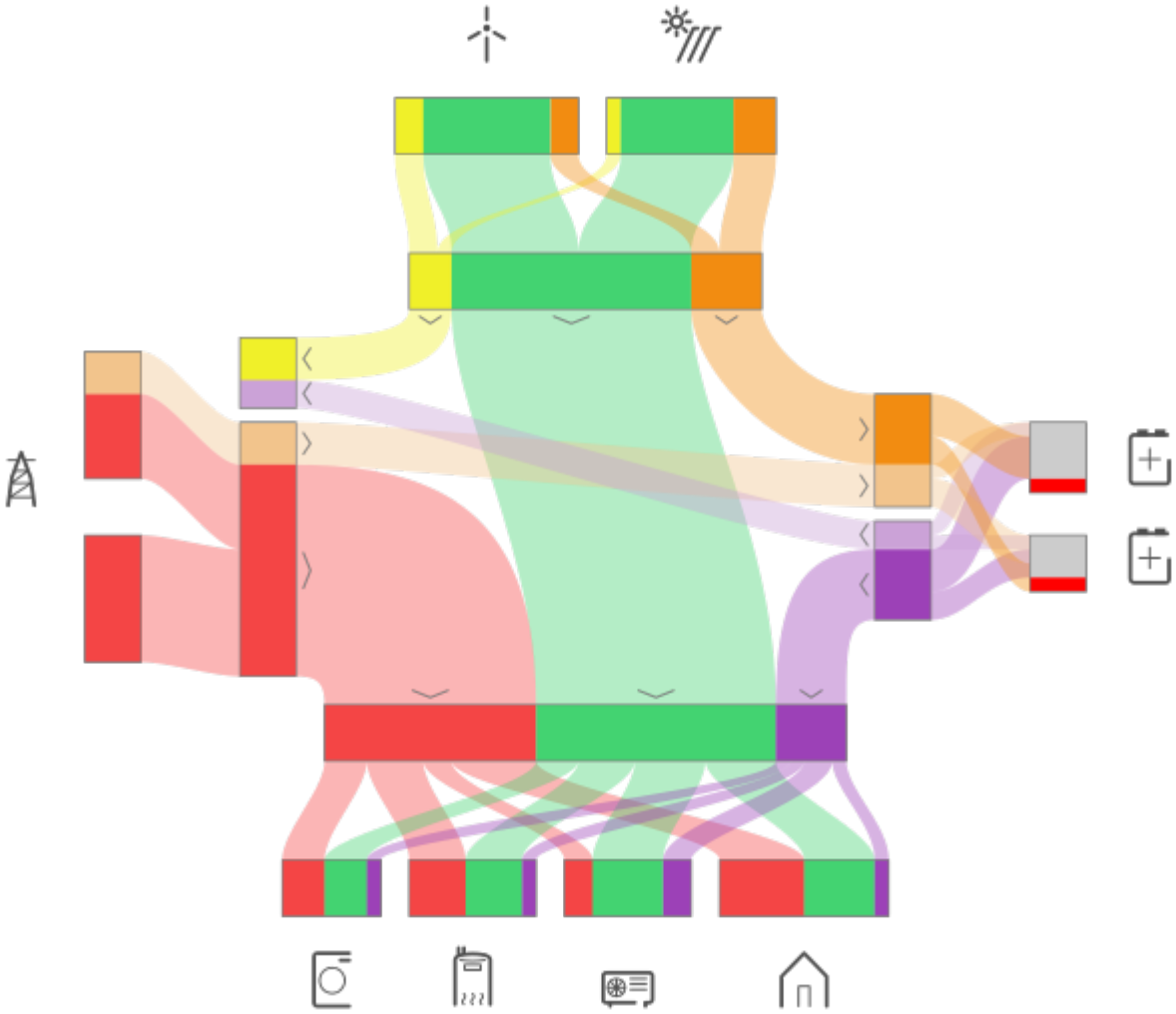
# HEMS Introduction

Home Energy Management System (HEMS) is a system for:

- monitoring electricity flows at home (consumption, production and storage),
- control of key consumers,
- optimizing consumption in terms of reducing consumption and using cheaper energy to ensure the same comfort with lower costs.



## HEMS Controller

It consists of an HEMS master controller (MC-230).

