

User Guide for XML documents for Nordic Balance Settlement Master Data

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1 Introduction

1.1 Background

This document is a detailed User Guide for the Master Data documents used in the Nordic Balancing System, made by the Nordic Ediel Group (NEG).

The basis for the document is the BRS (Business Requirement Specification) for Nordic Balance Settlement, Master Data Documents [5]. The focus of the document is the technical aspects of the documents to be exchanged, which is based on the ENTSO-E Implementation Guides [1]. In addition the Harmonised Electricity Market Role Model from ENTSO-E, eblX[®] and EFET, [2], is used for identifying relevant roles.

An overview of NBS information exchange and descriptions of the NBS-process can be found in [5] and [6].

1.2 Nordic Energy Domain Model

A Nordic Energy market Domain model, giving an overall overview of the structure and processes used in the Nordic Energy market, can be found in [5].

1.3 Project organisation

The project is organised as a project group within the Nordic Ediel Group, with the following members at the time of publication:

The document is written by NTC (NEG Technical Committee), with the following members at the time of publication:

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1.4 References

- [1] ENTSO-E implementation guides, see <https://www.entsoe.eu/publications/electronic-data-interchange-edi-library/>, e.g.:
 - ENTSO-E Modelling Methodology (EMM)
 - ENTSO-E UCTE SO-SO Process
 - ENTSO-E Scheduling System, ESS
 - ENTSO-E Settlement Process, ESP
 - ENTSO-E Reserve Resource Planning, ERRP
 - ENTSO-E Capacity Allocation and Nomination, ECAN
 - ENTSO-E Status Report, ESR
 - ENTSO-E Acknowledgement process, EAD
- [2] NEG Common XML rules and recommendations, see <http://www.ediel.org/>
- [3] The Harmonised Role Model, ENTSO-E, ebIX® and EFET, see <https://www.entsoe.eu/resources/edi-library/>
- [4] ebIX® Business Requirement Specifications, see www.ebix.org
- [5] BRS for Nordic Balance Settlement, see <http://www.ediel.org/>
- [6] BRS for Nordic Balance Settlement, between NBS and TSO/Market Operator, see <http://www.ediel.org/>

1.5 Change log

Ver/rel/rev	Changed by	Date	Changes
1.7.A	Ove Nesvik, ove.nesvik@edisys.no	20170505	<ul style="list-style-type: none"> Removed attribute “coding scheme” from Subject Party Role in “NEG Resource Object (Production Unit) Master Data Documents” (error correction in UG)
1.7.A	Ove Nesvik, ove.nesvik@edisys.no	20170419	<ul style="list-style-type: none"> Updated class diagrams for Party Master Data and Resource Object Master Data Added new element “Status” to Party Master Data and Resource Object Master Data documents Added new element “Reference” to Party Master Data document Rephrased and added Document Type codes for Party Master Data and Resource Object Master Data documents Updated cardinalities for Party Master Data and Resource Object Master Data documents Added textual clarifications, incl. removed Nord Pool logo on the front page Added new Energinet logo
1.6.B	Ove Nesvik, ove.nesvik@edisys.no	20170213	<ul style="list-style-type: none"> Updated logos on the front page Replaced Nord Pool and NPS with Market Operator Replaced Elspot with Day-ahead Replaced Elbas with Intraday Updated NTC and NEG member list
1.6.A	Ove Nesvik, ove.nesvik@edisys.no	20161206	<ul style="list-style-type: none"> NEG Party Master Data Document:

			<ul style="list-style-type: none"> ○ Replaced Document Type “Z17 Party Relation Master Data Document” with: <ul style="list-style-type: none"> Z18 Party Relation Master Data Document where Validity Start and/or Validity End are within the Validity Time Interval Z19 Party Relation Master Data Document where relations are valid sometime within the Validity Time Interval • Added a Validity Time Interval in the header section
1.5.A	Ove Nesvik, ove.nesvik@edisys.no	20161027	The type for Validity Start and Validity End have been changed from date to “date and time ” (must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ)
1.4.A	Ove Nesvik, ove.nesvik@edisys.no	20160210	<ul style="list-style-type: none"> • NEG Resource Object (Production Unit) Master Data Document: Error corrections in class diagram (Production Type) • Textual error corrections • NEG Party Master Data Document: <ul style="list-style-type: none"> ○ Addition of Related Party ○ Addition of Business Type A01, Production ○ Addition of Document Type Z17, Party relation master data document and related codes and new elements ○ Settlement method is made optional
1.3.B	Ove Nesvik, ove.nesvik@edisys.no	20151027	<ul style="list-style-type: none"> • Recipient ID and Role is made optional in the Area Specification Document and the Party Master Data Document • Rename of Business Type “Z68, Production Units own consumption (Only used in Finland)” to B36 in Party Master Data Document
1.3.A	Ove Nesvik, ove.nesvik@edisys.no	20150904	<ul style="list-style-type: none"> • The MGA Type “Z02 Only losses” is removed from “NEG Area Specification Document for MBA and MGA Master Data” • Addition of clarifying text, such as a description of the Bilateral Trade ID • Addition of Business Type “Z68 Production Units own consumption” in the Party master Data document • Addition of Production Type list in NEG-Resource Object Master Data document • Bilateral Trade Master Data Report is renamed to NEG Bilateral Trade Structure Document • Correction of cardinality for NEG Area Specification Document for MBA-MGA Relations; the cardinality of “Area specification details” is [1..*]
1.2.A	Ove Nesvik, ove.nesvik@edisys.no	20150421	<ul style="list-style-type: none"> • Addition of MGA Type “Z06, Production” and “Z07 Transmission (main/central) grid”

			<ul style="list-style-type: none"> • Changed cardinality of the relation between “Resource Object Details” and “Related Area” to [0..*] in the NEG-Resource Object Master Data • “A08 Balance Responsible Party” is added as sender role and “A05 Imbalance settlement responsible” is added as receiver role in NEG Resource Object (Generator Group – Generator Relations) Master Data Document
1.1.A	Ove Nesvik, ove.nesvik@edisys.no	20150131	<ul style="list-style-type: none"> • Addition of Object Aggregation in Resource Object (Production Unit) Master Data Document • Addition of new Asset Type code “Z07 Consumption” in Resource Object (Production Unit) Master Data Document • Asset Type “B20 Other” is renamed” to “Other production”
1.0.A	Ove Nesvik, ove.nesvik@edisys.no	20150123	First version for test implementation
Draft 0.1A	Erik Gustavsen, erik.gustavsen@edisys.no and Ove Nesvik, ove.nesvik@edisys.no	20150115	First draft

2 Rules for NBS documents

2.1 Document size

The maximum document size of documents to/from eSett is 50 MB.

3 Description of Master Data documents

3.1 NEG Area Specification Document

The NEG Area Specification Document is used for sending Master Data for areas, such as Market Balance Areas (MBA) and Metering Grid Areas (MGA).

