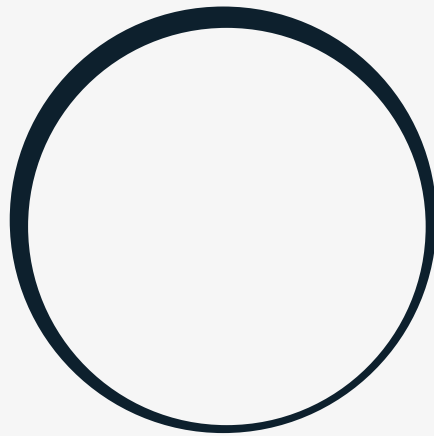




sonnen

Clean and affordable energy  
for everyone is the biggest  
challenge of our time.

Our goal is a world in which everyone is able to cover their energy needs with a decentralized and clean energy source.



sonnen

energy is yours

# sonnen

## European market leader for lithium storage systems



multiple awards

- » Market experience since 2010
- » More than 13.000 systems sold worldwide
- » HQ in Germany, daughter company in USA (HQ in Los Angeles, CA, R&D in Atlanta, GA)
- » Numerous international locations (e.g. UK, Italy, Australia)
- » Premium quality „Made in Germany“

# The sonnenTimeline

**2008**  
Start  
of  
R&D

**2010**  
Company  
foundation

