Sustainable energy system

Status	Results of study
Location	Belgium, West Flanders, Ieper, De Vloei
Spatial info	Urban quarter or street; Building, residential area
Measure type(s)	Increase energy efficiency; Renewable energy; Urban setting
Contact	www.devloei.be

Description and Aim

Investigation which energy system(s) for heating, production of electricity and production of warm water is most sustainable and attainable on the level of the city quarter

Preparing the implementation of the most sustainable and attainable system(s).

This study is made especially for the city quarter of De Vloei and takes into account the planned situation (e.g. number of buildings, type and density of the buildings, energy performance of each building,…).

Adaptation to climate change

Influences all climate change impacts due to the emission of greenhouse gases.

Problems addressed:

Heat, other like mitigation

Receptor(s):

Population, infrastructure, built environment, economy, natural resources.

Experiences

Functionality:

The aim is to use as much renewable energy as possible. This creates less dependency on central energy production systems (and fossil fuels/nuclear energy, from abroad).

Reduced emission of greenhouse gases (contributing to reaching European norms)

Out of the first two phases of the study for De Vloei it appears that a collective system on the scale of this quarter is not profitable. The best choice is an individual system per building or perhaps a cluster of buildings (heat pump and PV panels. In the extension, the best way to implement this is investigated.

Further synergies/benefits:

Link to mitigation: reduced greenhouse gas emissions due to the implementation of energy system(s) which use sustainable energy sources and are more efficient.

Costs:

Energy study for De Vloei: 101.000 €

Funding:

European funding/Funding by the De Vloei project partners.

Stakeholder involvement:

Municipality of Ieper, property development companies, consultancy agencies (study, design of the energy system(s)), contractors (construction and/or exploitation of the energy system(s)), residents (Design & use of buildings), architects (Design of buildings).

Acceptance:

Social acceptance is a very important point of interest in this project. In Flanders, the use of solar panels for production of warm water and/or electricity on an individual scale is accepted, other sustainable energy systems are more unfamiliar for the general public and local governments. Especially towards collective solutions resistance can be high.

Obstacles/restrictions:

The study means an extra step and cost in the project development, the project partners have to agree on implementing it.