

Partnership to Advance Clean Energy-Deployment (PACE-D) Technical Assistance Program



A bilateral program to accelerate the deployment of clean energy in India via policy support, capacity building, pilot projects, innovative financing and partnerships.



Overview

Partnership to Advance Clean Energy (PACE) is the flagship program on clean energy between the U.S. and India to jointly work on a range of issues related to energy security, clean energy and climate change. PACE seeks to accelerate inclusive, low-carbon growth by supporting research and deployment of clean energy technologies and policies. PACE combines the efforts of several government and non-government stakeholders on both the U.S. and Indian sides and includes three key components: Research (PACE-R), Deployment (PACE-D), and Off-Grid Energy Access (PEACE).

PACE-D includes a USD 20 million five-year technical assistance (TA) program which is led by the U.S. Agency for International Development (USAID) and the U.S. Department of State and implemented in partnership with the Ministry of Power (MOP) and the Ministry of New and Renewable Energy (MNRE). The PACE-D TA Program focuses on energy efficiency (EE), renewable energy (RE) and cleaner fossil technologies, with cross-cutting activities on institutional strengthening, capacity building and training, and clean energy finance.

PACE-D TA Program

The overall aim of the PACE-D TA Program is to accelerate the deployment and use of clean energy produced, expand U.S.-India trade and investment linkages, and facilitate exchange of information and best practices. The program works with policy makers, regulators, state agencies, private companies, investors, clean energy associations, and other stakeholders to create an enabling environment to increase the uptake of EE and RE technologies in India.

Program Partners

National Agencies: Bureau of Energy Efficiency, NTPC, India Smart Grid Task Force, National Institute of Solar Energy, Solar Energy Corporation of India, IREDA.

State Agencies: Haryana Renewable Energy Development Agency, Haryana Energy Regulatory Commission, Madhya Pradesh Urja Vikas Nigam Ltd., Rajasthan Renewable Energy Corporation Ltd., Karnataka Renewable Energy Development Ltd., Bangalore Electricity Supply Company Ltd., Uttar Haryana Bijli Vitran Nigam Ltd., Tripura State Electricity Corporation Ltd., and Energy Departments of Karnataka, Haryana and Rajasthan.

Public and Private Sector Agencies: Tata Cleantech Capital Ltd. (TCCL), The Climate Group, PTC Financial Services, Indian Renewable Energy Federation, BASIX, Nalanda University and Indian Oil Corporation Ltd.

Implementation Team

Nexant, Inc. leads the implementation team for the PACE-D Technical Assistance Program. Nexant is supported by a consortium of Indian and U.S. companies to implement the various components of program. These include: American Council on Renewable Energy (ACORE), Arc Finance, Continuing Education & Training Centre (CETC), Development Environergy Services (DESL), Environmental Design Solutions (EDS), Emergent Ventures India (EVI), Idam Infrastructure Advisory (Idam Infra), KPMG Advisory Services, Leonardo Technologies (LTI), SRC Global, and Stephen Storm (SSI).

At a Glance: Key Activities



Provided support for the development of smart grid regulatory framework

Supporting the technical update of Energy Conservation Building Code

Supporting the Nalanda University and Uttar Haryana Bijli Vitran Nigam headquarter to become net-zero

Energy Efficiency



Supporting development of the National Energy Storage Demonstration Program and its roadmap

Supporting development of replicable and scalable off-grid RE-based energy access, and commercial and industrial applications

Working with several microfinance institutions to make them market ready for clean energy lending

Renewable Energy



Improved the heat rate in two utilities

Established the Indian Heat to Power Alliance

Improved NTPC's capacity on supercritical technologies via technical reports, software pilots and study visit to the U.S.

Cleaner Fossil Technology

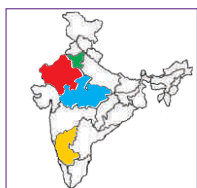


Supporting NISE in the establishment of Solar Energy Training Network (SETNET) for building skilled manpower

Providing training to 14 smart grid pilots and detailed TA to one pilot

Building the capacity of financial institutions and banks on clean energy finance

Capacity Building



Providing policy and technical support to state agencies in Rajasthan and Karnataka for rooftop solar and EE initiatives

Supported the development of Demand-side Management (DSM) regulations in Haryana

Supporting the development of off-grid policy and Central RE Monitoring Centre in Madhya Pradesh

Institutional Strengthening



Mainstreaming energy efficiency finance in corporate loans via Corporate Energy Audit Program with TCCL

Exploring options to launch Green Bonds to facilitate long tenure, reduced cost debt for clean energy projects in India

Working with stakeholders to launch "Distributed Renewable Energy - Community Fund" focused on providing debt and equity for clean energy projects

Clean Energy Finance

Focal Areas

Energy Efficiency

Institutional Strengthening

- Accelerate the deployment of following technologies through effective policies, regulations, programs and pilots:
 - Smart Grid Technologies
 - Net-Zero Energy Buildings
 - Waste Heat Utilization
 - Heating Ventilation and Air-Conditioning

Cleaner Fossil

Capacity Building and Training

- Support improvement in the operational efficiency of thermal power plants
- Support development of supercritical technology
- Establish an alliance on heat to power

Renewable Energy

Clean Energy Finance

- Support states in development of innovative policy, regulatory and institutional frameworks
- Support the development of off-grid applications for commercial and industrial applications, and rural energy access
- Design innovative financing mechanisms

Secretariat to PACE

The PACE-D TA Program serves as the Secretariat to the overall PACE initiative. As part of its secretariat role, the program is providing coordination and support to seven U.S. agencies that are implementing clean energy programs in India. These include: Department of Commerce; Department of Energy; Department of State; Export Import Bank of the United States; Overseas Private Investment Corporation; United States Agency for International Development; and United States Trade and Development Agency.

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