

SLOVENSKI STANDARD SIST EN IEC 63119-1:2019

01-november-2019

Izmenjava informacij za gostovanje storitev napajanja električnih vozil - 1.del: Splošno

Information exchange for Electric Vehicle charging roaming service - Part 1:General

iTeh STANDARD PREVIEW (standards.iteh.ai)

Ta slovenski standard je istoveten z: EN IEC 63119-1:2019

https://standards.iteh.ai/catalog/standards/sist/c9847810-8dee-49bf-b5a8-

725ab4a61706/sist-en-iec-63119-1-2019

ICS:

35.240.01	Uporabniške rešitve informacijske tehnike in tehnologije na splošno	Application of information technology in general
43.120	Električna cestna vozila	Electric road vehicles

SIST EN IEC 63119-1:2019

en

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN IEC 63119-1:2019

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN IEC 63119-1

August 2019

ICS 43.120; 29.130.20; 35.240.01

English Version

Information exchange for electric vehicle charging roaming service - Part 1: General (IEC 63119-1:2019)

Échange d'informations pour le service d'itinérance de la recharge des véhicules électriques - Partie 1: Généralités (IEC 63119-1:2019) Informationsaustausch für Roaming-Ladedienste für Elektrofahrzeuge - Teil 1: Allgemeines (IEC 63119-1:2019)

This European Standard was approved by CENELEC on 2019-07-31. 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.

iTeh STANDARD PREVIEW

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, France, Germany, Greece, Hungary, Iceland, Iteland, Iteland, Italy, Latvia, Uthuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels

© 2019 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

European foreword

The text of document 69/654/FDIS, future edition 1 of IEC 63119-1, prepared by IEC/TC 69 "Electric road vehicles and electric industrial trucks" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63119-1:2019.

The following dates are fixed:

•	latest date by which the document has to be implemented at national	(dop)	2020-04-30
	level by publication of an identical national standard or by endorsement		

• latest date by which the national standards conflicting with the (dow) 2022-07-31 document have to be withdrawn

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

iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of the International Standard IEC 63119-1:2019 was approved by CENELEC as a European Standard without any modification. 125ab4a61706/sist-en-iec-63119-1-2019

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

IEC 61851-1:2017NOTEHarmonized as EN IEC 61851-1:2019 (not modified)IEC 63110-1NOTEHarmonized as EN IEC 63110-11

¹ To be published. Stage at the time of publication: prEN IEC 63110-1:2018

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where 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	<u>EN/HD</u>	Year
RFC 5246	-	The Transport Layer Secu Protocol Version 1.2	ırity (TLS) -	-
iTeh STANDARD PREVIEW				
(standards.iteh.ai)				
SIST EN IEC 62110 1-2010				

iTeh STANDARD PREVIEW (standards.iteh.ai)



Edition 1.0 2019-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Information exchange for electric vehicle charging roaming service – Part 1: General (standards.iteh.ai)

Échange d'informations pour <u>le service d'iti-nérance</u> de la recharge des véhicules électriques des itenaicatalog/standards/sist/c9847810-8dee-49bf-b5a8-Partie 1: Généralités 725ab4a61706/sist-en-iec-63119-1-2019

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 43.120; 29.130.20; 35.240.01

ISBN 978-2-8322-7102-5

Warning! Make sure that you obtained this publication from an authorized distributor. Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

 Registered trademark of the International Electrotechnical Commission Marque déposée de la Commission Electrotechnique Internationale

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 General description for roaming service models	8
4.1 General	8
4.2 System architecture	9
4.3 Communication interfaces	10
5 Classification of roaming service models – Roaming modes	11
6 Communication – Protocol stack	12
7 Security and privacy	
7.1 General requirements	12
7.2 Authentication and authorization	13
7.3 Data transfer security	13
8 Privacy mechanisms	13
Bibliography	14
Figure 1 – Overview of roaming and relevant technologies EV EW	9
Figure 2 – Overview of system architecture and site in a construction of system architecture and site in a construction of the system architecture and site is a construction of the system architecture and site is a construction of the system architecture and site is a construction of the system architecture architec	10
Figure 3 – Overview of EV services and communication interfaces	11
Figure 4 – Overview of EV roaming classification3119-1:2019	12
https://standards.iteh.ai/catalog/standards/sist/c9847810-8dee-49bf-b5a8- 725ab4a61706/sist-en-iec-63119-1-2019	
Table 1 – Network communication protocols	12

IEC 63119-1:2019 © IEC 2019

- 3 -

INTERNATIONAL ELECTROTECHNICAL COMMISSION

INFORMATION EXCHANGE FOR ELECTRIC VEHICLE CHARGING ROAMING SERVICE –

Part 1: General

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.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- misinterpretation by any end user. (standards.iteh.ai)
 In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding (national of regional publication shall be clearly indicated in the latter. https://standards.iteh.ai/catalog/standards/sist/c9847810-8dee-49bfb5a8-
- 5) IEC itself does not provide any attestation of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 63119-1 has been prepared by IEC technical committee 69: Electric road vehicles and electric industrial trucks.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
69/654/FDIS	69/659/RVD

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

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

A list of all parts in the IEC 63119 series, published under the general title *Information* exchange for electric vehicle charging roaming service, can be found on the IEC website.

- 4 -

IEC 63119-1:2019 © IEC 2019

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

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

iTeh STANDARD PREVIEW (standards.iteh.ai)

IEC 63119-1:2019 © IEC 2019

INFORMATION EXCHANGE FOR ELECTRIC VEHICLE CHARGING ROAMING SERVICE –

Part 1: General

1 Scope

This part of IEC 63119 establishes a basis for the other parts of IEC 63119, specifying the terms and definitions, general description of the system model, classification, information exchange and security mechanisms for roaming between EV charge service providers (CSPs), charging station operators (CSOs) and clearing house platforms through roaming endpoints. It provides an overview and describes the general requirements of the EV roaming service system.

IEC 63119 (all parts) is applicable to high-level communication involved in information exchange/interaction between different CSPs, as well as between a CSP and a CSO with or without a clearing house platform through the roaming endpoint.

IEC 63119 (all parts) does not specify the information exchange, either between the charging station (CS) and the charging station operator (CSO), or between the EV and the CS.

2 Normative references (standards.iteh.ai)

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references the latest edition of the referenced document (including any amendments) applies.

RFC 5246, The Transport Layer Security (TLS) Protocol Version 1.2

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1 electric vehicle EV electric road vehicle

vehicle propelled by an electric motor drawing current from a rechargeable storage battery or from other portable energy storage devices (rechargeable, using energy from a source off the vehicle such as a residential or public electric service), which is manufactured primarily for use on public streets, roads or highways

[SOURCE: IEC 61851-1:2017, 3.4.1, modified – The definition has been expanded.]