



Marco Krasser  
CEO

SWW Wunsiedel GmbH

**SWW**  
wunsiedel  
wir bewegen

## The Future of Energy 4.0

Digital business cases as a response to the future challenges

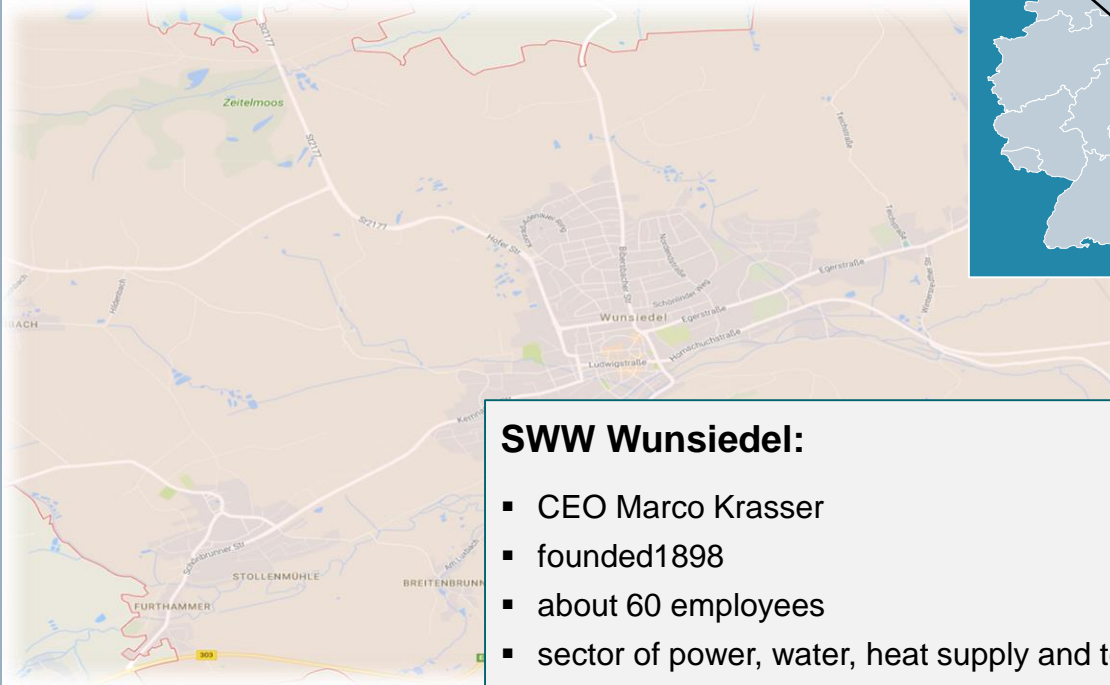
Siemens – Energy Management Conference  
**Digitalization of the energy industries**  
**Challenges from a municipal utility's point of view**



A town in Upper Franconia region of Bavaria, Germany

## City of Wunsiedel

- total area of 54.91 km<sup>2</sup>
- 9,203 inhabitants
- situated in the Fichtelgebirge Mountains in the valley of the Roeslau at the foot of the Koesseine Plateau
- well known for its annual Luisenburg Festival



## SWW Wunsiedel:

- CEO Marco Krasser
- founded 1898
- about 60 employees
- sector of power, water, heat supply and telecommunication



# The Future of Energy – context of a safe energy supply

## Goal:

climate protection  
„We don't inherit the  
earth from our  
ancestors; we  
borrow it from our  
children.”

