

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

## Smart Grids



## Implementation Support for Smart Grids in India

India has set up a detailed roadmap for smart grid implementation in the country and is supporting smart grid pilot implementation in 14 state-owned utilities via the Indian Smart Grid Task Force (ISGTF). The PACE-D TA Program is supporting the Ministry of Power and ISGTF in the implementation of the pilot projects and building the capacity of the 14 utilities.

The program is also supporting the Ministry of Power in development of smart grid regulatory framework, which is under review by the Forum of Regulators (FOR). The program is providing technical assistance to ISGTF based on their specific requirements, and also providing strategic support to pilot utilities.

In addition, the program is focused on knowledge transfer via creation of intellectual capital including opinion papers, white papers, case studies and technical workshops. As part of this initiative, the program will identify partner institutes and train them on smart grid technologies so that trainings can be organized and delivered on a sustainable basis. The curriculum, designed in consultation with the MOP and ISGTF, will include both theoretical (case studies, lectures, etc.) and practical tools (site visits, hands on training, etc.).

The PACE-D TA Program proposes to partner with two smart grid pilot projects – Tripura and Rajasthan – and will handhold these utilities on specific implementation aspects.

## Smart Grid Study Trip to the U.S.: January 20-30, 2014

As smart grid development progresses in India, there is a need to look at good practices, technologies, initiatives and programs being adopted globally. The PACE-D TA Program organized a study trip to the U.S. to facilitate such knowledge transfer to the representatives of the 14 utilities implementing pilot projects. The trip provided the participants an opportunity to obtain first-hand experience of latest smart grid technologies and initiatives in the U.S., and also observe live demonstrations of smart grid practices. The trip covered a cross section of institutions including: two U.S. government agencies; five utilities; three public utility commissions; two national level research institutions; and two agencies related to rural electricity and system operation.

### Key Deliverables

- Criteria for selection of Smart grid implementation agency
- Measurement and Verification Framework
- Smart grid training network
- Two smart grid pilot project implementation
- Development of a Smart Grids regulatory framework.
- Training workshops for capacity building of 14 utilities
- Technical opinion papers and reports Study trip to the U.S.

### Key Activities and Progress

- Provided support in developing the RFP for selection of Smart Grid Implementing Agency (SGIA) which included development of the evaluation criteria for the selection of SGIA. The evaluation criteria will help the pilot utilities to make informed decision regarding the SGIA.
- Organized four capacity building workshops for the 14 utilities.
- Published three technical papers: Demand Response in the Indian context; Smart Imperatives for Grid Integration of Renewable Energy; and "A Roadmap for Communication and Application Interoperability in India".
- Compiled a draft paper on "leveraging infrastructure created under R-APDRP to ascend towards smart grids" which is currently under finalization.
- Organized a study trip to the U.S. in January 2014 for knowledge transfer of latest smart grid technologies.
- Supporting the MOP in the development of a smart grid regulatory framework.

## Program Overview

The PACE-D Technical Assistance Program is a part of the overall Partnership to Advance Clean Energy (PACE) initiative, the flagship program under the U.S.-India Energy Dialogue. The five year program, implemented in collaboration with the Ministry of Power and Ministry of New and Renewable Energy, has three key components: Energy Efficiency, Renewable Energy and Cleaner Fossil Technologies. Within each of these components, the program's focus is on institutional strengthening, capacity building, technology pilot projects, innovative financing mechanisms and increasing the awareness of clean energy technologies. Please access [www.pace-d.com](http://www.pace-d.com) for additional information.

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