**2011**  
sonnenBatterie  
classic/comfort



**2013** → Eco 5  
**2014** → Eco 6  
**2015** → Eco 7



**Today**  
Eco 8  
smartPlugs  
Smart grid  
services



**2017**  
Eco 8  
sB pro  
Hybrid  
sonnenHeater  
sonnenThermostate  
Smart grid services

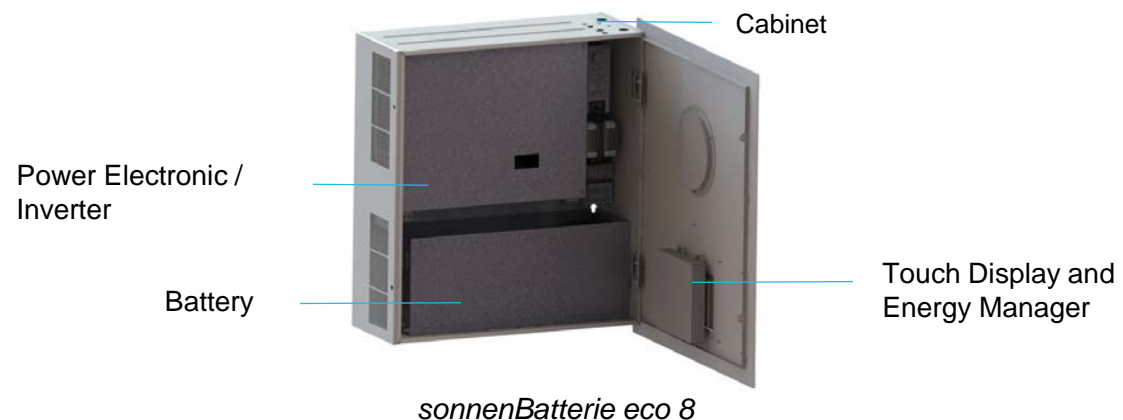




The sonnenBatterie Eco 8

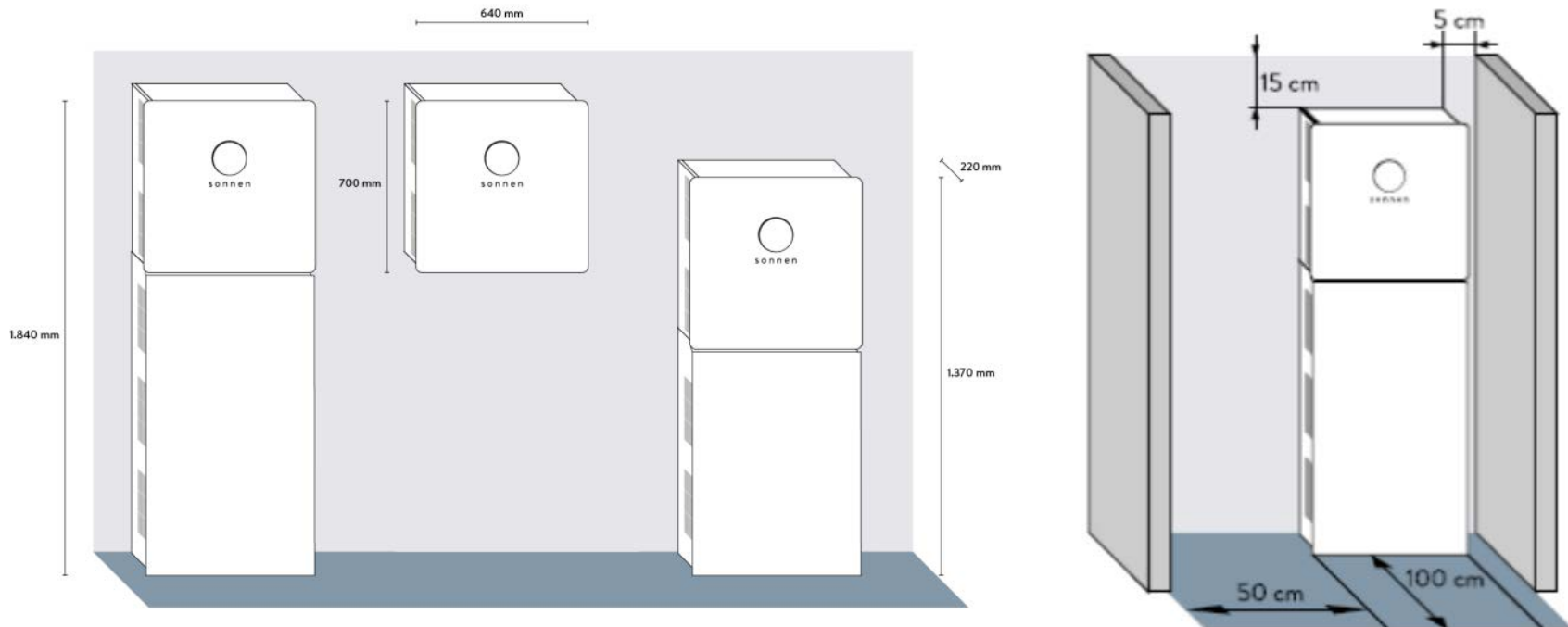
# sonnenBatterie Eco 8

- » **Fully integrated system** (battery pack, inverter & energy manager)
- » AC-coupled, Plug & Play installation – easy to install
- » Safe and reliable Lithium-Iron-Phosphate technology designed for a long operational life span
- » Modular setup (4 kWh to 16 kWh, extendable in 2 kWh steps)
- » User-friendly energy management and monitoring