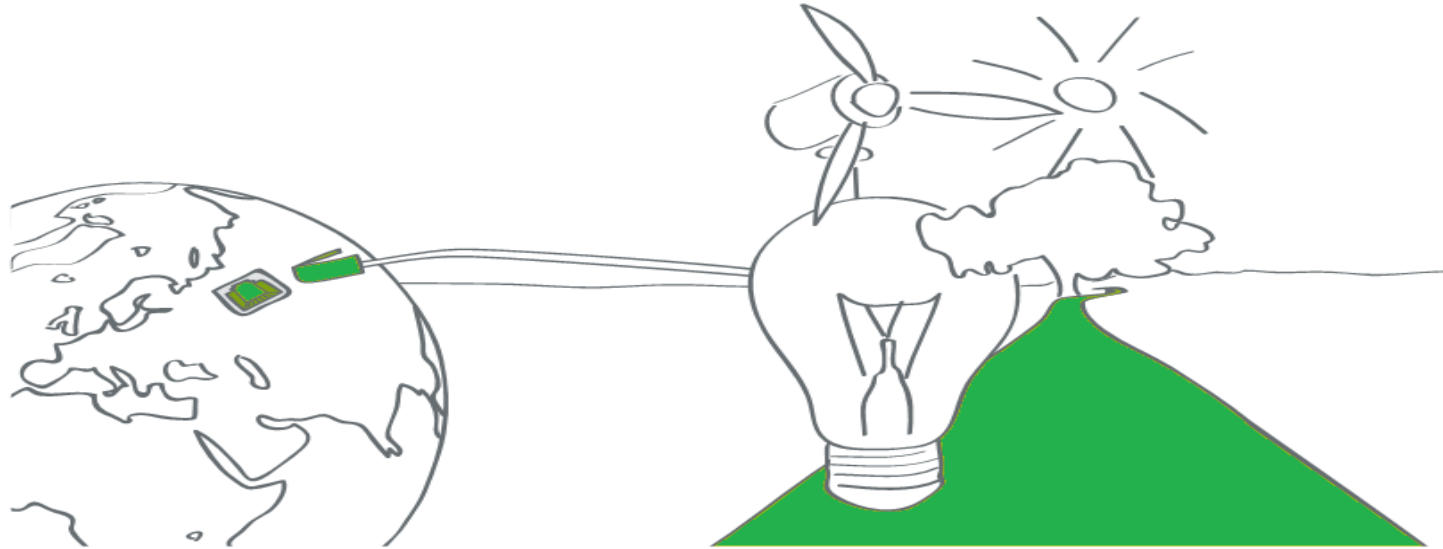


## Goal:

- Increase of efficiency
- Savings
- Renewables

## German:

- Effizienzsteigerung
- Einsparungen
- Erneuerbare Energien





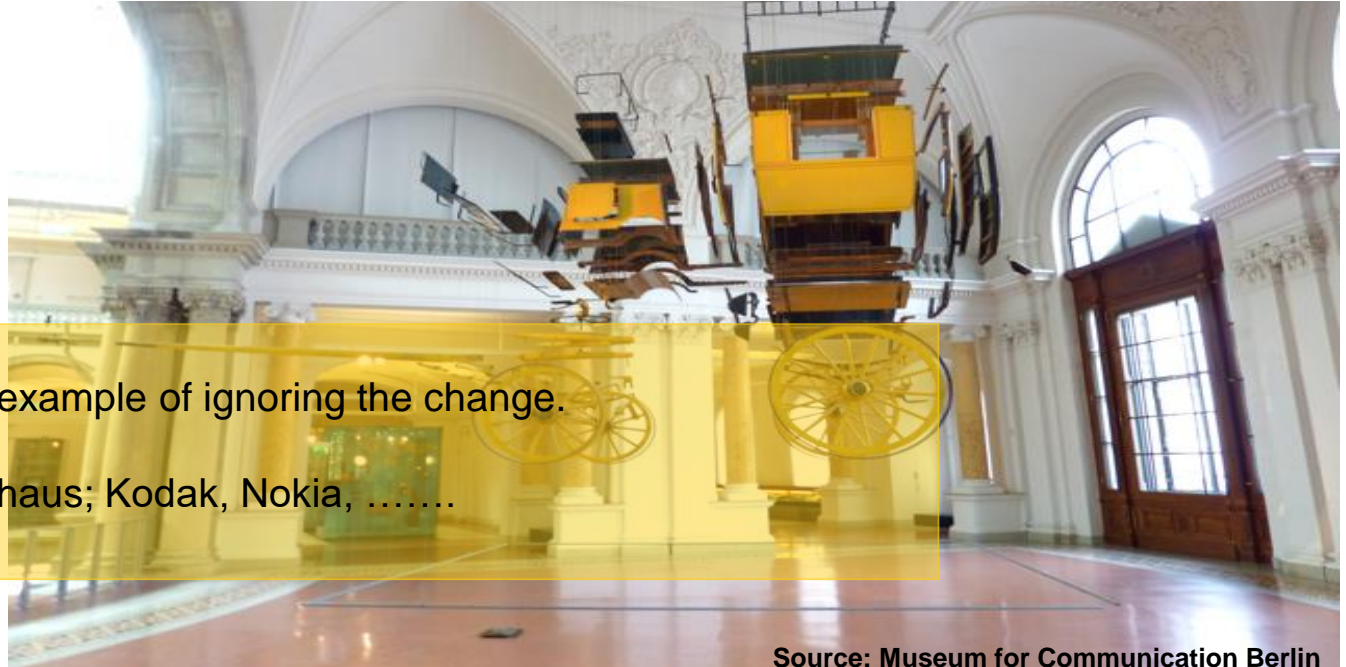
## The Future of Energy – context of a safe energy supply

