

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 Market Expert Group (NMEG).

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, ebIX[®] and EFET, [2], is used for identifying relevant roles.

There is strategic decision from the Nordic TSOs to migrate to CIM XML schemas, hence the latest updated documents, i.e. Trade Structure Documents, are based on IEC/CIM.

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 NMEG.

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
2.3.A	Ove Nesvik	20231208	<ul style="list-style-type: none"> • Addition of Asset Type codes to Ediel (NEG) Resource (Production Unit and Generator Group Relations) Master Data Document: <ul style="list-style-type: none"> A05 Load (replaces Z07) B18 Wind offshore B19 Wind onshore (replaces Z05) B25 Energy storage B31 Hydro unspecified (replaces Z06) B37 Thermal unspecified (replaces Z04) • Addition of an Asset Type attribute and Asset Type code to the NEG Party Master Data Document: <ul style="list-style-type: none"> B25 Energy storage
2.2.A	Ove Nesvik	20230626	<ul style="list-style-type: none"> • Replaced Market Balance Area with Bidding Zone • Replace Resource Object to Resource, where not part of an xml schema. • Corrected/updated the sender/receiver roles used
2.1.A	Ove Nesvik	20210608	<ul style="list-style-type: none"> • Addition of Contract Type “A06 Long term contract” to Ediel Request PX Trade Structure Document
2.0.A	Ove Nesvik	20210415	<ul style="list-style-type: none"> • Addition of BSP as receiver in NEG Area Specification Document for BZ-MGA Relations
1.9.B	Ove Nesvik	20200513	<ul style="list-style-type: none"> • Added Settlement Method “E15 Non-profiled with special rules (Flex settled)” to NEG Party Master Data Document.
1.9.A	Ove Nesvik	20191003	<ul style="list-style-type: none"> • The Note regarding the Country attribute in NEG Area Specification Document for BZ and MGA Master Data is changed to “Must be used for BZs”; • “DK Denmark” is added as Country Code.
1.8.A	Ove Nesvik	20180606	<ul style="list-style-type: none"> • Recast of the Trade Structure Documents (previously NEG Bilateral Trade Structure Document). The latest description is based on CIM. • Update of the Ediel Resource Object (Production Unit) Master Data Document, among others: <ul style="list-style-type: none"> ○ Removal of Related Object element from chapter 5.3.3. ○ The cardinality of “Party details” is changed to 0..*, also in chapter 5.3.3.
1.7.C	Ove Nesvik, ove.nesvik@edisys.no	20170807	Corrected max length to 18 for Resource Object Identification
1.7.B	Ove Nesvik, ove.nesvik@edisys.no	20170505	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

			<ul style="list-style-type: none"> 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 BZ 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 BZ-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” 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 Bidding Zones (BZ) and Metering Grid Areas (MGA).

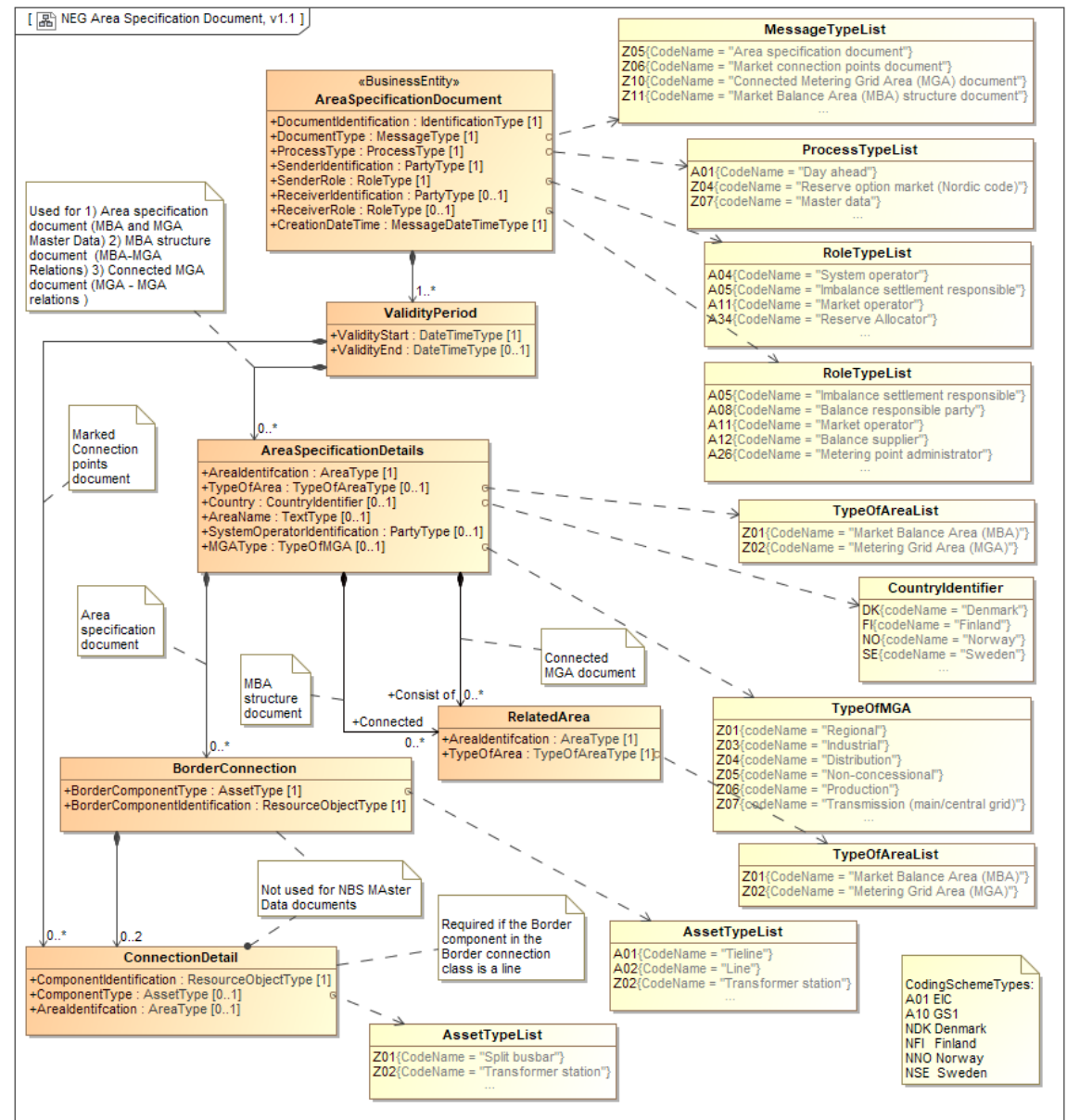


Figure 1: NEG Area Specification Document

3.1.2 Element/Attribute usage: NEG Area Specification Document for BZ 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 <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>
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

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Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
Attribute 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:MM:SSZ		CreationDateTime
Validity period	Validity period class	Period when the area master data is valid May be repeated for each BZ and/or MGA, but must be repeated if the validity start and end date differs between the BZs 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
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

