

NBS Good Practices from Chinese government

May 2019

China Renewable Energy Scale-up Program phase II

1. Background

Concerned with the adverse health and environmental consequences associated with coal combustion, energy security risks, and resource scarcity challenges, the Government of China (GoC) is making continued efforts to increase renewable energy (RE) contribution to meet primary energy and electricity needs. The GoC set an ambitious target to increase the share of non-fossil fuel (RE and nuclear) to 15 percent of the country's 2020 primary energy supply and 20 percent of the primary energy supply by 2030.

The China Renewable Energy Scale up Program (CRESP) has been designed as a strategic partnership between the GoC and the World Bank/GEF. The objective of CRESP Phase II is to support the ambitious RE scale-up program in China with a focus on efficiency improvement and reduction of incremental costs. It would be comprised of the following five components: (a) policy support; (b) grid integration/access and technical design; (c) technology improvement; (d) pilot demonstration; and (e) capacity building and investment support, in addition to project management support.

2. Project Duration

January 2014- December 2020

3. Status

Implementing

4. Project Stakeholder

This project is implemented by National Energy Administration (NEA). A Project Steering Committee was set up to provide overall strategic and policy guidance and coordinate between various government agencies to the implementation of the project activities. The Steering Committee includes National Development and Reform Commission (NDRC), Ministry of Finance, State Grid Company, China Development Bank, and is chaired by NEA.

5. Project Beneficiaries

Project beneficiaries include (a) government agencies, particularly National Energy Administration (NEA); (b) Chinese RE developers, investors, and grid companies; (c) Chinese RE industry, particularly equipment manufacturers and related service suppliers; (d) piloted provinces, cities, and counties; (e) research institutions and think tanks; (f) all economic agents engaged in the RE supply and delivery chain; (g) the Chinese population who ultimately benefits from less polluting generation of electricity; and (h) the global community who benefits from avoided greenhouse gas emissions, which contributes to global climate change mitigation.

6. Investment total and the structure

Investment total : US\$ 471.38 million

GEF Grant : US\$ 27.28 million

Co-finance : US\$ 444.1 million

7. Co-finance structure

Loan : US\$ 200 million

Investment by RE developers, manufacturers and governments:

US\$ 244.1 million

8. Project Level

National Level

9. Contribution for Climate Change

CRESP phase II will be sustainable scale-up of renewable energy thereby reducing GHG emissions. This project is comprehensive to remove policy, technology, cost, and institutional barriers to renewable energy in China. It will make important contributions to achieve the government's 15% non-fossil fuels target and carbon intensity reduction target in an efficient and least-cost manner. In particular, efficiency improvements of large-scale RE development will result in more electricity generation from RE sources, thereby, reduce GHG emissions.

10. Social, Economic, environmental outcome

As this project intends to contribute to the government's ambitious RE targets, achievement of the project development objective will be assessed with the following higher-level outcome indicators: (a) additional RE-based power generation from improved design of the large wind bases (370GWh); (b) additional RE consumption from increased RE penetration in New Energy Cities (1.31Mtce); (c) avoided emissions of CO₂ from the above two indicators (3.9 million ton); and (d) reduced incremental costs of wind power(1.5 cent/kWh) and solar PV over coal-fired power plants (7 cent/kWh).

12. Project photo and table



Concentrating Solar Power In China



Wind Power Base in Gansu province of China



Solar PV and Fishing complementary system in Anhui province of China



Off-shore wind farm in Fujian Province of China