### Change:

**„If I had ask people what they wanted, they would have said faster horses.“ Henry Ford (1863-1947)**

A deterrent example of ignoring the change.

Agfa; Brockhaus; Kodak, Nokia, .....



Source: Museum for Communication Berlin





# The Future of Energy – context of a safe energy supply

## Change:

- Regional generation
- Controllable loads
- Local products
- New necessities

## Today and tomorrow: decentralized and alternative / regenerative

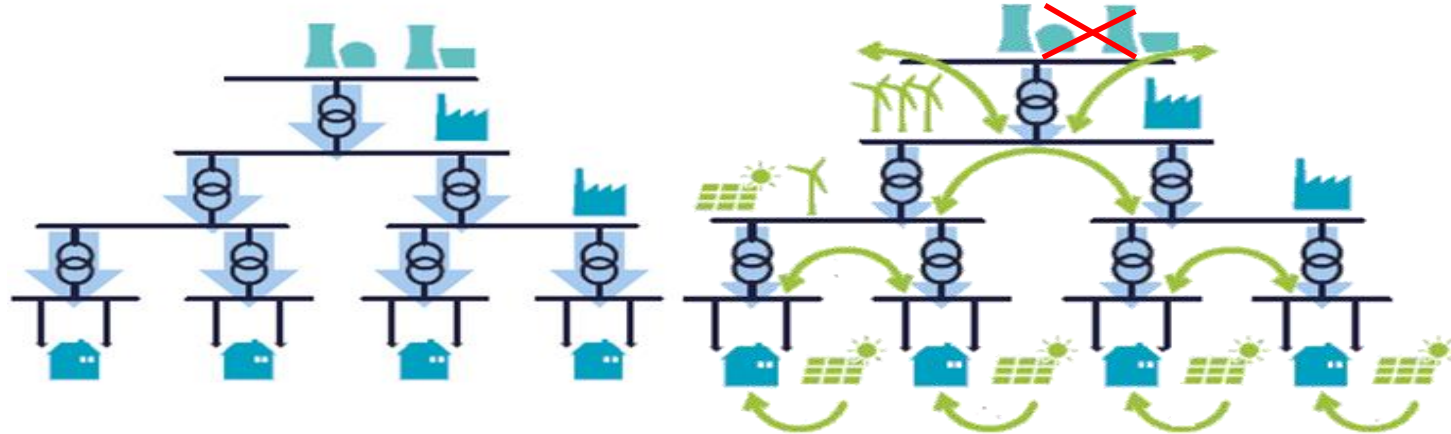




# The Future of Energy – context of a safe energy supply

## Change:

The change from a central “backbone to a powerweb” is a requirement for the supply based on renewable energy