¹ 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

² See previous footnote

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
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	<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.	Bidding Zone (BZ) or Metering Grid Area (MGA). Z01 BZ Z02 MGA	1..1	A3	Z01 or Z02		TypeOfArea
Country	Country code the area belongs to.	Must be used for BZs. DK Denmark FI Finland NO Norway SE Sweden	0..1	A2	DK, FI, NO or SE		Country
Area name	Description of the area.	Name of the BZ 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 BZ.	1..1	A16			SystemOperatorIdentification
Coding scheme	<i>Coding scheme for system operator 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>
MGA Type	Type of Metering Grid Area	Shall be used for MGAs – Not used for BZs	0..1	A3	Z01, Z02, Z03, Z04,		MGAType

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
		Z01 Regional Z03 Industrial Z04 Distribution Z05 Non-concessional Z06 Production Z07 Transmission (main/central) grid			Z05, Z06, Z07		
Connected Related Area	Class specifying related areas	May be used for <i>Type of Area = Z02</i> Metering Grid Area (MGA) Not used for <i>Type of Area = Z01</i> Bidding Zone (BZ)	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 <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
Type of Area	The type of area.	Bidding Zone (BZ). Z01 BZ	1..1	A3	Z01		TypeOfArea

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

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3.1.3 Element/Attribute usage: NEG Area Specification Document for BZ-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 Bidding Zone (BZ) 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 <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>
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
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

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Element <i>Attribute</i>	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 (BRP) A12 Balance supplier A26 Metering point administrator A46 Balancing Service Provider (BSP) A47 Energy 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 BZ, but must be repeated if the validity start and end date differs between the BZs	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 BZ 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	<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.	Bidding Zone (BZ) Z01 BZ	1..1	A3	Z01		TypeOfArea
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

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

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Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
<i>Attribute</i>							
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 <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 2: Element/Attribute usage: NEG Area Specification Document for BZ-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 <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>
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
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

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Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
Attribute 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 A26 Metering point administrator	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:MM: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
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

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
- 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

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Area Identification	Identification of the area master data.	Unique ID of the area.	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
Connected Related Area	<i>Class specifying related areas</i>		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

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

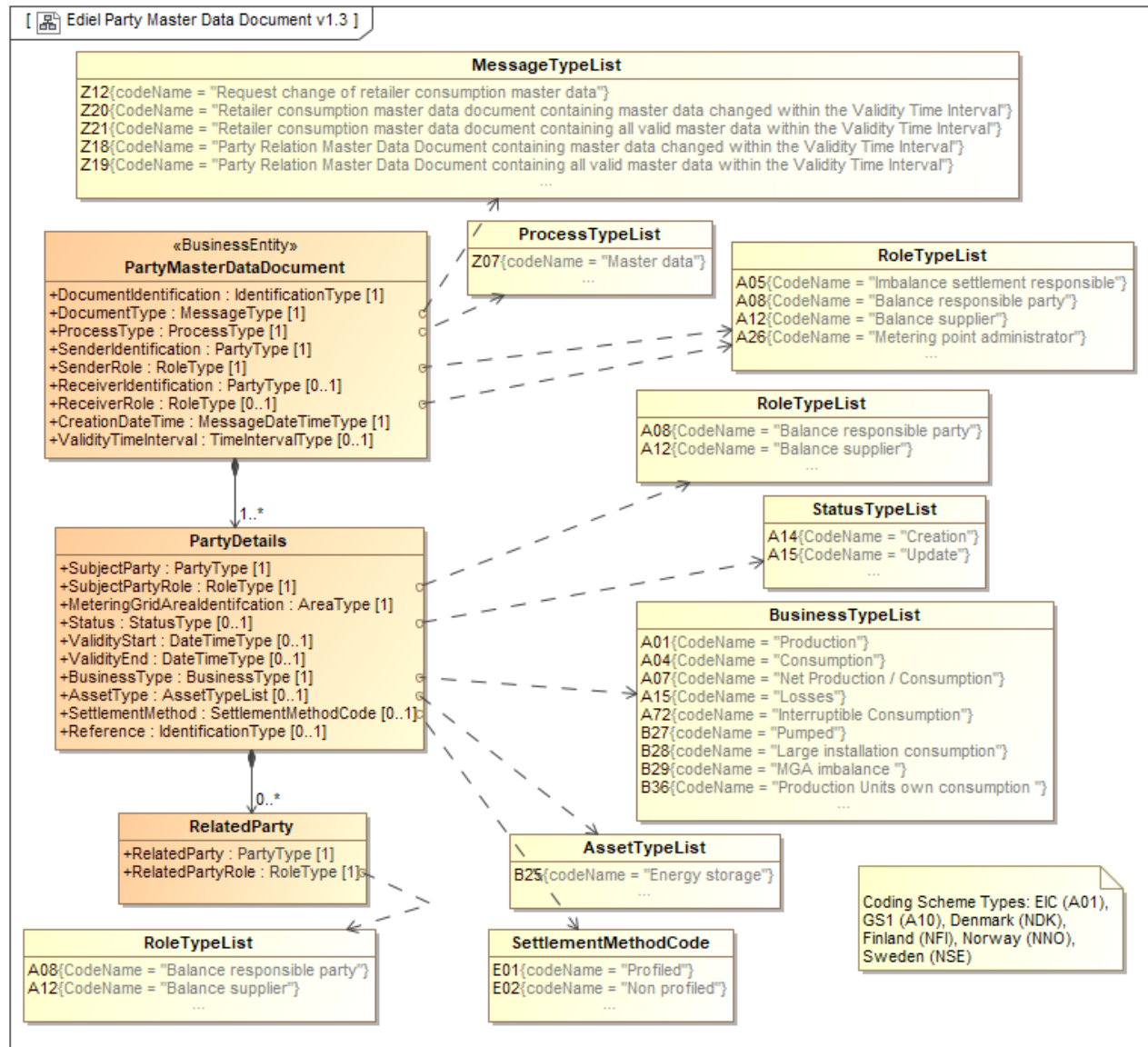


Figure 2: Class diagram: NEG Party Master Data Document

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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
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

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
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 <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>
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 A26 Metering Point Administrator (DSO)	1..1	A3	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. <i>Business rules:</i> <ul style="list-style-type: none"> Required unless used for “broadcast” (same document to several recipients) 	0..1	A16			ReceiverIdentification

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Element <i>Attribute</i>	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 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

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Party Details	Class specifying party details	<p><i>Business rules for Party Details when sending request for structure change to eSett:</i></p> <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	<i>Coding scheme for area 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>
Subject Party Role	Identification of the role that is played by the party.	<p>The subject party role, which identifies the role of the party.</p> <p>A08 Balance responsible party A12 Balance Supplier (Retailer)</p>	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
Coding scheme	<i>Coding scheme for metering grid area 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>

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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 A15 Update</p> <p><i>Business rules:</i></p> <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.	<p>The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ⁷</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			ValidityStart
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:SSZ⁸</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

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
- 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

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Business Type	Identification of the business type of the party.	A01 Production A04 Consumption A07 Net production/ consumption (combined pumped storage) A15 Losses A72 Interruptible Consumption B27 Pumped B28 Large installation consumption B29 MGA imbalance B36 Production Units own consumption (Only used in Finland) Usage: See Table 5	1..1	A3		Ref. table 5	BusinessType
Asset Type	The identification of the type of asset.	B25 Energy storage Business rules: Only to be used together with Business type A04 .	0..1	A3	B25		AssetType
Settlement Method	The settlement method of the party.	E01 Profiled E02 Non-profiled E15 Non-profiled with special rules (Flex settled) Usage: See Table 5	0..1	A3	E01, E02, E15	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>

