SLOVENSKI STANDARD
SIST EN 62325-351:2016

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SIST EN 62325-351:2014

Okvir za komunikacije na trgu z električno energijo - 351. del: Skupni informacijski model (CIM) za izmenjevalni profil evropskega tržnega modela

Framework for energy market communications - Part 351: CIM European market model exchange profile

Kommunikation im Energiemarkt - Teil 351: CIM Profile für den Europäischen Markt

Cadre pour les communications pour le marché de l'énergie - Partie 351: Profil de modèle d'échange pour un système de gestion de marché de style européen basé sur le CIM

Ta slovenski standard je istoveten z: **EN 62325-351:2016**

ICS:

29.240.30	Krmilna oprema za elektroenergetske sisteme	Control equipment for electric power systems
33.200	Daljinsko krmiljenje, daljinske meritve (telemetrija)	Telecontrol. Telemetering

SIST EN 62325-351:2016 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 62325-351

September 2016

ICS 33.200

Supersedes EN 62325-351:2013

English Version

Framework for energy market communications - Part 351: CIM European market model exchange profile (IEC 62325-351:2016)

Cadre pour les communications pour le marché de l'énergie - Partie 351: Profil de modèle d'échange pour un système de gestion de marché de style européen basé sur le CIM (IEC 62325-351:2016)

Kommunikation im Energiemarkt - Teil 351: CIM-Profile für den europäischen Markt (IEC 62325-351:2016)

This European Standard was approved by CENELEC on 2016-07-20. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 62325-351:2016 E

European foreword

The text of document 57/1618/CDV, future edition 2 of IEC 62325-351, 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 62325-351:2016.

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) 2017-04-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2019-07-20

This document supersedes EN 62325-351:2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

Endorsement notice

The text of the International Standard IEC 62325-351:2016 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.
IEC 61970-452	NOTE	Harmonized as EN 61970-452.
IEC 61970-552	NOTE	Harmonized as EN 61970-552.
IEC 62325-301	NOTE	Harmonized as EN 62325-301.

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.

Publication	Year	Title	EN/HD	Year
IEC/TS 61970-2	2004	Energy management system application program interface (EMS-API) - Part 2: Glossary	CLC/TS 61970-2	2005
IEC 62325-450	2013	Framework for energy market communications - Part 450: Profile and context modelling rules	EN 62325-450	2013
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 62325-351

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Framework for energy market communications –
Part 351: CIM European market model exchange profile

Cadre pour les communications pour le marché de l'énergie –
Partie 351: Profil de modèle d'échange pour un système de gestion de marché de style européen basé sur le CIM

INTERNATIONAL
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FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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International Standard IEC 62325-351 has been prepared by IEC technical committee 57: Power systems management and associated information exchange.

This second edition cancels and replaces the first edition published in 2013. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) Add the attribute "cancelledTS" to the class TimeSeries. The attribute is defined in IEC 62325-301 Edition 1, and was not use in the European style market profile but is now necessary for the Transparency Regulation.

b) Add the attribute "quality" to the class "Point" and a new CIMDataType "QualityString". The attribute is defined in IEC 62325-301 Edition 1, and was not use in the European style market profile. This attribute will enable to develop the data exchange related to the settlement business process within a synchronous power system for cross-border flows.

c) Add an association between the class “Reason” and the class “Series_Period”. This association enables to report errors on the “Series_Period”.

d) Add the class “MktGeneratingUnit” from IEC 62325-301. This class is necessary to publish information on generation units as per Transparency Regulation.

e) Add a class “VoltageLevel” from IEC 61970-301. This class is necessary to publish information as per Transparency Regulation.

f) Add a class “Location” from IEC 61968-11. This class is necessary to publish information as per Transparency Regulation.

g) Class “MarketParticipant”, change the cardinality of the attribute “mRID” to [0..1] and add the attribute “name” from IEC 62325-301 as [0..1].

h) Class “Price”, change the cardinality of attribute “amount” from [1] to [0..1] and add an association with the class “TimeSeries” as [0..*] to [0..*].

i) Add a class “ConstraintDuration” from IEC 62325-301 necessary for activation constraints on the balancing market

j) Add the constraints on datatypes.

The text of this standard is based on the following documents:

CDV	Report on voting
57/1618/CDV	57/1681/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 62325 series, published under the general title *Framework for energy market communications*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This part of IEC 62325 is one of the IEC 62325 series for deregulated energy market communications.

The principal objective of the IEC 62325 series 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 allow these applications or systems access to public data and exchange information independent of how such information is represented internally.

The common information model (CIM), i.e. IEC 62325-301, IEC 61970-301 and IEC 61968-11, specifies the basis for the semantics for message exchange.

The European style market profile is based on different parts of the CIM IEC standards and specifies the business processes and the content of the messages exchanged.

This part of IEC 62325 provides the European style market profile specifications that support the European style design electricity markets. These electricity markets are based on the European regulations, and on the concepts of third party access and zonal markets. This part of IEC 62325 was originally based upon the work of the European Transmission System Operators (ETSO) and then on the work of the European Network of Transmission System Operators (ENTSO-E) on electronic data interchange.

FRAMEWORK FOR ENERGY MARKET COMMUNICATIONS –

Part 351: CIM European market model exchange profile

1 Scope

This part of IEC 62325 is applicable to European style electricity markets.

This part of IEC 62325 specifies a UML package which provides a logical view of the functional aspects of European style market management within an electricity markets.

This package is based on the common information model (CIM). The use of the CIM goes far beyond its application in a market management system.

Due to the size of the complete CIM, the object classes contained in the CIM are grouped into a number of logical packages, each of which represents a certain part of the overall power system being modelled. Collections of these packages are progressed as separate International Standards.

From the CIM packages, regional contextual models are built to cover the market information interchange requirements for a given region, i.e. the business context. A region may be a continent where common electricity market designs are used for the exchange of information (Europe, North America, Asia, etc.). It may also be a specific country or an organization that has particular needs and wishes to benefit from the CIM.

This new edition of IEC 62325-351 contains new classes and associations required to comply with new business development for European style market, and in particular the implementation of the European regulations (No. 1227/2011 and No. 543/2013).

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 61970-2:2004, *Energy management system application program interface (EMS-API) – Part 2: Glossary*

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

IEC 62361-100, *Power systems management and associated information exchange – Interoperability in the long term – Part 100: Naming and design rules for CIM profiles to XML schema mapping*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC TS 61970-2, as well as the following apply.