



Welcome

Smart Building Expo 2025

All Electric Society Park

Tomorrow's sustainable world, today's technologies







Agenda

- > Sector Coupling
- > Park Concept
- > 5GDHC
- > Thermal Energy Storage









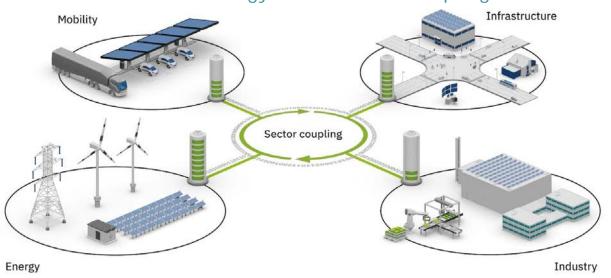


Sector Coupling



Sector Coupling

Holistic and continuous data and energy flow of sector coupling



The digital transformation is the basis for connecting all sectors







- Use of renewable energy
- Flexibility through energy storage and transportation in gas or liquid form
- Balance between power generation and consumption through sector coupling



Park Concept



Park Concept



Key Features:

- Holistic and continuous communication and data exchange between all trades and systems
- Building and energy management based on an IoT platform
- Demand and user-oriented energy management
- AI-based analysis and performance optimization
- Bidirectional heating and cooling supply of the 5th generation





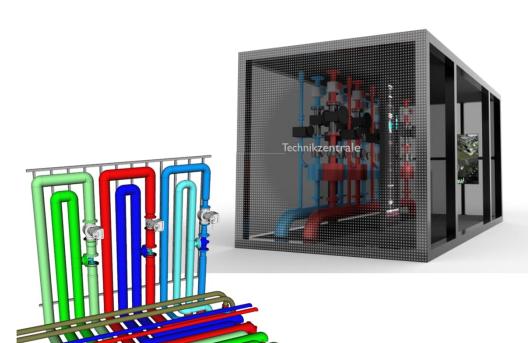




5GDHC



5GDHC



Some key features:

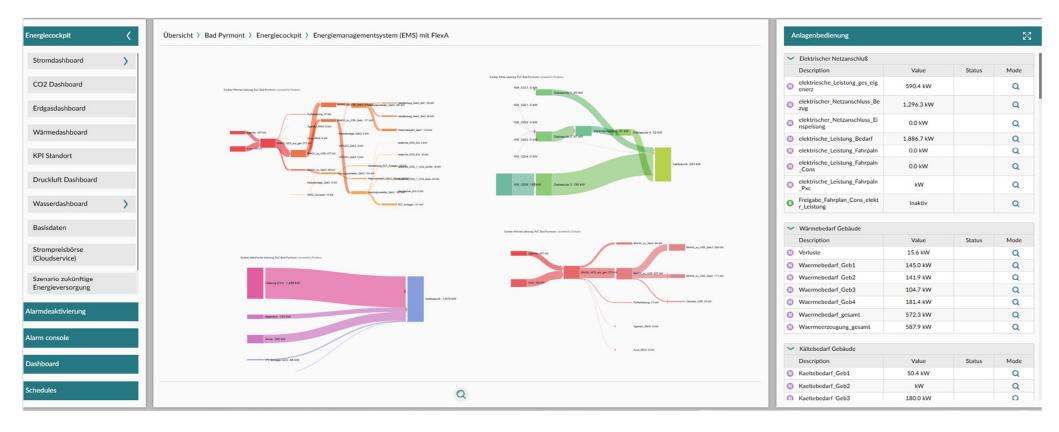
- > Bidirectional low-temperature heating networks
- > Thermal energy storage can store heat or cold
- > 5GDNC is based on a closed-loop energy control concept
- ➤ Heat, cold and heat recovery with only one thermal network
- > Efficient sector coupling between heat and electricity by decentral heat pumps



Thermal Energy Storage



Thermal Energy Storage







Tino Zander

Head of International Business Development Global Industry Management

Building Technologies

tino.zander@phoenixcontact.de













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