

# Energy...

As guide project of the „Country's Initiative for future energies in Northrhein Westfalia“ the solar housing estate shows an efficient connection of energy and economy.

The energetic concept is providing the basis for it. Active solar heating and the use of renewable energies are important parts of the whole concept as well as excellent insulation, the ventilation plant and the passive use of the sun. After harmoniously coordinated team work of all planners a building has been developed which is not only saving energy, but in all details very economically designed.



## Energetic concept of the administration building:

- heat requirement: 52 kWh/m<sup>2</sup>a, 45% by heat recovery and renewable energies (geothermal energy)  
remaining heat requirement: 29 kWh/m<sup>2</sup>a
- remaining coverage by district heat (cogeneration)
- air conditioning 100% by renewable (geothermal) energy
- optimised day light concept for saving electricity



Construction of geothermal tubes

## Energetic concept of the residential buildings:

- „3-liter-house“ with 101 apartments (3 liters mean the consumption of 3 liters of oil in 1 year per square meter)
- 3 kWp facade integrated photovoltaic facility
- heat requirement: 33 kWh/m<sup>2</sup>a
- remaining coverage by district heat
- ventilation plant with heat recovery and pre-warming by geothermal energy
- 260 m<sup>2</sup> = 310 yd<sup>2</sup> solar heating for warm water supply



## Solar Housing Estate of the „Media's Harbour“ in Düsseldorf



# Architecture...

The solar housing estate of the „Media's Harbour“ is one of the biggest solar projects of Europe and is situated between the “Media's Harbour” and an old urban area of Düsseldorf.

The dominating urban structure of perimeter block development is continued by the estate.

An attractive protected courtyard guarantees a high living standard for its inhabitants.

The long staircases are allowing views from the public to the interior area, and can be accessed by users of wheelchairs from the courtyard.

Apartments of 2, 3 and 4 rooms allow families as well as singles and couples to live comfortably in the solar housing estate.

All ground floor apartments have a little garden of their own, the penthouses on the top floor are equipped with big roof terraces.

The administration building of the Rheinwohnungsbau GmbH on the street corner is forming the head of the estate, but is all the same subordinating to its homogeneous structure.



*example floor plan:*

*Hammer Straße 54 - 58*

*3 room apartment: 91.00 m<sup>2</sup>/ 109 yd<sup>2</sup>*

## Project dates:

101 apartments and an administration building with a combined underground garage.

Whole apartment floor space: 9.229 m<sup>2</sup> = 11.038 yd<sup>2</sup>

Administration floor space: 1.410 m<sup>2</sup> = 1.686 yd<sup>2</sup>

## Adress:

Hammer Straße/Gladbacher Str./Gilbachstraße,  
Düsseldorf

## Construction time:

2005 to 2008

## the owner...

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