is distributed only if any data found.
Data Scope (Filter)	System selects all DSO's MGA Imbalance Retailers starting or ending within the configured period.

4.3.14.3 *Document Format Attribute Usage*

MGA Retailer Imbalance use document standard NEG Party Master Data Document specified in NBS BRS Master Data.

Mark [x] indicates the level in document structure.

Attribute (XML schema)	Cl.	Value Description
[1] Party Master Data Document	[1]	Document header
[2] Document Identification	[1]	Document ID - Unique identification of the business document.
[2] Document Type	[1]	**Z20** - Retailer consumption master data document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive) **Z21** - Retailer consumption master data document containing all valid master data within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)
[2] Process Type	[1]	**Z07** Master data
[2] Sender Identification	[1]	**eSett** code and coding scheme
[2] Sender Role	[1]	**A05** Imbalance Settlement Responsible
[2] Receiver Identification	[1]	**DSO** code and coding scheme (Subscriber)
[2] Receiver Role	[1]	**A26** Metering Point Administrator (DSO)
[2] Creation Date Time	[1]	The date and time that the document was prepared for transmission by the application of the sender. The date and time is expressed in UTC as YYYY-MM-DDTHH:MM:SSZ.
[2] Party Details	[1..*]	Repeated for each DSO MGA Retailer Imbalance Relation.
[3] Subject Party	[1]	**Retailer** Imbalance Code and Coding Scheme

[3] Subject Party Role	[1]	**A12** Balance Supplier (Retailer)
[3] Metering Grid Area Identification	[1]	Unique Identification of **MGA** with coding scheme.
[3] Validity Start	[1]	Validity start of MGA Imbalance Retailer. *The start date and time is expressed in UTC as YYYY-MM-DDTHH:MM:SSZ7*
[3] Validity End	[0..1]	Validity End of MGA Imbalance Retailer. If omitted than validity is undefined. *The end date and time is expressed in UTC as YYYY-MM-DDTHH:MM:SSZ7*
[3] Business Type	[1]	**B29** – MGA Imbalance

4.3.15 Production Unit Data Packages

XML sample of Production Unit structure is available on Ediel.org in common package 'Complete set of NBS Documents': file 'NEG Resource Object Master Data from eSett 20170327'.

4.3.15.1 *SDP: Production Unit – Active*

Attribute	
Name	Production Unit (Active)
Receiver	DSO
Description	DSO's Production Units which are valid sometime within the configured time period. Data package contains complete Production Unit structure information available for DSO role.
Format (Short Name)	Resource Object
Document Standard	NEG Resource Object (Production Unit) Master Data
Aggregation	N/A
Time Period From	D
Time Period To	D+14

Time Trigger (Words)	Daily Basis, delivered till 07:00 CET Data Package is distributed only if any data found.
Data Scope (Filter)	System selects all DSO Production Units valid sometime within the Period From and Period To. DSO time-dependent responsibility for Production Unit via PU-MGA-DSO relation is considered.

4.3.15.2 *SDP: Production Unit - Delta*

Attribute	
Name	Production Unit (Delta)
Receiver	DSO
Description	DSO's Production Units which are valid sometime within the configured time period. Data package contains complete Production Unit structure information available for DSO role.
Format (Short Name)	Resource Object
Document Standard	NEG Resource Object (Production Unit) Master Data
Aggregation	N/A
Time Period From	D
Time Period To	D+14
Time Trigger (Words)	Daily basis, delivered till 07:00 CET Data Package is distributed only if any data found.
Data Scope (Filter)	System selects all DSO Production Units starting or ending within the configured period. DSO time-dependent responsibility for Production Unit via PU-MGA-DSO relation is considered. Starting/ending means that DSO responsibility for production unit starts/ends.

4.3.15.3 *Document Format Attribute Usage*

Production Unit structure use document standard NEG Resource Object (Production Unit) Master Data Document specified in NBS BRS Master Data (Ediel.org).