YESTERDAY

Today

TOMORROW



**Challenge:**



This nut has to be  
**cracked**





# The Future of Energy – context of a safe energy supply

## Challenge:

To manage a proper context

Give responsibilities to the right positions

Manage the acceptance

Strengthen social community

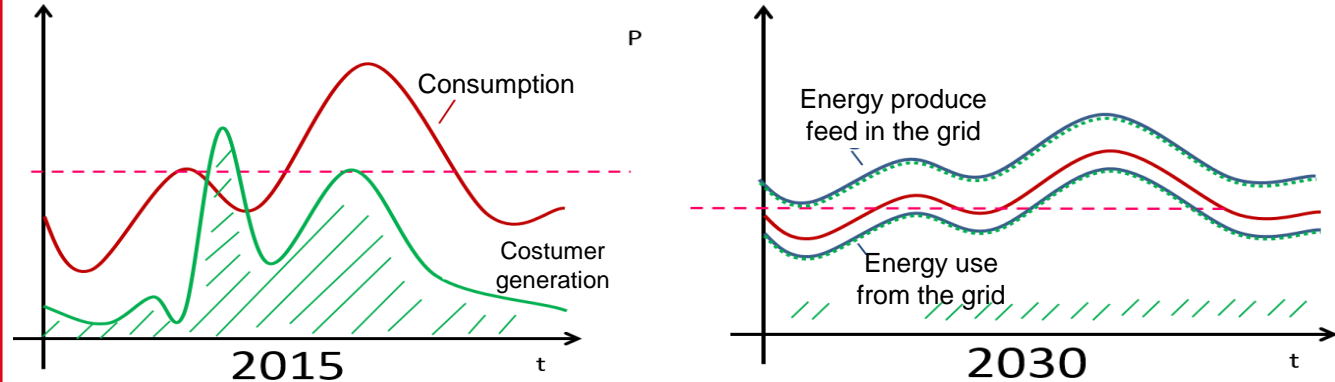
Creation and collaboration of local markets

Manage the market incentives for new technologies



## Challenge:

The right incentives and basic conditions are the baseline of a working system and competition

