

# General info

The Kruitberg project is part of a large area (Bijlmermeer) where the total renewal is running from 1992 through 2007 and which has ambitious aims. At the start of the renewal operation several main goals have been set:

- ▶ Improving the position of Bijlmermeer on housing market (spatial renewal)
- ▶ Enhancing the labour participation of the population (social-economical renewal)
- ▶ Enforcing the urban life in the Bijlmermeer through more employment and cultural facilities (liveable and management renewal).
- ▶ In the second phase for renewal goals for urban renewal have been sharpened further in sub goals:
  - Improving satisfaction of residents about living in high-rise buildings
  - Higher appreciation for the quarter, showed by lower exchange rates
  - More people who want to live in the area



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# Building and renovation measures

- ▶ Glazed balconies
- ▶ New ventilation in upper windows, pressure controlled constant volume and individual controllable outlet kitschen
- ▶ PV at end façade
- ▶ Solar thermal collector
- ▶ Heat exchanger (air to water) with heat pump



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# Results and conclusions

## ► Technical conclusions

- Thermal insulation measures and LE-glazing: neither design nor practical problems and gives major savings and increase of comfort
- Improvement of ventilation system (inlets, outlets, mechanical ventilation and air tightness) are rather easy and common practise with hardly any over cost.
- Reducing tap demand at the apartments and the individual metering of space heating and cold and hot tap water will mean an important saving on energy.
- The heat pump is a promising experimental technique but experience has to be gained with the energy and maintenance performance.

## ► Economical conclusions

- The effective price reduction of solar thermal plant is 38% compared to former Thermie-project.
- The integration of PV in existing constructions is expensive with some 12.5 €/Wp due to plan team and process, unforeseen complexity of adding PV to the end façade and small scale (custom made) for the parapets of glazed balconies.
- The simple payback time of the full energy project is 19 years.



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