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
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

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

Document Type	Business Type	Settlement Method	Sent from ⁹	Sent to
Z12 Request change of retailer consumption master data	A04 Consumption (general consumption)	E01 Profiled	DSO	eSett
		E02 Non-profiled	DSO	eSett
		E15 Non-profiled with special rules (Flex settled)	DSO	eSett
	A15 Losses	E01 Profiled	DSO	eSett
		E02 Non-profiled	DSO	eSett
		E15 Non-profiled with special rules (Flex settled)	DSO	eSett
	B27 Pumped	E01 Profiled	DSO	eSett
		E02 Non-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
	B29 MGA Imbalance	E02 Non-profiled	DSO	eSett
B36 ¹⁰ Production Units own 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)	A04 Consumption (general consumption)	E01 Profiled	DSO	eSett
		E02 Non-profiled	DSO	eSett
		E15 Non-profiled with special rules (Flex settled)	DSO	eSett
	A15 Losses	E01 Profiled	DSO	eSett
		E02 Non-profiled	DSO	eSett
		E15 Non-profiled with special rules (Flex settled)	DSO	eSett
	B27 Pumped	E01 Profiled	DSO	eSett
		E02 Non-profiled	DSO	eSett
	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	
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)	A04 Consumption (general consumption)	E01 Profiled	DSO	eSett
		E02 Non-profiled	DSO	eSett
		E15 Non-profiled with special rules (Flex settled)	DSO	eSett
	A15 Losses	E01 Profiled	DSO	eSett
		E02 Non-profiled	DSO	eSett
		E15 Non-profiled with special rules (Flex settled)	DSO	eSett
	B27 Pumped	E01 Profiled	DSO	eSett
		E02 Non-profiled	DSO	eSett
	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 kraftnät

¹⁰ Only used in Finland

¹¹ Only used in Finland

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Document Type	Business Type	Settlement Method	Sent from ⁹	Sent to
<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>A01 Production</p> <p>A04 Consumption (general consumption)</p>	<p>Not used</p>	<p>eSett</p>	<p>DSO, BRP, BS</p>

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

3.3 Ediel (NEG) Resource (Production Unit) Master Data Document

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

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

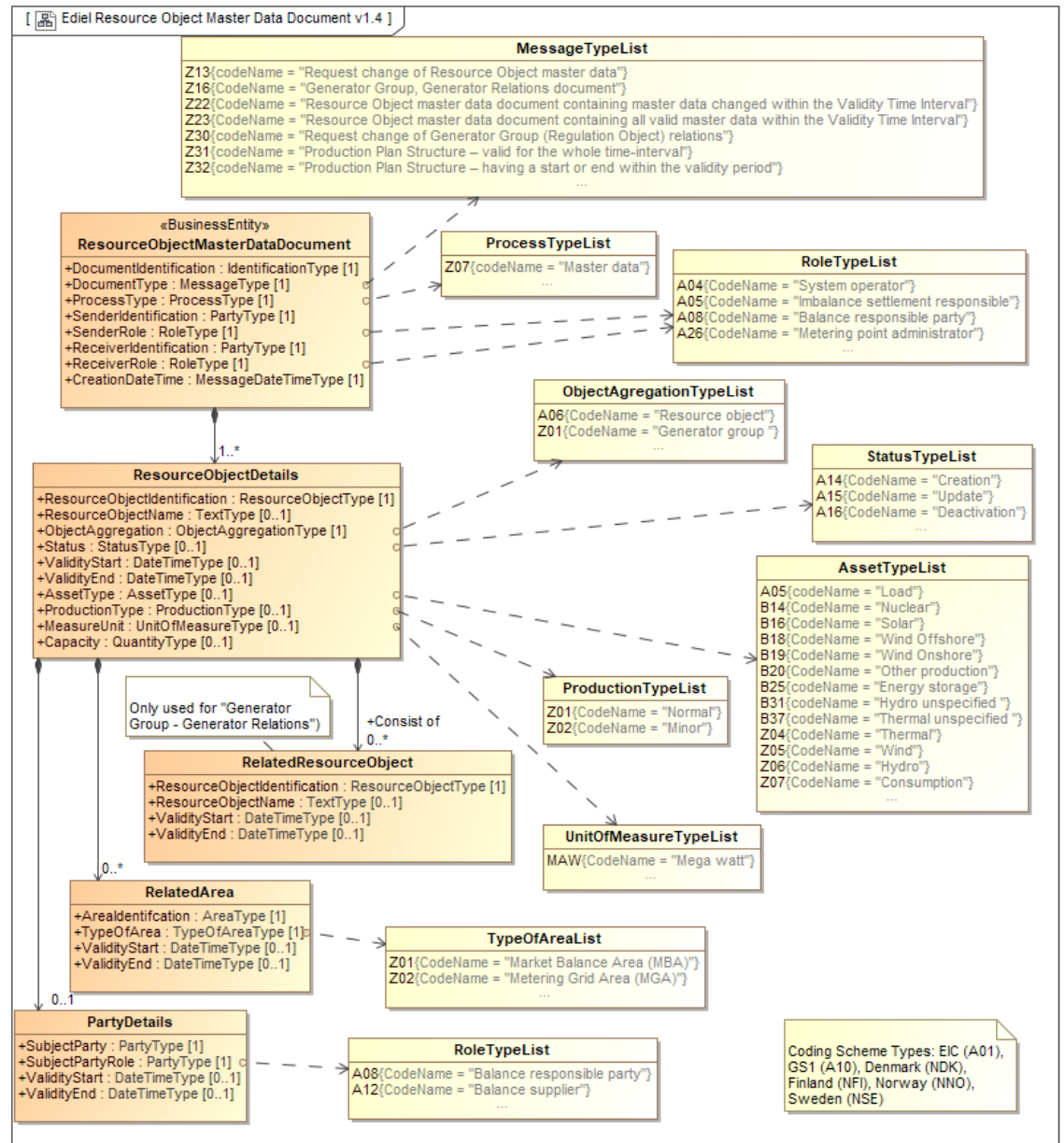


Figure 3: Class diagram: Ediel (NEG) Resource (Production Unit) Master Data Document

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

- Used by DSO for managing all Production Unit (PU) attributes except connecting Regulation Object (Generator Group):
 - Inbound Production Unit Data-flow (only changes);
 - Outbound Production Unit Data-flow (All, Delta).
- Used by BRP for managing connections between Production Unit and Regulation Object (Generator Group):
 - Inbound Production Unit - Regulation Object Relation Data-flow (only changes);
 - Outbound Production Unit - Regulation Object Relation Data-flow (All, Delta).

Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Ediel (NEG) Resource Master Data Document							NEGResourceObjectMasterDataDocument
Document Identification	Unique identification of the document for which the Resource 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 master data Z22 Resource master data document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive) Z23 Resource master data document containing all valid master data within the Validity Time Interval (Start date/time inclusive and End date/time exclusive) Z30 Request change of Generator Group (Regulation Object) relations</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, Z22, Z23 or Z30		DocumentType

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
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 <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>
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 A26 Metering Point Administrator (DSO)	1..1	A3	A04, A05, A08 or 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

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Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
Attribute 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 A08 Balance Responsible Party A26 Metering point administrator	1..1	A3	A04, A05, A08 or 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:MM:SSZ		CreationDateTime
Resource Object Details	Class specifying Resource details	<i>Business rules for Resource Details when sending request for structure change:</i> <ul style="list-style-type: none"> One Resource Details represents one request There cannot be more than one Resource 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 Details when distributed from Imbalance Settlement Responsible:</i> <ul style="list-style-type: none"> Resource Details will repeat for each change of a time-dependent attribute Resource Details contain all attributes 	1..*				ResourceObjectDetails
Resource Identification	Identification of the Resource.	Unique ID of the Resource in question.	1..1	A18			ResourceObjectIdentification

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Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
Attribute Coding scheme	Coding scheme for Resource 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 Name	Description of the Resource.	Name of the Resource in clear text <i>Business rules:</i> <ul style="list-style-type: none"> Resource 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 or a group of Resources (Generator group)	A06 Resource (used for detailed units) Z01 Generator group	1..1	A3	A06 or Z01		ObjectAggregation

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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 A15 Update 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. 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 already crated, will be rejected • An “A15 Update”, for a not existing Resource, will be rejected • An “A16 Deactivation”, for an already deactivated Resource, will be rejected. 	0..1	A3	A14, A15 or A16		Status
Validity Start	The start date and time of the Resource 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 Name and Asset Type) 	0..1	A35			ValidityStart

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

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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 in question.	The end date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS ¹³ <i>Business rules:</i> <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 Name and Asset Type) 	0..1	A35			ValidityEnd
Asset Type¹⁴	Type of production.	A05 Load (replaces Z07) B14 Nuclear B16 Solar B18 Wind offshore B19 Wind onshore (replaces Z05) B20 Other production B25 Energy storage B31 Hydro unspecified (replaces Z06) B37 Thermal unspecified (replaces Z04) Z04 Thermal Z05 Wind Z06 Hydro Z07 Consumption <i>Business rules:</i> <ul style="list-style-type: none"> Resource 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 Resources (Production Units) 	0..1	A3	A05, B14, B16, B18, B19, B20, B25, B31, B37, Z04, Z05, Z06 or Z07		AssetType

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

¹³ See previous footnote

¹⁴ The “Znn codes” will be valid one year after eSett have announcement its removal, approximately until the end of 2024. In the transition period eSett will continue using “Znn codes”.

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
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	Z01 or Z02		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	<i>Not used for Generator Groups</i>	0..1	decimal			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
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 A12 Balance Supplier	1..1	A3	A08, A12		SubjectPartyRole

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
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 BZ.	1..1	A16			AreaIdentification
Coding scheme	Coding scheme for area identification	<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			codingScheme
Type of Area	The type of area.	<p>Bidding Zone (BZ) or Metering Grid Area (MGA).</p> <p>Z01 BZ Z02 MGA</p>	1..1	A3	Z01 or Z02		TypeOfArea
Related Resource Object	Class specifying related Resource	<p><i>Business rules:</i></p> <ul style="list-style-type: none"> Only used for "Generator Group – Generator Relations", i.e. Document Type <p>Z30</p>	0..*				RelatedResourceObject
Resource Object Identification	Identification of the Resource.	Unique ID of the Resource in question.	1..1	A18			ResourceObjectIdentification
Coding scheme	Coding scheme for Resource identification	<p><i>The codification scheme used for the coded identification is indicated by the coding scheme attribute.</i></p> <p>A01 EIC</p>	1..1	A3			codingScheme

Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
<i>Attribute</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>					

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

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

Used by TSO for managing Regulation Object (Generator Group) Structure - Name, type, code, BRP and Location (BZ), not connection to production unit (generator relations, that is managed by BRP only):

- Inbound Regulation Object Data-flow,

Note:

It is under discussion if the inbound (to eSett) Regulation Object Data-flow should contain the full set of Resources or only those that have been created, updated, or deactivated. If the latter option is chosen, a Status element (**A14** Creation, **A15** Update, **A16** Deactivation) will be added.

- Outbound Regulation Object Data-flow (All, Delta);
- Outbound Production Plan Structure (All, Delta).

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

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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>Z16 Generator Group Relations document Z22 Resource master data document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive) Z23 Resource master data document containing all valid master data within the Validity Time Interval (Start date/time inclusive and End date/time exclusive) Z31 Production Plan Structure – valid for the whole time-interval Z32 Production Plan Structure – having a start or end within the validity period</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> • Z16 is only used for updates of BRP and/or BZ. • Z22 and Z23 contains a list of all “MACs” identifying production plans and are only sent to the System Operators. The documents are without the Generator Group and Generator relations. 	1..1	A3	Z16, Z22, Z23, Z31 or Z32		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
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

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Element	Definition	Description	Card	Max Size	Content	Dep.	XML element
Attribute 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 <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>
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 A08 Balance Responsible Party	1..1	A3	A04, A05 or A08		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
Attribute 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 Imbalance settlement responsible A08 Balance Responsible Party	1..1	A3	A04, A05 or 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
Details	Class specifying Resource details		1..*				ResourceObjectDetails

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Resource Object Identification	Identification of the Resource.	Unique ID of the Resource (Generator Group) in question.	1..1	A18			ResourceObjectIdentification
Coding scheme	<i>Coding scheme for Resource 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>
Resource Object Name	Description of the Resource.	Name of the Resource (Generator Group) in clear text	0..1	A700			ResourceObjectName
Object Aggregation	A code identifying if the master data concerns one Resource or a group of Resources (Generator group)	A06 Resource object (used for detailed units) Z01 Generator group	1..1	A3	A06 or Z01		ObjectAggregation
Validity Start	The start date and time of the Resource in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS ¹⁵ 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 Resource in question.	The end 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			ValidityEnd

¹⁵ 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

¹⁶ See previous footnote

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Asset Type¹⁷	Type of production.	A05 Load (replaces Z07) B14 Nuclear B16 Solar B18 Wind offshore B19 Wind onshore (replaces Z05) B20 Other production B25 Energy storage B31 Hydro unspecified (replaces Z06) B37 Thermal unspecified (replaces Z04) Z04 Thermal Z05 Wind Z06 Hydro Z07 Consumption	0..1	A3	A05, B14, B16, B18, B19, B20, B25, B31, B37, Z04, Z05, Z06 or Z07		AssetType
Production Type	A code indicating the size of the production unit	Z01 Normal Z02 Minor	0..1	A3	Z01 or Z02		ProductionType
Party Details	Class specifying party details		0..*				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 The “Znn codes” will be valid one year after eSett have announcement its removal, approximately until the end of 2024. In the transition period eSett will continue using “Znn codes”.