## Power sensors

The measurement of electrical power and energy of all energy sources and main electrical consumers is provided by single-phase (PM1-E-D) and three-phase (PM3-I-D and PM3-E-D) power sensors which are connected directly to HEMS master controller MC-230. It supports:

- **1 grid** power sensor
- up to **3** sensors for local power **plants** (PV, Wind, Cogeneration, Generator, etc)
- up to **2** local **storage** systems (home battery)
- up to **4** managed **consumers** (electrical heating, electrical water heater, washing machine, tumble dryer, ...)

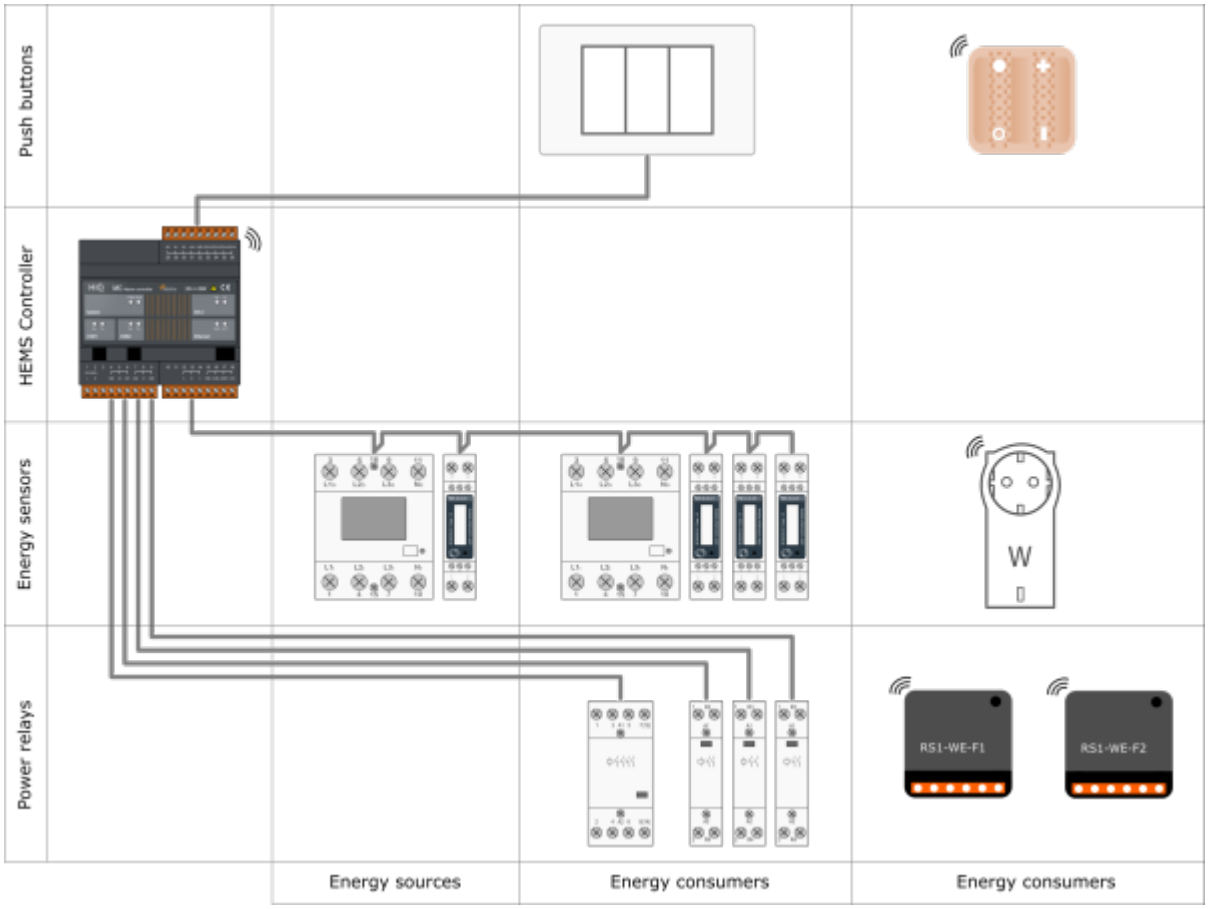
The measurement of main electrical consumers is also possible with wireless modules (Metering smart plug and Micro smart plug) which are paired to HEMS master controller MC-230. It supports up to **8** managed **consumers**.

## Power relays

Are used for control of managed consumers. Power relays are toggling power supply or enabling signal for the operation of the device. They are controlled directly from HEMS master controller MC-230.

## Push buttons

Are used for manual control of managed devices. Push buttons are directly wired or paired (Soft remote) and to HEMS master controller MC-230.



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