SCALE

SCALE INSIGHTS

TECHNICAL REQUIREMENTS FOR SMART AND BIDIRECTIONAL CHARGING

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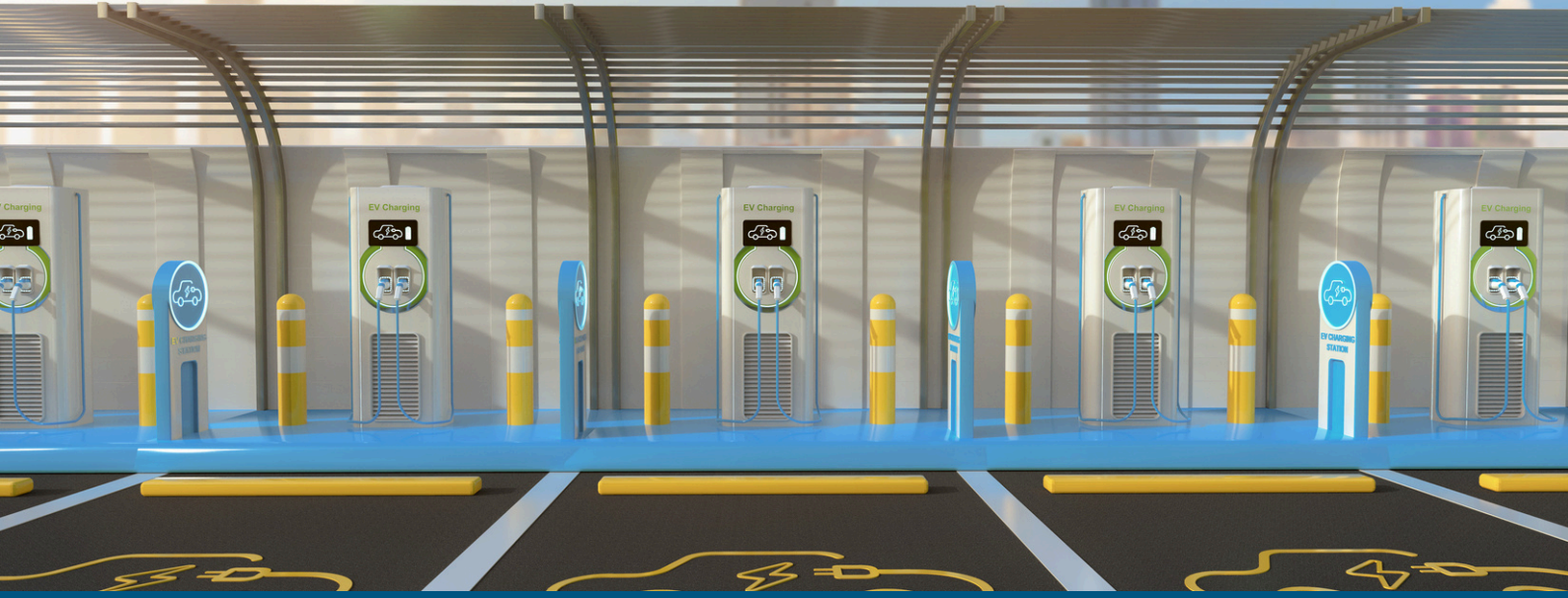
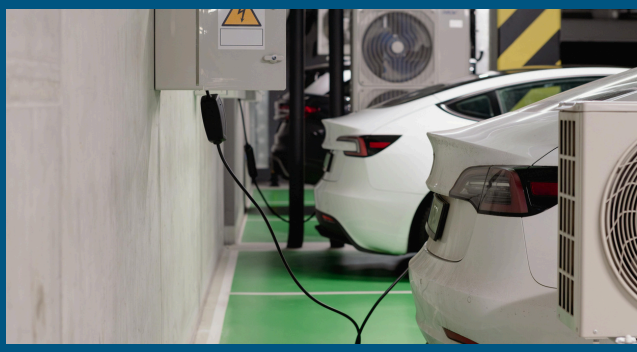


GUIDELINES FOR CHARGING INFRASTRUCTURE

European regulations such as AFIR, EPBD, and RED III require that charging infrastructure must be smart-controllable, especially for new charge points. Bidirectional charging, where vehicles can be charged and also return electricity to the grid, is strongly encouraged due to its potential to help balance the electricity system. However, a concrete translation into technical requirements has been missing until now. ElaadNL has taken the initiative and written Technical requirements for purchasing and operating smart and bidirectional charging infrastructure.

These technical requirements form part of the SCALE project's Guidelines for procuring smart and bidirectional charging infrastructure.



These technical requirements summarize a minimal and uniform set of recommendations for purchasing and operating smart and bidirectional charging infrastructure. They compile existing standards and protocols with the aim to provide clarity to all stakeholders. It uses the current state of technology as a foundation to ensure the deployment of future-proof EV charging infrastructure in the coming years. Furthermore, the guidelines provide consumers with a concrete perspective for actively participating in the energy market.

These requirements have been developed based on extensive practical experience from the European project SCALE, public tenders for charging infrastructure across Europe, and findings from the Elaad Testlab. A draft version has been shared with a broad group of European stakeholders, including charge point manufacturers, charge point operators, mobility service providers, grid operators, energy suppliers, flexibility service providers, electric vehicle manufacturers, software companies, municipalities and provinces, research and knowledge institutions, and consultancies.

SUCCESSOR TO THE SMART CHARGING REQUIREMENTS

The SCALE procurement guidelines, including these technical requirements, will be submitted to the EU Smart Energy Expert Group to support the European Commission in the development of additional legislation.

Smart and bidirectional charging makes the mobility transition more accessible to consumers, enhances the flexibility of the electricity system, and contributes to a stable, efficient, and sustainable energy system.

The guidelines have been developed as part of the European SCALE project and the Dutch programme Smart Charging for Everyone, which is part of the National Charging Infrastructure Agenda (NAL).

"We are proud of this milestone. It is an important step toward harmonised and future-proof charging infrastructure in Europe. The broad input on the draft version shows there is strong support to jointly advance smart and sustainable charging."

Frank Geerts - Program Director at Elaad

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READ ABOUT THE REQUIREMENTS FOR PURCHASING AND OPERATING SMART AND BIDIRECTIONAL CHARGING INFRASTRUCTURE

READ THE SCALE DELIVERABLE 5.4 - GUIDELINES FOR A JOINT PROCUREMENT PROGRAM FOR V2X/SMART CHARGING INFRASTRUCTURE