

Partners involved









B/S/H/





Associated Partners





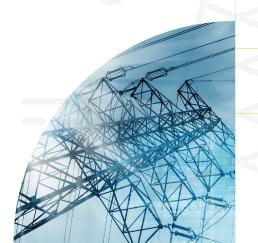
Location



Objectives

We want your house to be part of the energy transition we are developing in the city of Norderstedt. Our goals are:

- → Manage overload and underload scenarios using bi-directional communication from grid to device level via an Energy Management System (EMS).
- → Installation of the EMS to aggregate energy demands and offers, manage flexibilities and grid commands.
- → Manage flexibilities to provide grid services and to optimize energy costs.
- → Show real interoperability through use of various manufacturers
- → Demonstrate transition of mobility and heating as well as transition to renewable energy productions at no grid expansion.



Technologies & Infrastructure



Installed in the city of Norderstedt.
The following technologies will be part of the residential demo of the German pilot:

Smart meter gateway



Certified and secure communication entry point to enable safe communication and interaction between market and grid on the one side and buildings with their smart devices on the other side.

Energy manager



Central logic inside the building, monitors power consumption of connected devices (e.g., charging stations). The EMS receives from Stadtwerke Norderstedt. The user interface allows visualization of current and future energy behaviour.

HVAC system



Intelligent heat pump system for heating and domestic hot water. Manageable from the energy manager to be react on time of use tariffs or power limitation commands from the grid.

EV charging station



Electric charge station for EVs with smart/IP interface to connect to the energy manager.

PV system



Roof top PV system be part from the intelligent energy management system.

Dishwasher/washing machine/ tumble dryer



Intelligent appliances will be managed by the energy manager.