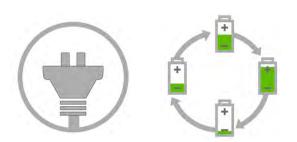


## Connection of charge points with certified interface

The data exchange between your charge points and PSIsmartcharging is based on an open and certified interface, the OCPP Open Charge Point Protocol. This enables time and cost efficient integration.

This standard defines both the use of messages between the two components for charge monitoring and control, and the behavior and data expected from the charge infrastructure and partially also from busses. While the OCPP protocol defines the messages of the interface, the actual use of the data in this context remains open. For smart charging, a clear definition can be added to the protocol which requires the appropriate expertise.



In particular, the use of the smart charging profiles must be defined which enable the secure and reliable charging of electric busses and the distribution in the depots. The energy supply limits are considered in the specification of the maximum charge power of the charge points. The smart charging profiles define the maximum energy use over time.

The OCPP protocol does not provide a standard definition for using charge profiles to ensure secure charging in case of communication loss between the charge infrastructure and the central system. The varying and incomplete realization of the smart charging profiles results in high costs for the connections between the charge points and the load and charging management system. You can avoid these costs by using a system which is "PSI ready"!

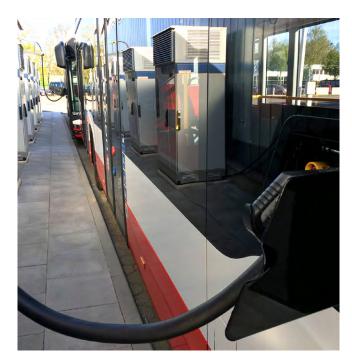


"PSI ready"

"PSI ready" offers a win-win solution for charge point manufacturers and transportation companies.

Obtaining the "PSI ready" certificate as part of the interface standardization enables charge point manufacturers to connect their charge points quickly and securely to PSIsmartcharging. Transportation companies which have already integrated the PSI load and charging management system save time and costs when integrating "PSI ready" certified charge points.

In already completed national and international projects with electric bus fleets, PSI has acquired extensive expertise regarding the requirements for public transportation and their realization in an interface. For example, the Hamburger Hochbahn uses the PSIsmartcharging module integrated in PSIebus as well as our "PSI ready" conformant realization for secure control of your charge processes in the depots.





Companies like Ecoenergetyka, ABB, ies energy, Heliox and Xcharge are already "PSI ready".









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