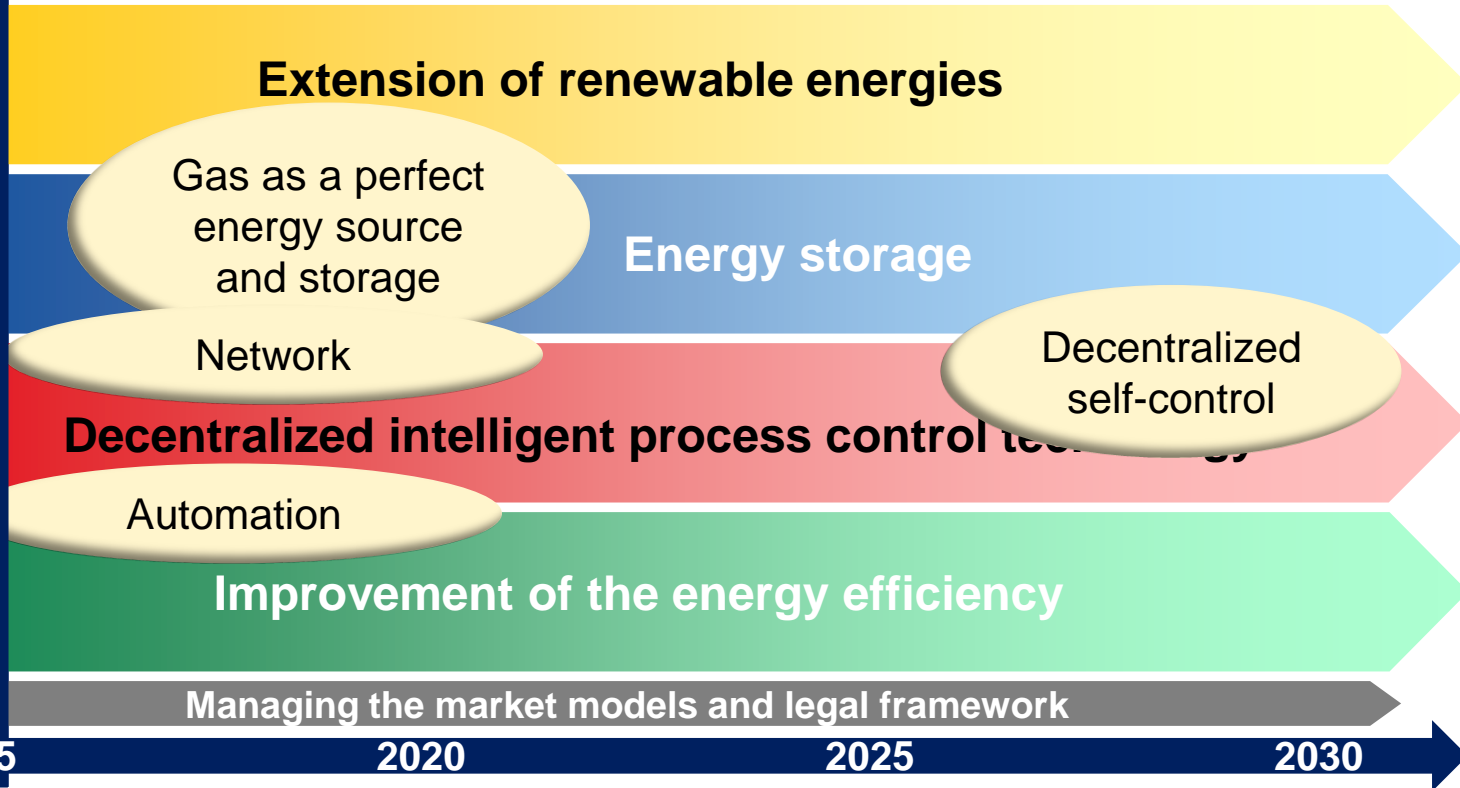


1. Expansion of renewable energy plants
2. Storage integration in relevant grid segments
3. Intelligent network and regulation energy systems
4. Establishment of new markets/ cutting the bureaucratic obstacles



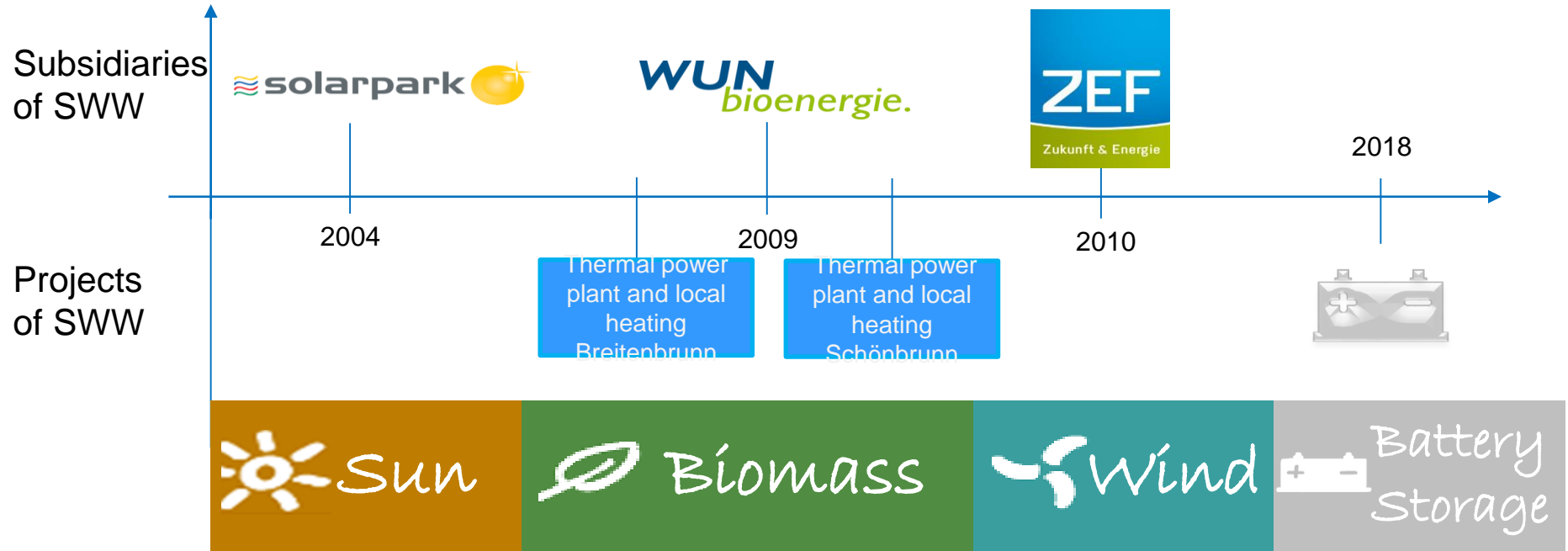
# The Future of Energy – context of a safe energy supply