Mark [x] indicates the level in document structure.

Attribute (XML schema)	Cl.	Value Description
[1] NEG Resource Object Master Data Document	[1]	Document header
[2] Document Identification	[1]	Basse generated unique identification of the document.
[2] Document Type	[1]	**Z22** Resource Object master data document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive) **Z23** Resource Object master data document containing all valid master data within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)
[2] Process Type	[1]	**Z07** Master data
[2] Sender Identification	[1]	**eSett** Code and Coding Scheme
[2] Sender Role	[1]	**A05** Imbalance Settlement Responsible
[2] Receiver Identification	[1]	**DSO** code and coding scheme
[2] Receiver Role	[1]	**A26** Metering Point Administrator (DSO)
[2] Creation Date Time	[1]	The date and time of document creation. The date and time is expressed in UTC as YYYY-MM-DDTHH:MM:SSZ.
[2] Resource Object Details	[1..*]	Repeated for each found DSO's Production Unit. One Production Unit might be repeated also when there is a change of time-dependent attribute. PU validity is split to contain attributes valid for the respective period. Resource Object Details contain all attributes if values are available.
[3] Resource Object Identification	[1]	**Production Unit code and coding scheme**
[3] Resource Object Name	[0..1]	**Production Unit Name**

[3] Object Aggregation	[1]	**A06** Resource object
[3] Validity Start	[0..1]	**Validity start** date time expressed in UTC as YYYY-MM-DDTHH:MM:SSZ7
[3] Validity End	[0..1]	**Validity end** date time expressed in UTC as YYYY-MM-DDTHH:MM:SSZ7 If omitted, then it is considered as unlimited validity.
[3] Asset Type	[0..1]	Type of Production Unit **B14** Nuclear **B16** Solar **B20** Other production **Z04** Thermal **Z05** Wind **Z06** Hydro
[3] Production Type	[0..1]	**Z01** Normal **Z02** Minor Time dependent attribute.
[3] Measure Unit	[0..1]	**MAW** Megawatt
[3] Capacity	[0..1]	Production Unit **capacity** (positive decimal). Time dependent attribute.
[3] Party Details	[0..1]	Production Unit **Retailer** Time dependent attribute.
[4] Subject Party	[1]	**Retailer** code and coding scheme.
[4] Subject Party Role	[1]	**A12** Balance Supplier (Retailer)
[3] Related Area	[0..*]	Production Unit MGA

		Time dependent attribute. Always only one occurrence within Resource Object Details.
[4] Area Identification	[1]	**MGA code and coding scheme**.
[4] Type of Area	[1]	**Z02** Metering Grid Area (MGA)

Following XML snippets shows how Resource Object Details is used to describe PU structure when some of the time-dependent attributes is changed during entire PU validity.

Change of Production Unit Retailer

There is a change of retailer from RE1 to RE2 on 2017-06-01T22:00Z UTC of PU1. Resource Object Details is repeated with split validity. Second occurrence contains new RE2 with validity during which is assigned to PU. Other attributes are same as in the first occurrence with original retailer because none of them have been changed.

```
<ResourceObjectDetails>
        <ResourceObjectIdentification v="PU1" codingScheme="A10" />
        <ResourceObjectName v="TestPU1" />
        <ObjectAggregation v="A06" />
        <ValidityStart v="2017-01-01T23:00:00Z" />
        <ValidityEnd v="2017-06-01T22:00:00Z" />
        <AssetType v="B16" />
        <ProductionType v="Z02" />
        <MeasureUnit v="MAW" />
        <Capacity v="23" />
        <PartyDetails>
                <SubjectParty v="RE1" codingScheme="A10" />
                <SubjectPartyRole v="A12" />
        </PartyDetails>
        <RelatedArea>
                <AreaIdentification v="MGA1" codingScheme="A10" />
                <TypeOfArea v="Z02" />
        </RelatedArea>
</ResourceObjectDetails>
```

```
<ResourceObjectDetails>
        <ResourceObjectIdentification v="PU1" codingScheme="A10" />
        <ResourceObjectName v="TestPU1" />
        <ObjectAggregation v="A06" />
        <ValidityStart v="2017-06-01T22:00:00Z" />
        <AssetType v="B16" />
        <ProductionType v="Z02" />
        <MeasureUnit v="MAW" />
        <Capacity v="23" />
        <PartyDetails>
                <SubjectParty v="RE2" codingScheme="A10" />
                <SubjectPartyRole v="A12" />
        </PartyDetails>
        <RelatedArea>
                <AreaIdentification v="MGA1" codingScheme="A10" />
                <TypeOfArea v="Z02" />
        </RelatedArea>
</ResourceObjectDetails>
```

