Position Paper of Charging Interface Initiative e.V.

Guidance: Information displayed on charging stations

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**The CharIN Vision:** Developing and establishing the Combined Charging System (CCS) as the global standard for charging battery powered electric vehicles. Full customer satisfaction during the charging process is pivotal, and thus is key for the market uptake of EVs. For this reason, it is the responsibility of the charge point operator to provide the customer with relevant and accurate information while charging.

CharIN thus proposes the following for publicly accessible charging stations (depending on the related contract and the regional requirements):

<table>
<thead>
<tr>
<th>Item</th>
<th>AC charging stations</th>
<th>DC charging stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Emergency number</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Easy-to-find identifier</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Display</td>
<td>Optional</td>
<td>Mandatory or In-App Display(^a)</td>
</tr>
<tr>
<td>Time Charged</td>
<td>Only with display</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Amount of energy delivered in kWh</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Charging power in kW</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Cumulated costs in local currency(^b)</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td>State of charge in %</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Not relevant</td>
<td>Mandatory</td>
</tr>
</tbody>
</table>

The following information should not be shown on the charging station display because it is either not relevant for the customer or cannot be calculated accurately by the charging station:

- DC voltage in Volt
- DC current in Ampere
- Remaining time until 80% SoC
- Remaining time until 100% SoC
- Time until charging is completed

\(^a\) If the charger supports an ad-hoc charging (e.g. via SMS, app or credit card) and the tariff/ costs are known to the CPO then the pricing should be clearly communicated to the customer upfront (e.g. via charger display, app, website, label, QR-code etc.).

\(^b\) In case the DC charging station does not have a display easy access to a smartphone or tablet application displaying this data must be provided by the charge point operator.
Reference

This document was created by the focus group Charging Infrastructure of the CharIN association.

The focus group has the following goals:

- Harmonization of the ramp-up of CCS charging infrastructure and the involved charging process based on the market needs
- Removing market entry barriers for EV owners, charge point operators and manufacturers