# sonnenBatterie Eco 8



quick and easy plug & play installation

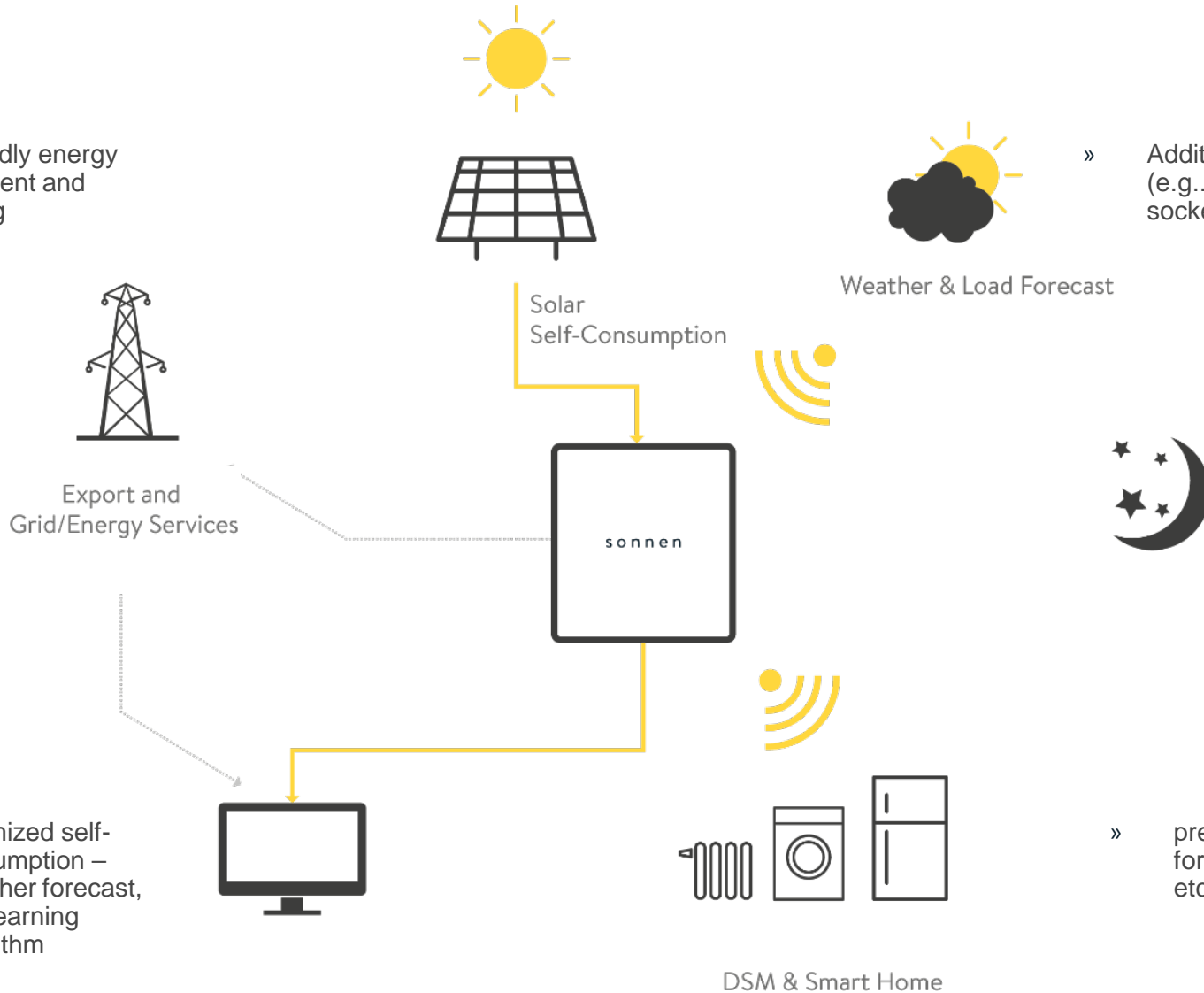
small (up to 10kwh) and large (up to 16kwh) cabinet available

22cm in depth & only very small installation space needed

# sonnenBatterie Eco 8

» User-friendly energy management and monitoring

» Additional -features (e.g.. WiFi, remote sockets, web and app)



» Optimized self-consumption – Weather forecast, self-learning algorithm

» preinstalled ports e.g. for heat pumps, CHP etc.

