STN	Výmena informácií pre roamingovú službu nabíjania elektrických vozidiel Časť 1: Všeobecne	STN EN IEC 63119-1
		34 1595

Information exchange for electric vehicle charging roaming service - Part 1: General

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/25

Obsahuje: EN IEC 63119-1:2025, IEC 63119-1:2025

Oznámením tejto normy sa od 30.09.2028 ruší STN EN IEC 63119-1 (34 1595) z februára 2020

141458

STN EN IEC 63119-1: 2025

EUROPEAN STANDARD NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 63119-1

September 2025

ICS 43.120; 29.130.20; 35.240.01

Supersedes EN IEC 63119-1:2019

English Version

Information exchange for electric vehicle charging roaming service - Part 1: General (IEC 63119-1:2025)

Échange d'informations pour le service d'itinérance de la recharge des véhicules électriques - Partie 1: Généralités (IEC 63119-1:2025)

Informationsaustausch für Roaming-Ladedienste für Elektrofahrzeuge - Teil 1: Allgemeines (IEC 63119-1:2025)

This European Standard was approved by CENELEC on 2025-08-12. 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye 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

EN IEC 63119-1:2025 (E)

European foreword

The text of document 69/1050/FDIS, future edition 2 of IEC 63119-1, prepared by TC 69 "Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63119-1:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2026-09-30 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2028-09-30 document have to be withdrawn

This document supersedes EN IEC 63119-1:2019 and all of its amendments and corrigenda (if any).

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.

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 63119-1:2025 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 standard indicated:

IEC 61851-1:2017 NOTE Approved as EN IEC 61851-1:2019 (not modified)

IEC 63110-1:2022 NOTE Approved as EN IEC 63110-1:2022 (not modified)



IEC 63119-1

Edition 2.0 2025-07

INTERNATIONAL STANDARD

Information exchange for electric vehicle charging roaming service – Part 1: General



THIS PUBLICATION IS COPYRIGHT PROTECTED Copyright © 2025 IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Secretariat Tel.: +41 22 919 02 11

3, rue de Varembé info@iec.ch CH-1211 Geneva 20 www.iec.ch Switzerland

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

IEC publications search -

webstore.iec.ch/advsearchform

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

IEC Just Published - webstore.iec.ch/justpublished
Stay up to date on all new IEC publications. Just Published
details all new publications released. Available online and
once a month by email.

IEC Customer Service Centre - webstore.iec.ch/csc If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: sales@iec.ch.

IEC Products & Services Portal - products.iec.ch

Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

Electropedia - www.electropedia.org

The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

CONTENTS

FOREV	VORD	2
1 Sc	ope	4
2 No	ormative references	4
3 Te	rms and definitions	4
4 Ge	eneral description for roaming service models	7
4.1	General	7
4.2	System architecture	8
4.3	Communication interfaces	9
5 CI	assification of roaming service models – Roaming modes	10
6 Cc	ommunication – Protocol stack	11
7 Se	ecurity and privacy	11
7.1	General requirements	11
7.2	Authentication and authorization	11
7.3	Data transfer security	12
8 Pr	ivacy mechanisms	12
Bibliog	raphy	13
Figure	1 – Overview of roaming and relevant technologies	8
Figure	2 – Overview of system architecture	9
Figure	3 – Overview of EV services and communication interfaces	10
-	4 – Overview of EV roaming classification	
Table 1	- Network communication protocols	11

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.
- 4) 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 or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks 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) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at https://patents.iec.ch. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 63119-1 has been prepared by IEC technical committee 69: Electrical power/energy systems for electrically propelled road vehicles and industrial trucks. It is an International Standard.

This second edition cancels and replaces the first edition published in 2019.

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

- a) the scope is expanded to include differentiation between home and visited service provider roles and adds an explicit definition of roaming entity;
- b) adds definitions for "home charging service provider (home-CSP)", "visited charging station operator (visited-CSO)", and "charging detail record (CDR)", and expands related terms such as "service" and "roaming entity";
- c) introduces abbreviation variants for "home-CSP" and "visited-CSO" in the terminology, aligning with North American and European conventions;

- d) updates the communication protocol stack by adopting a newer TLS version (upgraded from 1.2 to 1.3);
- e) system architecture and communication interfaces include detailed interactions between home-CSP and visited-CSO;
- f) adds a definition for "service" to cover a broader range of applications such as parking and reservation management;
- g) adds a distinction between "charging detail record (CDR)" and "service detail record (SDR)" and clarifies their relationship in the terminology;
- h) enhances the description of user credential transfer methods in communication interfaces with greater diversity;
- i) enhances the description of the mixed mode in the classification of roaming service models, emphasizing improved user experience through faster response times.

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

Draft	Report on voting
69/1050/FDIS	69/1063/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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.

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

- · reconfirmed,
- withdrawn, or
- · revised.

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 charging 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.

The IEC 63119 series 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.

The IEC 63119 series 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

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN