

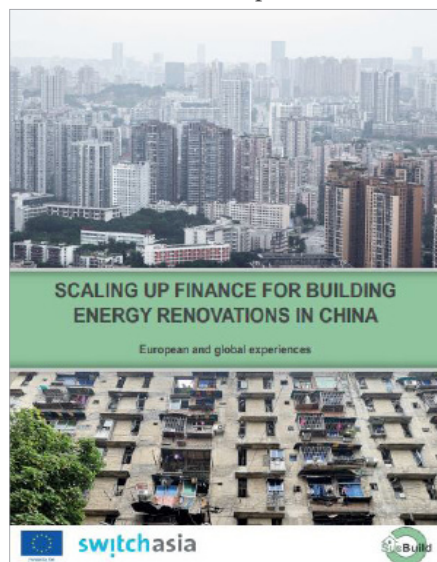
Newsletter

Upscaling and mainstreaming
sustainable building practices
in western China



New report: Scaling up finance for building energy renovations

In China, the building sector accounts for more than 20% of total final energy consumption. Thus, building energy efficiency plays a key role in achieving the national climate target. This ambitious target has substantially driven the demand for energy refurbishment in the building sector. In the last decade, the Chinese government has rolled out several policies, including a significant amount of subsidies, to improve building energy performance and sustainability. Public financing has provided a major incentive for various market actors. However, given the huge financing gap, public subsidies alone are far from sufficient to mainstream sustainable building development and refurbishment in China. However, given the huge financing gap, public subsidies alone are far from sufficient to mainstream sustainable building development and refurbishment in China. Thus, it is essential to develop innovative financing mechanisms for attracting private investments to fill in the immense financial gap and reach the national greenhouse gas reduction target. Energy Performance Contracting (EPC) is a popular market-based mechanism for building energy retrofitting ESCOs in China. However, companies of MSME size, have limited access to financing, which represents a key challenge for realizing energy efficiency projects in the building sector at a substantial scale. At the same time, financing energy efficiency projects in the building sector represents an attractive investment opportunity for financial institutions due to the high



overall investment volume and the decreased risks due to energy efficiency improvements. Yet, financial institutions also face substantial barriers to seize these benefits and accelerate green financing for building energy refurbishment and ESCOs.

Against this background, SusBuild project published recently the report "Scaling up finance for building energy renovations in China" which draws lessons from European and global examples that address various barriers faced by ESCOs and financial institutions. The presented instruments and financing products have supported access to financing of ESCOs in several countries worldwide and may inspire market actors in China. Examples include financing products for building energy refurbishment as well as various toolkits that support financial institutions in financing energy refurbishment projects.

The full version of the report can be downloaded at: <https://www.susbuild.eu/library/reports/wp3-scaling-up-finance-for-building-energy-renovations-in-china/>

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Financing Sustainable Buildings in CHINA

On the 15th of November 2018, the Wuppertal Institute hosted the Forum of Financing Sustainable Buildings within the framework of EU Switch-Asia SusBuild project in Chongqing. The forum was organized in collaboration with the China Association of Building Energy Efficiency (CABEE), the Sino-German Urbanisation Partnership, and two SusBuild local partners. It gathered about 80 participants from the building sector and financial institutions in China as well as European and other international organisations to discuss how green financing can support sustainable building development in China in the future.



The Forum was divided into three sessions. The representatives from the Ministry of Housing and Urban-Rural Development (MoHURD) and the China Association of Building Energy Efficiency (CABEE) opened the conference, introducing the trend of green buildings and building energy efficiency in China and stressing the importance of financing. The opening speeches were followed by three keynote presentations of experts from Chongqing Association of Building Energy Efficiency (CQBEEA), Central University of Finance and Economics, and International Partnership for Energy Efficiency Cooperation (IPEEC). The keynote speeches highlighted the importance of building energy efficiency, the current practice in Chongqing, and innovative financial instruments that can potentially

scale up financing for sustainable buildings.

The second session invited experts from financial institutions and the building sector to share insights from their practices. Domestic financial institutions, such as Industrial Bank, Pudong Development Bank, and local banks in Chongqing introduced their current practices of green financing related to sustainable buildings and the challenges they are encountering. Building experts from Chongqing, Shanghai, Qingdao, and Yunnan Province presented energy efficiency retrofitting projects, their local policy framework, and challenges in accessing financing. Some projects and policies address the concerns of financial institutions, for example, improved information disclosure through a monitoring platform.

During the third session, experts from national and international organisations, such as UNEP FI, the Wuppertal Institute, Guangzhou Carbon Emissions Trading Centre, CECEP Consulting, and CABEE, presented innovative instruments supporting financial institutions in financing sustainable buildings. These instruments include standardised procedures, green mortgages, green stock indexes, green bonds, and facilitator organisations. The consensus of the Forum is that financing for sustainable building development is still at an early stage in China. Its upscaling is of vital importance and will require paradigm changes of different stakeholders as well as an effective combination of policies and innovative mechanisms including not only financing products but also more information for energy efficiency investment performance. The Forum was first of its kind in Western China and brought various key actors from the building sector and the financial sector into dialogue and therefore paved the foundation for further collaboration in the future.

The summary report can be downloaded at: <https://www.susbuild.eu/news/11-2018-financing-sustainable-buildings/>

SusBuild roadshow for sharing lessons learned

On the 31st of May, SusBuild held a session at the Annual Assembling of Building Energy Efficiency Association in Chengdu. Representatives from associations, research and design institutes, and think-tanks from more than 30 provinces and cities participated in the session. Dr. Chun Xia-Bauer, the project manager of SusBuild, introduced the project and its key outcomes, various training handbooks and reports. Mr. Yong Cao, the director of Chongqing Building Energy Efficiency and SusBuild local partner, presented the achievements and the detailed activities in Chongqing. Mr. Jiayun Gao the director of Yunnan Development Centre for Building Technology, described how SusBuild and the exchange between EU and Chinese experts have supported sustainable building development in Yunnan Province, for example, in the field of renewables

application in buildings. The presentations and publications drew a strong interest from the participants. Representatives from various organisations approached the SusBuild team to obtain more detailed information.

In the next days, SusBuild team continued their roadshow to Xinjiang. Xinjiang Uygur Autonomous Region plays a key role in the “One Belt ,One Road” initiative and has received financial and technical assistance from other provinces as its socio-economic development still lags behind. Thus, mainstreaming sustainable building in this region can help to enhance the environmental sustainability of the Initiative and of various assisting projects.

The project team visited Xinjiang Building Research Institute (XJBRI) and Xiangjiang Building Energy Efficiency Association in Urumqi, the capital city of Xinjiang. During the meeting, the team introduced the SusBuild project and its outcomes. The participants were especially interested in the following topics of SusBuild: standard and labelling, green financing, innovative and systemic approach of sustainable building design, and the role of intermediary organisations. After the meeting, XJBRI also showed their new pilot of a prefabricated passive building. SusBuild experts shared their knowledge about European and national experiences in passive house design and construction.

The meeting was followed by a series of project visits and information exchange with developers and construction companies in Xinjiang. With the support of the XJBRI, SusBuild team visited different ongoing projects, including hotel buildings, a stadium, a school, residential buildings and a museum. During the visits, the team introduced SusBuild and shared the insights learned from it, especially concerning green construction and green building design. During the field trip, the team realized that among stakeholders outside the capital city there is generally a low level of awareness concerning sustainable buildings. The roadshow had reached numerous representatives from various organisations along the value chain from more than 30 provinces and cities. It had as well in-depth information exchange in Xinjiang. Considering the interest and development strategies of different organisations identified during the roadshow, the team believes that the outcomes of SusBuild is of high relevance to them.



New report: Energy Performance Contract Cases in Chongqing

Chongqing City is the national pilot of building energy retrofitting. More than 10 million m² of building retrofitting projects are based on Energy Performance Contracting (EPC), which result in an average of 22% in energy savings, 172 million RMB of cost savings, and 170 000 tons of CO₂ emission reduction. A part of these projects were selected by SusBuild EPC as pilot projects. Recently, SusBuild released the report “Energy Performance Contract Cases in Chongqing”, which collects examples of pilot projects across different building types with applied technologies and project impacts.

The report can be downloaded at: <https://www.susbuild.eu/library/reports/>



New report: Building energy standards and labelling in Europe



Building energy standards and labelling is a key policy that helps accelerating the shift from conventional buildings towards sustainable low to ultra-low energy buildings. A multitude of lessons can be learned from European experiences for their development and implementation.

A new report of SusBuild provides an overview of mandatory and voluntary building energy standards and labelling at the European level and in three European countries.

Firstly, the report presents in details the mandatory measure, European energy performance certificate (EPC), covering the implementation, costs of certificates, compliance and penalties, inspection and monitoring, and required expert competence and training. In the second part, considering the aspects mentioned above, the report illustrates the implementation of EPC at country level with the examples of Sweden's Boverket Building Regulations, Germany's Energy Conservation Ordinance and Spain's Technical Energy Code. In the third part, the report collects

various 3rdparty (voluntary) standards and labels such as Passive House Standard, KfW Efficiency House, Active House and MIN-ERGIE. Their technical and energy requirements, materials and technologies, and certification process are described. These presented standards and labeling systems are crucial for driving systematically the entire building supply chain towards sustainable development and for driving MSMEs to take up sustainable building practices.

The report can be downloaded at: <https://www.susbuild.eu/library/reports/>