

Nordic Ediel Group

User Guide for

Acknowledgement document

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1 Introduction

1.1 Background

This document is a detailed User Guide for the ENTSO-E and ebIX® documents used in the Nordic energy market, made by the Nordic Ediel Group (NEG).

The basis for the document is the BRS (Business Requirement Specification) for Nordic Balance Settlement, [7] and the proposal for a Harmonised Nordic Retail market (HNR) project. 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] and ebIX® requirements [2]. In addition the Harmonised Electricity Market Role Model from ENTSO-E, ebIX® and EFET, [3], is used for identifying relevant roles.

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 [7].

1.3 Project organisation

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

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1.4 References

[1] ENTSO-E implementation guides, see <https://www.entsoe.eu/publications/electronic-data-interchange-edi-library/>, e.g.:

- ENTSO-E Modelling Methodology (EMM)
- ENTSO-E UCTE SO-SO Process
- ENTSO-E Scheduling System, ESS
- ENTSO-E Settlement Process, ESP

- ENTSO-E Reserve Resource Planning, ERRP
- ENTSO-E Capacity Allocation and Nomination, ECAN
- ENTSO-E Publication Document, EPD
- ENTSO-E Status Report, ESR
- ENTSO-E Acknowledgement process, EAD

- [2] ebIX® Business Requirement Specifications, see <http://www.ebix.org/>
- [3] Common Nordic XML rules and recommendations, see <http://www.ediel.org/>
- [4] The Harmonised Role Model, ENTSO-E, ebIX® and EFET, see <https://www.entsoe.eu/resources/edi-library/>
- [5] UN/CEFACT Unified Modelling Methodology (UMM), see <http://umm-dev.org/>
- [6] Ediel Implementation guides, see <http://www.ediel.org/>
- [7] BRS for Nordic Balance Settlement, see <http://www.ediel.org/>
- [8] BRS for Nordic Balance Settlement, between NBS and TSO/Market Operator, see <http://www.ediel.org/>
- [9] BRS for Nordic Settlement System, outside of NBS, see <http://www.ediel.org/> (not yet published)
- [10] BRS for Nordic Trading System, see <http://www.ediel.org/>
- [11] BRS for the Nordic TSO Scheduling and Ancillary Services Process, see <http://www.ediel.org/>

1.5 Change log

Ver/rel/rev	Changed by	Date	Changes
1.3.B	Ove Nesvik	20170505	<ul style="list-style-type: none"> • Changed sequence of “Time Series Rejection” and “Reason (Acknowledgement Document level)” in paragraph 2.2 (Element/Attribute usage: Acknowledgement Document)
1.3.A	Ove Nesvik	20170213	<ul style="list-style-type: none"> • Changed UserGuide status to “For implementation” • Updated logos on the front page • Replaced Nord Pool and NPS with Market Operator • Updated NTC and NEG member list • Renamed Svenska Kraftnät to Svenska kraftnät
1.2.B	Ove Nesvik	20160305	<ul style="list-style-type: none"> • Corrected the cardinality of Receiver role in the Acknowledgement document on Document level to [0..1]
1.2.A	Ove Nesvik	20160201	<ul style="list-style-type: none"> • Removed unused elements: <ul style="list-style-type: none"> ○ Receiving Payload Name ○ Senders Object Version ○ Time interval error • Added Reason class on Acknowledgement level • Added clarifying text • Added conversion tables for Roles and identification schemes
1.1.A	Erik Gustavsen	20140422	<ul style="list-style-type: none"> • Renamed Object Rejection class back to ENTSO-E standard Time Series Rejection • Cardinality changes regarding Receiving Document Version and Receiving Document Type • Date Time Receiving Document element removed from 2.2 Element/Attribute usage

1.0.A	Ove Nesvik	20131105	First User Guide published for comments
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2 Description of Acknowledgement Document

In this chapter the details of the *Acknowledgement message* is defined.

2.1 Class diagram: Acknowledgement Document

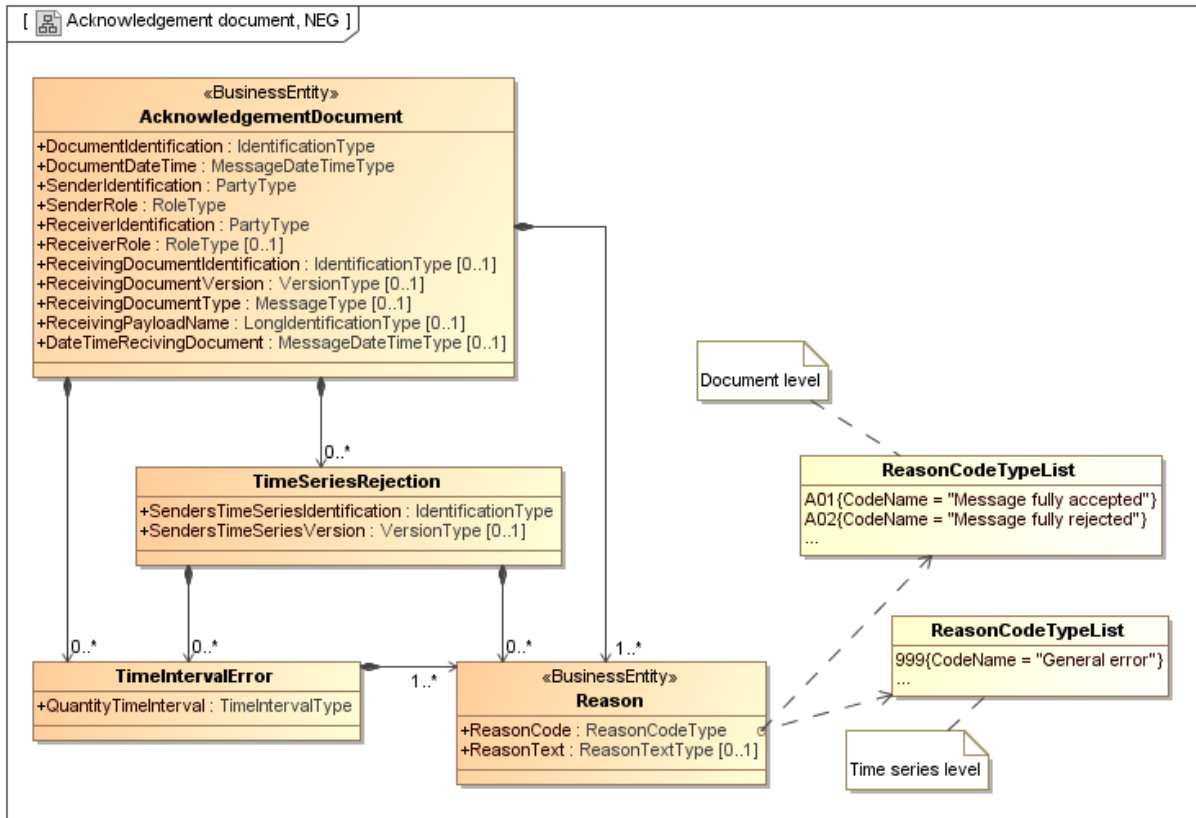


Figure 1 Class diagram: Acknowledgement Document

2.2 Element/Attribute usage: Acknowledgement Document

Element Attribute	Definition	Description	Card	Max Size	Content	Dep.	XML element
Acknowledgement Document	Acknowledgement Document Class						Acknowledgement Document
Document Identification	Unique identification of the acknowledgement document that has been received.	An acknowledgement document is sent in reply to the receipt of a document. This identification is assigned by the party who is acknowledging the application reception of a document An acknowledgement is sent for the receipt of every document in the information flow as requiring an acknowledgement.	1..1	A35			DocumentIdentification
Document Date and Time	Date and time of the transmission of acknowledgement.	The date and time that the document was prepared for transmission by the sender. The date and time must be expressed in UTC as YYYY-MM-DDTHH:MM:SSZ.	1..1	A20			DocumentDateTime
Sender Identification	Identification of the party that is the originator of the acknowledgement.	The originator of the acknowledgement is identified by a unique coded identification. This value should be the same as that found in the receiver identification of the document being acknowledged.	1..1	A16	ISR ID		SenderIdentification
Coding scheme	Coding scheme for sender identification	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A10 GS1 NFI Finland National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Sender role	Identification of the role that is played by the sender.	The sender role, which identifies the role of the sender within the document. The Sender Role shall be the same as the Receiver Role in the original document that is acknowledged. For conversion between ebIX® and ENTSO-E Role Codes, see chapter 2.3 below.	1..1	A3			SenderRole

