Charging Interface Initiative e.V.

Industry statement on charging infrastructure

The CharIN Vision: Developing and establishing the Combined Charging System (CCS) as the global standard for charging battery powered electric vehicles. Charging infrastructure plays a pivotal role for the market uptake of EVs, and new technological developments need to be integrated quickly in order to shorten charging times. For that reason CharIN envisions the following:

- The Combined Charging System is a worldwide standard with wide power range and functionality.
- In the coming years, multiple car makers will launch EVs of every segment (light, medium and heavy-duty), supporting higher battery capacities and faster charging, introducing an increased voltage level up to 1000 V, but always supporting full downward compatibility.
- The infrastructure will have to be prepared for this and charger manufacturers will offer DC chargers for a rollout with flexible voltage (200 V – 1000 V) accordingly, allowing higher charging power and thus higher charging speeds.[a]
- The wide range of output voltage in the CCS charging voltage ensures forward and backward compatibility with new and existing EVs.[a]
- The voltage range in the CCS standard supports the EV manufacturers in their choice of the on-board batteries and widens the range of potential battery performances for the different customer demands.
- The charging stations at the currently used voltage levels remain valuable and cover - within their period of amortization - the charging needs of today's existing EVs as well as the majority of cars to appear on the market in the next years.
- A uniform charging station technology for all vehicles offers the operators an improved utilization of the locations.[a]
- The preferred charging communication standard is ISO 15118, especially for high power charging. Chargers and EVs should nonetheless as much as possible be forward and backward compatible supporting both DIN SPEC 70121:2014 and ISO 15118 ED1.
- CharIN is working continuously on uniform certification devices and processes, and actively supports the update of standards to newest technologies, to assure safe and interoperable EVs and charging infrastructure, also at higher power levels and/or higher voltage levels.

a) This will be supported by the CCS definition of Power Classes of EV chargers, which will be introduced in 2018. A precise overview of the requirements for DC power classes will be provided by this document

Coordination Office
CharIN e. V.
c/o innos – Sperlich GmbH
Schiffbauerdamm 12
10117 Berlin

Contact
André Kaufung
Phone: +49.30.288 8388-0
Fax: +49.30.288 8388-19
E-Mail: coordination@charinev.org