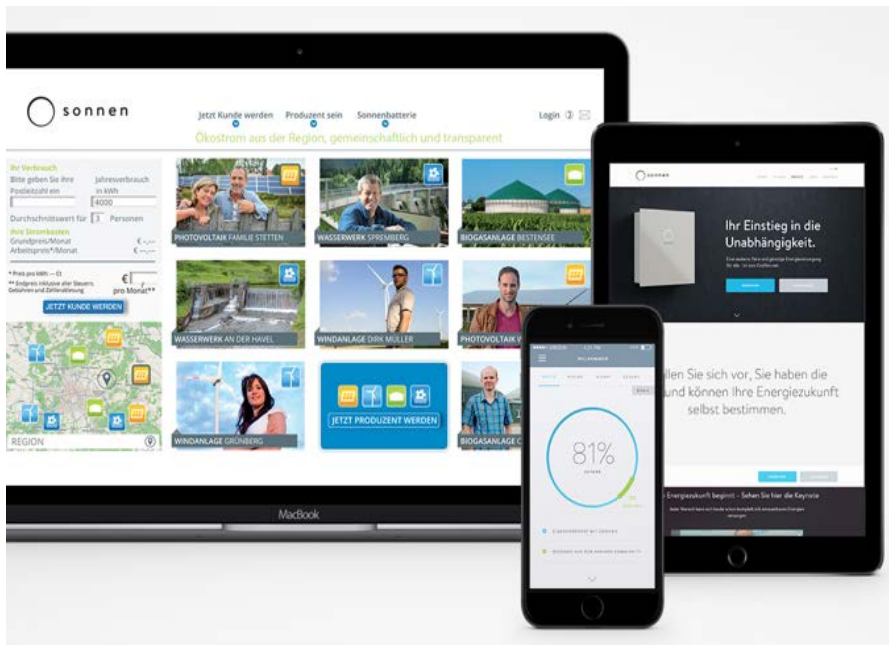
# Top 10 USP's sonnenBatterie Eco 8

ECO 8  
A unique capability  
portfolio

- ▶ **„All in one box“** - Fully integrated storage system, including battery pack (LiFePO4 cell technology), a battery inverter and intelligent control software
- ▶ **Modular** - Modular extendable capacity in 2 kWh steps (4 to 16 kWh) to be perfectly applied to meet the customers needs and its energy consumption
- ▶ **Safety** - Safest cell technology on the market; vital point when installed in households
- ▶ **Cycle-Life** - Lithium-Ion-Phosphate battery (developed from Sony) with 10.000 cycles and designed for more than 20 years
- ▶ **Intelligent** - Shows data from production and consumption side, provides historic data of previous consumptions and uses the weather forecast to optimize the customer's self-sufficiency rate up to 75 % average in a year
- ▶ **Data Visibility** - Customer and Partner can monitor the consumption and energy production via an app available in the app store or a web portal
- ▶ **Plug & Play** - Customer and Partner can monitor the consumption and energy production via an app available in the app store or a web portal
- ▶ **Proof of Concept** - more than 12.000 Lithium-Ion storage systems installed worldwide; 8th generation of product development
- ▶ **Warranty** - 10- year product warranty on the whole system
- ▶ **Quality** – Premium quality „Made in Germany“

# Usability

## High operator convenience



### Via

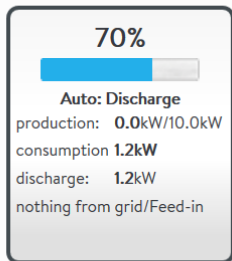
- » touch display
- » Internet Portal
- » Apps for smartphone & tablet

# Intelligent Monitoring & Forecast

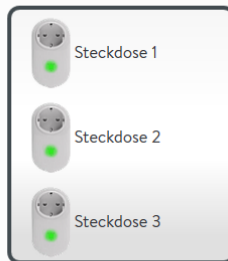
Online portal with detailed overview

meine.sonnenbatterie.de

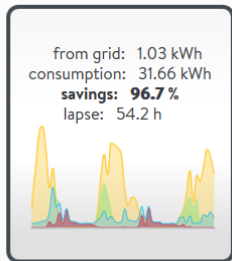
## Overview



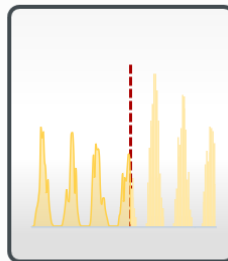
status



control



history



forecast

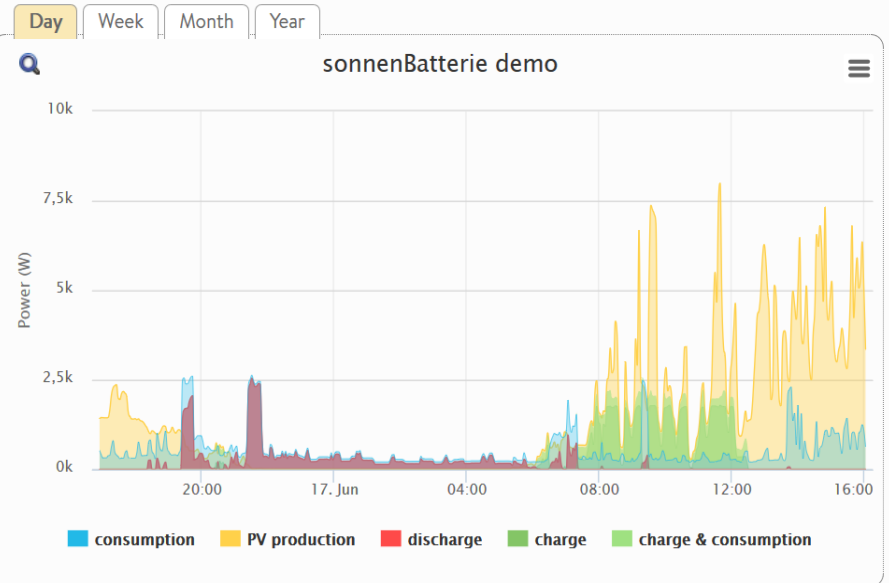
Overview
Status
Control
<b>History</b>
Forecast

