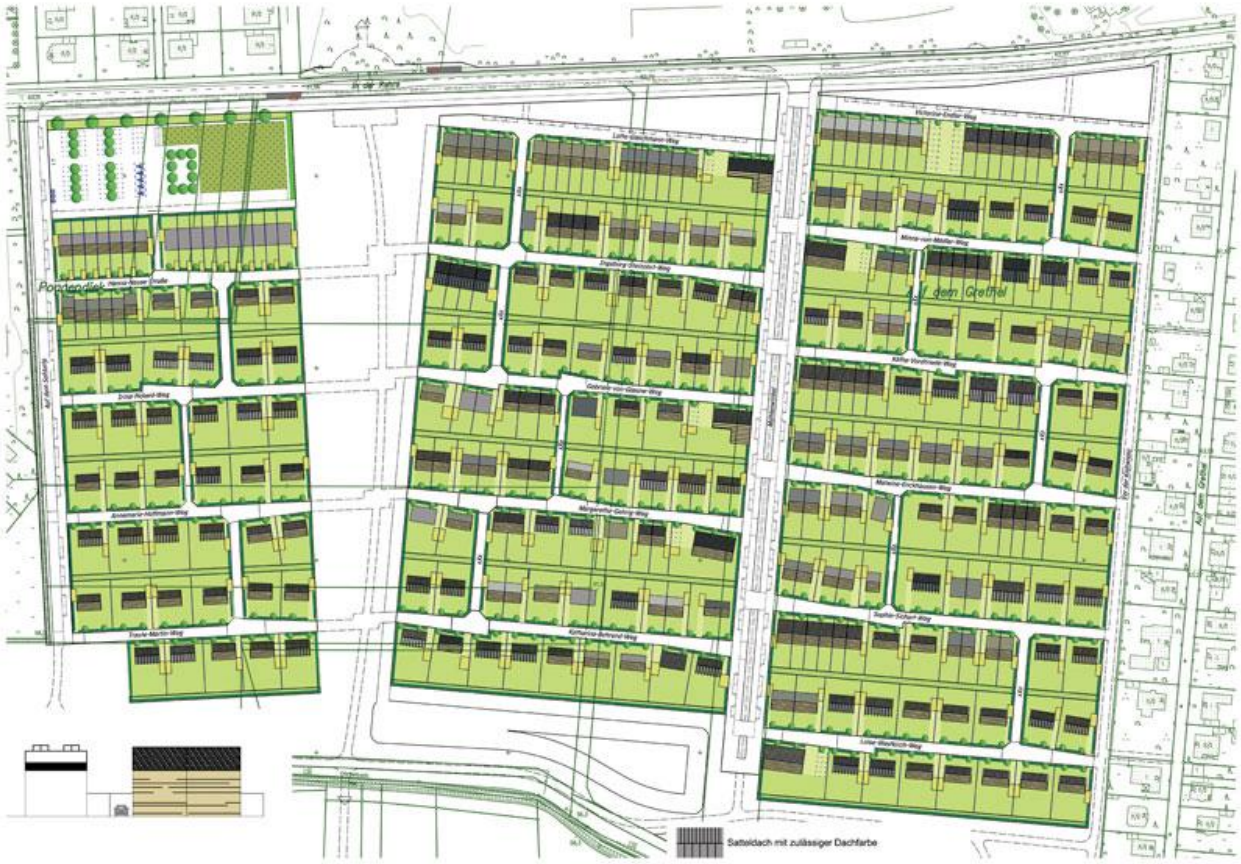
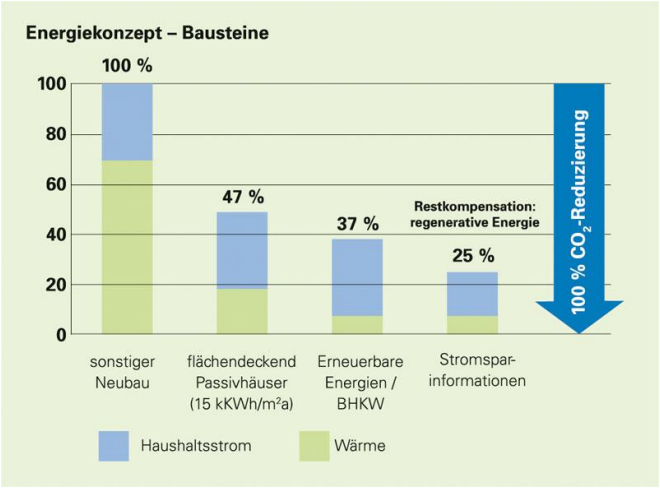
Zero:e Park Hannover

In Wettbergen, in the south-west of Hannover, Europe's largest innovative 'climate protection housing development' is emerging, with some 300 terraced, semi-detached and detached houses designed as Passive Houses in a zero-emissions estate.