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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:SS 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:SS 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 BZ.	1..1	A16			AreaIdentification
Coding scheme	<i>Coding scheme for area 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			codingScheme

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

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Element <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.	XML element
Type of Area	The type of area.	Bidding Zone (BZ) or Metering Grid Area (MGA). Z01 BZ Z02 MGA	1..1	A3	Z01 or 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
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

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

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

²¹ See previous footnote

3.4 Ediel Request Trade Structure Document

The Ediel Request Trade Structure Document is sent from a Balance Responsible Party (BRP) or a Nominated Electricity Market Operator (NEMO) to the Imbalance Settlement Responsible (ISR), requesting new trade structures, either for bilateral trade or for PX (Power Exchange) trade.

3.4.1 Class diagram: Ediel Request Trade Structure Document version 1.0

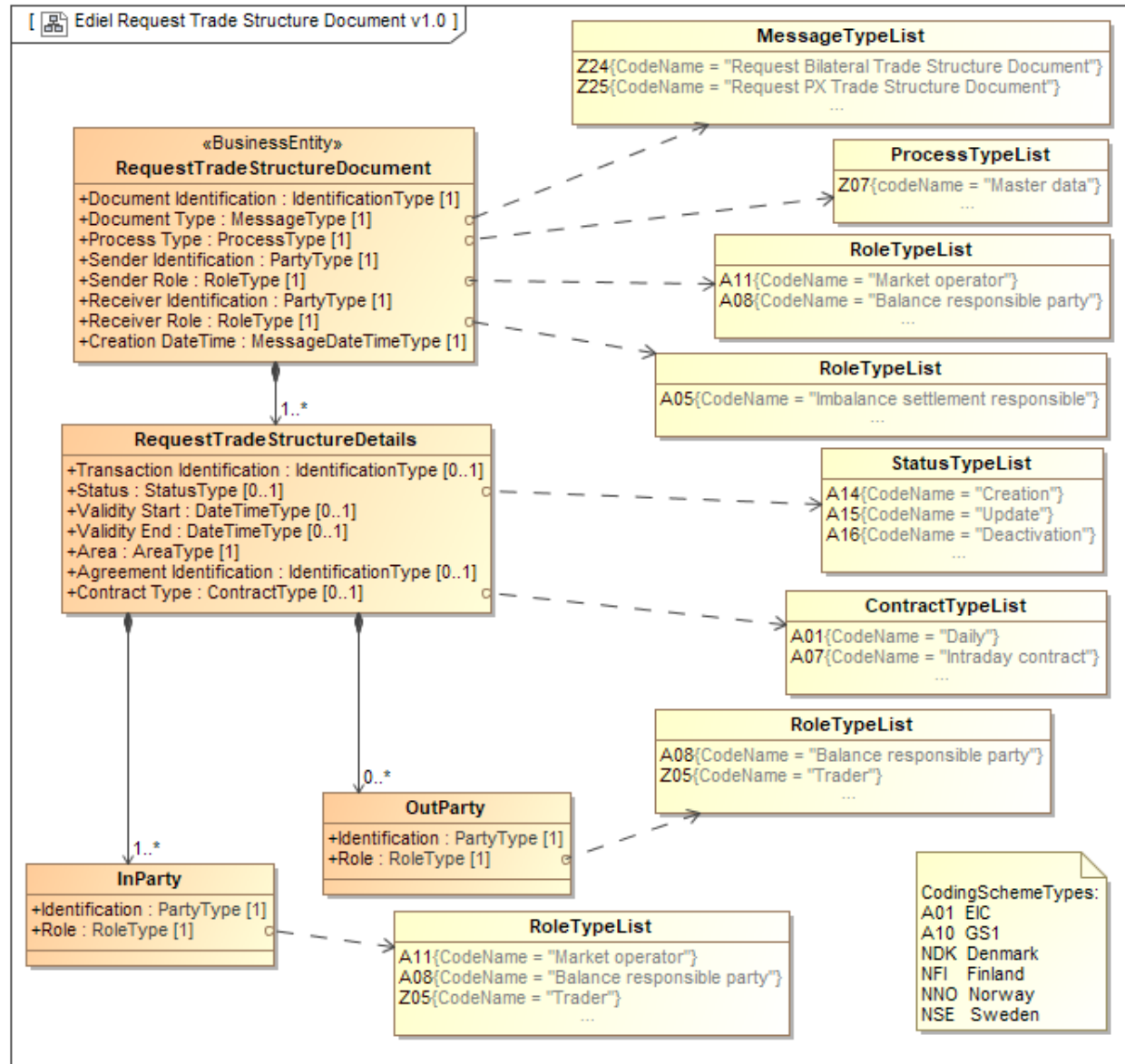


Figure 4: Class diagram: Ediel Request Trade Structure Document version 1.0

3.4.2 CIM assembly model class diagram: Ediel Request Trade Structure Document

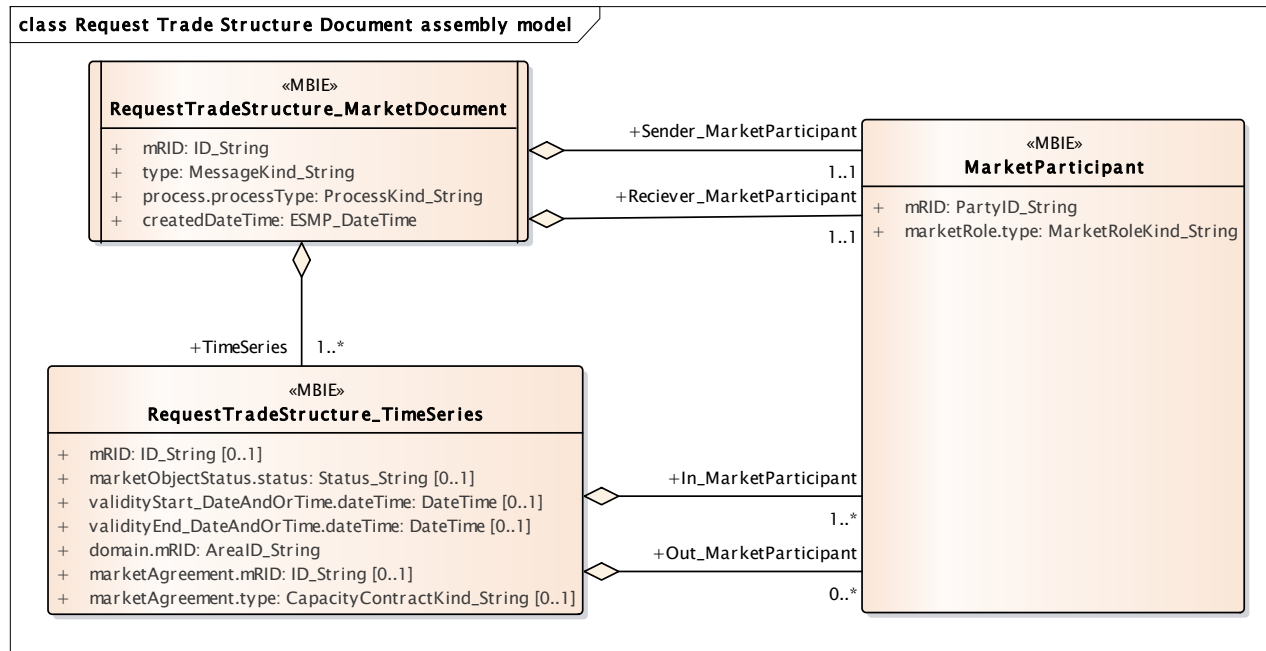


Figure 5: CIM assembly model class diagram: Ediel Request Trade Structure Document

