

MoBILE

Modular battery storage systems linked to intelligent charging infrastructure for electric vehicles



Key Facts



Funding Agency

Ministry of the Environment, Climate Protection and the Energy Sector Baden-Württemberg



Duration

10/2019 - 07/2021



Coordinator

European Institute for Energy Research (EIFER)



Partners

- KIT-IEH
- Stadtwerke Hockenheim
- emodrom rental GmbH
- Framatome GmbH / covalion (associated)

Pilotprojekt „Intelligente Netzanbindung von Parkhäusern und Tiefgaragen (INPUT)“ im Rahmen des Strategiedialogs Automobilwirtschaft Baden-Württemberg.



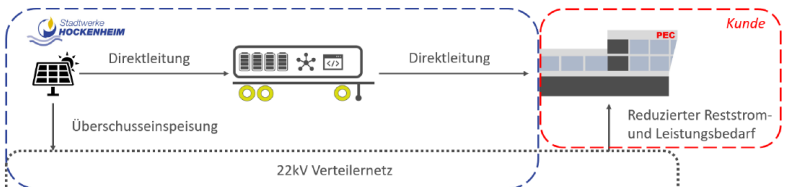
Ministerium für Umwelt, Klima und Energiewirtschaft Baden-Württemberg

strategiedialog
automobilwirtschaft BW

Project Objectives

The MoBILE project is testing the value proposition of a mobile and modular battery system including congestion management and other service provisions to the distribution grid. The project thus acts as a lighthouse for the grid-friendly deployment of e-mobility in the Federal State of Baden-Württemberg.

An expandable battery container stacked with lithium-ion battery cells is tested at the Hockenheim race track and event location. Amongst others, the storage system aims at reducing peak loads induced by high-performance charging stations (350kW) installed at the new Porsche Experience Center and in other locations around the race track.



EIFER's Contribution

- Development of scenarios on future grid load, techno-economic and regulatory assessment of battery use cases and implementation of a real-time battery data monitoring system
- Project coordination

Key Outcomes

Demonstration of a successful integration of the battery storage system into the local distribution grid infrastructure, allowing to:

- manage network congestions and delay a grid extension in scenarios of increasing electromobility needs;
- partly replace fossil-driven backup solutions during events;
- test new business models (e.g. peak-load shaving or local green energy supply), depending on regulatory developments.

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