3.1.1 Class diagram: NEG Area Specification Document

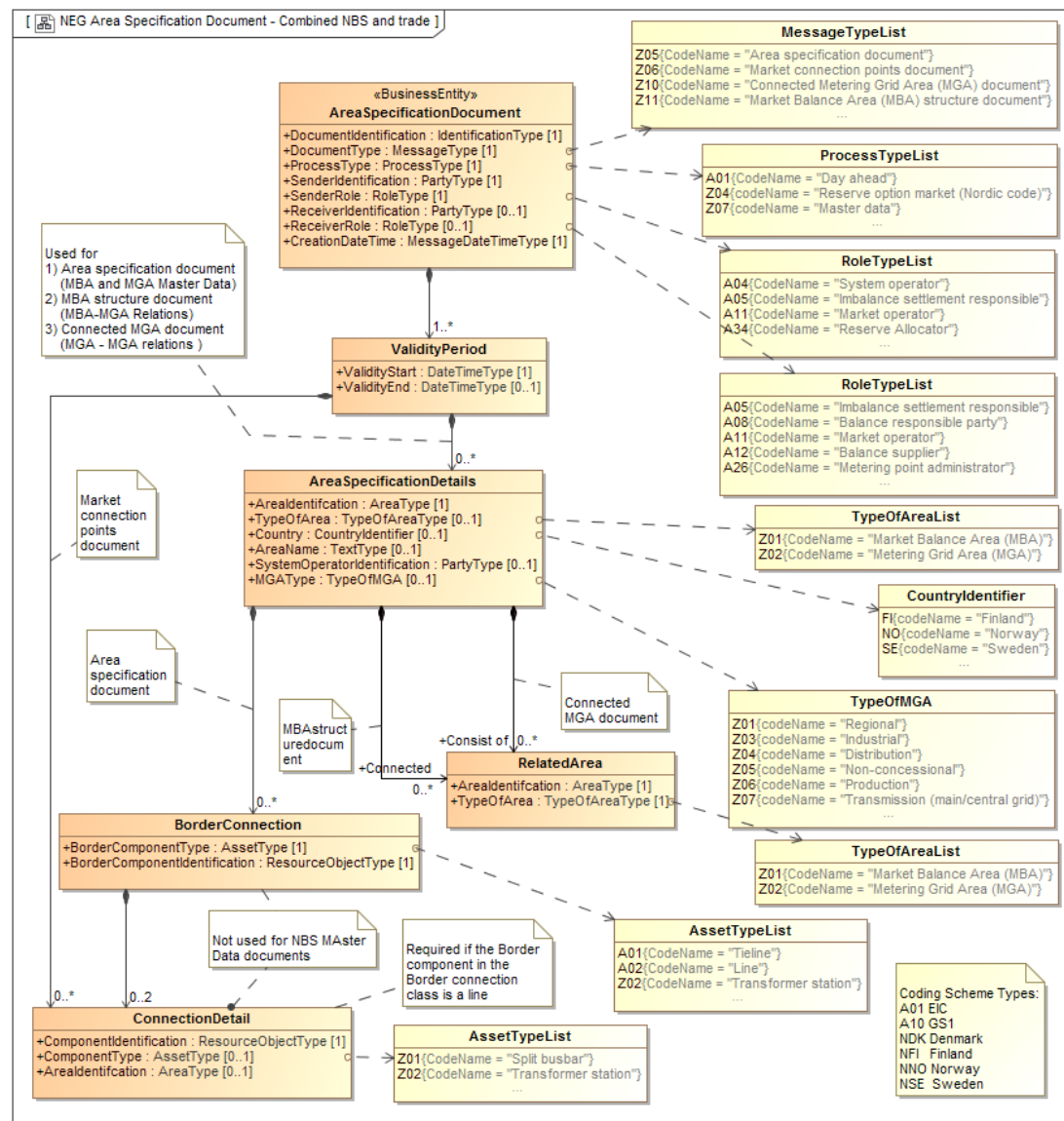


Figure 1: NEG Area Specification Document

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3.1.2 Element/Attribute usage: NEG Area Specification Document for MBA and MGA Master Data

Element Attribute	Definition	Description	Card	Max Size	Content	Dep.	XML element
Area Specification Document							AreaSpecificationDocument
Document Identification	Unique identification of the document for which the area master data is being supplied.		1..1	A 35			DocumentIdentification
Document Type	The coded type of the document being sent.	The document type identifies the information flow characteristics. Z05 Area specification document	1..1	A3	Z05		DocumentType
Process Type	The nature of the process that the document is directed at.	The process type identifies the process to which the information flow is directed. Z07 Master data	1..1	A3	Z07		ProcessType
Sender Identification	Identification of the party that is the owner of the document and is responsible for its content.	The sender of the document is identified by a unique coded identification. This code identifies the party that is the “owner” of the information being transmitted in the document and who is responsible for its content.	1..1	A16	SO ID		SenderIdentification
Coding scheme	<i>Coding scheme for sender identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Sender Role	Identification of the role that is played by the sender.	The sender role, which identifies the role of the sender within the document. A04 System operator	1..1	A3	A04		SenderRole
Receiver Identification	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	0..1	A16	ISR ID		ReceiverIdentification

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Coding scheme	Coding scheme for receiver identification	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Receiver Role	Identification of the role that is played by the receiver.	The receiver role, which identifies the role of the receiver within the document. A05 Imbalance Settlement Responsible	0..1	A3	A05		ReceiverRole
Creation Date Time	Date and time of the creation of the document.	The date and time that the document was prepared for transmission by the application of the sender. The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ	1..1	A20	YYYY-MM-DDTHH:M:SSZ		CreationDateTime
Validity period	Validity period class	Period when the area master data is valid May be repeated for each MBA and/or MGA, but must be repeated if the validity start and end date differs between the MBAs and/or MGAs	1..*				ValidityPeriod
Validity Start	The start date and time of the period in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ¹	1..1	A35			ValidityStart

¹ Finland and Norway uses "local time", while Sweden use "normal time", i.e.:

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity End	The end date and time of the period in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ²	0..1	A35			ValidityEnd
Area Specification Details	Class specifying area details		0..*				AreaSpecificationDetails
Area Identification	Identification of the area master data.	Unique ID of the area.	1..1	A16			AreaIdentification
Coding scheme	Coding scheme for area identification	<p>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</p> <p>A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme</p>	1..1	A3			codingScheme
Type of Area	The type of area.	<p>Market Balance Area (MBA) or Metering Grid Area (MGA).</p> <p>Z01 MBA Z02 MGA</p>	1..1	A3	Z01 or Z02		TypeOfArea
Country	Country code the area belongs to.	<p>Only used for MBAs.</p> <p>FI Finland</p>	0..1	A2	FI, NO,		Country

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
- Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
- Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
- Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

² See previous footnote

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
		NO Norway SE Sweden			SE		
Area name	Description of the area.	Name of the MBA or MGA in clear text	1..1	A700			AreaName
System Operator Identification	Identification of the system operator.	The unique identification of the DSO responsible for the MGA or the TSO responsible for the MBA.	1..1	A16			SystemOperatorIdentification
Coding scheme	Coding scheme for system operator identification	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
MGA Type	Type of Metering Grid Area	Shall be used for MGAs – Not used for MBAs Z01 Regional Z03 Industrial Z04 Distribution Z05 Non-concessional Z06 Production Z07 Transmission (main/central) grid	0..1	A3	Z01, Z02, Z03, Z04, Z05, Z06, Z07		MGAType
Connected Related Area	Class specifying related areas	May be used for <i>Type of Area</i> = Z02 Metering Grid Area (MGA) Not used for <i>Type of Area</i> = Z01 Market Balance Area (MBA)	0..*				ConnectedRelatedArea
Area Identification	Identification of the related area.	Unique ID of the related area.	1..1	A16			AreaIdentification
Coding scheme	Coding scheme for area identification	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 EIC A10 GS1 NDK Denmark National coding scheme	1..1	A3			codingScheme