3.4.3 Element/Attribute usage: Ediel Request Bilateral Trade Structure Document

Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Request Trade Structure Document	RequestTradeStructure_MarketDocument						
Document Identification	mRID	Unique identification of the document for which the trade structure is being supplied.		1..1	A 35		
Document Type	type	The coded type of the document being sent.	The document type identifies the information flow characteristics. Z24 Request Bilateral Trade Structure Document	1..1	A3	Z24	
Process Type	Process.processType	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	
Sender Identification	Sender_MarketParticipant.mRID	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		
	<i>codingScheme</i>	<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		

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Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Sender Role	Sender_MarketParticipant.marketRole.type	Identification of the role that is played by the sender.	The sender role, which identifies the role of the sender within the document. A08 Balance Responsible Party	1..1	A3	A08	
Receiver Identification	Receiver_MarketParticipant.mRID	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	1..1	A16		
	<i>codingScheme</i>	<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		
Receiver Role	Receiver_MarketParticipant.marketRole.type	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	1..1	A3	A05	
Creation Date Time	createdDateTime	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	
Request Trade Structure Details	RequestTradeStructure_TimeSeries	Class specifying trade structure master data		1..*			
Transaction Identification	mRID	Unique ID of this transaction.	Sender's identification of this time series instance.	1	A35		
Status	MarketObjectStatus.status	Status of this transaction	A14 Creation A15 Update A16 Deactivation (delete)	0..1	A3	A14, A15 or A16	

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Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Validity Start	validityStart_DateAndOrTime.dateTime	The start date and time of the trade in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ²² Note: At least one of Validity Start or Validity End must be present	0..1	A20	YYYY-MM-DDTHH:MM:SSZ	
Validity End	validityEnd_DateAndOrTime.dateTime	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 ²³ Note: At least one of Validity Start or Validity End must be present	0..1	A20	YYYY-MM-DDTHH:MM:SSZ	
Area	domain.mRID	Identification of the area in question	The Bidding Zone where trade can take place.	1..1	A18		
	<i>codingScheme</i>	<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 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		

²² 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

²³ See previous footnote

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Attribute from requirement	Element from CIM (XML element) <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.
Agreement Identification	marketAgreement.mRID	Identification of a bilateral trade structure.	<p>The Agreement ID is only used when updating an existing Bilateral Trade Structure with an existing Agreement ID.</p> <p>The Bilateral Trade ID is metadata for trade on Retailer level. The Agreement ID is generated by eSett when a BRP enters (structures) which trade relations (on a Retailer level) the BRP has balance responsibility for. The Retailers can be identified by the Agreement ID.</p>	0..1	A35		
<i>In Party</i>	<i>In_MarketParticipant</i>		The BRP is required for Bilateral Trade Structure, while the Trader is optional.	1..2			
Identification	mRid	The identification of the In Party	<p>The party being the buyer in the bilateral trade</p> <p>Note: The BRP is required for Bilateral Trade Structure, while the Trader is optional.</p>	1..1	A16		
	<i>codingScheme</i>	<i>Coding scheme for in party 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		
Role	marketRole.type		<p>The role of the In Party, i.e.</p> <p>A08 Balance Responsible Party A47 Energy Trader</p>	1..1	A3	A05 or A08	

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Attribute from requirement	Element from CIM (XML element) <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.
<i>Out Party</i>	<i>Out_MarketParticipant</i>		The BRP is required for Bilateral Trade Structure, while the Trader is optional.	1..2			
Identification	mRid	The identification of the Out Party	The party being the seller in the bilateral trade Note: The BRP is required for Bilateral Trade Structure, while the Trader is optional.	1..1	A16		
	<i>codingScheme</i>	<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 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding <i>scheme</i>	1..1	A3		
Role	marketRole.type		The role of the Out Party, i.e. A08 Balance Responsible Party A47 Energy Trader	1..1	A3	A05 or A08	

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

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3.4.4 Element/Attribute usage: Ediel Request PX Trade Structure Document

Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Request Trade Structure Document	RequestTradeStructure_MarketDocument						
Document Identification	mRID	Unique identification of the document for which the trade structure is being supplied.		1..1	A 35		
Document Type	type	The coded type of the document being sent.	The document type identifies the information flow characteristics. Z25 Request PX Trade Structure Document	1..1	A3	Z25	
Process Type	Process.processType	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	
Sender Identification	Sender_MarketParticipant.mRID	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		
	<i>codingScheme</i>	<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		
Sender Role	Sender_MarketParticipant.marketRole.type	Identification of the role that is played by the sender.	The sender role, which identifies the role of the sender within the document. A08 Balance Responsible Party A11 Market operator	1..1	A3		

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Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Receiver Identification	Reciever_MarketParticipant.mRID	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	1..1	A16		
	<i>codingScheme</i>	<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		
Receiver Role	Reciever_MarketParticipant.marketRole.type	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	1..1	A3	A05	
Creation Date Time	createdDateTime	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:SS Z	
Request Trade Structure Details	RequestTradeStructure_TimeSeries	Class specifying trade structure master data		1..*			
Transaction Identification	mRID	Unique ID of this transaction.	Sender's identification of this time series instance.	1	A35		
Status	MarketObjectStatus.status	Status of this transaction	A14 Creation A15 Update	0..1	A3	A14, A15 or A16	
Validity Start	validityStart_DateAndOrTime.dateTime	The start date and time of the trade in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SS ²⁴ Note: At least one of Validity Start or Validity End must be present	0..1	A20	YYYY-MM-DDTHH:MM:SS Z	

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

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Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Validity End	validityEnd_DateAndOrTime.dateTime	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	A20	YYYY-MM-DDTHH:MM:SSZ	
Area	domain.mRID	Identification of the area in question	The Bidding Zone where trade can take place.	1..1	A18		
	<i>codingScheme</i>	<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 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		
Agreement Identification	marketAgreement.mRID	Identification of a bilateral trade structure.	The Agreement ID is only used when updating an existing Bilateral Trade Structure with an existing Agreement ID. The Bilateral Trade ID is metadata for trade on Retailer level. The Agreement ID is generated by eSett when a BRP enters (structures) which trade relations (on a Retailer level) the BRP has balance responsibility for. The Retailers can be identified by the Agreement ID.	0..1	A35		
Contract Type	marketAgreement.type	Identification of a bilateral trade structure.	Power Exchange market, i.e.: A01 Daily (Day Ahead) A06 Long term contract A07 Intraday contract	1	A3	A01, A06 or A07	

- 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

²⁵ See previous footnote

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Attribute from requirement	Element from CIM (XML element) <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.
<i>In Party</i>	<i>In_MarketParticipant</i>		The BRP and MO are required for PX Trade Structure. The Trader is optional..	2..3			
Identification	mRid	The identification of the In Party.	The identification of the In Party.	1..1	A16		
	<i>codingScheme</i>	<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 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding <i>scheme</i>	1..1	A3		
Role	marketRole.type		The role of the In Party, i.e. A08 Balance Responsible Party A11 Market operator A47 Energy Trader	1..1	A3	A08, A11 or Z05	

Table 9: Element/*Attribute* usage: Ediel Request PX Trade Structure Document

3.5 Ediel Notify Trade Structure Document

The Ediel Notify Trade Structure Document is sent from the Imbalance Settlement Responsible (ISR) to a Balance Responsible Party (BRP) or a Nominated Electricity Market Operator (NEMO), listing one or more trade structures, either for bilateral trade or for PX (Power Exchange) trade.