**Model:**  
Sonnenbatterie

**Location:**  
DE 04824 Beucha

## History

1.0 day loaded until 17.06.2016 16:52h go to: 17.06.2016 >



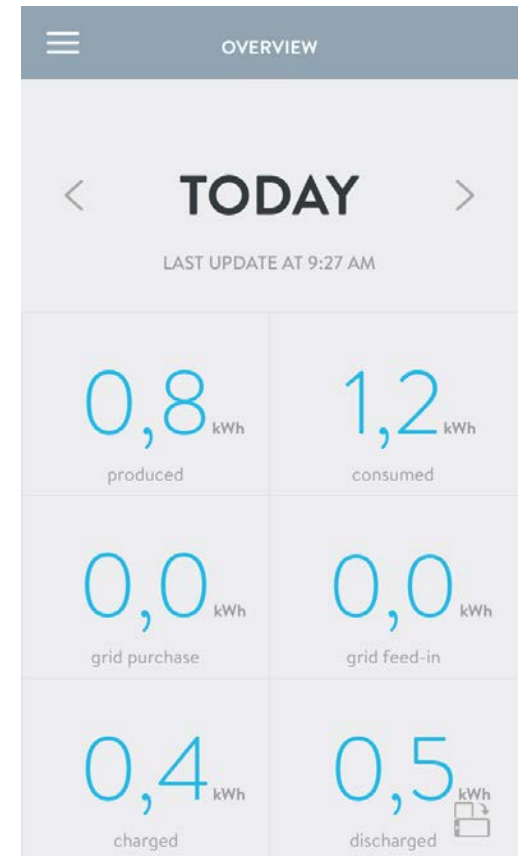
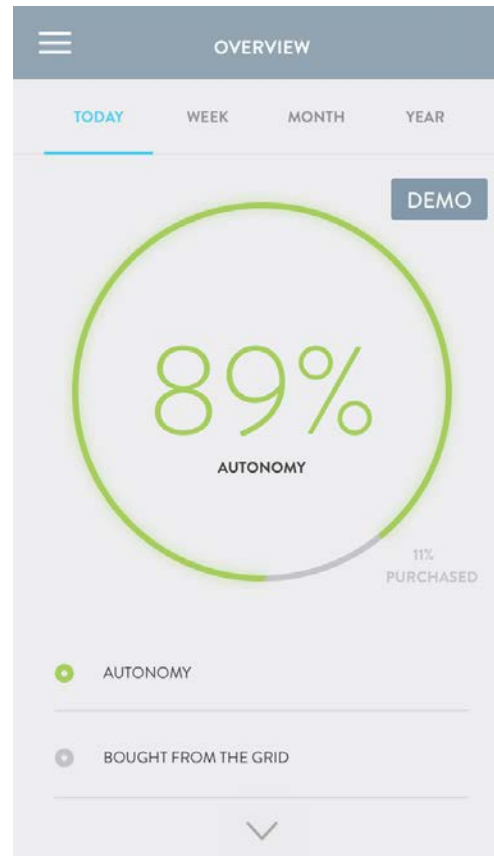
» Operator gains overview of most important information