## Our response:





# The Future of Energy – context of a safe energy supply

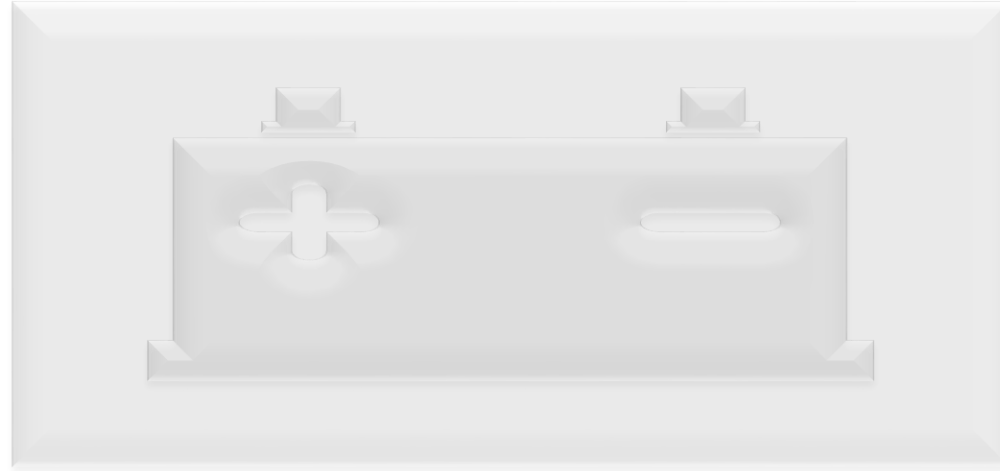




## An innovative topic comes along with challenges

### Challenge:

- Sound emission
- Fire protection requirements
- Political pressure
- Public interest



**Close cooperation and collaboration**

**Common understanding and trust**

**Involvement across all levels**

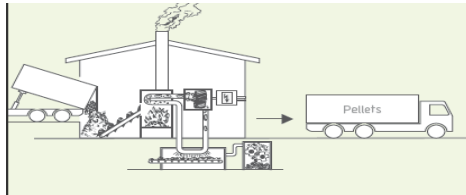




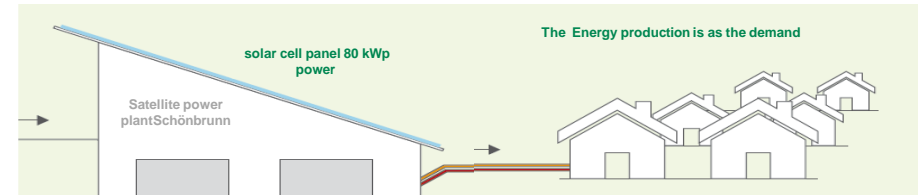
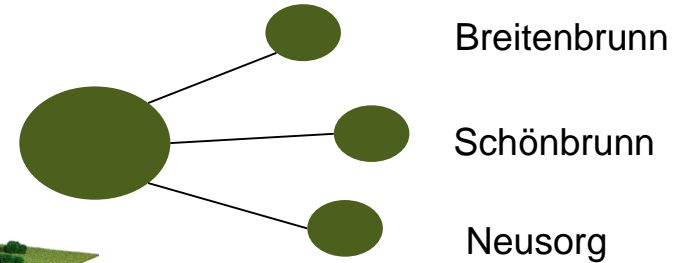
# The Future of Energy – context of a safe energy supply