4.3.16 Production Unit – Regulation Object Data Packages

4.3.16.1 Table - SDP Production Unit – Regulation Object – All Configuration

Attribute	Description
Name	Production Unit – Regulation Object (Active)
Receiver	BRP
Description	Data package is populated by Production Unit – Regulation Object relations where BRP is balance responsible for Production Unit Retailer and PU-RO relations are valid sometime within the configured time period. Data package contains relations with validities.

	Data package is available in Online Service when logged as particular BRP.
Format (Short Name)	Resource Object
Document Standard	NEG Resource Object Master Data Document defined in BRS for Master Data v1r7A – 20170419
Document Recognition	Document Type: **Z23** Production Unit – Regulation Object (All) Process Type: **Z07** Master data
Period From	D
Period To	D+14
Time Trigger (Words)	Daily Basis, delivered till 07:00 CET Data Package is distributed only if any data found
Data Scope (Filter)	System selects all Production Unit – Regulation Object relations where BRP is balance responsible for Production Unit retailer (BRP is derived PU attribute from Retailer Balance Responsibility) and relations are valid sometime within the configured period.
Message Type	DP Production Unit – Regulation Object (Active) SDP_PURO_A

4.3.16.2 *Specific Data Package – Production Unit – Regulation Object – Delta*

Attribute	Description
Name	Production Unit – Regulation Object (Delta)
Receiver	BRP

Description	Data package is populated by Production Unit – Regulation Object relations where BRP is balance responsible for Production Unit Retailer and PU-RO relations starts or ends within the configured time period. Data package contains relations with validities. Data package is available in Online Service when logged as particular BRP.
Format (Short Name)	Resource Object
Document Standard	NEG Resource Object Master Data Document defined in BRS for Master Data v1r7A – 20170419
Document Recognition	Document Type: **Z22** Production Unit – Regulation Object (Delta) Process Type: **Z07** Master data
Period From	D
Period To	D+14
Time Trigger (Words)	Daily Basis, delivered till 07:00 CET Data Package is distributed only if any data found
Data Scope (Filter)	System selects all Production Unit – Regulation Object relations where BRP is balance responsible for Production Unit retailer (BRP is derived PU attribute from Retailer Balance Responsibility) and relations starts or ends within the configured period.
Message Type	DP Production Unit – Regulation Object (Delta) SDP_PURO_D

4.3.16.3

NEG Resource Object (Production Unit) Master Data Document Attribute Usage for PU-RO DP

Element ***Attribute***	***Card.***	***Value Description and Mapping***
[1] **NEG Resource Object Master Data Document**		
[2] Document Identification	[1]	Unique identification of the document
[2] Document Type	[1]	**Z22** for PU-RO (Delta) **Z23** for PU-RO (All) *Parameter is used for document recognition*
[2] Process Type	[1]	**Z07** Master Data *Parameter is used for document recognition*
[2] Sender Identification	[1]	eSett Code with Coding scheme
[2] Sender Role	[1]	**A05** Imbalance settlement responsible
[2] Receiver Identification	[1]	BRP's Code and Coding scheme used for authentication and authorization. Identification of the party that is the owner of the document and is responsible for its content. See Business Validations. Balance Responsible Party / Code Balance Responsible Party / Coding Scheme
[2] Receiver Role	[1]	**A05** Balance Responsible Party (BRP)
[2] Creation Date Time	[1]	The date and time that the document was prepared for transmission by Basse. The date and time must be expressed in UTC in format YYYY-MM-DDTHH:MM:SSZ
[2] **Resource Object Details**	[1..*]	*Will be repeated for each combination of Production Unit – Regulation Object relations available in selected time period for selected BRP*
[3] Resource Object Identification	[1]	Unique ID of the **Production Unit** – Code and Coding Scheme:

		Production Unit / Code Production Unit / Coding Scheme
[3] Resource Object Name	[0..1]	Production Unit Name.
[3] Object Aggregation	[1]	**A06** Resource object (used for detailed units) **Z01** Generator group
[3] Validity Start	[0..*]	Business Date Time From Expressed in UTC as YYYY-MM-DDTHH:MM:SSZ (See Validities in Documents) Validity Start of Production Unit – Regulation Object relation
[3] Validity End	[0..*]	Business Date Time To Expressed in UTC as YYYY-MM-DDTHH:MM:SSZ (See Validities in Documents) Validity End of Production Unit – Regulation Object relation Not present if Validity End is Undefined
[3] Related Resource Object	[0..*]	*Details about Production Unit – Regulation Object relation* ***Regulation Object***
[4] Resource Object Identification	[1]	Unique ID of the Regulation Object – Code and Coding Scheme: Regulation Object / Code Regulation Object / Coding Scheme
[4] Resource Object Name	[0..1]	Name of the Regulation Object: Regulation Object / Name

4.3.16.4 *XML Snippet example*

```
<ResourceObjectDetails>
    <ResourceObjectIdentification>
        <ResourceObjectIdentification v="PU12" codingScheme="EIC" />
        <ResourceObjectName v="Test PU12" />
    </ResourceObjectIdentification>
    <ObjectAggregation v="A06" />
    <ValidityStart v="2018-01-01T00:00:00Z" />
    <RelatedResourceObject>
        <ResourceObjectIdentification v="RO12" codingScheme="EIC" />
        <ResourceObjectName v="Test RO1" />
    </RelatedArea>
 </ResourceObjectDetails>
```

4.3.17 Bilateral Trade MEC Data Packages

4.3.17.1 *SDP Bilateral Trade MEC – All - Configuration*

Attribute	Description
Name	Bilateral Trades – Structure (Active)
Receiver	BRP
Description	Data package is populated by structural MECs of Bilateral Trades where BRP recipient is responsible in defined period. Only structural MECs of Bilateral Trades valid sometime within the defined period are included in the Data package. Data package is available in Online Service when logged as particular BRP.
Format (Short Name)	Trade Structure Document
Document Standard	Ediel Notify Trade Structure Document version 1.0 (CIM based)

Document Recognition	Document Type = **Z27**
Period From	D
Period To	D+14
Time Trigger (Words)	Daily Basis, delivered till 08:00 CET Data Package is distributed only if any data found
Data Scope (Filter)	System selects all structural Bilateral Trades MECs where BRP is responsible and the MECs are valid sometime within the configured time period.
Message Type	DP Bilateral Trade Structure (All) SDP_BITSTR_A

4.3.17.2 *SDP Bilateral Trade MEC – Delta - Configuration*

Attribute	Description
Name	Bilateral Trades – Structure (Delta)
Receiver	BRP
Description	Data package is populated by Bilateral Trades MECs that are related to BRP recipient and their validity starts or ends within the configured time period. Data package is available in Online Service when logged as particular BRP.
Format (Short Name)	Trade Structure Document
Document Standard	Ediel Notify Trade Structure Document version 1.0 (CIM based)
Document Recognition	Document Type = **Z26**

Period From	D
Period To	D+14
Time Trigger (Words)	Daily Basis, delivered till 08:00 CET Data Package is distributed only if any data found
Data Scope (Filter)	System selects structural Bilateral Trades MECs where BRP is responsible and the MEC's validity starts or ends sometime within the configured time period.
Message Type	DP Bilateral Trade Structure (Delta) SDP_BITSTR_D

4.3.17.3 *Ediel Notify Bilateral Trade Structure Document - Attribute Usage for Bilateral Trade DP*

BRS Attribute [XML Attribute]	*Cardi-nality*	*Code and description*
Request Trade Structure Document [RequestTradeStructure_MarketDocument]	[1]	
Document Identification [mRID]	[1]	Unique identification of the document
Document Type [type]	[1]	**Z26** *Bilateral trade structure master data document containing master data changed within the Validity Time Interval* - Bilateral Trades – Structure (Delta) **Z27** *Bilateral trade structure master data document containing all valid master data within the Validity Time Interval* – Bilateral Trades – Structure (Active)

Process Type [Process.processType]	[1]	**Z07** Master data
Sender Identification [Sender_MarketParticipant.mRID]	[1]	eSett's Code with Coding scheme
Sender Role [Sender_MarketParticipant.marketRole.type]	[1]	**A05** Imbalance Settlement Responsible
Receiver Identification [Reciever_MarketParticipant.mRID]	[1]	Data Package Subscriber's (BRP) Code and Coding scheme Balance Responsible Party / Code Balance Responsible Party / Coding Scheme
Receiver Role [Reciever_MarketParticipant.marketRole.type]	[1]	**A08** Balance Responsible Party
Creation Date Time [createdDateTime]	[1]	Date and time for creation of the document. The date and time must be expressed in UTC in format YYYY-MM-DDTHH:MM:SSZ
Notify Trade Structure Details [NotifyTradeStructure_TimeSeries]	[1..*]	*Details about Bilateral Trade Structures. Repeated for each of Bilateral Trade MEC.*
Transaction Identification [mRID]	[1]	Unique ID of the transaction
Validity Start [validityStart_DateAndOrTime.dateTime]	[0..1]	Business Date Time From Expressed in UTC as YYYY-MM-DDTHH:MM:SSZ (See Validities in Documents) Validity Start of MEC Bilateral Trade
Validity End [validityEnd_DateAndOrTime.dateTime]	[0..1]	Business Date Time To Expressed in UTC as YYYY-MM-DDTHH:MM:SSZ (See Validities in Documents)

		Validity End of MEC Bilateral Trade Not present if Validity End is Undefined
Area [domain.mRID]	[1]	Unique ID of the Bilateral Trade's MBA – Code and Coding Scheme: Market Balance Area / Code Market Balance Area / Coding Scheme
Agreement Identification [marketAgreement.mRID]	[0..1]	The unique ID of Bilateral Trade Structure Bilateral Trade / Agreement Identification
In Party [In_MarketParticipant]	[2..2]	The party being the **buyer** in the bilateral trade Two 'In Party' elements: **BRP** (A08) **RE** (Z05)
Identification [mRid]	[1]	Party Code and Coding Scheme
Role [marketRole.type]	[1]	The role of the in party, i.e. **A08** Balance Responsible Party **Z05** Trader (non-balance responsible party)
Out Party [Out_MarketParticipant]	[2..2]	The party being the **seller** in the bilateral trade Two 'In Party' elements: **BRP** (A08) **RE** (Z05)
Identification [mRid]	[1]	Party Code and Coding Scheme
Role [marketRole.type]	[1]	The role of the in party, i.e. **A08** Balance Responsible Party **Z05** Trader (non-balance responsible party)

