



# *The Solar Linkage for your charging station*

Every homeowner with an **own photovoltaic system** wishes, to charge his electric vehicle with the **self-generated electricity**.

***But how do you optimally combine the photovoltaic system with the charging station?***

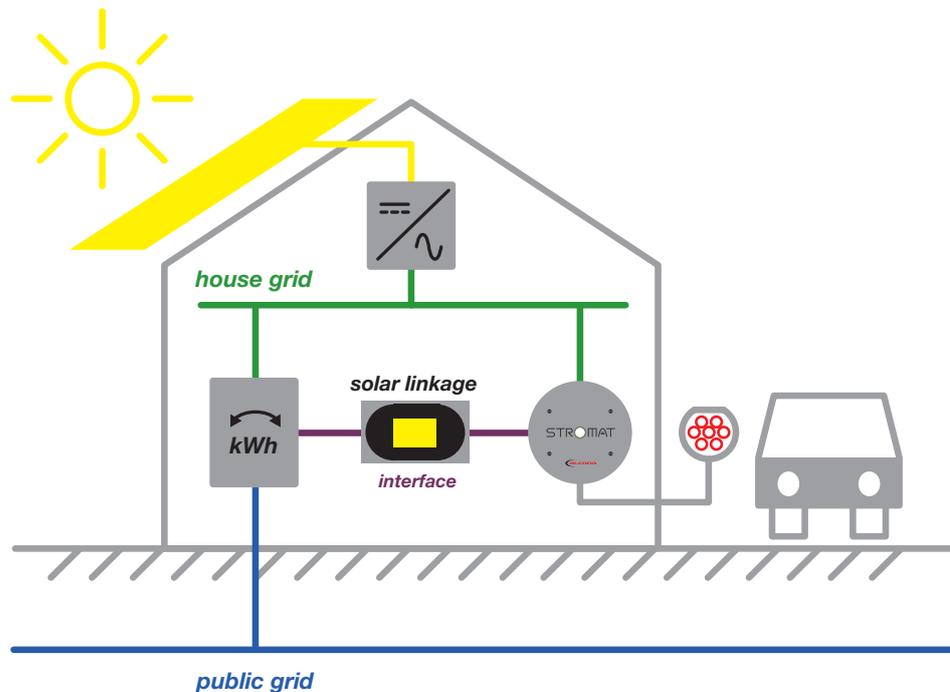
The solar system produces variable current according to the solar radiation. **Generated energy**, less self-consumed energy, will be fed into the **public grid**. If the own consumption exceeds the own production, the following is applied accordingly from the public grid

The procurement costs from the public network are usually higher than the feed-in tariff.

If a „standard“-wallbox is used to load the e-vehicle, **static charging** takes place. This means that the car is charged with a fixed power - independent of the current condition of the photovoltaic system and the remaining own consumption. This process leads to **inefficient procedures** and increases both, the supply of external electricity from the public grid, as well as the **unprofitable feed-in** from itself generated energy into the network.

alcona Automation GmbH has created a solution, which regulates the charge of the electric vehicle **dynamically** depending on the **current energy balance** of the house.

The aim here is to supply only so much energy to the car, as is available as a **surplus**.



## Functioning

An **additional energy meter** is installed in the electrical distribution system, which records both **electricity consumption and excess electricity**. This energy meter is connected to the **Solar Linkage** from the manufacturer. Based on the current energy balance, this device determines the optimum charging current for the electric car and informs the STROMAT of this information via the interface.



The **Solar Linkage** can be used by the operator both in solar mode (optimum charge based on energy balance) and in manual mode (0..100 %).

Depending on the current surplus, your vehicle will always be optimally charged with the **Solar Linkage**. This means that **100 percent solar power reaches your car!**

The controller has an **integrated LAN interface** for networking with the home network as well as with the Internet. This allows you to connect **remotely** to the **Solar Linkage** and make all settings.

Each STROMAT wall box is already prepared for connection to the **Solar Linkage**. The devices will be installed by a specialist company.