

Requirements: "Test Cases and Specifications for CCS Extended Conformance Testing"

1) Obligations of contracted party

- a) Deliverables
 - i) The CCS Extended Conformance Testing package must be fully defined, comprising:
 - (1) the CharIN CCS Extended Implementation Guide for EV and EVSE,
 - (2) CharIN Umbrella document to refer to Test Cases for EV and EVSE,
 - (3) CCTS Specifications (if needed)
 - (4) Quality assurance program update
 - (5) Additional Test or Requirements Specifications to close white spots in the standards
 - ii) In addition to the content documents, CharIN (hereinafter used for both CharIN e.V. and CharIN Academy GmbH, unless stated otherwise) expects a management report every 4 weeks (or more frequent if necessary for achieving the timeline) on the progress of the project.
 - iii) For meetings within CharIN framework, the contractor will write minutes of the meeting. Only if minutes are produced by a member of CharIN, this is not applicable.
- b) What should the service provider do? What not?
 - i) Following the CCS-relevant standardization committees. The work should provide targeted support to ensure that the relevant documents are available.
 - ii) Participation in CharIN FG and correlated project meetings to enable the necessary coordination of experts in addition to the committees.
 - iii) A constant liaison with CharIN is to be implemented in the committees (FGs) relevant to interoperability.
 - iv) Versioning of the documents / work status and storage in the locations specified by CharIN.
 - v) After acceptance of the deliverables by the board of CharIN e.V., feedback and possible "lessons learned" are to be implemented in collaboration with CharIN in order to reconcile possible improvements in this work (not part of this RFQ).

2) Prerequisites, delivery, processes

- a) It is assumed that the work will be carried out for at least 6 months after the contract is awarded and that the scope will then need to be reviewed and the requirements adjusted.
- b) It is not expected that the underlying CCS Extended standards will be completed by an exact target date. This is beyond the control of CharIN and its contractors.
- c) All work will be conducted in English (meetings as well as documents)
- d) All deliverables must be submitted in CharIN templates provided by the association. The times in which we reference dates must be given in CET (Central European Time).
- e) Steps which shall help to step into the work:
 - i) Contacting the relevant CharIN Expert contacts (will be provided by CharIN staff)
 - ii) Discussions with the experts from the "Conformance Test and IOP" Focus Group or equivalent/ subsequent entity
 - iii) Attending the meetings of the "Development", "Qualification" and "Vendors" groups
 - iv) Applying for liaisons with the relevant standardization bodies
 - v) Development of draft deliverables for comments by relevant Standard working groups
 - vi) Consolidation and integration of comments for approval by CharIN e.V.



3) Specialties to consider for the work

- a) Responsibilities and ownership of documents in correlation to the CharIN and External bodies.
 - i) Focus Group: Ownership of Presentations and minutes, Draft documents
 - ii) Standards Gremium: only relevant if referring to the CharIN work is handed over to the gremium. CharIN provides the content free of charge to the working groups of IEC /ISO/ SAE/ OCPP.
 - iii) CharIN Staff: responsible for document management system and storage of CharIN documents
 - iv) CharIN Staff process owner and in control of the platforms in use
 - v) CharIN Board: Approval of content, time and financial aspects.

4) Time

- a) Draft due date by 30.03. at the latest
- b) Final due date by 30.06. at the latest
- c) Start immediately after awarding of contract. CharIN does not require a lead time.

5) Legal requirements

- a) Copyright is with CharIN for all documents within CharIN. If Documents will be handed over to committees, the routines and copyrights have to be followed.
- b) Editorial and error correction free of charge 1 year after finishing the work.
- c) German law is applicable; jurisdiction in Berlin, Germany.

6) Relevant documents and definitions:

a) CCS Extended application profile:

CCS Basic	Basic Functions
	AC Charging DC Charging (incl. HPC = High Power Charging >> CharIN Powerclass)
CCS Extended	Smart Charging
	Local Load Balancing
	Local Load Balancing w Data connection
	Online Load Balancing
	Automatic Paying
	Plug and Charge (ISO 15118)
	Auto Charge (proprietary ohne Schnittstellenfestlegungen)
	Smart Paying
	Payment app (MSP = Mobility Service Provider)
	Payment app (ad hoc)
Credit Card (EIM = External Identification Means)	
RFID (EIM = External Identification Means)	

- b) CCS functional step model: The model explains the extended function scope. The features are mainly defined by the communication protocol ISO 15118 - but in order to be able to operate safely and with full performance, the requirements of applicable electrical norms need to be taken into consideration.
- c) Standards & CharIN documents:
 - i) ISO 15118-2 Amendments
 - ii) ISO 15118-4/-5 Test Cases
 - iii) IEC 61851-23 Ed2/Ed3
 - iv) CharIN Guidelines for Requirements or Test Cases
 - v) CharIN implementation guide for CCS Extended
 - vi) CharIN Umbrella document (referring to interop related Test Cases)
- d) CCTS Specification

Extended light (now) & no CCTS change		Extended (2024 Q4)	
Spec	Test	Spec	Test
ISO 15118-2 Ed1	ISO 15118-4 Ed2 /-5 Ed1 (refer to 15118- 2 Ed1)	ISO 15118-2 Ed2 /-3 Ed2	-4 Ed3 /-5Ed2 (not started yet)
IEC 61851-23 Ed 1 + CharIN Guide (has been used for Ed2) sync with -23 Ed2	CharIN Guide TC IEC 61851-1 (+ Parameter changes ref. -23 Ed2 delta)	IEC 61851-23 Ed2	IEC 61851-23 Ed2 (changes for CCTS)
		OCCP 2.0.1	



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