4.3.17.4 *SDP Bilateral Trade MEC – XML Snippet Example*

```
<cim:TimeSeries>
    <cim:mRID>mRID-TransactionID001a</cim:mRID>
    <cim:validityStart_DateAndOrTime.dateTime>2018-01-01T01:00:00Z</cim:validityStart_DateAndOr-
    Time.dateTime>
    <cim:domain.mRID codingScheme="A01">10YNO-1--------2</cim:domain.mRID>
    <cim:marketAgreement.mRID>mRID-AgreementID001a</cim:marketAgreement.mRID>
    <cim:In_MarketParticipant>
        <cim:mRID codingScheme="A10">7080003940117</cim:mRID>
            <cim:marketRole.type>A08</cim:marketRole.type>
    </cim:In_MarketParticipant>
    <cim:In_MarketParticipant>
        <cim:mRID codingScheme="A10">7080003819260</cim:mRID>
            <cim:marketRole.type>Z05</cim:marketRole.type>
    </cim:In_MarketParticipant>
    <cim:Out_MarketParticipant>
        <cim:mRID codingScheme="A01">10X1001A1001A418</cim:mRID>
        <cim:marketRole.type>A08</cim:marketRole.type>
     </cim:Out_MarketParticipant>
    <cim:Out_MarketParticipant>
        <cim:mRID codingScheme="A01">7080003823427</cim:mRID>
        <cim:marketRole.type>Z05</cim:marketRole.type>
     </cim:Out_MarketParticipant>
</cim:TimeSeries>
```

4.3.18 PX Market Trade MEC Data Packages

4.3.18.1 *SDP PX Market Trade MEC – All - Configuration*

Attribute	Description
Name	PX Market Trades – Structure (Active)
Receiver	Market Operator in BRP role
Description	Data package is populated by structural MECs of PX Market Trades where Market Operator is responsible and MEC is valid sometime within the defined period. Data package is available in Online Service when logged as particular Market Operator.
Format (Short Name)	Trade Structure Document
Document Standard	Ediel Notify Trade Structure Document version 1.0 (CIM based)
Document Recognition	Document Type = **Z29**
Period From	D
Period To	D+14
Time Trigger (Words)	Daily Basis, delivered till 07:00 CET Data Package is distributed only if any data found
Data Scope (Filter)	System selects all structural PX Market Trades MECs where BRP is responsible and the MECs are valid sometime within the configured time period.
Message Type	DP PX Market Trades – Structure (All) SDP_PXT_A

4.3.18.2 *SDP – PX Market Trade MEC – Delta – Configuration*

Attribute	Description
Name	PX Market Trades – Structure (Delta)
Receiver	Market Operator in BRP role
Description	Data package is populated by PX Market Trades MECs that are related to subscriber (Market Operator) and their validity starts or ends within the configured time period. Data package contains PX Market Trade structure MECs with validity. Data package is available in Online Service when logged as particular BRP.
Format (Short Name)	Trade Structure Document
Document Standard	Ediel Notify Trade Structure Document version 1.0 (CIM based)
Document Recognition	Document Type = **Z28**
Period From	D
Period To	D+14
Time Trigger (Words)	Daily Basis, delivered till 07:00 CET Data Package is distributed only if any data found
Data Scope (Filter)	System selects structural PX Market Trades MECs where BRP is responsible and the MEC's validity starts or ends sometime within the configured time period.
Message Type	DP PX Market Trades – Structure (Delta) SDP_PXT_D

4.3.18.3 *Ediel Notify PX Trade Structure Document – Attribute Usage for PX Market Trade DP*

BRS Attribute [XML Attribute]	*Cardinality*	*Code and description*
Notify Trade Structure Document *[NotifyTradeStructure_MarketDocument]*	[1]	
Document Identification [mRID]	[1]	Unique identification of the document
Document Type [type]	[1]	**Z28** PX trade structure master data document containing **master data changed** within the Validity Time Interval **Z29** PX trade structure master data document containing **all valid master data** within the Validity Time Interval
Process Type [Process.processType]	[1]	**Z07** Master data
Sender Identification [Sender_MarketParticipant.mRID]	[1]	**eSett's** Code with Coding scheme
Sender Role [Sender_MarketParticipant.marketRole.type]	[1]	**A05** Imbalance Settlement Responsible
Receiver Identification [Reciever_MarketParticipant.mRID]	[1]	Data Package Subscriber's (BRP as Market Operator) Code and Coding scheme Balance Responsible Party / Code Balance Responsible Party / Coding Scheme
Receiver Role	[1]	**A11** Market operator

