Development and Demonstration of Renewable Energy Implementation Toolkit in China and South Asia

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Abstract (300 word limit)

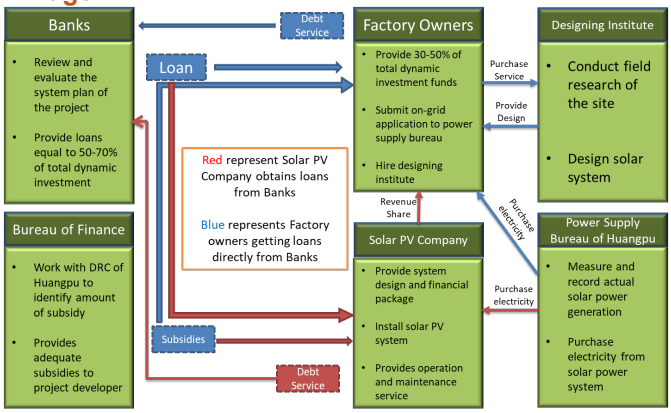
Global Environmental Institute has developed a Renewable Energy Implementation (REI) toolkit that evaluates, implements and scales-up renewable energy (RE) projects at national and regional levels. By using the REI Toolkit, a pilot for a 320 mega-watt (MW) industrial rooftop solar photovoltaic (PV) program in the Huangpu EDZ has been completed. The research shows that the Huangpu EDZ requires about 130 individual projects, each with an estimated average of 2.5 MW, which will be concentrated in the Sino-Singapore Knowledge City (155 MW) and the Yunpu Industrial Park (70 MW).

In 2007, the REI toolkit was applied to evaluate solar and biomass power potential of Gampola Town, Sri Lanka – piloting the country's first low-carbon development zone. Using geographic information system (GIS) technology, we mapped and measured how much and which renewable energy technology could be installed in what part of Gampola to yield the best results. According to our research, Gampola needed a 3-part solution to be nearly entirely 0-Carbon:

- Solar lights strategically located over 22,670m2 can accumulate about 1.8MW. The solar lights should be placed on the rooftops of schools, bus stations and train stations
- Mixed-source biomass power tool can accumulate nearly 5.50MW;
- Green travel - including electric cars and tuk-tuks, plus charging stations - can support local and national development

The challenges we have encountered have further advanced the REI toolkit, and we strongly believe that science-based mechanisms like our toolkit will enable energy transition and clean energy development around the world.

Image



Recent Publications (minimum 5)

1. Qingchan Yu, et al., China-U.S. cooperation on China's subnational low carbon planning toolkit development and application, Journal of Renewable and Sustainable Energy 7, 041501 (2015);
2. YU Qingchan, et al., "Experience on China's Subnational Low-carbon Planning Toolkit Development and Demonstration" (in Chinese and English), Low-carbon City Case Study, 2014-06
3. YU Qingchan, et al., "Comparison of U.S. Experience on Haze Control and China's New Regulation on Air Pollutant Control", China Reform, 2013-11
4. YU Qingchan, et al., "Adaptation of U.S. State Action Planning Methodology into China's Situation", China Reform, 2013-06;
5. YU Qingchan, et al., "Challenges of Low-carbon Development Planning at China's provincial level and International Experience", Appendix 1 of "Low-carbon Economy and Public Policy" published by the Chinese Academy of Governance, 2013-03



Biography (150 word limit)

Serving as program manager of Energy and Climate Change Program at Global Environmental Institute (GEI) since 2009, Qingchan YU has led a Chinese and American team to consistently develop and disseminate the Low-Carbon Policy Toolkit throughout China in training sessions. Since 2015, the Toolkit application has increased to 15 Chinese cities, thereby enabling more and more officials to make realistic low carbon goals and the policies to achieve these goals. Her accomplishments in policy and climate change collaborations are grounded in a research background specializing in renewable energy and climate change policy analysis. Prior to joining GEI, Ms. Yu worked at the Center of Environmental Impact Assessment at the Environmental Development Center of the Ministry of Environmental Protection for half a year. She holds a B.S. and B.A. from Nankai University, China, and a M.S. in Environmental Economics from Renmin University of China.

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Notes/Comments: