NIEMOB

GRID-SERVING INTEGRAL ELECTRIC MOBILITY - ENERGY MANAGEMENT SYSTEM FOR DECENTRAL ENERGY SUPPLY SYSTEMS

The R&D project NiEMob, Grid-Serving Integral Electromobility - energy management system for decentralized energy supply systems, is conducted as part of the ZIM network IntelliZell.

The focus of the cluster management is the development of concepts for intelligent energy distribution that lead to a reduction in the load on the grid at cell level. The aim of the cluster is to use renewable energies, especially in electromobility, to achieve a significantly better energy and cost efficiency in the electrical distribution networks. Klaus Nagl, founder and Managing Director of project partner Consolinno Energy, adds “it is a future-proof tool for the provision of network and system services from the low-voltage level and thus an economical alternative to conventional network expansion or transformer construction."

With the support of the cluster, the project partner OTH Regensburg is paying particular attention to the development of a network energy manager. Based on comprehensive load flow simulations, the device will identify the degrees of freedom (voltage and power sensitivities) in the operation of the distribution network. "It will investigate which network and system services, such as the improvement of the voltage quality or the provision of reactive power from e-charging stations can be provided and what effects are to be expected from this on charging strategies, ”explains Prof. Oliver Brückl, who collaborates with his department in the ZIM project. For the BMWi, he is currently determining how much the need for reactive power in the entire German power grid will be in the future.