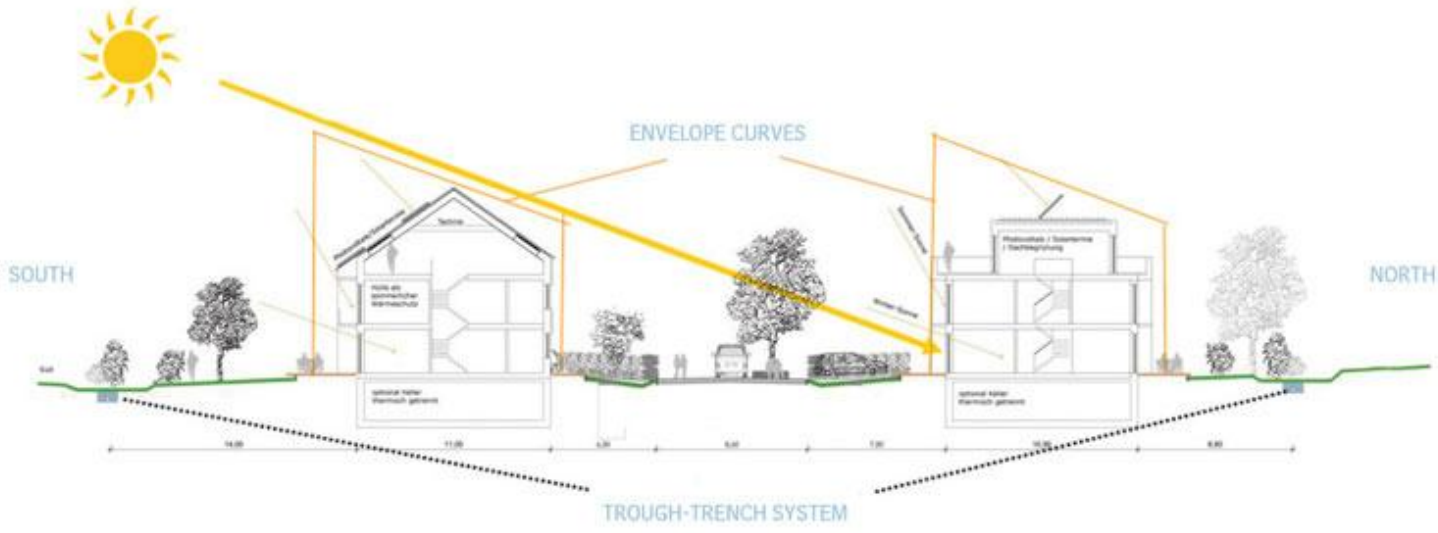


The basic principle behind this development's energy concept is energy-efficient design to reduce the houses' heating requirements to a minimum. So first of all, all houses are designed as passive houses. The remaining energy for their heating is as much as possible met by solar thermal energy. To minimize electrical energy consumption, only highly energy-efficient household appliances are used.



For the entire housing estate, the mean offsetting requirement for heating and domestic electricity in order to achieve carbon neutrality has been calculated as 1,300 MWh, to be met through the generation of electrical energy by a reactivated hydroelectric power plant. So that – on paper at least – the zero:e park climate protection housing development is carbon-neutral and will have been offset.

Full use of the opportunities provided by building legislation has been made in order to offer house-builders ideal conditions for constructing homes that are especially energy-saving. The buildings should be as compact as possible, with optimal solar access without shading by adjacent buildings.
To prevent adjacent buildings being shaded (including at times when the sun is low), and to ensure the housing blocks are structurally compact, it was stipulated for this development plan that buildings would have two full stories, with height specifications drawn up in the form of an envelope curve.



For the planned development area, high standards of urban design and ecological sustainability have been agreed that go beyond climate protection and are intended to take account of aspects such as the impact of climate change. For example, the housing estate, which will be directly adjacent to a landscape conservation area, is to receive particularly valuable open space with generous green corridors and an optimum water concept. The rainwater will infiltrate on-site in a soakaway system so that the same volume of water drains away as before. Overall, the water resource management concept will enable the rate of groundwater recharge and evaporation to be largely maintained.

Source: http://www.zero-e-park.de