## Our response:

### Biomass thermal power plant Holenbrunn



### Satellite power plant with local heat supply grid

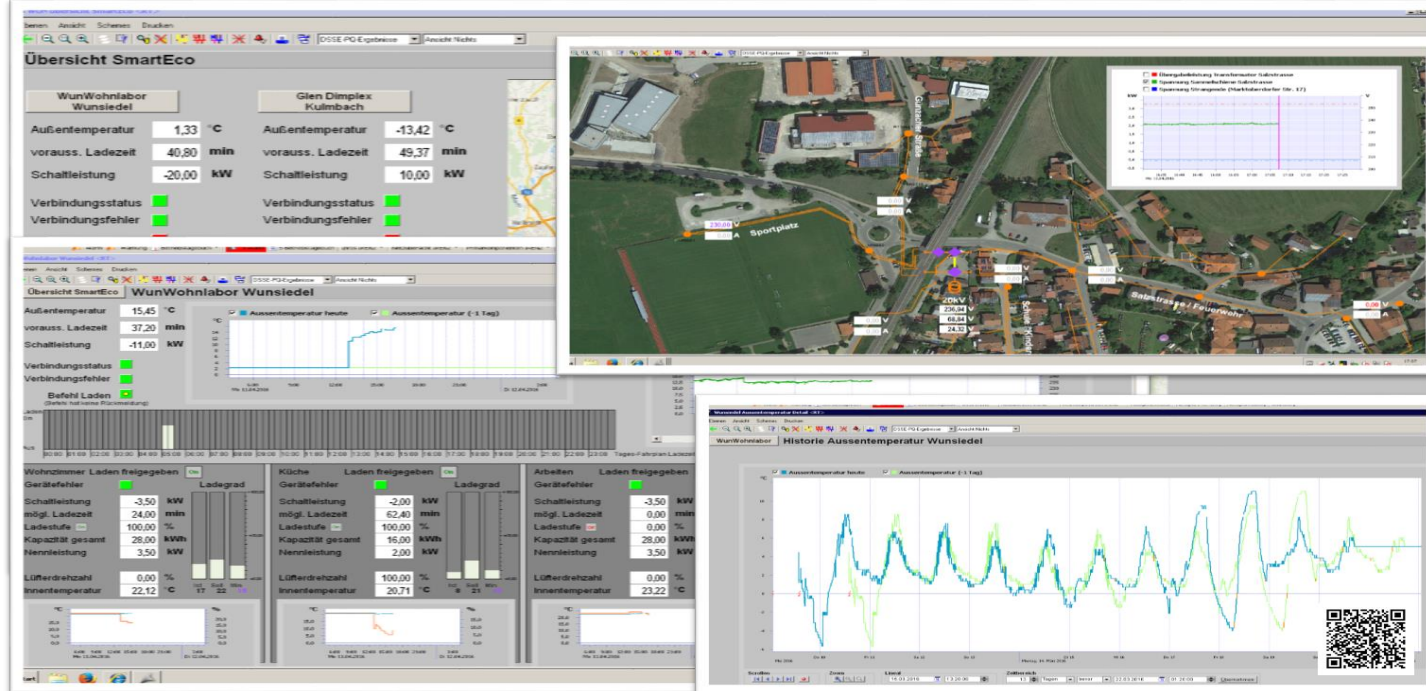




# The Future of Energy – context of a safe energy supply

## Our response:

Based on software Spectrum Power™ 5 SCADA system it is possible to shift and shape loads using residential electrical heaters





# House of the Energy Future

## Our response:





### Summary:

# Moving safely in the awareness of insecurity

... it's about the guarantee of basic energy supply .



## Summary:

Who wants to survive has to change





the technical challenge of a safe energy supply, depends on reliability  
in a proper **form**, in the desired **place**, at the right **time!**