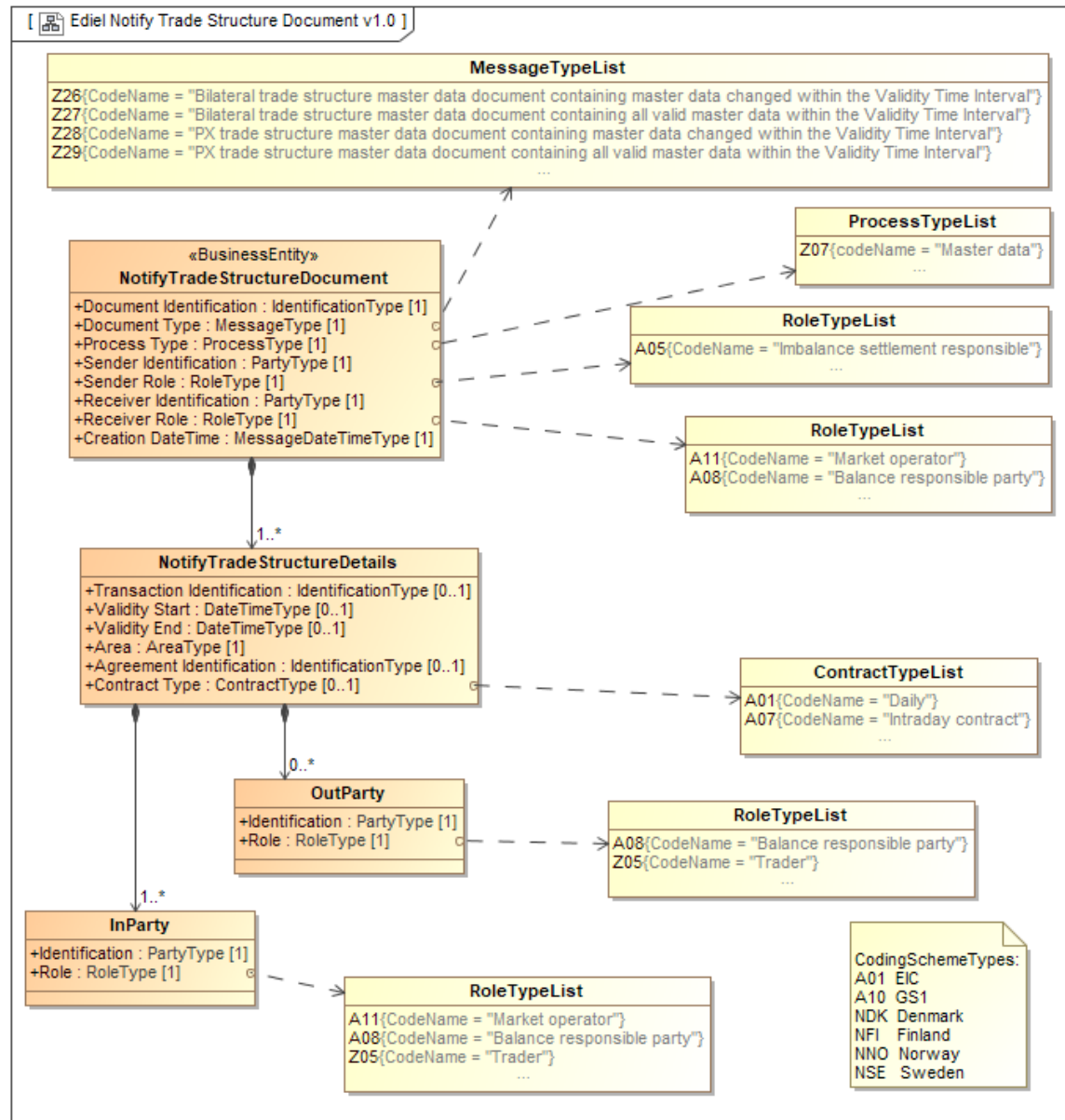


Figure 6: Class diagram: Ediel Notify Trade Structure Document version 1.0

3.5.2 CIM assembly model class diagram: Ediel Notify Trade Structure Document

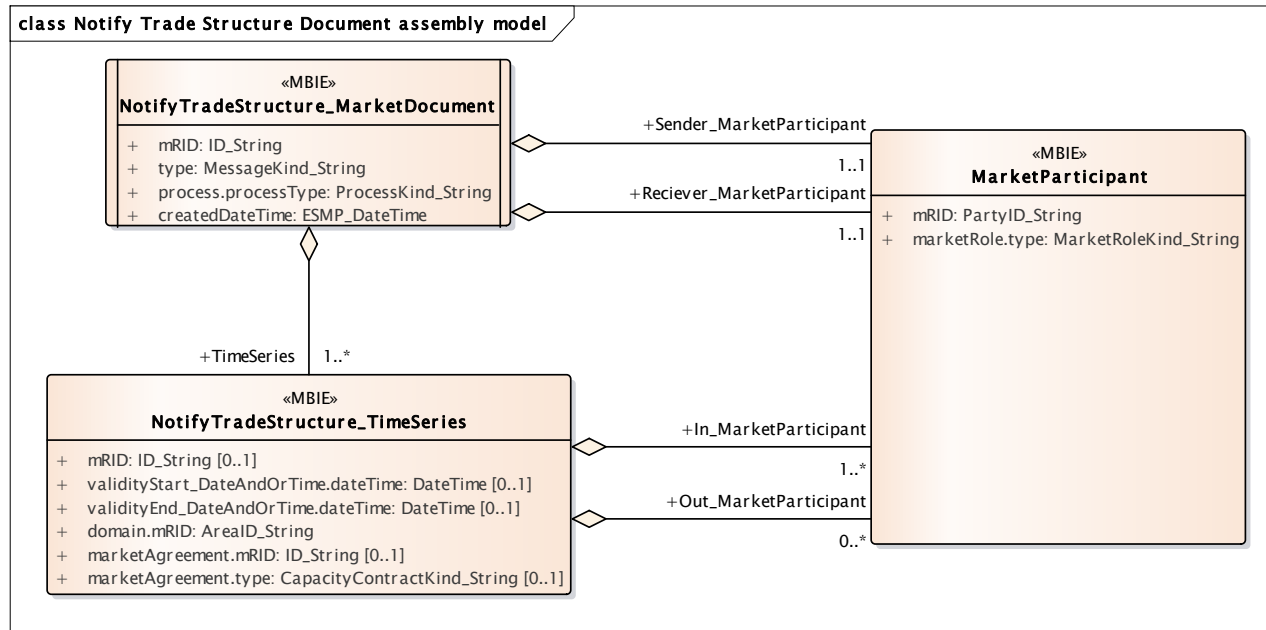


Figure 7: CIM assembly model class diagram: Ediel Notify Trade Structure Document

