Developing decarbonized heating solutions for the Käferholz District in Zürich

Despite the considerable potential, there is often a lack of know-how when it comes to introducing climate-friendly heating solutions to urban districts. To shed light on the issue, we analysed various decentralized and district-heating approaches and compared them with a weighted-sum model.

Our versatile model considers the unique features of any urban district and enables building owners to quickly identify options for achieving carbon neutrality. Moreover, the highly precise data we delivered enable planners to identify potential for smart, localized heating networks.

Our services

- Data management using EnerGIS and building-stock models
- Development of a versatile method that can be applied to any given district
- Execution of automated cost calculations for each heating solution and property unit
- Examination of various heating systems (brine-water heat pump and air-water heat pump, district heating and more localized heating networks)
- Identification of three viable localized heating networks and their associated costs
- Drafting of a weighted-sum model for property-specific solution assessments
- Examination of the impact of any need to replace or service heavy-duty geothermal probes
- Moderating of the advisory group

Client

City of Zurich Office of Environmental and Health Protection (UGZ) / City of Zurich Office of Waste Removal + Recycling (ERZ) / Zurich Department of Industrial Enterprises, Office of the Energy Officer / EnergieSchweiz

Facts

Period	2021
Project Country	Switzerland

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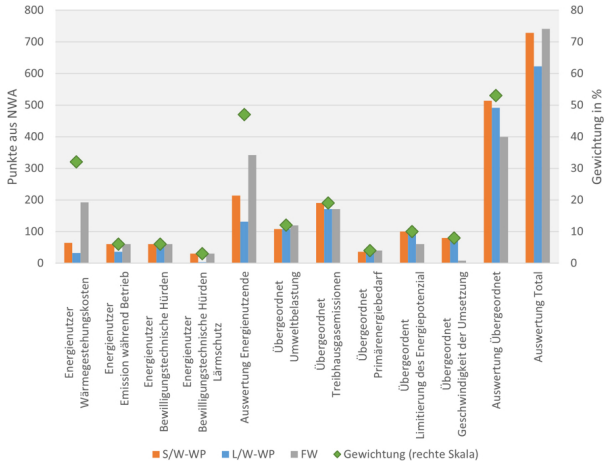
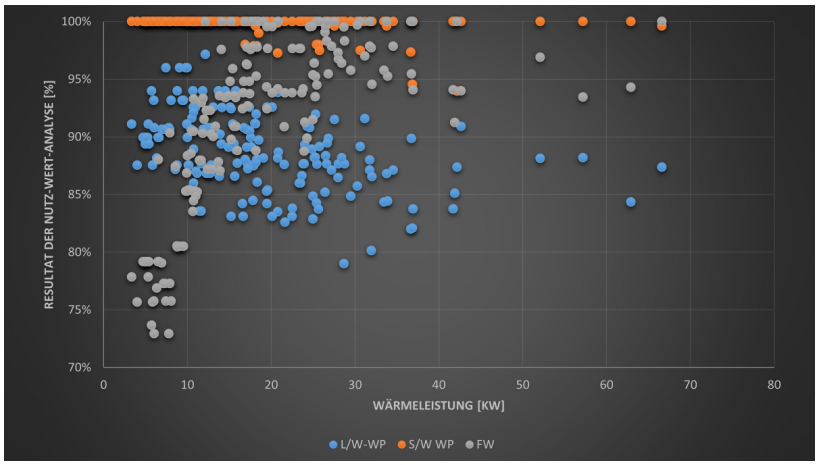
Delineation of the Käferholz district

Aerial view of the Käferholz district (Google Maps)



Result of weighted-sum assessment per criterion and its weighting for the three main solutions



Per-property assessment of the three main heating system solutions

Mit Unterstützung von

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