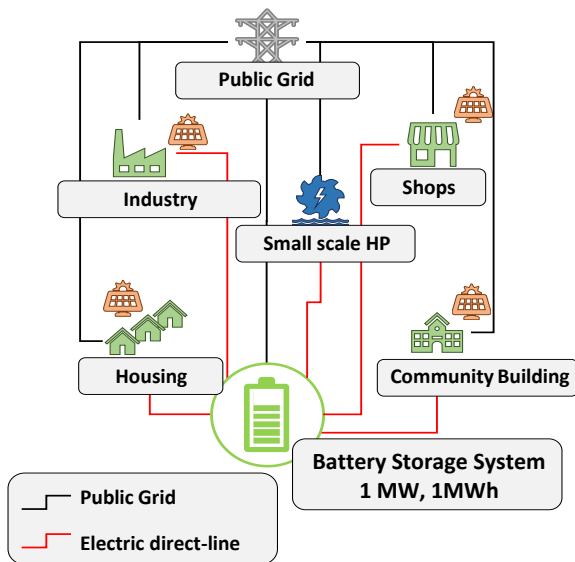


Feldbach battery storage system for an increased own-consumption of renewable energy sources

**Project period:** April 2018 until März 2021

*The project FeldBatt aims at the development and testing of a concept for a profitable operation of a multi-building, multi-user battery energy storage system within the urban setting of Feldbach. The deployment of the storage system will increase the self-consumption of the local renewable generation (PV and small hydropower) by using electrical direct-lines*

The current paradigm shift in energy economics towards an increasing share of decentralised renewable energy sources (RES) leads to a higher strain on transmission and distribution grids as well as problems with voltage quality in distribution grids. Additional challenges for trading with renewable generation as well for the optimisation of self-consumption due to the volatility of RES arise. To tackle these challenges flexibilities, especially battery energy storage systems, are in the focus of the current developments. During the project FeldBatt an optimised utilisation of a multi-building, multi-user battery energy storage system employing a multimodal deployment strategy – such as self-consumption optimisation, emergency power during blackouts, etc - , will be developed and tested. To enable the possibility of black out power supply, a use of electrical direct lines between the prosumers and the battery will be implemented. The battery energy storage system (Power: 1 MW, Capacity: 1 MWh) will become a neuralgic point within the city of Feldbach.



**Goals of the project FeldBatt:**

- ❖ Implementation of a demonstrator and testing of the developed business models and control algorithms under “real-life” conditions
- ❖ Increase of self-consumption of local RES to 100%
- ❖ Reduction of the electricity costs of involved prosumers by at least 10%
- ❖ Ensure the profitability of the battery energy storage system by employing different control strategies
- ❖ Emergency supply of relevant infrastructure in case of a blackout for 1-3 days

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- ❖ Sprecher Automation GmbH
- ❖ SEPH GmbH

