Implemented by:

Renewable Energy & Energy Efficiency (REEE) project

Energy as a driving force for development

Context

Pakistan currently faces a substantial shortfall in its energy supply. This is causing a deceleration in its economic growth and an outflow of businesses. The Government of Pakistan (GoP) is increasing its support for renewable energy, particularly the use of solar photovoltaic, small hydro, wind, and bio-mass resources. Renewable energy is promoted as an alternative to imported fossil fuels, which are the biggest contributors to Pakistan's trade deficit. The GoP is in the process of introducing a revised Renewable Energy Policy with target share of about 30% of renewable in the total power mix of Pakistan by 2030. The GoP is also focusing on improvement of energy efficiency as well as supply and demand-side management.

To ensure a reliable and affordable energy supply, both Pakistan and Germany attach high priority to renewable energy and energy efficiency. This is ingrained in Pakistan's Renewable Energy Policy and in the Memorandum of Understanding (MoU) signed between the German and Pakistani Governments to establish the Pakistan German Renewable Energy Forum (PGREF).

Project name	Renewable Energy & Energy Efficiency (REEE) Project
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Partners	Ministry of Energy (MoE) Power Division through Alternative Energy Development Board (AEDB) and the State Bank of Pakistan (SBP)
Implementing agency	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Project region	Federal and Provincial levels
Duration	2015 - 2019

Operational Structure & Approach

The prerequisites for disseminating permanent and effective RE & EE solutions are improved

Setting Policy & Regulatory Frameworks | Technology Cooperation | Sustainable Banking

Renewable Energy

- Policy Advice and implementation support
- Net-metering implementation
- Reverse bidding/auctioning tariff mechanism
- Grid integration of various renewables of components and installations
- Solar Photovoltaic (PV) quality standards
- Capacity development of distribution companies as well as of private sector installers

Energy Efficiency

- Review & implementation of building code for Punjab
- Promotion of Energy Management System (EnMS) and Resource Efficiency in industries
- Promotion of EE in buildings

Access to Finance

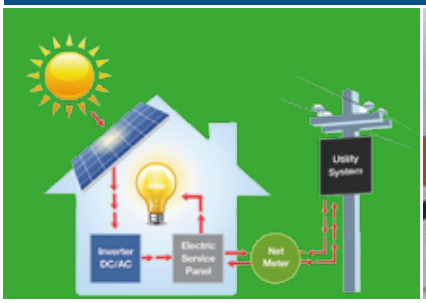
- Development and implementation of Green Banking Guidelines
- Formulation of RE & EE refinancing schemes
- Capacity building of commercial banks for RE and EE financing
- Innovative financing mechanisms for quality off-grid rural energy services

Pakistan German Renewable Energy Forum (PGREF)

Facilitating business-to-business and business-to-government interactions and ensuring knowledge transfer and technology co-operation

Alternative Energy Development Board | State Bank of Pakistan | German Development Cooperation

Photos: © GIZ / REEE



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Pg. 2, left: concept of net-metering

Right: signing of Memorandum of Understanding between the Solar Quality Foundation (SQF) and the German Solar Association (BSW), Munich 2017

Bottom: 7 kWp solar system connected with national grid at GIZ Office, Islamabad

Impact

1. The market incentives and financing instruments in the area of RE have resulted in the installation of more than 2000 MW RE projects and addition of this capacity to the national grid.
2. More than 1,500 licenses for net-metering have been issued by the National Electric Power Regulatory Authority (NEPRA), with a total installed capacity of 35 MW around the country.
3. The Government of Pakistan has approved the quality standards for solar PV equipment's import into the country. Their compliance through customs authorities is being ensured.
4. The Green Banking Guidelines of the SBP provide a framework for the banking sector to incorporate environmental risks in the overall credit risk and promotion of RE and EE investments.
5. As a result of the awareness raising campaign for green banking and finance, commercial banks have offered dedicated lines of credit for distributed generation and utility scale projects
6. More than fifty RE projects of approximately PKR 10 billion have been financed under the incentivized liquidity schemes issued by SBP.
7. More than 1,300 Lighting Global certified solar home systems sold and leased through micro-financing in off grid and weak grid districts in Sindh under the Results Based Financing Project undertaken by the National Rural Support Programme.
8. Under the PGREF platform:
   a. A private sector driven quality programme, Solar Quality Passport (SQP), peruses standardization approach in the installation of solar PV systems;
   b. A total of 15 Pakistani solar companies have established business contacts with 45 German companies, resulting in several successful business transactions.
9. Due to the EnMS implementation in different sectors i.e. textiles, foundry, edible oils, dairy products and hospitals, about 150 gigawatt-hours of energy has been saved. It has resulted in savings of approximately PKR 600 million annually and has also reduced greenhouse gas emissions by 51,000 tons of CO_2 per year.
10. The Project implemented a Green Climate Fund (GCF) Readiness component where it successfully supported the accreditation of a Pakistani bank with the GCF.
11. Under the umbrella of the NDC Partnership, the Project supports the Government of Pakistan with implementing its Nationally Determined Contributions (NDCs) as well as with strengthening its Greenhouse Gas Inventory.

Published by
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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Layout
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Printed by

As at
October 2019

GIZ is responsible for the content of this publication.

On behalf of
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