



S.A.F.E. e.V. | Karl-Marx-Allee 71 | 10178 Berlin

## **S.A.F.E. e.V. Position paper**

on

# **Common standardization and pragmatism for ad-hoc charging and direct payment in accordance with calibration law**

## **1 Introduction**

The Software Alliance for E-mobility (S.A.F.E. e.V.) is an association of more than 100 German and international manufacturers, charging station operators, and mobility service providers with the goal of providing uniform transparency software that complies with calibration law. A common transparency software for electromobility in Germany brings the consumer a simple and uniform way to check billing data for validity.

Calibration law is the central pillar for consumer protection and transparency and forms the basis for the correct billing of the amount of energy charged during the charging process. Without consumer trust, the switch to zero-emission mobility would be made much more difficult. The requirements of calibration law, which are specified by the PTB, must also fit the technical conditions in the market and be able to be implemented by the market participants with reasonable effort. This is the only way to achieve the common goal of accelerating the ramp-up of electromobility.

This currently applies to the development of direct payment solutions for ad-hoc charging.

## 2 S.A.F.E. e.V. Position

At present, a contradiction between the current German regulation on public charging stations (Ladesäulenverordnung) and the interpretation of the calibration law prevents the rapid expansion of further charging stations, since the Charging Station Regulation requires the acceptance of anonymous charging processes via direct payment methods, while user identification is required to comply with the calibration law. This contradiction means that the solutions currently conceivable would be very costly to implement, both technically and organizationally.

**Therefore, S.A.F.E. e.V. rejects the basic consideration of technical functions to handle the payment process as relevant to calibration law. Instead, the two areas of competence in consumer protection, namely calibration law and the Payment Services Directive (PSD2), should be delimited strictly.**

- Clear separation between metering and pricing.
- Correctness of metering values is assured by the metrology system.
- Accurate pricing of metered amounts is assured by the payment system, consisting of a piece of software calculating the price and means for executing the payment, e.g. a payment terminal.

### 2.1.1 Justification

The calibration law regulates the correct recording and use of measured values, here in particular meter values from the electrical energy meters of the charging points. The Payment Services Directive specifies the rules for billing goods and services. After the correct recording of the reference quantity to be billed as well as a clear and traceable assignment to a charging process at a charging point, the transaction can be transferred to the payment system, in a forgery-proof manner. From this point on, the rules and laws of payment transactions provide the necessary consumer protection.

The analogy to this procedure can be found at every cash register at a grocery store, where the receipt documents the information quantity and price, but the scale does not require the unit price for this purpose.

### 2.1.2 Application proposal

As before, the charging system or the logical measuring capsule contained therein contains all functions for recording the amount of energy, signing the measured values including time and ID for assignment to a user transaction. The payment system has to meet the requirement that a transaction may only lead to billing if the measurement data is available, can be validated and has been signed by the respective assigned measurement system. The metering system is responsible for correctly recording the amount of energy transferred during a charging process and indisputably assigning it to the charging transaction. The payment system is responsible for processing the payment transaction including the computation of the total price. The payment system relies on the metering data recorded for the charging transaction by the metering system.



### 2.1.3 Evaluation

To evaluate the proposed solution, the approaches commonly used today are compared with the approach discussed here:

Current approach	SAFE proposal	Evaluation
User identification is linked to the measurement data in the metering capsule.	The payment transaction includes a link to the measurement data of the related charging transaction.	There is no need to lift anonymity during the payment process, nor is there any need for costly certification.
Payment terminals, which are part of the payment system, currently fall under the regulations of the calibration law.	Payment systems remain under the requirements of the Payment Services Directive.	Card payment at charging stations remains secure under the Payment Services Directive.
The tariff is linked to the measurement data in the metering capsule.	The tariff is linked to the payment transaction in the payment system.	<p>The measurement data is used in the payment system in a comprehensible and secure way for tariffing without having to extend all interfaces and systems.</p> <p>Major advantage is that with this solution customized business models (like club charging which enable discounts are possible) SAFE is arguing for competitive solutions and business models.</p>

## 3 Conclusion

With a regulatory implementation of the proposed solution, S.A.F.E. e. V is convinced an efficient coexistence of the customer needs on reliability and transparency, and the needs of the payment system industries and the charging industry for flexibility and competitive of the industry concerning "Eichrecht" is possible.

To ensure an innovative and competitive market environment, we urge regulators to take the proposal of S.A.F.E. in consideration.

### Contact

Dr. Matthias Grote

Branch Manager

Matthias.grote@safe-ev.de