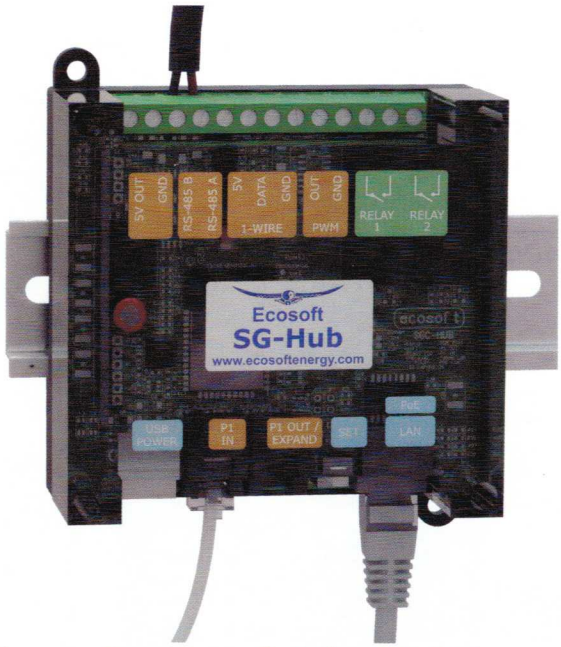
ECOSOFT

Smart Grid Hub

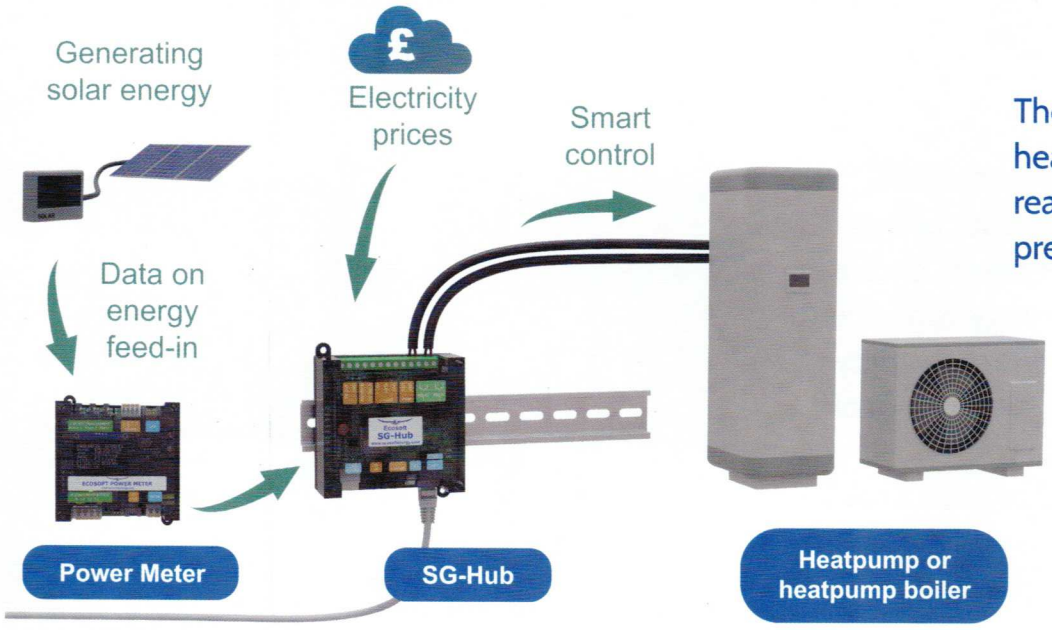
Take control of your energy consumption

The Smart Grid Hub (or SG-Hub) is designed to monitor and control energy consumption. To do so it gathers information about energy use, available solar energy, temperature, energy prices and other variables like the time of day when energy is used most. Using this information it can control a heat pump to work more efficient by using energy when it is cheap or by using surplus energy from solar panels.



How does it work:

THe SG-Hub is connected to the Ecosoft Power Meter so it can closely monitor the home power-use. It can also be connected to our server to get the daily energy prices, outside local temparature readings and predictions.
In the setup, variables like price-thresholds and time schedules can be set, so that the SG-Hub knows when hot water or extra heating is likely needed.



The SG-Hub controls the heat pump based on real-time information and predicted energy demand,

Ready for the future:

Ecosoft is always working to improve our products and add new functionality. The SG-Hub will be updated regularly. A coming new feature will be a self-learning capability to make installation simpler.

Smart Grid Hub

Technical connections SG-Hub:

For connecting to a heat pump, solar energy converter or other controllable energy consumers, the SG-Hub has multiple input and output possibilities:

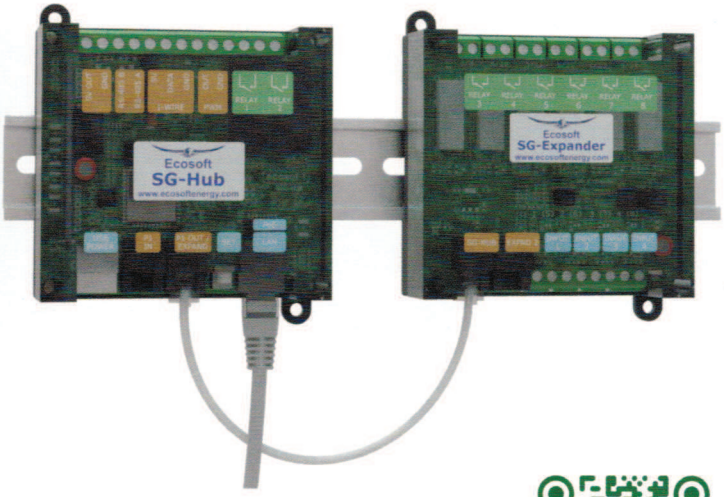
- **2 relays (e.g. for SG ready contacts)**
- **RS-485 wired Modbus**
- **Modbus TCP**
- **P1 (power meter input)**
- **1-wire temperature input (DS18)**
- **Expander connection**
- **Ethernet**
- **WiFi**

Ecosoft Power Meter

To correctly measure the power consumption or power surplus of the home-grid, the Ecosoft Power Meter is connected to the mains connection by a clamp. The measurement is directly communicated with the SG-Hub using a P1 protocol / connection, so it can monitor the home-grid in real-time. This way the SG-Hub can react immediately on changes in the power consumption.

Ecosoft Expander (take more control)

Although one of the main purposes of the SG-Hub is to control the heat pump, because this is probably the biggest energy consuming device, it is also possible to control a variety of other devices by switching relays on or off. The SG-Hub can control up to two Expanders, making it possible to have a total of 14 relays that can be used to add more functionality to the SG-Hub



Ecosoft Energy
Blauw-roodlaan 140
2718 SK Zoetermeer
The Netherlands

www.ecosoftenergy.com
Smart devices for smart energy use