[Reciever_MarketParticipant.marketRole.type]		
Creation Date Time [createdDateTime]	[1]	Date and time of the document creation The date and time must be expressed in UTC in format YYYY-MM-DDTHH:MM:SSZ
Notify Trade Structure Details [NotifyTradeStructure_TimeSeries]	[1..*]	*Details about PX Market Trade Structures. Repeated for each of PX Market Trade MEC.*
Transaction Identification [mRID]	[1]	Unique ID of the transaction
Validity Start [validityStart_DateAndOrTime.dateTime]	[0..1]	Business Date Time From Expressed in UTC as YYYY-MM-DDTHH:MM:SSZ (See Validities in Documents) Validity Start of PX Market Trade
Validity End [validityEnd_DateAndOrTime.dateTime]	[0..1]	Business Date Time To Expressed in UTC as YYYY-MM-DDTHH:MM:SSZ (See Validities in Documents) Validity End of PX Market Trade Not present if Validity End is Undefined
Area [domain.mRID]	[1]	Unique ID of the PX Market Trade's MBA where Trade can take a place – Code and Coding Scheme: Market Balance Area / Code Market Balance Area / Coding Scheme

Contract type [marketAgreement.type]	[1]	PX Market / PX Market Type **A01** Daily (Day Ahead) – Day Ahead **A07** Intraday contract – Intraday
In Party [In_MarketParticipant]	[2..3]	**BRP** (A08) - mandatory **Market Operator** (A11) – mandatory **RE** (Z05) – optional
Identification [mRid]	[1]	Market Operator, BRP's and Retailer's Code and Coding scheme depending on the Role. PX Market / Operator / Code PX Market / Operator / Coding Scheme Balance Responsible Party / Code Balance Responsible Party / Coding Scheme Retailer / Code Retailer / Coding Scheme
Role [marketRole.type]	[1]	**A08** Balance Responsible Party **A11** Market operator **Z05** Trader (non-balance responsible party)

4.3.18.4 *SDP PX Market Trade MEC – XML Snippet Example*

```
<cim:TimeSeries>
   <cim:mRID>mRID-TransactionID001a</cim:mRID>
   <cim:validityStart_DateAndOrTime.dateTime>2018-01-01T01:00:00Z</cim:validityStart_DateAndOr-
   Time.dateTime>
   <cim:domain.mRID codingScheme="A01">10YNO-1--------2</cim:domain.mRID>
   <cim:marketAgreement.type>A07</cim:marketAgreement.type>
   <cim:In_MarketParticipant>
      <cim:mRID codingScheme="A10">7080003940117</cim:mRID>
            <cim:marketRole.type>A08</cim:marketRole.type>
   </cim:In_MarketParticipant>
   <cim:In_MarketParticipant>
      <cim:mRID codingScheme="A10">7080003819260</cim:mRID>
            <cim:marketRole.type>A11</cim:marketRole.type>
   </cim:In_MarketParticipant>
   <cim:In_MarketParticipant>
      <cim:mRID codingScheme="A10">7080003873841</cim:mRID>
            <cim:marketRole.type>Z05</cim:marketRole.type>
   </cim:In_MarketParticipant>
</cim:TimeSeries>
```

4.4 XML Samples and XSD

XML Scheme Definition (XSD) of all documents is available on Ediel.org in common package ‘Complete set of NBS Documents’.

XML samples of data packages are not part of ‘Complete set of NBS Documents’ and are available in the following link Basse Specific Data Package XML Samples.

XML samples have file name in line with the list in Table 8 - Specific Data Packages Overview.