

SWITCH-ASIA POLICY BRIEF

Enhancing Capital Flows for Energy Efficiency Investments in China's Building Sector

The UNEP Finance Initiative and UNEP EU-funded SWITCH-Asia Regional Policy Support Component held a workshop on “Enhancing Capital Flows to Energy Efficiency Investments in China’s Building Sector” on 15 April 2016 in Shenzhen, China. The workshop was held back to back with the official meetings of countries for the G20 Energy Efficiency Finance Task Group in Shenzhen. During the workshop, policy makers, financial institutions and real estate developers shared their knowledge, experience and best practices with the view of enhancing private financial flows towards energy efficiency.



Key Learnings

- Potential investments are not fully realized due to both demand and supply-side challenges, including a lack of information, technical assistance and accountability
- Increased investments for energy efficiency in real estate (for new buildings and refurbishments) can reduce greenhouse gas (GHG) emissions, while raising living standards and stimulating economic growth especially in cities.
- Access to finance for energy service companies (ESCOs) should be strengthened in order for these companies to offer some of the needed energy efficiency solutions in finance and technology.
- Governments alone will not be able to provide sufficient funding for energy efficiency. To mobilize private funds they will need to work closely with financial institutions, real estate developers, ESCOs and international development organizations.

Recommendations

- Government can spur demand by instituting national green building standards and providing fiscal or other incentives through coherent and enabling policy frameworks, clearly defined priorities, and supportive fiscal measures.
- Governments can mitigate perceived risks in financing energy efficiency by facilitating the development of national insurance schemes for developers and financing institutions.
- Innovative financial solutions, such as insurance schemes, certifications and energy efficiency mortgages, are needed to promote mutually beneficial investment projects.
- Financial institutions can be better leveraged to increase capacity to fund energy efficiency projects in buildings.
- Greater partnerships are needed with real estate developers, local governments, and financial institutions at project approval stages to ensure building projects prioritize energy efficiency as well, through procurement, bidding standards and more.

Introduction: Increasing Energy Efficiency Investments

Asian economies, such as China and India, face a twofold challenge of meeting rapidly rising energy demands and combatting climate change and environmental degradation [1]. Investments in energy efficiency projects are a key cost-competitive solution to reduce carbon emissions, improve air quality and increase economic productivity. Despite the numerous benefits, the potential for investment remains largely untapped, especially in the building sector which accounts for approximately 43% of China’s total energy consumption (statistics for the period 2011 to 2013) [2]. A lack of knowledge and skills on assessing the risk and opportunities of energy efficiency among policymakers and financial institutions, such as loan officers, are key barriers to investment and must be addressed to stimulate economic growth and raise living standards.

With 2016 being the year of the Chinese presidency of the G20, the premier forum for international economic cooperation, never before has there been a better time to engage with Chinese stakeholders on how to finance more energy efficiency in the People's Republic of China.

Stimulating demand for energy efficiency investments

Some of the main challenges for economic actors to enhance their energy efficiency remain the lack of awareness of the full potential and benefits of energy efficiency as well as insufficient access to finance. Establishing coherent and supportive policy frameworks and fiscal incentives, providing technical assistance and introducing certifications and standards are needed to increase the number of energy efficiency investments in buildings. In particular, green-building standards can have a positive role in driving investment as it encourages construction of new energy efficient properties, as well as the renovation of inefficient ones. In the Shanghai Changing Low Carbon Project, for instance, the introduction of municipal green building standards led to the renovation of 32 buildings, spurring demand for deep retrofits and its success increased the amounts that banks were willing to lend for future projects. More transparency and data on real energy savings can convince banks and investors to provide bigger amounts of capital for energy efficiency. The 'China Green Building Alliance' created by CECEP Green Carbon aims to fill that gap in China. It collaborates with real estate developers, industrial chain companies and financial institutions to develop a big data platform supporting investment in green buildings.

Increasing supply of financing

Supply of finance for energy efficiency in buildings is hampered by mistrust and lack of knowledge. Innovative financial solutions, such as insurance schemes and certifications, are needed to minimize perceived risks and create a system of accountability that can promote mutually beneficial investment projects. One of the most innovative practices to advance energy efficiency is an insurance scheme called the Energy Savings Insurance (ESI). It ensures that a pre-agreed level of energy savings is reached after a set of determined energy efficiency measures is established. The insurance supports the performance guarantee offered by the energy service company, allowing both clients and funders to increase mutual trust. Providing potential investors with a pre-screened list of certified energy service companies (ESCOs) can further promote investments in energy efficiency. For instance, in order to increase market activity in China, the national ESCO association developed a list of certified ESCOs by sector.

Building capacity of financial institutions

Financial institutions, including international development organizations and public finance initiatives, can be better leveraged to increase capacity to fund energy efficiency projects in building. Technical assistance programs can be implemented to promote investment through international development organizations, including the International Finance Corporation, the World Bank and the Asian Development Bank. For example, the European Bank for Reconstruction and Development (EBRD) has developed Sustainable Energy Financing Facilities (SEFFs) in 25 countries. These facilities are structured as country/region specific 'one-stop-shops' through which the EBRD extends both credit lines and technical assistance to local financial institutions allowing them to sustainably integrate sustainable energy financing in their business models and across all of their offers. In China, the CHUEE program of the International Finance Corporation (IFC) has been instrumental in developing the energy efficiency market by providing risk guarantees to financial institutions as well as technical assistance to build their energy efficiency pipelines and portfolios and assess specific risks and opportunities in energy efficiency finance across sectors.

Policy implications

Efforts are needed to support the development of energy service companies and improve the financing of these companies. In order to increase the demand for energy efficiency investments and incentivize property owners and developers to improve the performance of their buildings, key elements must be introduced. These include: labelling, certification and standards for energy efficient buildings, innovative financial instruments, incentives and subsidies, third party intermediaries as well as objective energy performance data, measurements, reporting and verification. Government alone will not be able to unlock private finance for energy efficiency, but will need to work closely with energy service companies, international development organizations and financial institutions. The outcomes of these investments on energy efficiency financing in the building sector will serve to support national dialogue in China and serve as models for future policy replication across Asian countries.

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Sources:

1 According to the IEA 2013 World Energy Outlook, non-OECD Asia will account for 65% of the global growth in energy demand to 2035, primarily driven by China and India (<http://eneken.ieej.or.jp/data/5275.pdf>)

2 Zhang, Y., He, C.Q., Tang, B.J. and Wei, Y.M. 2015. China's energy consumption in the building sector: a life cycle approach. Elsevier. Vol. 94. May 1. pp.240-251. Available online: <http://www.sciencedirect.com/science/article/pii/S0378778815002030> (consulted on 8 April 2016)

Additional resources on ongoing work with the private financial sector:

Statement of Banks on Energy Efficiency Finance, released by the Finance Initiative of the United Nations Environment Program Finance Initiative (UNEP FI) and the European Bank for Reconstruction and Development (EBRD)

<http://mp.weixin.qq.com/s?biz=MjM5NjI4MjAyNg==&mid=2649846156&idx=2&sn=47c10652caf2bbc4582758a6c89c2039> (in English)

<http://mp.weixin.qq.com/s?biz=MjM5NjI4MjAyNg==&mid=2649846156&idx=1&sn=b8899b21d4ba4fab4ed8637e6ec94f1b#rd> (in Chinese) and UNEP FI page dedicated to energy efficiency finance:

<http://www.unepfi.org/work-streams/energyefficiency/>