

Framework for energy market communications - Part
451-4: Settlement and reconciliation business process,
contextual and assembly models for European market

EESTI STANDARDI EESSÕNA

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English Version

**Framework for energy market communications - Part 451-4:
Settlement and reconciliation business process, contextual and
assembly models for European market
(IEC 62325-451-4:2014)**

Cadre pour les communications pour le marché de l'énergie
- Partie 451-4: Processus métier de règlement des écarts et
de réconciliation, modèles contextuels et modèles
d'assemblage pour le marché européen
(IEC 62325-451-4:2014)

Kommunikation im Energiemarkt - Teil 451-4: Abwicklungs-
und Abstimmungsgeschäftsprozesse, kontextbezogene
Modelle und Einbindungsmodelle für den europäischen
Markt
(IEC 62325-451-4:2014)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 57/1449/CDV, future edition 1 of IEC 62325-451-4, prepared by IEC/TC 57 "Power systems management and associated information exchange" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62325-451-4:2015.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2015-09-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-12-25

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Endorsement notice

The text of the International Standard IEC 62325-451-4:2014 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61968-11	NOTE	Harmonized as EN 61968-11.
IEC 61970-301	NOTE	Harmonized as EN 61970-301.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62325-301	-	Framework for energy market communications -- Part 301: Common Information Model (CIM) extensions for markets	EN 62325-301	-
IEC 62325-351	-	Framework for energy market communications -- Part 351: CIM European market model exchange profile	EN 62325-351	-
IEC 62325-450	2013	Framework for energy market communications -- Part 450: Profile and context modelling rules	EN 62325-450	2013
IEC 62325-451-1	-	Framework for energy market communications -- Part 451-1: Acknowledgement business process and contextual model for CIM European market	EN 62325-451-1	-
IEC 62325-451-2	-	Framework for energy market communications -- Part 451-2: Scheduling business process and contextual models for European market	EN 62325-451-2	-
IEC 62361-100	-	Power systems management and associated information exchange - Interoperability in the long term -- Part 100: CIM profiles to XML schema mapping	EN 62361-100	-
IEC/TS 61970-2	-	Energy management system application program interface (EMS-API) -- Part 2: Glossary	CLC/TS 61970-2	-

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INTRODUCTION

This standard is one of the IEC 62325 series which define protocols for deregulated energy market communications.

The principal objective of the IEC 62325 series of standards is to produce standards which facilitate the integration of market application software developed independently by different vendors into a market management system, between market management systems and market participant systems. This is accomplished by defining message exchanges to enable these applications or systems access to public data and exchange information independent of how such information is represented internally.

The common information model (CIM) specifies the basis for the semantics for this message exchange.

The European style market profile is based on different parts of the CIM IEC standard. The CIM is defined through a series of standards, i.e. IEC 62325-301, IEC 61970-301 and IEC 61968-11 standards.

This document provides for the European style market profile the settlement and reconciliation business process that can be used throughout a European style market. This standard was originally based upon the work of the European Transmission System Operators (ETSO) Task Force EDI (Electronic Data Interchange) and then on the work of the European Network of Transmission System Operators (ENTSO-E) Working Group EDI.

This document describes the settlement and reconciliation process for wholesale markets; it is brought to the attention of the reader that it is envisaged to initiate work on a combined reconciliation process for retail and wholesale markets.

FRAMEWORK FOR ENERGY MARKET COMMUNICATIONS –

Part 451-4: Settlement and reconciliation business process, contextual and assembly models for European market

1 Scope

Based on the European style market profile (IEC 62325-351), this part of IEC 62325-451 specifies a package for the settlement and reconciliation business process and the associated document contextual model, assembly model and XML schema for use within European style markets.

The relevant aggregate core components (ACCs) defined in IEC 62325-351 have been contextualised into aggregated business information entities (ABIEs) to satisfy the requirements of this business process. The contextualised ABIEs have been assembled into the relevant document contextual models. Related assembly models and XML schema for the exchange of information between market participants are automatically generated from the assembled document contextual models.

This International Standard provides a uniform layout for the transmission of aggregated data in order to settle the electricity market. It is however not the purpose of this International Standard to define the formula to be taken into account to settle or reconcile a market. The purpose of this standard is only to enable the information exchange necessary to carry out the computation of settlement and reconciliation.

The settlement process or reconciliation process is the way to compute the final position of each market participant as well as its imbalance amounts.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC TS 61970-2, *Energy management system application program interface (EMS-API) – Part 2: Glossary*

IEC 62325-301, *Framework for energy market communications – Part 301: Common information model (CIM) extensions for markets*

IEC 62325-351, *Framework for energy market communications – Part 351: CIM European market model exchange profile*

IEC 62325-450:2013, *Framework for energy market communications – Part 450: Profile and context modelling rules*

IEC 62325-451-1, *Framework for energy market communications – Part 451-1: Acknowledgement business process and contextual model for CIM European market*

IEC 62325-451-2, *Framework for energy market communications – Part 451-2: Scheduling business process and contextual model for CIM European market*