



USAID | **INDIA**
FROM THE AMERICAN PEOPLE

Smart Grid Electric System

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

17-18 October 2014

Structure of the Presentation

Contents

- **Introduction to the PACE-D Program**
- **Focal Areas of PACE-D Program**
- **PACE-D Smart Grid Module Coverage**
- **Smart Grid Activities Performed Under PACE-D**
- **Upcoming Smart Grid Activities Under PACE-D**

Introduction to PACE-D

- 5-Year, 20 million PACE-D Technical Assistance program
- Based on the bilateral agreement signed between USAID and two Indian Ministries - Ministry of Power (MOP) and Ministry of New & Renewable Energy (MNRE)
- Program formally launched on July 31, 2012
- Program awarded to Nexant Inc. and a consortium of Indian and U.S. partners



Focal Areas of PACE-D

Three Components

- ❖ **Energy Efficiency (EE):** Improved end-use of EE through scaling-up and deployment of EE technologies.
- ❖ **Renewable Energy (RE):** Increased supply of RE by scaling-up RE technologies.
- ❖ **Cleaner Fossil Technologies:** Adoption and accelerated deployment of cleaner fossil fuel technologies

Overarching Focus



PACE-D – Smart Grid Module Coverage

Technical assistance to steer the Smart Grid Pilot Projects



Regulatory assistance (National level SG regulations, ToU tariff et al.)



Capacity building programs for all associated Stakeholders (utilities, regulators, consumers)



Adopting customized SG solutions for India based on international experience



Smart Grid Activities Performed Under PACE-D

- **Capacity Building Activities**

- Regular Capacity building workshops have been conducted for the utilities that are involved in the implementation of the Smart Grid Pilot Project in India.
- Regular field visits have been arranged along with the workshops to enable participants to experience live demonstration of Smart Grid applications. Field visits have been conducted to TPDDL, PED etc.
- A study tour to U.S was organized in January 2014 to provide utility officials exposure to the best international Smart Grid practices.

- **Technical/Opinion Papers**

- Various opinion papers have been released to create awareness and knowledge base among the utility.
- Some of the topics of opinion papers are Demand Response in Indian Context, Smart Imperatives of Grid integration of Renewable Energy, EM&V Guidelines for Smart Grid, Roadmap for Communication and Application Interoperability, Leveraging R-APDRP to Progress towards Smart Grid.

Smart Grid Activities Performed Under PACE-D cont.

- **Support to ISGTF (India Smart Grid Task Force)**
 - Ongoing support to ISGTF on various issues.
 - Contribution to RFP for selection of Smart Grid Implementation Agency (SGIA)
 - Development of selection criteria for selection of SGIA.

- **Development of Model Smart Grid Regulations for India**
 - Draft Smart Grid regulations have been prepared under the guidance of Technical committee constituted by Ministry of Power.
 - Draft Smart Grid regulations have already been submitted to Forum of Regulators (FoR) for its consideration.

Upcoming Smart Grid Activities under PACE-D

- Development of basic Smart Grid training modules and establishment of Smart Grid training network for roll-out and implementation.
- Technical Assistance to two Smart Grid pilot utilities on various aspects of implementation.
- Development of Model Guidelines for Customer Engagement in Smart Grid Pilot Project
- International conference on Smart Grid/Country-wide multi stakeholder roadshows/roundtables
- Strategy development and handholding for Smart Grid knowledge center.

Thank You