» Multiple analysis possible

» Possibility to configure system

# Intelligent Monitoring & Forecast

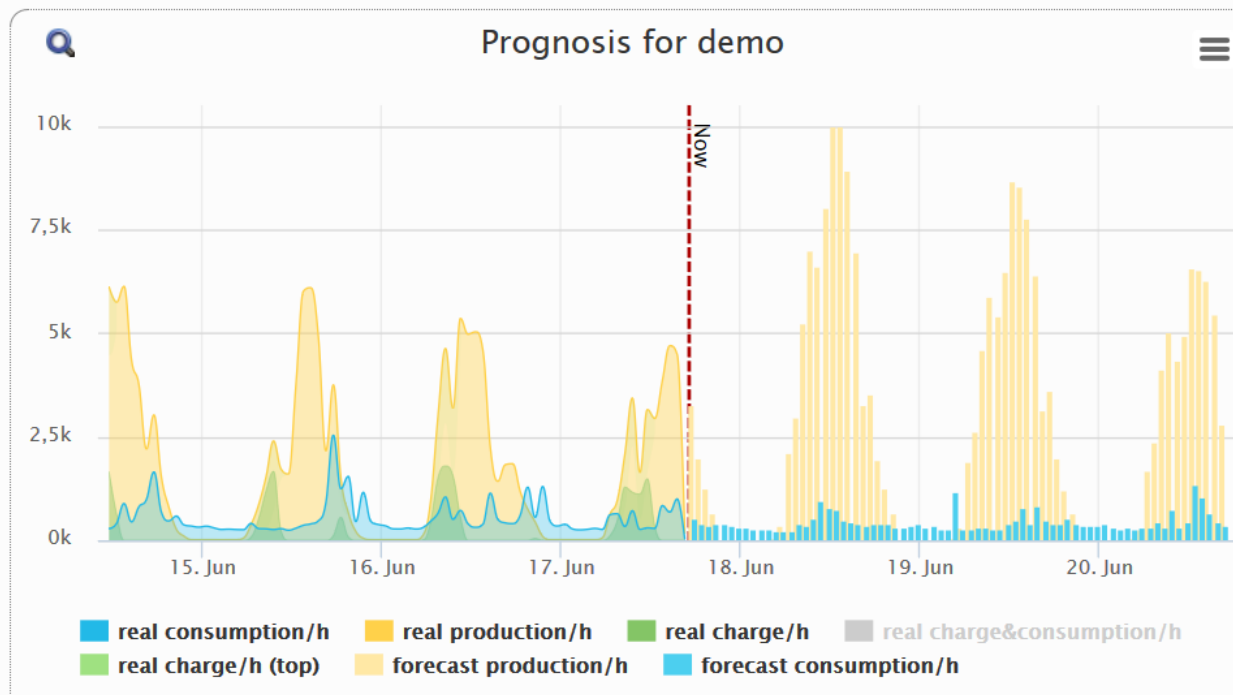
## sonnenApp for iOS & Android



# Intelligent Monitoring & Forecast

## Forecast for individual storage management

### Forecast



- » Forecast electricity generation
- » Forecast electricity consumption
- » Forecast surplus resp. „peaks“
- » Forecast storage requirement

# Sonnen product roadmap



- » **sonnenBatterie pro (commercial)**
- » Lithium-Iron-Phosphate battery, available in 24 kWh and 48 kWh
- » Built-In Intelligence, achieving highest autonomy rates
- » Up to 10 years or 10.000 cycles warranty



- » **sonnenBatterie Hybrid**
- » DC connected → no PV inverter needed
- » Modular extendable in 2 kWh steps (from 4 kWh up to 16 kWh)
- » Offers all functions of the ECO 8

## → within sonnenCommunity



- » **sonnenHeater**
- » Use 100% of your solar energy yields – no more curtailment required
- » 3.5 kW heating cartridge to maximize the private consumption
- » Highly accurate regulations by the sonnenBatterie including your consumption profile and the weather forecast



- » **sonnenThermostate**
- » Save up to 25% of your heating costs
- » Smart regulation through Geofencing
- » Quick overview of your heating settings
- » Individual programming of personal heating profile





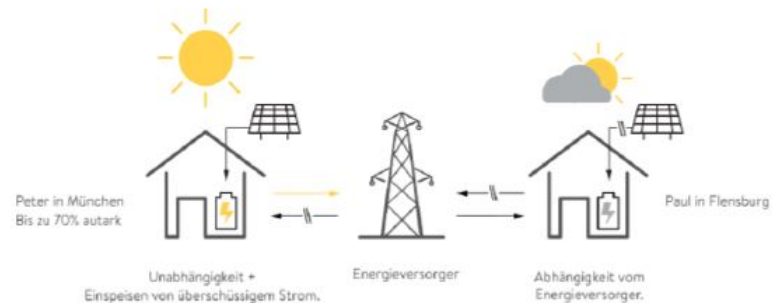
The sonnenCommunity

# Idea of the sonnenCommunity

The sonnenCommunity connects uniquely private solar installations and sonnenBatteries' to form the first digital and decentralized energy community.

- » Producers and consumers form a virtual electricity pool
- » The intelligent software platform balances energy supply and demand at any time within the community.
- » Produced energy will be shared online, which enables 100% independence of conventional utilities.
- » Small and medium producers can take part in direct marketing actions
- » **Electricity is up to 25 % cheaper!**

## Ohne sonnenCommunity



## Mit sonnenCommunity



Energy is yours.