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
		NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i>					
Type of Area	The type of area.	Market Balance Area (MBA).	1..1	A3	Z01		TypeOfArea
		Z01 MBA					

Table 1: Element/*Attribute* usage: NEG Area Specification Document for MBA and MGA Master Data

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3.1.3 Element/Attribute usage: NEG Area Specification Document for MBA-MGA Relations

Element Attribute	Definition	Description	Card	Max Size	Content	Dep.	XML element
Area Specification Document							AreaSpecificationDocument
Document Identification	Unique identification of the document for which the area master data is being supplied.		1..1	A 35			DocumentIdentification
Document Type	The coded type of the document being sent.	The document type identifies the information flow characteristics. Z11 Market Balance Area (MBA) Master Data document	1..1	A3	Z11		DocumentType
Process Type	The nature of the process that the document is directed at.	The process type identifies the process to which the information flow is directed. Z07 Master data	1..1	A3	Z07		ProcessType
Sender Identification	Identification of the party that is the owner of the document and is responsible for its content.	The sender of the document is identified by a unique coded identification. This code identifies the party that is the “owner” of the information being transmitted in the document and who is responsible for its content.	1..1	A16			SenderIdentification
Coding scheme	<i>Coding scheme for sender identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Sender Role	Identification of the role that is played by the sender.	The sender role, which identifies the role of the sender within the document. A04 System operator A05 Imbalance Settlement Responsible	1..1	A3	A04, A05		SenderRole

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Receiver Identification	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	0..1	A16			ReceiverIdentification
Coding scheme	<i>Coding scheme for receiver identification</i>	<p><i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i></p> <p>A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i></p>	1..1	A3			<i>codingScheme</i>
Receiver Role	Identification of the role that is played by the receiver.	<p>The receiver role, which identifies the role of the receiver within the document.</p> <p>A05 Imbalance Settlement Responsible A08 Balance responsible party A11 Market operator A12 Balance supplier A26 Metering point administrator Z05 Trader (non-balance responsible party)</p>	0..1	A3			ReceiverRole
Creation Date Time	Date and time of the creation of the document.	<p>The date and time that the document was prepared for transmission by the application of the sender.</p> <p>The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ</p>	1..1	A20	YYYY-MM-DDTHH:MM:SSZ		CreationDateTime

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity period	Validity period class	Period when the area master data is valid May be repeated for each MBA, but must be repeated if the validity start and end date differs between the MBAs	1..*				ValidityPeriod
Validity Start	The start date and time of the period in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ³	1..1	A35			ValidityStart
Validity End	The end date and time of the period in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ⁴	0..1	A35			ValidityEnd
Area Specification Details	Class specifying area details	May be repeated for each MBA with the same validity start and end date	1..*				AreaSpecificationDetails
Area Identification	Identification of the area master data.	Unique ID of the area.	1..1	A16			AreaIdentification
Coding scheme	Coding scheme for area identification	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme	1..1	A3			codingScheme

³ Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
- Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
- Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
- Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

⁴ See previous footnote

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
		NNO Norway National coding scheme NSE Sweden National coding scheme					
Type of Area	The type of area.	Market Balance Area (MBA)	1..1	A3	Z01		TypeOfArea
		Z01 MBA					
Consist of Related Area	Class specifying related areas		1..*				RelatedArea
Area Identification	Identification of the related area.	Unique ID of the related area.	1..1	A16			AreaIdentification
Coding scheme	Coding scheme for area identification	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Type of Area	The type of area.	Metering Grid Area (MGA).	1..1	A3	Z02		TypeOfArea
		Z02 MGA					

Table 2: Element/Attribute usage: NEG Area Specification Document for MBA-MGA Relations

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3.1.4 Element/Attribute usage: NEG Area Specification Document for MGA-MGA Relations

Element Attribute	Definition	Description	Card	Max Size	Content	Dep.	XML element
Area Specification Document							AreaSpecificationDocument
Document Identification	Unique identification of the document for which the area master data is being supplied.		1..1	A 35			DocumentIdentification
Document Type	The coded type of the document being sent.	The document type identifies the information flow characteristics. Z10 Connected Metering Grid Area (MGA) document	1..1	A3	Z10		DocumentType
Process Type	The nature of the process that the document is directed at.	The process type identifies the process to which the information flow is directed. Z07 Master data	1..1	A3	Z07		ProcessType
Sender Identification	Identification of the party that is the owner of the document and is responsible for its content.	The sender of the document is identified by a unique coded identification. This code identifies the party that is the “owner” of the information being transmitted in the document and who is responsible for its content.	1..1	A16			SenderIdentification
Coding scheme	<i>Coding scheme for sender identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			<i>codingScheme</i>
Sender Role	Identification of the role that is played by the sender.	The sender role, which identifies the role of the sender within the document. A04 System operator A05 Imbalance Settlement Responsible	1..1	A3	A04, A05		SenderRole

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Receiver Identification	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	0..1	A16			ReceiverIdentification
Coding scheme	<i>Coding scheme for receiver identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i>	1..1	A3			<i>codingScheme</i>
Receiver Role	Identification of the role that is played by the receiver.	The receiver role, which identifies the role of the receiver within the document. A05 <i>Imbalance Settlement Responsible</i> A26 <i>Metering point administrator</i>	0..1	A3			ReceiverRole
Creation Date Time	Date and time of the creation of the document.	The date and time that the document was prepared for transmission by the application of the sender. The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ	1..1	A20	YYYY-MM-DDTHH:M M:SSZ		CreationDateTime
Validity period	Validity period class	Period when the area master data is valid	1..*				ValidityPeriod
Validity Start	The start date and time of the period in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ⁵	1..1	A35			ValidityStart

⁵ Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity End	The end date and time of the period in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ⁶	0..1	A35			ValidityEnd
Area Specification Details	Class specifying area details		1..*				AreaSpecificationDetails
Area Identification	Identification of the area master data.	Unique ID of the area.	1..1	A16			AreaIdentification
Coding scheme	Coding scheme for area identification	<p>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</p> <p>A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme</p>	1..1	A3			codingScheme
Type of Area	The type of area.	<p>Market Grid Area (MGA)</p> <p>Z02 MGA</p>	1..1	A3	Z02		TypeOfArea

-
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
 - Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
 - Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
 - Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

⁶ See previous footnote

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Connected Related Area	Class specifying related areas		1..*				RelatedArea
Area Identification	Identification of the related area.	Unique ID of the related.	1..1	A16			AreaIdentification
Coding scheme	<i>Coding scheme for area identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i>	1..1	A3			<i>codingScheme</i>
Type of Area	The type of area.	Metering Grid Area (MGA). Z02 MGA	1..1	A3	Z02		TypeOfArea

Table 3: Element/*Attribute* usage: NEG Area Specification Document for MGA-MGA Relations

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3.2 NEG Party Master Data Document

The NEG Party Master Data Document is used for sending Master Data for parties, such as Balance Suppliers (Retailers).

3.2.1 Class diagram: NEG Party Master Data Document

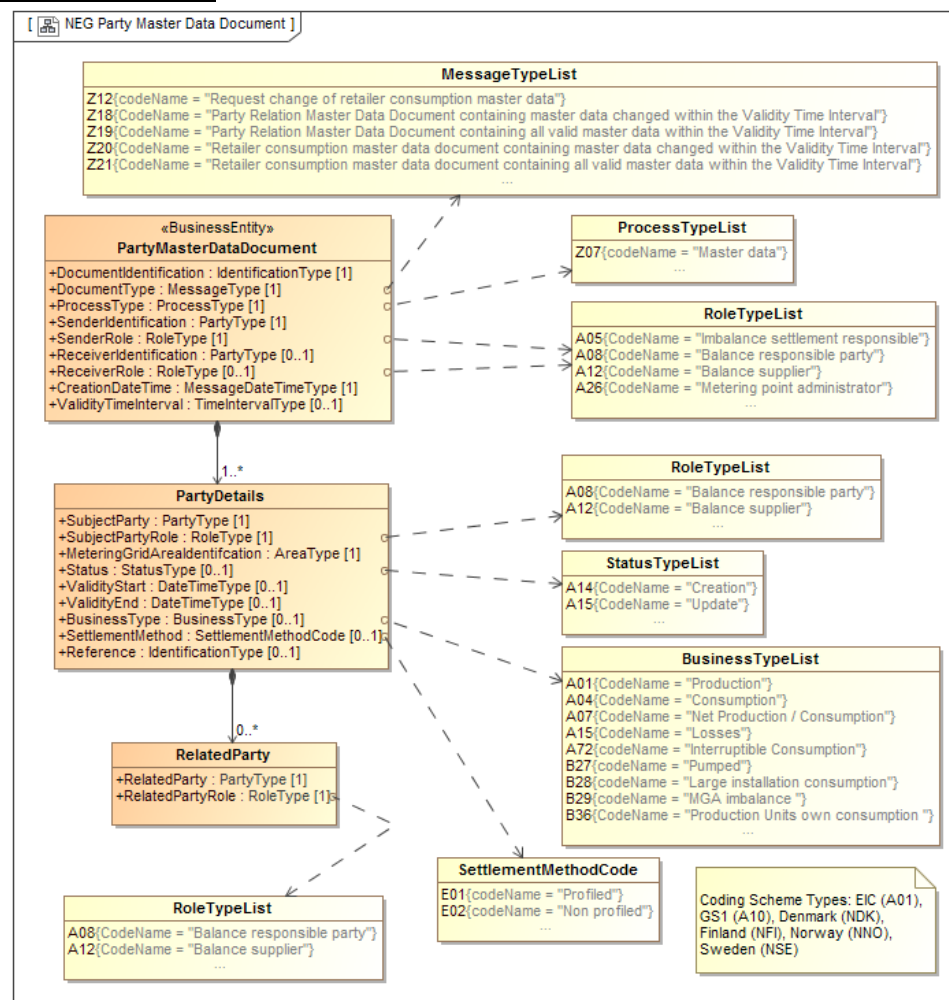


Figure 2: Class diagram: NEG Party Master Data Document

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3.2.2 Element/Attribute usage: NEG Party Master Data Document

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
NEG Party Master Data Document							NEGPartyMasterDataDocument
Document Identification	Unique identification of the document for which the party master data is being supplied.		1..1	A 35			DocumentIdentification

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Document Type	The coded type of the document being sent.	<p>The document type identifies the information flow characteristics.</p> <p>Z12 Request change of retailer consumption master data</p> <p>Z20 Retailer consumption master data document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)</p> <p>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)</p> <p>Z18 Party Relation Master Data Document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)</p> <p>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)</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> Z12 is used for requests (create and update) to Imbalance Settlement Responsible Z18, Z19, Z20 and Z21 are used for reporting from Imbalance Settlement Responsible 	1..1	A3	Z12		DocumentType
Process Type	The nature of the process that the document is directed at.	<p>The process type identifies the process to which the information flow is directed.</p> <p>Z07 Master data</p>	1..1	A3	Z07		ProcessType

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Sender Identification	Identification of the party that is the owner of the document and is responsible for its content.	The sender of the document is identified by a unique coded identification. This code identifies the party that is the “owner” of the information being transmitted in the document and who is responsible for its content.	1..1	A16			SenderIdentification
Coding scheme	<i>Coding scheme for sender identification</i>	<p><i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i></p> <p>A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i></p>	1..1	A3			<i>codingScheme</i>
Sender Role	Identification of the role that is played by the sender.	<p>The sender role, which identifies the role of the sender within the document.</p> <p>A05 Imbalance Settlement Responsible A26 Metering Point Administrator (DSO)</p>	1..1	A3	A05, A26		SenderRole
Receiver Identification	Identification of the party who is receiving the document.	<p>The receiver of the document is identified by a unique coded identification.</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> Required unless used for “broadcast” (same document to several recipients) 	0..1	A16			ReceiverIdentification

Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
Coding scheme	Coding scheme for receiver identification	<p>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</p> <p>A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme</p>	1..1	A3			codingScheme
Receiver Role	Identification of the role that is played by the receiver.	<p>The receiver role, which identifies the role of the receiver within the document.</p> <p>A05 Imbalance Settlement Responsible A08 Balance responsible Party A12 Balance Supplier (Retailer) A26 Metering point administrator</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> Required unless used for “broadcast” (same document to several recipients) 	0..1	A3	A05, A26		ReceiverRole
Creation Date Time	Date and time of the creation of the document.	<p>The date and time that the document was prepared for transmission by the application of the sender.</p> <p>The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ</p>	1..1	A20	YYYY-MM-DDTHH:MM:SSZ		CreationDateTime
Validity Time Interval	The beginning and ending date and time of the period covered by the Party Master Data.	<p>The period for which this Party Master Data document details are valid</p> <p>The start and end date and time must be expressed as YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ.</p> <p>The time must be expressed in UTC.</p>	0..1	A35			ValidityTimeInterval

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Party Details	Class specifying party details	<i>Business rules for Party Details when sending request for structure change to eSett:</i> <ul style="list-style-type: none"> One Party Details represents one request There cannot be more than one Party Details with the same object identification present in one file (multiple requests for more than one Subject Party will be rejected) 	1..*				PartyDetails
Subject Party	Identification of the party the master data concerns	Unique ID of the party in question	1..1	A16			SubjectParty
Coding scheme	Coding scheme for area identification	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Subject Party Role	Identification of the role that is played by the party.	The subject party role, which identifies the role of the party. A08 Balance responsible party A12 Balance Supplier (Retailer)	1..1	A3	A12, A08		SubjectPartyRole
Metering Grid Area Identification	Identification of the metering grid area of the party.	Unique ID of the metering grid area.	1..1	A16			MeteringGridAreaIdentification

Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
Attribute							
Coding scheme	Coding scheme for metering grid area identification	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Status	The condition or position of an object with regard to its standing	A14 Creation A15 Update <i>Business rules:</i> <ul style="list-style-type: none"> Only used when requesting a creation or update of an object. Not used for information notifications. 	0..1	A3	A14, A15		Status
Validity Start	The start date and time of the party in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ⁷ <i>Business rules:</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, with one exception; The Validity End can be extended to “unlimited” (i.e. no Validity End) by sending a Party Detail with Status = “A15 Update” and no Validity Start or Validity End. 	0..1	A35			ValidityStart

⁷ Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity End	The end date and time of the party in question.	<p>The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS⁸</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, with one exception; The Validity End can be extended to “unlimited” (i.e. no Validity End) by sending a Party Detail with Status = “A15 Update” and no Validity Start or Validity End. 	0..1	A35			ValidityEnd
Business Type	Identification of the business type of the party.	<p>A01 Production</p> <p>A04 Consumption</p> <p>A07 Net production/ consumption (combined pumped storage)</p> <p>A15 Losses</p> <p>A72 Interruptible Consumption</p> <p>B27 Pumped</p> <p>B28 Large installation consumption</p> <p>B29 MGA imbalance</p> <p>B36 Production Units own consumption (Only used in Finland)</p> <p>Usage: See Table 5</p>	1..1	A3		Ref. table 5	BusinessType

- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
- Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
- Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
- Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

⁸ See previous footnote

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Settlement Method	The settlement method of the party.	E01 Profiled E02 Non-profiled Usage: See Table 5	0..1	A3	E01, E02	Ref. table 5	SettlementMethod
Reference	Reference to a set of "Party Details"	MEC (Market Entity Connection) ID, see eSett handbook. The element is only used if an entity has several MEC IDs and the MEC ID is needed to identify the correct MEC	0..1	A35			Reference
Related Party	Class identifying related parties		0..*				RelatedParty
Related Party	Identification of the related party	Unique ID of the party in question	1..1	A16			RelatedParty
Coding scheme	<i>Coding scheme for area identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i>	1..1	A3			<i>codingScheme</i>
Related Party Role	Identification of the role that is played by the party.	The subject party role, which identifies the role of the party. A08 Balance responsible party A12 Balance Supplier (Retailer)	1..1	A3	A12, A08		RelatedPartyRole

Table 4: Element/Attribute usage: NEG Party Master Data Document

3.2.3 Dependency table for NEG Party Master Data Document as Retailer Consumption Master Data

Document Type	Business Type	Settlement Method	Sent from	Sent to
Z12 Request change of retailer consumption master data	A04 Consumption (general consumption)	E02 Non-profiled	DSO	eSett
		E01 Profiled	DSO ⁹	eSett
	A15 Losses	E02 Non-profiled	DSO	eSett
		E01 Profiled	DSO	eSett
	B27 Pumped	E02 Non-profiled	DSO	eSett
		E01 Profiled	DSO	eSett
	A07 Net production/ consumption	E02 Non-profiled	DSO	eSett
	A72 Interruptible Consumption	E02 Non-profiled	DSO	eSett
	B28 Large installation consumption	E02 Non-profiled	DSO	eSett
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)	B29 MGA Imbalance	E02 Non-profiled	DSO	eSett
	B36 ¹⁰ Production Units own consumption	E02 Non-profiled	DSO	eSett
	A04 Consumption (general consumption)	E02 Non-profiled	eSett	DSO
		E01 Profiled	eSett	DSO
	A15 Losses	E02 Non-profiled	eSett	DSO
		E01 Profiled	eSett	DSO
	B27 Pumped	E02 Non-profiled	eSett	DSO
		E01 Profiled	eSett	DSO
	A07 Net production/ consumption	E02 Non-profiled	eSett	DSO
	A72 Interruptible Consumption	E02 Non-profiled	eSett	DSO
	B28 Large installation consumption	E02 Non-profiled	eSett	DSO
	B29 MGA Imbalance	E02 Non-profiled	eSett	DSO, BRP
	B36 ¹¹ Production Units own consumption	E02 Non-profiled	eSett	DSO

⁹ In Sweden, the profiled consumption will be sent from Svenska kraftnät¹⁰ Only used in Finland¹¹ Only used in Finland

Document Type	Business Type	Settlement Method	Sent from	Sent to
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)	A01 Production A04 Consumption (general consumption)	Not used	eSett	DSO, BRP, BS

Table 5: Dependency table for NEG Party Master Data Document as Retailer Consumption Master Data

3.3 NEG Resource Object (Production Unit) Master Data Document

The NEG Resource Object (Production Unit) Master Data Document is used for sending Master Data for Resource Objects, such as Generator Groups and Generators.

3.3.1 Class diagram: NEG Resource Object (Production Unit) Master Data Document

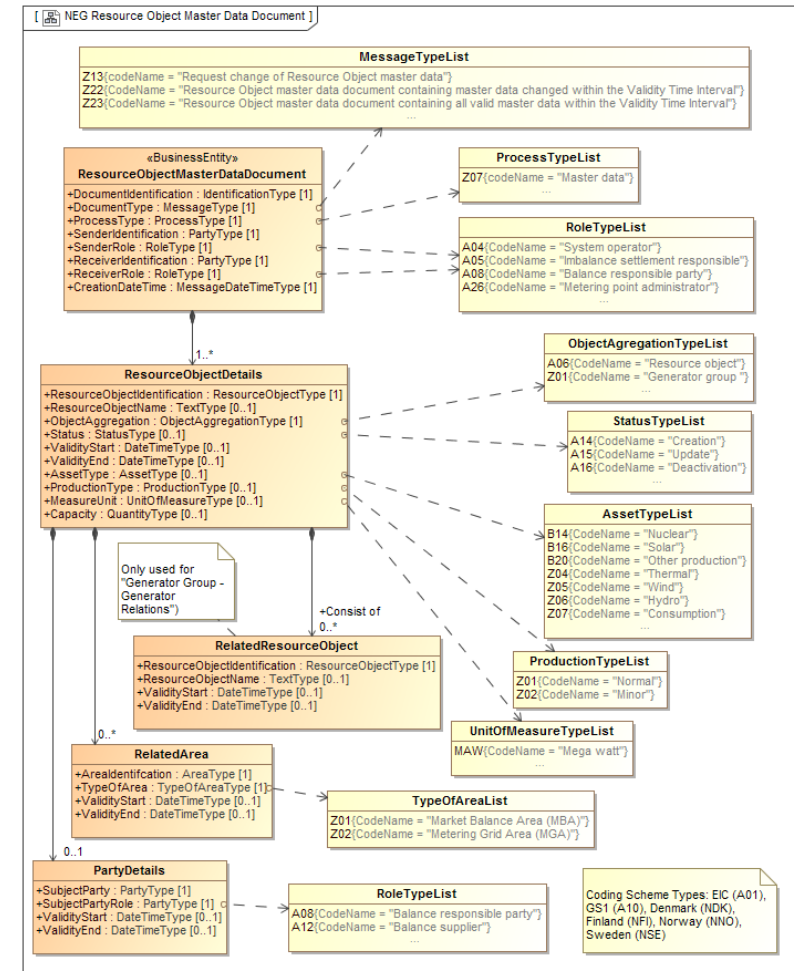


Figure 3: Class diagram: NEG Resource Object (Production Unit) Master Data Document

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3.3.2 Element/Attribute usage: NEG Resource Object (Production Unit) Master Data Document

Element Attribute	Definition	Description	Card	Max Size	Content	Dep.	XML element
NEG Resource Object Master Data Document							NEGResourceObjectMasterDataDocument
Document Identification	Unique identification of the document for which the resource object master data is being supplied.		1..1	A 35			DocumentIdentification
Document Type	The coded type of the document being sent.	<p>The document type identifies the information flow characteristics.</p> <p>Z13 Request change of Resource Object master data</p> <p>Z22 Resource Object master data document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)</p> <p>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)</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> Z13 is used for requests (create, update and deactivate) to Imbalance Settlement Responsible Z22 and Z23 are used for reporting from Imbalance Settlement Responsible 	1..1	A3	Z13		DocumentType
Process Type	The nature of the process that the document is directed at.	<p>The process type identifies the process to which the information flow is directed.</p> <p>Z07 Master data</p>	1..1	A3	Z07		ProcessType

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Sender Identification	Identification of the party that is the owner of the document and is responsible for its content.	The sender of the document is identified by a unique coded identification. This code identifies the party that is the “owner” of the information being transmitted in the document and who is responsible for its content.	1..1	A16			SenderIdentification
Coding scheme	<i>Coding scheme for sender identification</i>	<p><i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i></p> <p>A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme</p>	1..1	A3			<i>codingScheme</i>
Sender Role	Identification of the role that is played by the sender.	<p>The sender role, which identifies the role of the sender within the document.</p> <p>A04 System Operator A05 Imbalance Settlement Responsible A26 Metering Point Administrator (DSO)</p>	1..1	A3	A04, A05, A26		SenderRole
Receiver Identification	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	1..1	A16			ReceiverIdentification
Coding scheme	<i>Coding scheme for receiver identification</i>	<p><i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i></p> <p>A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme</p>	1..1	A3			<i>codingScheme</i>

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Receiver Role	Identification of the role that is played by the receiver.	The receiver role, which identifies the role of the receiver within the document. A04 System Operator A05 Imbalance Settlement Responsible A26 Metering point administrator	1..1	A3	A04, A05, A26		ReceiverRole
Creation Date Time	Date and time of the creation of the document.	The date and time that the document was prepared for transmission by the application of the sender. The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ	1..1	A20	YYYY-MM-DDTHH:M M:SSZ		CreationDateTime
Resource Object Details	Class specifying resource object details	<i>Business rules for Resource Object Details when sending request for structure change:</i> <ul style="list-style-type: none"> One Resource Object Details represents one request There cannot be more than one Resource Object Details with the same object identification present in one xml file (multiple requests for more than one Production Unit will be rejected) <i>Business rules for Resource Object Details when distributed from Imbalance Settlement Responsible:</i> <ul style="list-style-type: none"> Resource Object Details will repeat for each change of a time-dependent attribute Resource Object Details contain all attributes 	1..*				ResourceObjectDetails
Resource Object Identification	Identification of the resource object.	Unique ID of the Resource Object in question.	1..1	A16			ResourceObjectIdentification

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Coding scheme	Coding scheme for resource object identification	<p>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</p> <p>A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme</p>	1..1	A3			codingScheme
Resource Object Name	Description of the Resource Object.	<p>Name of the Resource Object in clear text</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> Resource Object Name and Asset Type for Production Units are not time-dependent, hence Validity Start and Validity End are NOT used when updating these attributes. 	0..1	A700			ResourceObjectName
Object Aggregation	A code identifying if the master data concerns one resource object or a group of resource objects (Generator group)	<p>A06 Resource object (used for detailed units)</p> <p>Z01 Generator group</p>	1..1	A3			ObjectAggregation

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Status	The condition or position of an object with regard to its standing	<p>A14 Creation</p> <p>A15 Update</p> <p>A16 Deactivation</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> • Only used when requesting a change to an object. Not used for information notifications • Deactivation is used to remove a linked party (Supplier, Retailer or Balance Responsible Party) from a Resource Object. To reactivate a deactivation, A15 Update is used • For “A14 Creation”, all time-dependent attributes have the same validity as the Production Unit • An “A14 Creation” for a Resource Object already crated, will be rejected • An “A15 Update”, for a not existing Resource Object, will be rejected • An “A16 Deactivation”, for an already deactivated Resource Object, will be rejected 	0..1	A3	A14, A15		Status

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity Start	The start date and time of the Resource Object in question.	<p>The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS¹²</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, except for Status “A15 Update” for not time-dependent attributes (Resource Object Name and Asset Type) 	0..1	A35			ValidityStart
Validity End	The end date and time of the Resource Object in question.	<p>The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS¹³</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, except for Status “A15 Update” for not time-dependent attributes (Resource Object Name and Asset Type) 	0..1	A35			ValidityEnd

¹² Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
- Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
- Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
- Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

¹³ See previous footnote

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Asset Type	Type of production.	B14 Nuclear B16 Solar B20 Other production Z04 Thermal Z05 Wind Z06 Hydro Z07 Consumption <i>Business rules:</i> <ul style="list-style-type: none"> Resource Object Name and Asset Type for Production Units are not time dependent, hence Validity Start and Validity End are NOT used when updating these attributes. Not required when updating Resource Objects (Production Units) 	0..1	A3			AssetType
Production Type	A code indicating the size of the production unit	Z01 Normal Z02 Minor <i>Business rules:</i> <ul style="list-style-type: none"> Production Type is only used for creation of Production Units and for structure information sent from Imbalance Settlement Responsible to Market Parties, i.e. the Production Type cannot be changed 	0..1	A3			ProductionType
Measure Unit	Unit of measure for the production	MAW Megawatt <i>Not used for Generator Groups</i>	0..1	A3	MAW		MeasureUnit
Capacity	Capacity of Resource Object	<i>Not used for Generator Groups</i>	0..1	DE			Capacity
Party Details	Class specifying party details		0..1				PartyDetails
Subject Party	Identification of the party	Unique ID of the Retailer or Balance responsible Party in question	1..1	A16			SubjectParty

Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
Attribute							
Coding scheme	Coding scheme for area identification	<p>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</p> <p>A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme</p>	1..1	A3			codingScheme
Subject Party Role	Identification of the role that is played by the subject party.	<p>The subject party role, which identifies the role of the party.</p> <p>A08 Balance Responsible party A12 Balance Supplier</p>	1..1	A3	A08, A12		SubjectPartyRole
Validity Start	The start date and time of the party in question.	Not used	0..1	A35			ValidityStart
Validity End	The end date and time of the party in question.	Not used	0..1	A35			ValidityEnd
Related Area	Class specifying related areas	<p><i>Business rules:</i></p> <ul style="list-style-type: none"> • Required for Generators • Required for Generator Groups in Sweden • May be repeated if a Generator or a Generator group covers more than one area • Related Area is only used for creation of Production Units and for structure information sent from Imbalance Settlement Responsible to Market Parties, i.e. the Related Area cannot be changed 	0..*				RelatedArea
Area Identification	Identification of the related area.	Unique ID of the MGA or MBA.	1..1	A16			AreaIdentification

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Coding scheme	Coding scheme for area identification	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Type of Area	The type of area.	Market Balance Area (MBA) or Metering Grid Area (MGA). Z01 MBA Z02 MGA	1..1	A3	Z01, Z02		TypeOfArea
Validity Start	The start date and time of the related area in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS ¹⁴ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityStart

¹⁴ Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
- Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
- Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
- Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity End	The end date and time of the related area in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ¹⁵ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityEnd

Table 6: Element/*Attribute* usage: NEG Resource Object (Production Unit) Master Data Document

¹⁵ See previous footnote

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3.3.3 Element/Attribute usage: NEG Resource Object (Generator Group – Generator Relations) Master Data Document

Element Attribute	Definition	Description	Card	Max Size	Content	Dep.	XML element
NEG Resource Object Master Data Document							NEGResourceObjectMasterDataDocument
Document Identification	Unique identification of the document for which the resource object master data is being supplied.		1..1	A 35			DocumentIdentification
Document Type	The coded type of the document being sent.	The document type identifies the information flow characteristics. Z16 Generator Group, Generator Relations document	1..1	A3	Z16		DocumentType
Process Type	The nature of the process that the document is directed at.	The process type identifies the process to which the information flow is directed. Z07 Master data	1..1	A3	Z07		ProcessType
Sender Identification	Identification of the party that is the owner of the document and is responsible for its content.	The sender of the document is identified by a unique coded identification. This code identifies the party that is the “owner” of the information being transmitted in the document and who is responsible for its content.	1..1	A16			SenderIdentification
Coding scheme	<i>Coding scheme for sender identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			<i>codingScheme</i>

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Sender Role	Identification of the role that is played by the sender.	The sender role, which identifies the role of the sender within the document. A04 System Operator A05 Imbalance settlement responsible A08 Balance Responsible Party	1..1	A3	A05		SenderRole
Receiver Identification	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	1..1	A16			ReceiverIdentification
Coding scheme	<i>Coding scheme for receiver identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			<i>codingScheme</i>
Receiver Role	Identification of the role that is played by the receiver.	The receiver role, which identifies the role of the receiver within the document. A05 Imbalance settlement responsible A08 Balance Responsible Party	1..1	A3	A08		ReceiverRole
Creation Date Time	Date and time of the creation of the document.	The date and time that the document was prepared for transmission by the application of the sender. The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ	1..1	A20	YYYY-MM-DDTHH:MM:SSZ		CreationDateTime
Resource Object Details	<i>Class specifying resource object details</i>		1..*				<i>ResourceObjectDetails</i>
Resource Object Identification	Identification of the resource object.	Unique ID of the Resource Object (Generator Group) in question.	1..1	A16			ResourceObjectIdentification

Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
Attribute							
Coding scheme	Coding scheme for resource object identification	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Resource Object Name	Description of the Resource Object.	Name of the Resource Object (Generator Group) in clear text	1..1	A700			ResourceObjectName
Object Aggregation	A code identifying if the master data concerns one resource object or a group of resource objects (Generator group)	A06 Resource object (used for detailed units) Z01 Generator group	1..1	A3			ObjectAggregation
Validity Start	The start date and time of the Resource Object in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS ¹⁶ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityStart

¹⁶ Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
- Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
- Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
- Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity End	The end date and time of the Resource Object in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ¹⁷ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityEnd
Asset Type	Type of production.	B14 Nuclear B16 Solar B20 Other production Z04 Thermal Z05 Wind Z06 Hydro Z07 Consumption	1..1	A3			AssetType
Party Details	Class specifying party details		1..*				PartyDetails
Subject Party	Identification of the party	Unique ID of the Balance Responsible Party in question	1..1	A16			SubjectParty
Coding scheme	<i>Coding scheme for area identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i>	1..1	A3			<i>codingScheme</i>
Subject Party Role	Identification of the role that is played by the subject party.	The subject party role, which identifies the role of the party. A08 Balance Responsible party	1..1	A3	A08		SubjectPartyRole

¹⁷ See previous footnote

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity Start	The start date and time of the party in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ¹⁸ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityStart
Validity End	The end date and time of the party in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ¹⁹ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityEnd
Related Area	<i>Class specifying related areas</i>	<ul style="list-style-type: none"> • <i>Required for Generators</i> • <i>Required for Generator Groups in Sweden</i> • <i>May be repeated if a Generator or a Generator group covers more than one area</i> 	0..*				RelatedArea
Area Identification	Identification of the related area.	Unique ID of the MGA or MBA.	1..1	A16			AreaIdentification

¹⁸ Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
- Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
- Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
- Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

¹⁹ See previous footnote

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Coding scheme	Coding scheme for area identification	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Type of Area	The type of area.	Market Balance Area (MBA) or Metering Grid Area (MGA). Z01 MBA Z02 MGA	1..1	A3	Z01, Z02		TypeOfArea
Validity Start	The start date and time of the related area in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS ²⁰ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityStart

²⁰ Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
- Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
- Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
- Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity End	The end date and time of the related area in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS ²¹ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityEnd
Related Resource Object	<i>Class specifying related resource objects</i>	Note: Only used for “Generator Group – Generator Relations”	0..*				RelatedArea
Resource Object Identification	Identification of the resource object.	Unique ID of the Resource Object (Generator) in question.	1..1	A16			ResourceObjectIdentification
Coding scheme	<i>Coding scheme for resource object identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i>	1..1	A3			codingScheme
Resource Object Name	Description of the Resource Object.	Name of the Resource Object (Generator) in clear text	1..1	A700			ResourceObjectName
Validity Start	The start date and time of the related resource object in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS ²² Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityStart

²¹ See previous footnote²² Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity End	The end date and time of the resource object in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS ²³ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityEnd

Table 7: Element/*Attribute* usage: NEG Resource Object (Generator Group – Generator Relations) Master Data Document

-
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
 - Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
 - Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
 - Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

²³ See previous footnote

3.4 NEG Bilateral Trade Structure Document

The NEG Bilateral Trade Structure Document is sent from eSett to the relevant BRPs, listing relevant Bilateral Trade IDs. The Bilateral trade ID identify the BRP, the Counterparty, a Validity Period and the MBA where trade can take place.

The NEG Bilateral Trade Structure Document is based on new trades, entered via “eSett on-line services”.

