



**NSAI**  
Standards

Irish Standard  
I.S. EN 62325-451-5:2015

Framework for energy market  
communications - Part 451-5: Problem  
statement and status request business  
processes, contextual and assembly models  
for European market

**I.S. EN 62325-451-5:2015**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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EUROPEAN STANDARD

**EN 62325-451-5**

NORME EUROPÉENNE

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**Framework for energy market communications - Part 451-5:  
Problem statement and status request business processes,  
contextual and assembly models for European market  
(IEC 62325-451-5:2015)**

Cadre pour les communications pour le marché de l'énergie  
- Partie 451-5: Processus métier d'énoncé de problème et  
de demande de position, modèles contextuels et modèles  
d'assemblage pour le marché européen  
(IEC 62325-451-5:2015)

Kommunikation im Energiemarkt - Teil 451-5:  
Problemstellungs- und Status-Anfragen-  
Geschäftsprozesse, kontextbezogene Modelle und  
Einbindungsmodelle für den europäischen Markt  
(IEC 62325-451-5:2015)

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Europäisches Komitee für Elektrotechnische Normung

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

## Foreword

The text of document 57/1518/FDIS, future edition 1 of IEC 62325-451-5, 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 62325-451-5:2015.

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) 2015-12-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-03-24

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The text of the International Standard IEC 62325-451-5:2015 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 62325-451-2	NOTE	Harmonized as EN 62325-451-2.
IEC 62325-451-3	NOTE	Harmonized as EN 62325-451-3.

## 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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	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	-	Framework for energy market communications Part 450: Profile and context modelling rules	EN 62325-450	-
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 62361-100	-	Power systems management and associated information exchange Interoperability in the long term Part 100: CIM profiles to XML schema mapping	-	-

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**IEC 62325-451-5**

Edition 1.0 2015-02

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**



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**Framework for energy market communications –  
Part 451-5: Problem statement and status request business processes,  
contextual and assembly models for European market**

**Cadre pour les communications pour le marché de l'énergie –  
Partie 451-5: Processus métier d'énoncé de problème et de demande de  
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**IEC 62325-451-5**

Edition 1.0 2015-02

# **INTERNATIONAL STANDARD**

# **NORME INTERNATIONALE**



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**Framework for energy market communications –  
Part 451-5: Problem statement and status request business processes,  
contextual and assembly models for European market**

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Partie 451-5: Processus métier d'énoncé de problème et de demande de  
position, modèles contextuels et modèles d'assemblage pour le marché  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## FRAMEWORK FOR ENERGY MARKET COMMUNICATIONS –

**Part 451-5: Problem statement and status request business processes,  
contextual and assembly models for European market**

## FOREWORD

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International Standard IEC 62325-451-5 has been prepared by IEC technical committee 57: Power systems management and associated information exchange.

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

FDIS	Report on voting
57/1518/FDIS	57/1543/RVD

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 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.

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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 problem statement and status request business processes 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.



## FRAMEWORK FOR ENERGY MARKET COMMUNICATIONS –

### Part 451-5: Problem statement and status request business processes, 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 problem statement and status request business processes and the associated document contextual models, assembly models 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.

#### 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, *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 62361-100<sup>1</sup>, *Power systems management and associated information exchange – Interoperability in the long term – Part 100: CIM profiles to XML schema mapping*

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