China Higher Efficiency Power and **Distribution Transformers Promotion Project**







- The energy savings generated from higher efficiency transformers are not the key criteria in the investment decision because of the higher first cost of acquiring higher efficiency transformers;
- The local manufacturers lack the driving to build the capacity on design and manufacturing of higher efficiency transformers;
- It is difficult to increase the users' awareness on the advantages of higher efficiency transformers due to the lack of appropriate tools, market intelligence & product database to demonstrate the potential important energy savings from higher efficiency transformers;



The activities:

- **Upgrade Energy Efficiency Standards for Distribution Transformers**;
- Capacity Building for End-Users: Develop LCC guidelines, develop transformers selection tool, database and website, and training workshops for end-users and local energy service organizations;
- **Capacity Building for Chinese Manufacturers of** Transformers: Develop Eco-design and manufacturing guidelines for local manufacturers of transformers, training workshops, international symposium

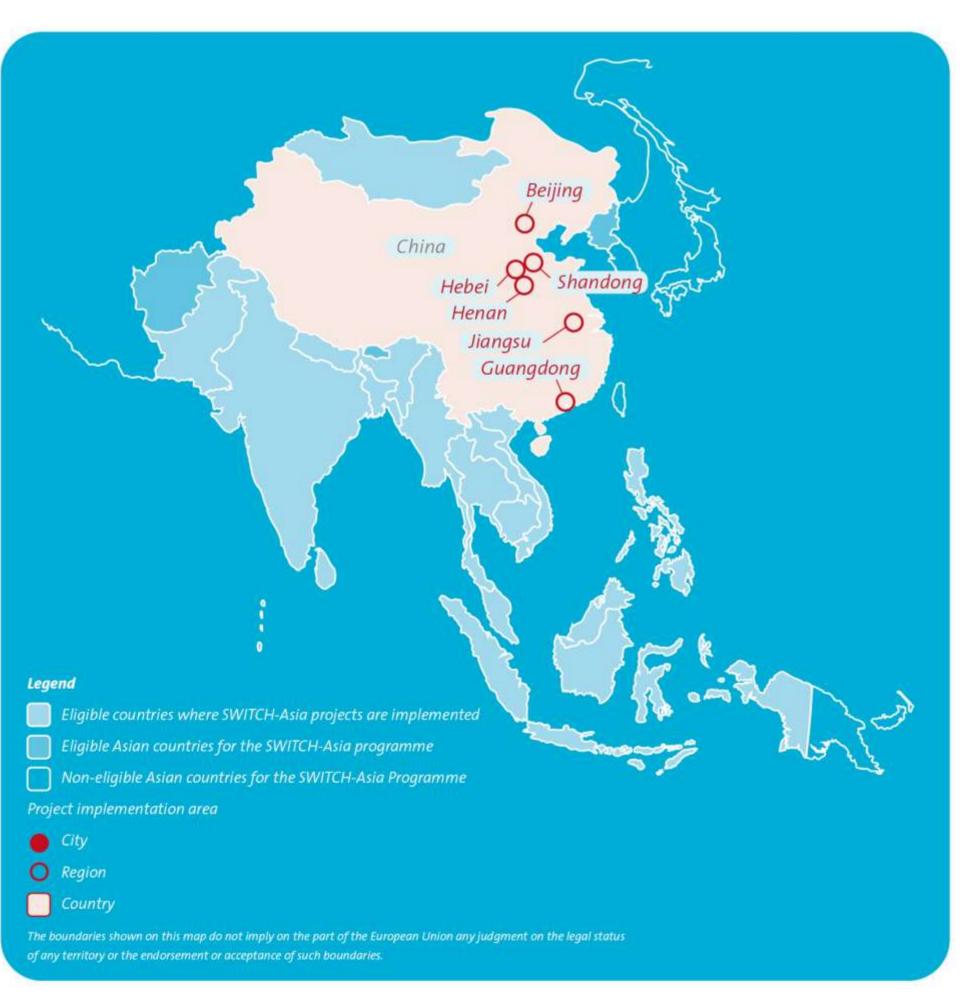






The Project and its Impact

Adoption of higher efficiency transformers in place of old inefficient transformers will reduce electricity consumption by end-users. The Action will therefore significantly contribute towards reducing electricity consumption patterns and emissions of greenhouse gases and other pollutants. Conservative estimates corresponding to a replacement level of 20% of S7 distribution and power transformers (lowest efficiency) with S11 transformers (medium-level efficiency) in the 5 provinces targeted would result in annual electricity savings of 887 million kWh per year, corresponding to avoided combustion of 332,000 tons of coal, which will reduce emissions of 846,300 tCO2 and 47,200 tons of SO2 (annual basis compared to BAU)



China Higher Efficiency Transformers **Promotion Project** -----------They can Their mandate end-users promot EE&C the selecamong endusers formers Target group: end-users

The Outreach Strategy

To ensure the success of outreach activities (training workshops), the Action will build upon two forces: the network of Energy Conservation and Supervision Centers (ECSC), which are organizations established by local governments with the objectives of coordinating, facilitation and monitoring the implementation of China's central and local governments' policies on energy efficiency and conservation. They hold a strategic position to create awareness and build capacity among end-users on higher efficiency transformers. The project delivers LCC guidelines, transformers selection tool, report on standards) to ECSCs who will then disseminate them to end-users (multiplier effects).

The China Electricity Council (CEC) has a legal right to demand their members (factories or distribution utilities) to meet certain performance criteria (safety, energy efficiency). The technical standard committees of CEC have therefore a strong influence on end-users regarding their purchasing choices. CEC and his members are key organizations with strong influential power and technical capabilities to promote higher efficiency transformers.

In a Nutshell

The SWITCH-Asia "China

Higher Efficiency Power and Distribution **Transformers Promotion** Project" project seeks to increase the market penetration of higher efficiency transformers (S11 and above) and enlarge the market share of higher efficiency transformers in China. The action will therefore seek to create awareness among end-users (power transmission and distribution utilities and energy-intensive industries) on the need to change their procurement policies in favour of higher efficiency transformers, and also build the capacity of SMEs on the **Eco-design of transformers.** In order to achieve its goals, the higher efficiency transformer promotion project will further upgrade the national Energy Efficiency Standards, promote the Life Cycle Assessment concept for transformers and develop an education platform with market intelligence for end users over the next three years. The project is implemented by the International Copper Association China (ICA) in partnership with the China National Institute of Standardization (CNIS), the China Electrical **Equipment Industrial** Association (CEEIA), the **China Electricity Council** (CEC), and Action Sustainable Development (ASD-France).

Contact:

Coordinator: **International Copper Association** Ltd., China Room 1202, 12F, Canway Building 66 Nan Li Shi Road, Beijing, 100045 Tel.: 86-10-68042450, ext.203 Email: philipzhang@copper.org.cn http://www.efficienttransformer.org