3.4.1 Class diagram: NEG Bilateral Trade Structure Document

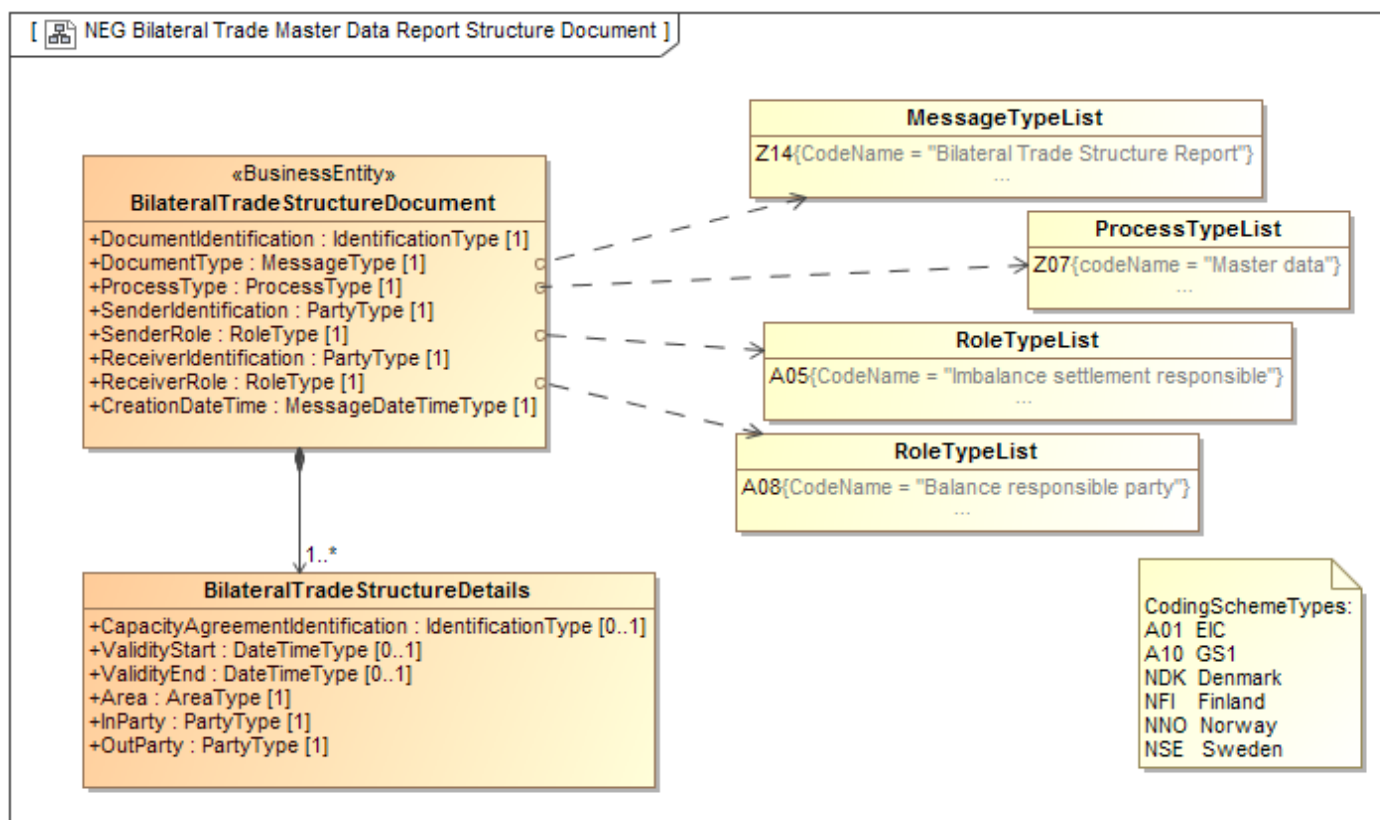


Figure 4: Class diagram: NEG Resource Object (Production Unit) Master Data Document

3.4.2 Element/Attribute usage: NEG Bilateral Trade Structure Document

Element Attribute	Definition	Description	Card	Max Size	Content	Dep.	XML element
Bilateral Trade Structure Report							BilateralTradeStructureReport
Document Identification	Unique identification of the document for which the bilateral trade is being supplied.		1..1	A 35			DocumentIdentification
Document Type	The coded type of the document being sent.	The document type identifies the information flow characteristics. Z14 Bilateral Trade Structure Document	1..1	A3	Z14		DocumentType
Process Type	The nature of the process that the document is directed at.	The process type identifies the process to which the information flow is directed. Z07 Master data	1..1	A3	Z07		ProcessType
Sender Identification	Identification of the party that is the owner of the document and is responsible for its content.	The sender of the document is identified by a unique coded identification. This code identifies the party that is the “owner” of the information being transmitted in the document and who is responsible for its content.	1..1	A16			SenderIdentification
Coding scheme	Coding scheme for sender identification	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Sender Role	Identification of the role that is played by the sender.	The sender role, which identifies the role of the sender within the document. A05 Imbalance Settlement Responsible	1..1	A3	A05		SenderRole
Receiver Identification	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	1..1	A16			ReceiverIdentification
Coding scheme	<i>Coding scheme for receiver identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding scheme	1..1	A3			<i>codingScheme</i>
Receiver Role	Identification of the role that is played by the receiver.	The receiver role, which identifies the role of the receiver within the document. A08 Balance Responsible Party	1..1	A3	A08		ReceiverRole
Creation Date Time	Date and time of the creation of the document.	The date and time that the document was prepared for transmission by the application of the sender. The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ	1..1	A20	YYYY-MM-DDTHH:MM:SSZ		CreationDateTime
NEG Bilateral Trade Structure Document Details	Class specifying bilateral trade master data		1..*				BilateralTradeStructureDetails

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Capacity Agreement Identification	Identification of the bilateral trade.	<p>A unique ID, only used when reporting trade on a Balance Supplier (Retailer) level, identifying the two involved Balance Suppliers (Retailers) and the related Market Balance Area.</p> <p>The Bilateral Trade ID is metadata for trade on supplier level. The BRP sends bilateral trade with InParty = BRP1 and OutParty = BRP2. If the trade is between two suppliers, then the Bilateral Trade ID is added to the message. The Bilateral Trade ID is generated by eSett when the BRP enters (structures) which trade relations (on a supplier level) he BRP has balance responsibility for. The suppliers can then be identified by the Bilateral Trade ID.</p>	0..1	A16			CapacityAgreementIdentification
Validity Start	The start date and time of the trade in question.	<p>The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ²⁴</p> <p>Note: At least one of Validity Start or Validity End must be present</p>	0..1	A35			ValidityStart

²⁴ Finland and Norway uses “local time”, while Sweden use “normal time”, i.e.:

- Finland will always use YYYY-MM-DDT22:00:00Z, the day before, during wintertime
- Finland will always use YYYY-MM-DDT21:00:00Z, the day before, during summertime
- Norway will always use YYYY-MM-DDT23:00:00Z, the day before, during wintertime
- Norway will always use YYYY-MM-DDT22:00:00Z, the day before, during summertime
- Sweden will always use YYYY-MM-DDT23:00:00Z, the day before, during both summertime and wintertime

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Validity End	The end date and time of the trade in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ²⁵ Note: At least one of Validity Start or Validity End must be present	0..1	A35			ValidityEnd
Area	Identification of the area in question	The Market Balance Area where trade can take place.	1..1	A16			Area
Coding scheme	<i>Coding scheme for area identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i>	1..1	A3			<i>codingScheme</i>
In Party	Identification of the BRP for the seller.	The party being the Balance Responsible Party for the buyer in the bilateral trade.	1..1	A3	A16		InParty
Coding scheme	<i>Coding scheme for in party identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i>	1..1	A3			<i>codingScheme</i>

²⁵ See previous footnote

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Out Party	Identification of the BRP for buyer.	The party being the Balance Responsible Party for the seller in the bilateral trade.	1..1	A16			OutParty
Coding scheme	<i>Coding scheme for out party identification</i>	<i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i> A01 <i>EIC</i> A10 <i>GS1</i> NDK <i>Denmark National coding scheme</i> NFI <i>Finland National coding scheme</i> NNO <i>Norway National coding scheme</i> NSE <i>Sweden National coding scheme</i>	1..1	A3			<i>codingScheme</i>

Table 8: Element/*Attribute* usage: NEG Bilateral Trade Structure Document