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3.5.3 Element/Attribute usage: Ediel Notify Bilateral Trade Structure Document

Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Notify Trade Structure Document	NotifyTradeStructure_MarketDocument						
Document Identification	mRID	Unique identification of the document for which the trade structure is being supplied.		1..1	A 35		
Document Type	type	The coded type of the document being sent.	The document type identifies the information flow characteristics. Z26 Bilateral trade structure master data document containing master data changed within the Validity Time Interval Z27 Bilateral trade structure master data document containing all valid master data within the Validity Time Interval	1..1	A3	Z26 or Z27	
Process Type	Process.processType	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	
Sender Identification	Sender_MarketParticipant.mRID	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		
	<i>codingScheme</i>	<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		

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Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Sender Role	Sender_MarketParticipant.marketRole.type	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	
Receiver Identification	Receiver_MarketParticipant.mRID	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	1..1	A16		
	<i>codingScheme</i>	<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		
Receiver Role	Receiver_MarketParticipant.marketRole.type	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	
Creation Date Time	createdDateTime	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	
Notify Trade Structure Details	NotifyTradeStructure_TimeSeries	Class specifying trade structure master data		1..*			
Transaction Identification	mRID	Unique ID of this transaction.	Sender's identification of this time series instance.	1	A35		
Validity Start	validityStart_DateAndOrTime.dateTime	The start date and time of the trade in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ²⁶ Note: At least one of Validity Start or Validity End must be present	0..1	A20	YYYY-MM-DDTHH:MM:SSZ	

²⁶ Finland and Norway uses "local time", while Sweden use "normal time", i.e.:

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Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Validity End	validityEnd_DateAndOrTime.dateTime	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 ²⁷ Note: At least one of Validity Start or Validity End must be present	0..1	A20	YYYY-MM-DDTHH:MM:SSZ	
Area	domain.mRID	Identification of the area in question	The Bidding Zone where trade can take place.	1..1	A18		
	<i>codingScheme</i>	<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 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		
Agreement Identification	marketAgreement.mRID	Identification of a bilateral trade structure.	The Agreement ID is only used when updating an existing Bilateral Trade Structure with an existing Agreement ID. The Bilateral Trade ID is metadata for trade on Retailer level. The Agreement ID is generated by eSett when a BRP enters (structures) which trade relations (on a Retailer level) the BRP has balance responsibility for. The Retailers can be identified by the Agreement ID.	1	A35		
<i>In Party</i>	<i>In_MarketParticipant</i>		The BRP is required for Bilateral Trade Structure, while the Trader is optional.	1..2			

- 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

²⁷ See previous footnote

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Attribute from requirement	Element from CIM (XML element) <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.
Identification	mRid	The identification of the In Party	The party being the buyer in the bilateral trade Note: The BRP is required for Bilateral Trade Structure, while the Trader is optional.	1..1	A16		
	<i>codingScheme</i>	<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 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding <i>scheme</i>	1..1	A3		
Role	marketRole.type		The role of the In Party, i.e. A08 Balance Responsible Party A47 Energy Trader	1..1	A3	A08 or Z05	
<i>Out Party</i>	<i>Out_MarketParticipant</i>		The BRP is required for Bilateral Trade Structure, while the Trader is optional.	1..2			
Identification	mRid	The identification of the Out Party	The party being the seller in the bilateral trade Note: The BRP is required for Bilateral Trade Structure, while the Trader is optional.	1..1	A16		
	<i>codingScheme</i>	<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 EIC A10 GS1 NDK Denmark National coding scheme NFI Finland National coding scheme NNO Norway National coding scheme NSE Sweden National coding <i>scheme</i>	1..1	A3		
Role	marketRole.type		The role of the Out Party, i.e.	1..1	A3	A08 or Z05	

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Attribute from requirement	Element from CIM (XML element) <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.
			A08 Balance Responsible Party				
			A47 Energy Trader				

Table 10: Element/*Attribute* usage: Ediel Notify Bilateral Trade Structure Document

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3.5.4 Element/Attribute usage: Ediel Notify PX Trade Structure Document

Attribute from requirement	Element from CIM (XML element) <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.
Notify Trade Structure Document	NotifyTradeStructure_MarketDocument						
Document Identification	mRID	Unique identification of the document for which the trade structure is being supplied.		1..1	A 35		
Document Type	type	The coded type of the document being sent.	The document type identifies the information flow characteristics. 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	1..1	A3		
Process Type	Process.processType	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	
Sender Identification	Sender_MarketParticipant.mRID	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		
	<i>codingScheme</i>	<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		

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Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Sender Role	Sender_MarketParticipant.marketRole.type	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	
Receiver Identification	Receiver_MarketParticipant.mRID	Identification of the party who is receiving the document.	The receiver of the document is identified by a unique coded identification.	1..1	A16		
	<i>codingScheme</i>	<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		
Receiver Role	Receiver_MarketParticipant.marketRole.type	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 A11 Market operator	1..1	A3	A08 or Z05	
Creation Date Time	createdDateTime	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	
Notify Trade Structure Details	NotifyTradeStructure_TimeSeries	Class specifying trade structure master data		1..*			
Transaction Identification	mRID	Unique ID of this transaction.	Sender's identification of this time series instance.	1	A35		

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Attribute from requirement	Element from CIM (XML element) Attribute	Definition	Description	Card	Max Size	Content	Dep.
Validity Start	validityStart_DateAndOrTime.dateTime	The start date and time of the trade in question.	The start date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ ²⁸ Note: At least one of Validity Start or Validity End must be present	0..1	A20	YYYY-MM-DDTHH:MM:SSZ	
Validity End	validityEnd_DateAndOrTime.dateTime	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 ²⁹ Note: At least one of Validity Start or Validity End must be present	0..1	A20	YYYY-MM-DDTHH:MM:SSZ	
Area	domain.mRID	Identification of the area in question	The Bidding Zone where trade can take place.	1..1	A18		
	<i>codingScheme</i>	<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 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		
Contract type	marketAgreement.type	Identification of a bilateral trade structure.	Power Exchange market, i.e.: A01 Daily (Day Ahead) A07 Intraday contract	1	A3		
<i>In Party</i>	<i>In_MarketParticipant</i>		The BRP and MO are required for PX Trade Structure. The Trader is optional.	2..3			
Identification	mRid	The identification of the In Party.	The identification of the In Party.	1..1	A16		

²⁸ 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

²⁹ See previous footnote

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Attribute from requirement	Element from CIM (XML element) <i>Attribute</i>	Definition	Description	Card	Max Size	Content	Dep.
	<i>codingScheme</i>	<i>Coding scheme for in party 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 <i>scheme</i></p>	1..1	A3		
Role	marketRole.type		<p>The role of the In Party, i.e.</p> <p>A08 Balance Responsible Party A11 Market operator A47 Energy Trader</p>	1..1	A3	A08, A11 or Z05	

Table 11: Element/*Attribute* usage: Ediel Notify PX Trade Structure Document