EBC

Energy in Buildings and Communities Programme

Factsheet

Energy Efficient Communities

ANNEX 51

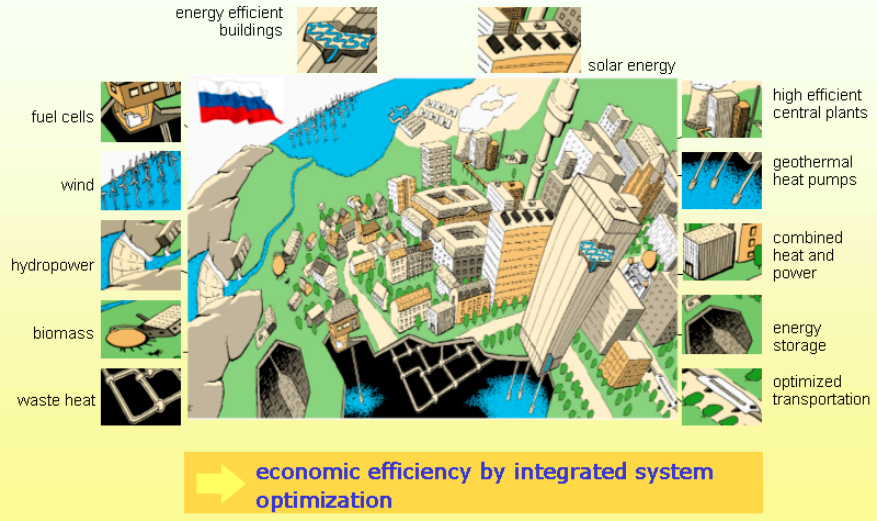
This recently completed project has successfully delivered practical guidance for urban planners, decision makers and stakeholders on how to achieve ambitious energy and related carbon dioxide reduction targets at local and urban scales. It has addressed small units, such as neighbourhoods or quarters, as well as whole towns or cities. The project has generated the necessary knowledge and means to be able to define reasonable goals in terms of energy efficiency, energy conservation and CO_2 abatement at the community level.

While current methods and tools useful for local energy planning form part of a number of case studies, which are of interest to both urban and energy system planners, the primary audiences for this project are local decision makers and stakeholders. Hence, the legal frameworks and different approaches found within the participating countries have been considered according to their comparative suitability to enable innovative approaches for successful urban energy policies.

ACHIEVEMENTS

The aim of the project was to describe both an 'integrated approach' to develop municipal energy master plans and neighbourhood scale energy action plans, based on experiences from realistic case studies. In most towns and cities, earlier practical experiences of implementing such local energy plans have typically only been very moderately successful. So, the goal was to address municipal decision makers and urban planners by providing them with information on the state-of-the-art of urban energy planning methods and to derive recommendations for strategies and organizational structures that encourage successful implementation. The project has achieved its objectives in the following ways:

- Existing organisational models, implementation instruments and planning tools for local administrations and developers were assessed in a 'state of the art' review.



Possible components of an integrated community energy system.

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INTERNATIONAL ENERGY AGENCY

The International Energy Agency (IEA) was established as an autonomous body within the Organisation for Economic Co-operation and Development (OECD) in 1974, with the purpose of strengthening co-operation in the vital area of energy policy. As one element of this programme, member countries take part in various energy research, development and demonstration activities. The Energy in Buildings and Communities Programme has co-ordinated various research projects associated with energy prediction, monitoring and energy efficiency measures in both new and existing buildings. The results have provided much valuable information about the state of the art of building analysis and have led to further IEA co-ordinated research.

EBC VISION

By 2030, near-zero primary energy use and carbon dioxide emissions solutions have been adopted in new buildings and communities, and a wide range of reliable technical solutions have been made available for the existing building stock.

EBC MISSION

To accelerate the transformation of the built environment towards more energy efficient and sustainable buildings and communities, by the development and dissemination of knowledge and technologies through international collaborative research and innovation.

- Case studies were produced on energy planning and implementation strategies for neighbourhoods, quarters and municipal areas. These include both refurbishment of existing building stock and planning and development for new 'green' settlements.
- Case studies were documented on the preparation of integrated energy and CO_2 abatement concepts for towns or cities and corresponding implementation strategies.
- Instruments for a successful community energy policy were explained, including an overview of legal instruments at the level of urban planning found to be useful within the participating countries, as part of the means of implementing a policy.

Project duration

Completed (2009 - 2013)

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