

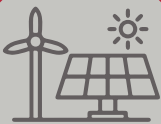


USAID
FROM THE AMERICAN PEOPLE

RENEWABLE ENERGY

POWERING PROGRESS: ADVANCEMENTS IN
RENEWABLE ENERGY

Enhancing Renewable Energy
Proliferation and Grid Integration



Strategic
Policy
Advocacy



Grid
Integration



Regulatory
Support for RE
Development



RE Planning
and
Procurement



Institutional and
HR Capacity
Building



Context

South Asia Regional Energy Partnership (SAREP) Program is a US government flagship initiative that is closely working with South Asian national and regional government entities to meet their clean energy goals and strengthen their energy-security priorities by providing technical assistance to scale deployment of renewable energy, advancing new technologies and strengthening grid integration.

In India, the program is instrumental in supporting the country's goal to reach net zero carbon emissions by 2070, a commitment which includes achieving 500 GW of non-fossil-based electricity generation capacity by 2030. This aligns with India's Nationally Determined Contributions (NDC) to reduce the emission intensity of its GDP by 45% within the same timeframe. A notable example of this support is the Indian Railways' target to achieve net zero carbon emissions by 2030, where SAREP plays a key role in facilitating this transition.

Similarly, other countries in the South Asian region have also set themselves Net-Zero emissions and Renewable Energy targets. SAREP is instrumental in this regional endeavor, providing technical support and capacity-building interventions to help these countries achieve their clean energy goals.



Key Interventions



Strategic Policy Advocacy



Assisting MNRE in designing new policies and regulatory reforms for advancing rooftop solar (RTS) capacity deployment



Institutionalizing the Vendor Rating Program to ensure the quality, safety, and performance of RTS installations



Research, financial modelling, and data analytics support for designing PM Surya Ghar Muft Bijli Yojana that aims to install RTS across 10 million households



Policy recommendations to MNRE on innovative technologies and models such as Behind the Meter Energy Storage and Virtual Power Purchase Agreements



Development and implementation support to MNRE's National Repowering and Life Extension Policy for Wind Power Projects



Subnational level policy support to Haryana and Gujarat for advancing solar energy and repowering of wind projects respectively



National Workshop on VPPA with MNRE



Grid Integration



Identifying multiple revenue streams and applications of utility scale BESS (Battery Energy Storage Systems) in Haryana, Assam and Gujarat



Assessing the market potential, feasibility and business case for behind the meter solar with energy storage systems



Evaluating different technologies and business models for scaling pumped storage projects (PSPs)



Regulatory Support for RE Development



USAID Assistant Administrator's visit to New Delhi Railways Station



Assisting FoR working groups on RE Policies, Regulations, their harmonization and PSP



Supporting CERC on Deviation Settlement Mechanism Regulations



Demand Response (DR) framework and Resource Adequacy (RA) implementation roadmap for Assam



Methodology to monitor distribution performance standards for Madhya Pradesh



Electricity Supply Code Regulation reforms for Haryana and Karnataka



Grid Code Regulation development support for Haryana



Reliability indices benchmarking for generation, transmission, and distribution system for Bhutan



Technology Demonstration Study Tour for Indian Railways



RE Planning and Procurement



Designing Round-the-clock RE procurement tenders through sensitivity analysis and techno-commercial modeling for Indian Railways



Utility led Feeder level solarization procurement support under PM-KUSUM scheme in Haryana



Implementation support to Gujarat on repowering of wind projects through technical assessment, micro siting and pilot project



Technical support for one of the largest procurement tenders for solar panels and inverters in India for EESL



Training of Trainers (ToT) on Net Zero planning



Institutional & HR Capacity Building



RE procurement planning tool and financial model for utility scale solar and storage applications for Indian Railways



Training of Trainers program to build capacity of IR officials on RE and other emerging technologies institutionalized at Indian Railway training institutes



Knowledge exchange workshops at national and subnational level including study trips

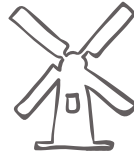


Knowledge partner to governments at various levels for advancing clean energy deployment

Key Achievements



900 MW Round-the-Clock (RTC) Renewable Energy tender awarded by IR, leading to a deployment of ~3.3GW capacity



National Repowering and Life Extension Policy for Wind Power Projects 2023 released by MNRE



Model Regulations on Resource Adequacy issued by FoR



Green Energy Open Access Regulations issued by FoR



MoU signed between USAID and Indian Railways



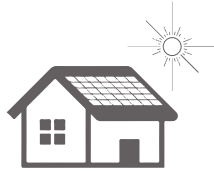
National Workshop on Repowering of Wind Projects in India



Model Guidelines for Management of RE Curtailment for Wind and Solar Generation issued by FoR



Training of Trainers (ToT) course on net-zero planning at Indian Railway Institute of Electrical Engineering institutionalized



Rooftop Solar Demand and Sanction Management Portal launched by HAREDA



Rooftop Solar Vendor Rating Program Institutionalized under the PM Surya Ghar: Muft Bijli Yojana



Rooftop solar vendors certified at Green Power 2023 Summit



Knowledge Partner to Government of Gujarat at 10th Vibrant Gujarat Summit

Partners

Central Sector (India):

- Ministry of New and Renewable Energy (MNRE)
- Central Electricity Regulatory Commission (CERC)
- Central Electricity Authority (CEA)
- Forum of Regulators (FOR)
- Indian Railways
- National Institute of Solar Energy (NISE)
- Energy Efficiency Services Limited (EESL)

South Asia:

- Druk Green Power Corporation Limited (DGPC), Bhutan
- Electricity Regulatory Authority (ERA), Bhutan
- Utility Regulatory Authority, Maldives

State Sector (India):

- Haryana Renewable Energy Development Agency (HAREDA)
- Haryana Electricity Regulatory Commission (HERC)
- Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL)
- Gujarat Energy and Petrochemicals Department (EPD)
- Gujarat Energy Development Agency (GEDA)
- Gujarat Urja Vikas Nigam Limited (GUVNL)
- Andaman and Nicobar Islands Administration
- Madhya Pradesh Electricity Regulatory Commission (MPERC)
- Assam Electricity Regulatory Commission (AERC)

About SAREP

The South Asia Regional Energy Partnership (SAREP), a flagship program to advance objectives of the U.S. Government's Clean Asia Enhancing Development and Growth through Energy (Clean EDGE), is a five-year initiative (2021-26) that aims to improve access to affordable, secure, reliable, and sustainable energy across six South Asian countries—Bangladesh, Bhutan, India, Maldives, Nepal, and Sri Lanka—in line with these countries' climate and clean energy priorities.



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