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EXPANDABLE STATUS DISPLAY OF A CHARGING POLE

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Actual situation:
Fast charging stations currently on the market have a display unit built directly onto the charging station to indicate the status. This unit displays information on payment, the charging process itself and other information. As soon as a charging point can be reserved for the future user, this information is also displayed. The customer is informed that this charging point is currently reserved and cannot be used. The driver of an electric vehicle can only find out this information after the manoeuvring and parking process. This leads, among other things, to having to park again.

Aim of the invention:
In the context of the present invention, a display unit is to be developed which shows the customer the status of the respective charging point from a distance already when approaching a charging infrastructure. The position of the display or the display unit must be selected in such a way that it cannot be obscured by parked vehicles or other obstacles.
On the display, a charging point (e.g. 1) can be numbered by simply displaying numbers and thus a simple parking/charging guidance system can be realised. Furthermore, information regarding an upcoming reservation of the charging point (e.g. Reserved from 4 pm) can be displayed. The status of the charging point can also be clearly displayed from a distance. (FREE - green, Charging - pulsating, Reserved - red, Defective, etc.).
Communication between the charging pole and the display unit or between the display unit and the Service Area Management is necessary to detect the charging point. This interface can be wired, wireless local or via a cloud system. The respective information is then to be exchanged via the corresponding parameters (e.g. charging information via ISO15118 or OCP).

Figure 1: Expandable display unit decoupled from the charging pole