

# From electric vehicles to energy storage: EVA is forging a link with the future



A new and innovative topic, however, is the construction of stationary energy stores. In the stationary sector, EVA has been able to apply its incredible competence in the field of automotive high-voltage batteries for the construction of several prototypes. The bandwidth extends from small systems for typical single-family houses up to the megawatt range that enables electricity to be stored on a massive scale.

The yield obtainable from a solar power system is easily predictable these days. The efficient interaction between power generation, power storage and intelligent power consumption, however, demands a certain level of intelligence in the home system. In this respect, the "smart home" symbolizes the house of the future, where green energy is delivered to the location of use on demand by the stationary energy store. This applies equally to the charging of electric vehicles and to the operation of energy-hungry household appliances. For example, the electric heat pump for central heating and domestic hot water or the washing machine can be controlled and operated according to demand. Like an electric vehicle which always has its energy supply on board, an entire house could be supplied with power almost autonomously.



Stationary energy stores made from used electric vehicle batteries are of interest, however, not only for private domestic use. In larger configurations they are also suitable for industrial companies that want to cover their demand either partially or wholly with their own solar or wind energy systems. By bundling a large number of individual storage units, for example, peaks in consumption can be leveled out and energy costs significantly reduced. And when you start thinking on an even larger scale, completely new opportunities arise for the energy sector. By connecting a large number of storage units in series, the public grid can be stabilized, meaning that it would no longer be necessary to build expensive new power lines. Instead, further progress could be made in climate and environmental protection by buffering the green electricity from various sources in megawatt storage systems and feeding the power intelligently into the grid.

It makes far more ecological sense to give the batteries a "second life", which is the subject of intensive research at EVA's Heidemannstrasse premises in Munich. In its laboratory for new energy storage technologies, EVA Fahrzeugtechnik GmbH has already developed several prototypes that demonstrate how this "afterlife" could appear in practice.

## The Webinar as Video

Optimising battery development for electric vehicles and stationary applications.

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