Element Attribute	Definition	Description	Card	Max Size	Content	Dep.	XML element
Receiver identification	Identification of the party who is the recipient of the acknowledgement.	The recipient of the document is identified by a unique coded identification. This should be the same value as the sender of the document being acknowledged.	1..1	A16	BRP ID		ReceiverIdentification
Coding scheme	<i>Coding scheme for receiver identification</i>	The codification scheme used for the coded identification is indicated by the coding scheme attribute. A10 GS1 NFI Finland National coding scheme NSE Sweden National coding scheme	1..1	A3			codingScheme
Receiver role	Identification of the role played by the receiver.	The receiver role, which identifies the role of the receiver within the document. The Receiver Role shall be the same as the Sender Role in the original document that is acknowledged For conversion between ebIX® and ENTSO-E Role Codes, see chapter 2.3 below. The Receiver role shall be used if available, see chapter 2.3 below.	0..1	A3	A08		ReceiverRole
Receiving Document Identification	Unique identification of the document that has been received.	This information identifies the document that has been received by the receiving party. The identification is extracted from the received document.	1..1	A35			ReceivingDocumentIdentification
Receiving Document Version	Version of the document received.	The version of the document that has been received. Note: Only used if used in the original business document.	0..1	I3			ReceivingDocumentVersion
Receiving Document Type	Type of the document received.	The document type is used to identify the type of document being acknowledged. Note: Shall be used if available, i.e. always in positive acknowledgements.	0..1	A3			ReceivingDocumentType

Element Attribute	Definition	Description	Card	Max Size	Content	Dep.	XML element
Time Series Rejection	Time Series Rejection Class	Only used if the original business document is rejected, i.e. the <i>Reason Code</i> on Acknowledgement Document level = A02	0..*				TimeSeriesRejection
Senders Time Series identification	Senders identification of the instance of the object.	A unique identification of an object within the document received.	1..1	A35			SendersObjectIdentification
Reason	Reason class	Only used if the original business document is rejected, i.e. the <i>Reason Code</i> on Acknowledgement Document level = A02	1..*				Reason
Reason Code (Time Series Rejection level)	A code providing the acknowledgement status.	999 General error	1..1	A3			ReasonCode
Reason Text	Textual description of a rejection	The <i>Reason Text</i> should be as detailed as possible, i.e. the recipient is able to understand way the business document have been rejected	1..1	A512			ReasonText
Reason Code (Acknowledgement Document level)	A code providing the acknowledgement status.	The reason code provides the status of the acknowledgement. A01 Message fully accepted A02 Message fully rejected	1..1	A3			ReasonCode
Reason Text	Textual description of a rejection	The <i>Reason Text</i> should be as detailed as possible, so that the recipient is able to understand why the business document have been rejected Note: Only used if not approved (Reason Code ≠ A01)	0..1	A512			ReasonText

2.3 Conversion table for ebIX® and ENTSO-E role codes for NBS related documents

The following role codes will be used for documents related to the Nordic Balance Settlement:

ebIX® document	ebIX® Energy Business Process Role Code (from original document)	Sender role in ENTSO-E Acknowledgement Document	Receiver role in ENTSO-E Acknowledgement Document
NEG (ebIX® based) Validated Data for Settlement for Aggregator (E66, E44)	DEA Metered data aggregator	A09 Metered data aggregator ¹	A25 Metered data responsible
NEG (ebIX® based) Aggregated Data per MGA (E31, E44)	DDX Imbalance settlement responsible	A05 Imbalance settlement responsible	A09 Metered data aggregator
	DDK Balance responsible party	A08 Balance responsible party	A09 Metered data aggregator
	DDQ Balance power supplier	A12 Balance supplier	A09 Metered data aggregator
NEG (ebIX® based) Aggregated Data Per Neighbouring Grid For Settlement Responsible (E31, E44)	DDX Imbalance settlement responsible	A05 Imbalance settlement responsible	A09 Metered data aggregator
NEG Confirmation of Aggregated Data Per Neighbouring Grid From Settlement Responsible (A07/A08, Z44)	DEA Metered data aggregator	A09 Metered data aggregator	A05 Imbalance settlement responsible

Table 1: Conversion table for ebIX® and ENTSO-E role codes for NBS related documents

¹ According to the ebIX® model this is the Metered Data Aggregator role within eSett

2.4 Usage of Coding Schemes in the Nordic countries

The following table shows how to convert between ebIX® and ENTSO-E Identifier schemes:

Identifier scheme	ebIX®		ENTSO-E
	Scheme Agency Identifier	Scheme Identifier	Coding Scheme
EIC	305	Not used	A01
GS1	9	Not used	A10
Danish national coding scheme	260	DK	NDK
Finnish national coding scheme	260	SLY	NFI
Norwegian national coding scheme	260	SM	NNO
Swedish national coding scheme	260	SVK	NSE

Table 2: Usage of Coding Schemes in the Nordic countries