District Hillerheide - Recklinghausen

Innovative heat supply system, based on the ambient heat of an artificial lake

The ISEK Hillerheide ("Integrated Urban Development Plan") which was commissioned by the city of Recklinghausen and adopted by the council in 2015 defines several flagship projects for the development of the Hillerheide district. The development of the inner-city brownfield site of the former harness racing track area (approx. 34 ha) is the core of these activities. Here, a sustainable and future-oriented residential quarter with exemplary character is to be developed.

The cornerstones of the concept are: climate protection and climate adaptation aspects, an innovative energy supply, alternative mobility concepts, the creation of generous green and open spaces with a variety of play and recreation facilities, a mix of diverse high-quality forms of living and housing to create a vibrant district, the establishment of central supply facilities and the link to the existing Hillerheide district to promote a district of short distances. As a special highlight, a lake the size of the racecourse oval is to be created in the center of the area.

The office DFIC - Dr. Fromme International Consulting – developed an energy supply concept for the residential area to be built on the harness racing track area. The objective is to generate electricity and heat for the area as independently and sustainably as possible from renewable energy sources (CO_2-neutral).

A supply solution with a low-temperature grid, an energy center and various heat sources such as solar thermal energy, photovoltaics and near-surface geothermal energy (geothermal collectors underneath the planned lake) was identified as the priority solution. For the future energy supply of the neighborhood, highly efficient supply technologies and storage solutions are to be considered in order to be able to supply decentralized or centralized heating, cooling and electricity requirements. The rough concept is to be further qualified on the basis of a feasibility study.

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