## Using a microgrid setup for testing the concept of gridfriendly energy communities in the Project GrECCo

Evi Kasper, Sylvia Wüst, Prof. Dr. Michael Schmidt

### **Objectives of lab test**

- Test communication and interfaces between coordination, grid operators and prosumers
- Test and demonstrate functionalities of the coordination algorithm and the local prosumer controls



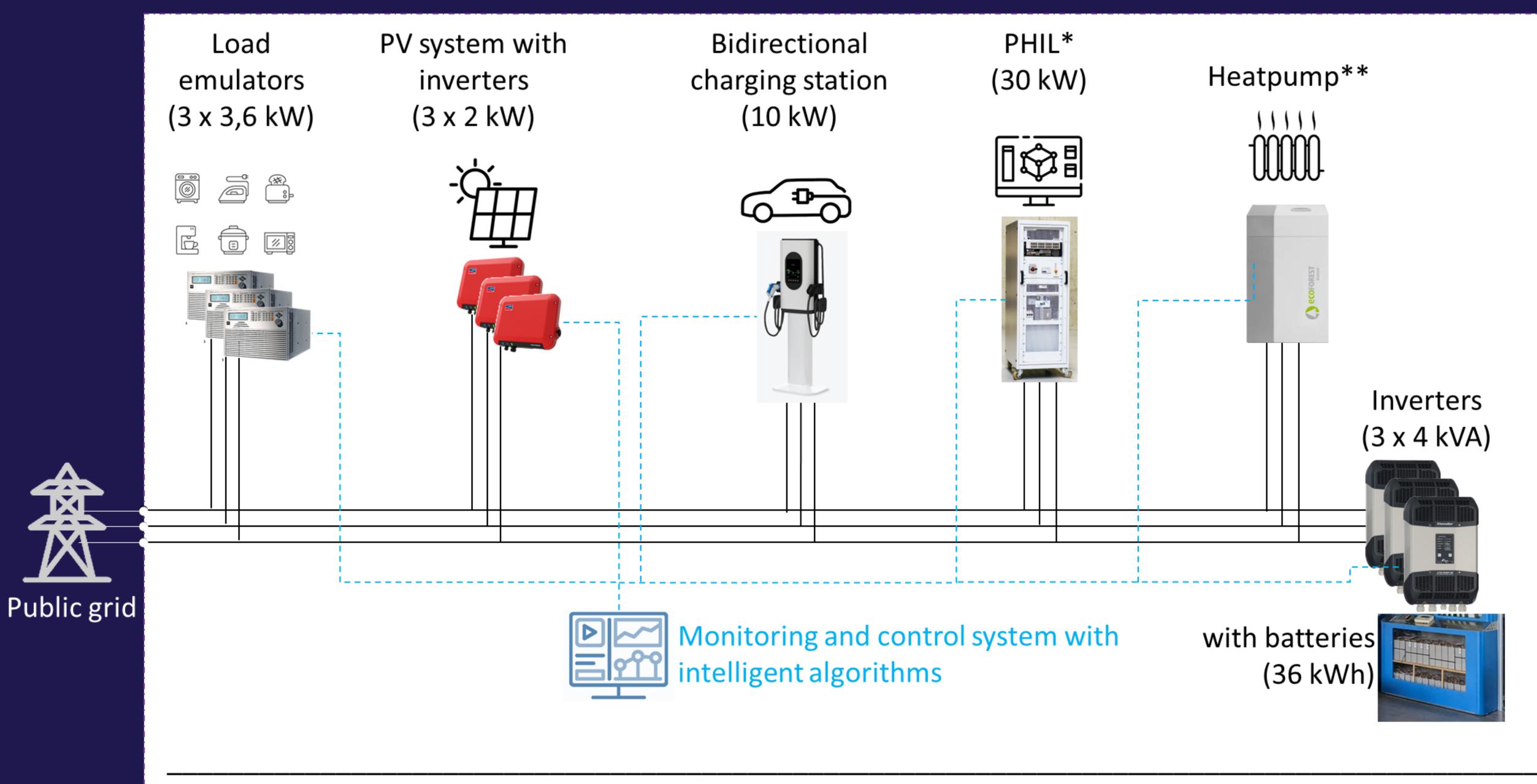
Take a look at our microgrid!

Center for

Renewable

# How does grid-friendly flexibility coordination work for a prosumer?

Microgrid at Institute for Sustainable Energy Systems (INES), Hochschule Offenburg

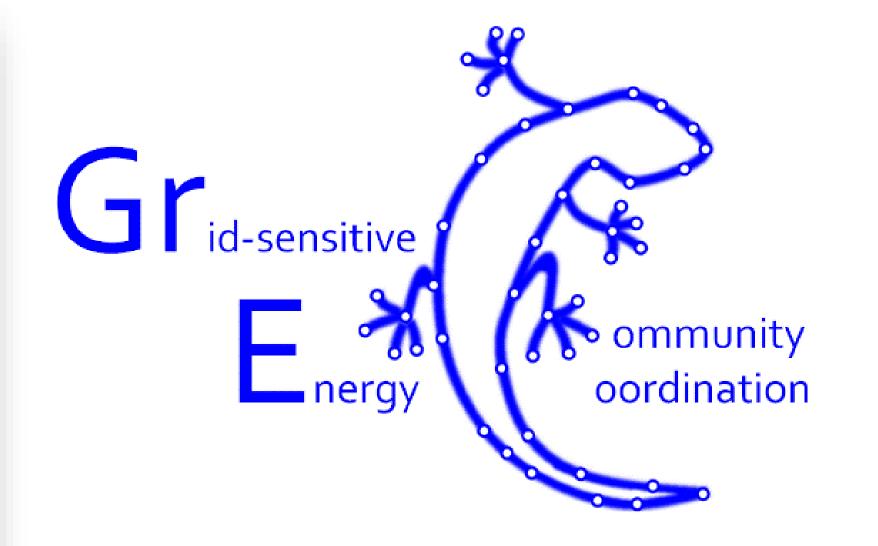


- The PHIL (Power Hardware in the Loop) system is a test environment in which real hardware components interact with virtual models to perform complex power grid simulations and validate power electronics.
- \*\* Under construction together with the Energy Efficient Building Technology research group.



Download the poster

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### **Key functionalities**

- Emulation of flexibilities controlled by IMTEK algorithms
- Implementation of interfaces used by OLI Systems and badenovaNETZE
- Joint operation of coordination algorithm, grid simulation and local prosumer controls

#### **Project Partners**















