

Super Smart Charging Hubs

A **Super Smart Charging Hub (SSCH)** addresses grid congestion problems caused by increased energy demand from electric vehicles and increased supply of renewable energy. It will match supply and demand and reduce peaks on the grid.

Grid congestion

A SSCH reduces the peaks in demand and supply on the electricity grid, avoiding grid reinforcements and making it possible to create more electricity connections.

The 'computerchip'

Real-time data exchange between all components of the SSCH is essential to coordinate energy demand, storage, and supply, enabling predictive control and seamless optimization across the entire system.

V2G charging stations

The bi-directional charging stations (Vehicle to Grid, V2G) enable the use of the battery of the electric vehicles (batteries on wheels!) to balance the grid.

Cars

The (shared) electric vehicles are charged and discharged, making use of dynamic electricity prices, making charging cheaper while at the same time combatting grid congestion.

The battery

The battery serves, like electric vehicles, as electricity storage. For instance, when solar energy is generated that is not used at that moment.

Buildings

The (office) buildings and houses connected to the SSCH can make use of the renewable energy locally generated or stored electricity against optimised prices.

