Energie Krieau – New approaches for the use of shallow geothermal in large volume buildings and city quarters in Vienna (Austria)
Green energy supply and smart energy services for innovative locations

Our objectives

ENGINEERING

• CO2-reduction for heating and cooling requirements/consumption compared to previous projects

• Use of renewable energy on a market-compliant basis

• Raising synergies within the supplied real estate projects and areas

• Largely no prototypical technical equipment

COSTUMERS

• Motivate plant-friendly user behaviour

• Transparent communication with costumers

• Building a costumer relationship with added value

Our non-objectives

• Point- and/or short-term project involvement

• Competition with local suppliers

![CO2-emission graph]

- Gas condensing boiler
- Home automation - electricity
VIERTEL ZWEI
Green energy network VIERTEL ZWEI
Green energy network VIERTEL ZWEI

Bauphase 2015 – 2022
350,000 m² BGF
15,000 Menschen
ENERGIE KRIEAU
Technical System

ANERGY GRID

- Low temperature district heating system
- Connecting the different consumers/prosumers
- Raising synergies within the supplied real estate projects
- Using different heat sources and heat sinks
Technical System

COMPONENTS - HEAT SOURCES – HEAT SINKS within the ANERGY GRID

• Shallow geothermal energy (main resource)
• Active groundwater usage
• Waste water heat recovery
• Sprinkler basins (to store energy on a daily basis)

• Bidirectional heat pumps to provide energy for heating and cooling
• Photovoltaic (146 kwp – 100% own consumption)
• Double gas burner (redundancy)
• Adiabatic recoolers (redundancy)
Technical schematics anergy grid
Reduction of CO2-emission 2018: ~ 755,000 kg
Thank you.