

Realisation of Plus-Energy-Settlements

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ABSTRACT

In September 2018 the brochure “Ways to Plus-Energy-Standard - Guidelines for municipalities” was published. It addresses communities and decision-makers in urban, suburban and rural areas in order to motivate them to develop plus-energy-settlements. The Housing sector consumes a lot of energy and therefore is responsible for a large part of carbon dioxide emissions. Modern plus-energy buildings don't produce carbon emissions. On the contrary they provide themselves and their neighbors with clean energy, generated by renewable energies like sun, wind, biomass, biogas and geothermal resources. There is little or no experience with plus-energy-settlements until today, although they quickly pay for themselves after initial investments. Furthermore, the energy industry is in radical change. Their role will change from producer and seller of energy to more complex tasks like service provider, system coordinator and administrator. To realize the first projects of plus-energy-settlements the participation and investment (ideological and monetary) of different parties and stakeholders is necessary. Political decision-makers, planners, energy providers, network operators, future residents and local craftsmen has to communicate and to collaborate from the beginning of the project.

Aim of the paper and urban challenge it addresses:

The Housing sector consumes a lot of energy and therefore is responsible for a large part of carbon dioxide emissions. In consideration of the increasing shortage of land we should focus on the development of buildings and settlement structures that produce more energy than they need. Modern plus-energy buildings don't produce carbon emissions. On the contrary they provide themselves and their neighbors with clean energy, generated by renewable energies like sun, wind, biomass, biogas and geothermal resources. Future urban development has to be sustainable. Private homes and buildings in general should not consume energy and produce carbon emissions, but should contribute to reduce and minimize energy consumption and carbon dioxide emissions.

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KEYWORDS

Keyword 1	Sustainability
Keyword 2	climate protection
Keyword 3	smart grid
Keyword 4	public participation
Keyword 5	renewable energies

Workshop

Workshop III: Urban Sustainable Development