



Sino-German
Urbanisation
Partnership

The urban energy transition in China and Germany Selected best practices

CITIES AND INFRASTRUCTURE TRANSITION

Background

As a stakeholder in the Sino-German Urbanisation Partnership (SGUP) project, the Deutsche Energie-Agentur (German Energy Agency – dena) is substantially involved in the cooperation between Germany and China on climate-friendly urban development. In Germany, dena's Urban Energy Transition project has compiled findings from practice and drawn up recommendations for policy-makers to enable the energy transition's successful implementation in cities.

The summary report on best practice projects in Germany and China provides an overview of how the urban energy transition has developed during the last five years in both countries. It also provides a basis for future Sino-German cooperation in the fields of sustainable and climate-friendly urban development.

Objectives

- Reviewing the development of the urban energy transition based on best practice projects in China and Germany
- Deepening mutual understanding of development pathways and trends, especially on applied concepts in the energy efficiency and climate protection fields in urban areas in both countries
- Establishing an information base and identifying specific approaches for future exchange

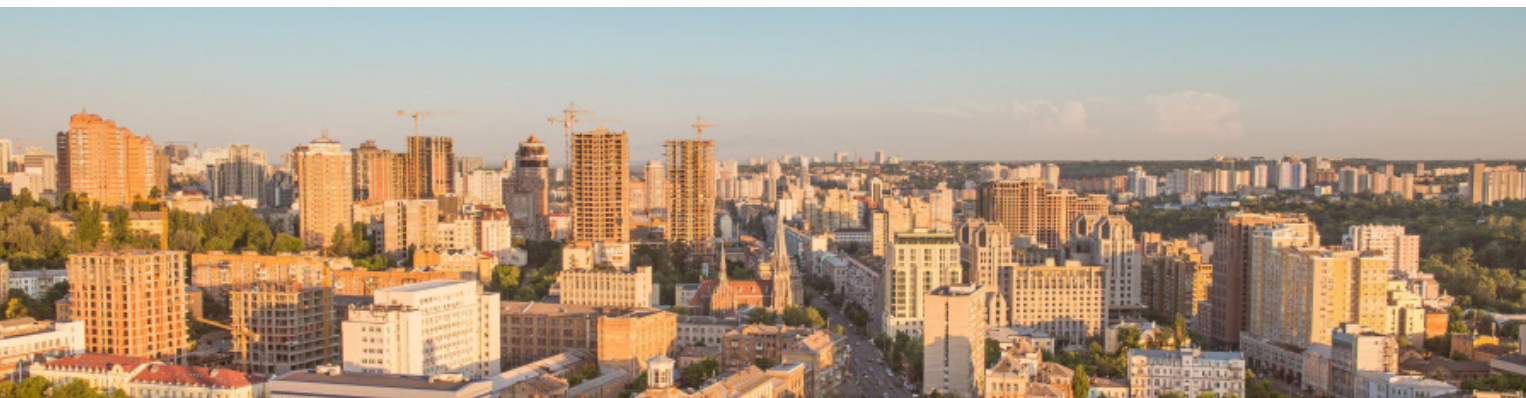
Importance of the urban energy transition

The urban energy transition is shaped by local politics, administrations, the local economy and local citizens.

It represents the totality of all measures and implementation projects in urban areas that contribute to the sustainable reorientation of the energy supply. The urban energy transition is not a self-contained system, but should be understood as a multitude of networked subsystems. This makes it all the more important that the energy transition is implemented in an integrated manner – in relation to the energy, building, transport and industry sectors.

The urban energy transition can be understood as an essential tool that enables a climate-neutral, secure and affordable energy and economic system in the long term.





Best practice projects in Germany

- The success of urban energy transition projects depends on achieving wider recognition and protecting the rights and interests of all stakeholders. Some of the projects presented actively involve the public and seek to integrate top-down and bottom-up models of project management and operation.
- Pilot projects based on technological innovations have been carried out.

Best practice projects in China

- In particular, there are many outstanding Passive House projects and new technologies in the energy efficient building sector
- The best practice examples also include new, government-subsidised innovations in the area of mobility.

Outlook

As strategic partners in the energy transition, China and Germany want to build a clean, low-carbon, safe and efficient energy system. Research on selected best practices can provide a basis for future Sino-German exchange and cooperation in the urban energy transition field. An exchange on policy approaches and legal frameworks in both countries is also relevant in ensuring future developments in the energy transition.

Example: Energy-efficient neighbourhood (ENaQ)

Term: 2018 – 2022

Concept: Integrated supply (electricity/heat/mobility) for local districts

Description: The ENaQ energy-efficient neighbourhood research project in the city of Oldenburg is focusing on developing a digital service platform for intelligent load and procurement management at the neighbourhood level.

Example: Jinyu public rented housing

Term: 2016 – 2019

Concept: Heat from renewable energy and an integrated supply (electricity/heat/mobility) in individual buildings

Description: The project uses a management model to provide better quality housing for people on low and medium incomes. The aim is also to increase residents' awareness about saving energy and environmental protection.

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