

City of Antwerp | Belgium



With its Climate Plan (2011), the city of Antwerp has committed to using energy and resources sparingly and sustainably, and moreover to achieve CO2 neutrality in 2050. The city leads by example and designs all municipally owned buildings to the Passive House Standard including schools and kindergartens. Antwerp also steers the private market towards highly sustainable projects by formulating appropriate preconditions and procurement criteria in competitions and contracts.

Nieuw Zuid, a new mixed residential quarter in the south of the city, is a prime example of the type of development being promoted. The realisation of this project is currently in progress and entails 2,000 dwellings, offices, amenities, and a large park. The former railway site is very strategically located between the city itself, the suburbs, and the River Scheldt, as well as some important green buildings and main traffic infrastructure. A large part of the area, around 18ha, is owned by a private developer.

In Nieuw Zuid, a wide variety of housing types in terms of size, type, budget, and location is planned to create a lively urban area for a very diverse public, with social housing is mixed throughout the quarter. Special attention is given to pedestrians, cyclists, green play areas, public spaces, and amenities. The master plan for Nieuw Zuid is also ambitious in terms of energy. As agreed upon by the city and the developer, all buildings must be designed to Passive House level with a maximum heating demand of 15 kWh/m² per year.

Nieuw Zuid is also the starting point for the development of a city-wide heat network. All spatial parameters such as density and the proximity of large scale consumers are favourable, which makes the network flexible enough to adjust to any future changes. A district heating plant at the edges of the park will 'feed' the network, providing heating and hot water.

The decision to develop a heat network for Nieuw Zuid is unique. Networks of a comparable size, serving a comparable mix of functions, are currently nowhere to be found in Belgium. In this case, it was an explicit choice of the city and the developer to create a win-win situation: the city can realise its climate goals and gradually develop a collective heat network, and the developer can market a product with added commercial and financial value in the short and long term.

