

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Framework for energy market communications –
Part 451-10: Profiles for Energy Consumption Data ("My Energy Data")**

**Cadre pour les communications pour le marché de l'énergie –
Partie 451-10: Profils de données sur la consommation d'énergie
("Mes données d'énergie")**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

FRAMEWORK FOR ENERGY MARKET COMMUNICATIONS –

Part 451-10: Profiles for Energy Consumption Data ("My Energy Data")

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57/2266/FDIS	57/2312/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.

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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.

This European style market profile is based on different parts of the CIM IEC standard, i.e. IEC 61970-301, IEC 62325-301, IEC 62325-351, and specifies the content of the messages exchanged.

"My Energy Data" (MED) is the term adopted in Europe as a generic description of services to offer customers (residential, municipalities, ...) the possibility of downloading their energy consumption information and granting access to third parties to that information to enable service providers to offer analytical and other services to customers (residential, municipalities, ...).

Europe needs to define a standard to support the "My Energy Data" requirements.

The application domain of this work is limited to customers connected to Distribution System Operator (DSO) grids.

The main objective is to have a standardized and interoperable format so that various actors (customers, municipalities, ...) can download electrical energy data. The content of the standard will mainly be an XML schema (XSD) associated with a message. The message will consist of an envelope and a semantic part. The semantic part will be essentially based on IEC 61970-301, IEC 61968-11, IEC 62325-301. The envelope part will take into account standards IEC 61968-100, IEC 62325-503, IEC 62325-504.

My Energy Data is primarily subject to Regulation (EU) 2019/943 of the European parliament and of the council of 5 june 2019 on the internal market for electricity.

As stated in the "My Energy Data" document (published in November 2016 by European Smart Grids Task Force Expert Group 1 – Standards and Interoperability):

- "My Energy Data services are primarily subject to the EU General Data Protection Regulation (GDPR) 2016/679/EC, the Energy Efficiency Directive 2012/27/EU, the Electricity Directive 2009/72/EC, the Gas Directive 2009/73/EC and further country-specific legislation"
- "One of the key aspects that would significantly contribute to opening the European internal market for future Energy Services is for the industrial initiative to establish a common format for energy data interchange that allows companies to seamlessly provide their services throughout the EU Member State. The ad hoc group intends to continue its work and invite to join all interested stakeholders which have not been extensively consulted due to time constraints. It recommends therefore that – after the publication of the European Commission Winter Package – a European industry initiative consisting of all interested stakeholders, such as, but not limited to manufacturers, utilities, vendors, laboratories and national regulators will be formed in early 2017 with the aim to provide further detailed specifications on a common format for energy data interchange under consideration of the high-level requirements provided by this report."

"This document will support the European Regulation. It will increase interoperability. The following parties which will benefit from this standard are: customers, suppliers, transmission and distribution system operators, aggregators, energy service companies, and other parties which provide energy or other services to customers."

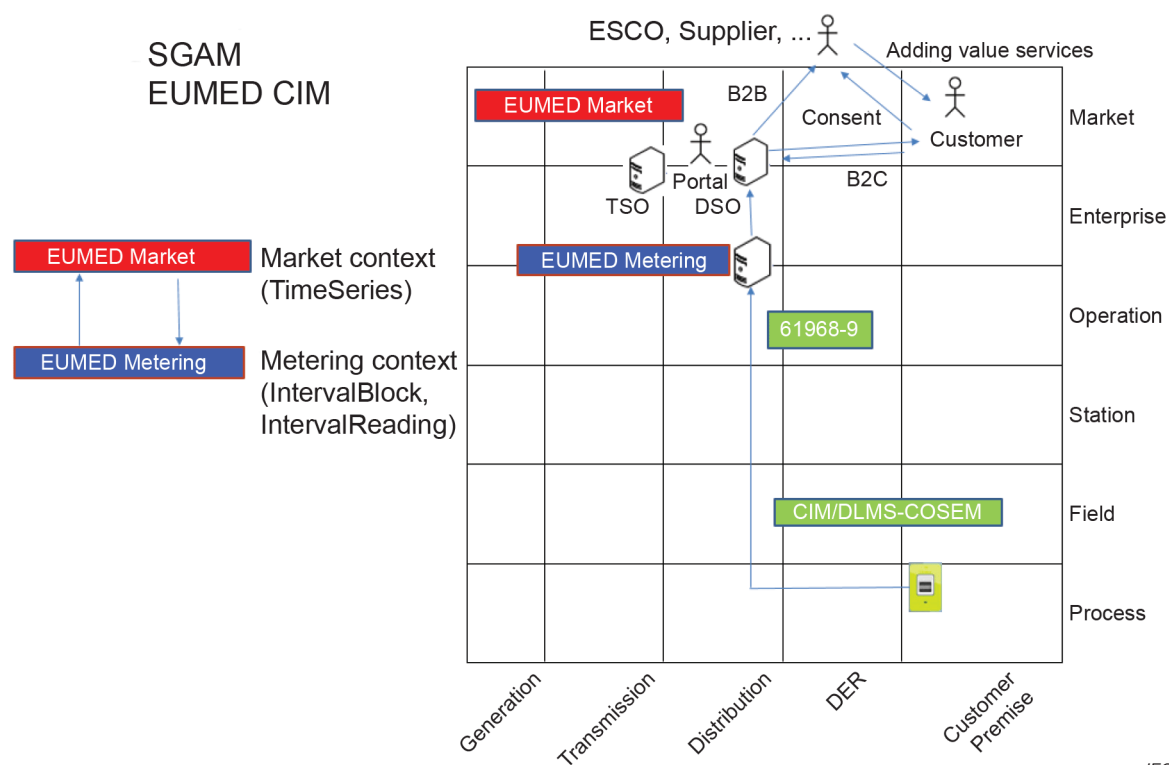
This document provides the profile associated to use case "Download My Data" and is named "EUMED Market" profile. The first use case, "Download my data", is described in Annex A. The previous version of EUMED, called "EUMED Metering" circulated among the task force in January 2018 is described in Annex B, Annex C and Annex D.

The "EUMED Metering" proposal was based on IntervalBlock and IntervalReading CIM classes as proposed in 61968-9 IS standard to Model Time Series. It was based on a European project proposal (Flexiciency deliverable D6.0).

As an alternative, and in order to be consistent with IEC European Style Market Profiles (ESMP), experts familiar with 62325 and ESMP proposed to investigate a EUMED CIM based on Time Series.

As a consequence, the decision was to postpone circulation of first CD among National Committees in order to define a solution based on TimeSeries.

Figure 1 presents the two models, EUMED Market and EUMED Metering.



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Figure 1 – Positioning of EUMED Market and EUMED Metering

The EUMED Metering profile has been described in Annex B of this document. The compatibility between EUMED Metering and EUMED Market will be studied later, and EUMED Metering profile will potentially be integrated in IEC 61968 series.