

# PACE UPDATE

A Newsletter on the U.S.-India Partnership to Advance Clean Energy (PACE)

## New Global Initiative for Clean Energy

On November 30, 2015, U.S. President Obama and Indian Prime Minister Narendra Modi, along with other world leaders, launched “Mission Innovation”, a new multi-billion dollar initiative to accelerate public and private global clean energy innovation. The announcement was made at the opening of the UN climate change conference in Paris.

As a part of Mission Innovation, 20 countries including the U.S. and India, have committed to double clean energy research and development investment over five years. The current collective spending on clean energy is estimated to be nearly USD 10 billion, which will double to USD 20 billion under Mission Innovation. New funding will initially be allocated to early stage research and development for cutting edge clean energy technologies.

“Mission Innovation will help deliver affordable clean energy and new jobs and opportunities to people around the world for decades to come.”

U.S. President Barack Obama

“We need research and innovation to make renewable energy much cheaper; more reliable; and, easier to connect to transmission grids.”

Indian Prime Minister Narendra Modi



FROM THE AMERICAN PEOPLE



## International Solar Alliance

India and France launched an International Solar Alliance (ISA) at the COP21 Climate Conference. ISA aims to address the specific solar technology deployment needs of the solar resource rich countries located between the tropics of Cancer and Capricorn. India will provide land and USD 30 million to host the new multi-country partnership body at the National Institute of Solar Energy in India for the first five years. ISA will focus on cooperation in solar-related training, regulatory issues, common standards and financing mechanisms.

## Clean Energy Finance

- **First Round of Funding under PACEsetter Fund (PSF):** The U.S. Embassy, in partnership with the Ministry of New and Renewable Energy, issued a call for expression of interest (EOI) for the first round of funding under the PSF initiative in August 2015. Nearly 141 EOIs were submitted, of which 14 have been selected by PSF's Executive Committee. These 14 firms have been invited to submit a detailed project proposal and financial statement by December 31, 2015. The proposals include a diverse range of clean energy projects such as waste-to-energy, micro grids, community-owned solar pumping systems and innovative financial models. The PSF Executive Committee will convene again in 2016 to appraise the 14 detailed submissions and rank them for the Steering Committee's final decision.



**SRET Launch in Mumbai**  
From left to right: B V Rao, IREDA;  
Dinesh Babu, PACE-D TA Program;  
and Anurag Mishra, USAID/India

- **Solar Rooftop Evaluation Tool (SRET):** The USAID PACE-D TA Program has developed a comprehensive tool for financial institutions to evaluate solar rooftop projects. The tool, launched at an event in Mumbai in September 2015, will help banks and financial institutions identify the key parameters that determine the financial and technical viability of commercial and industrial solar rooftop projects. The Program is also working closely with the Indian Renewable Energy Development Agency (IREDA) to assist and build the capacity of IREDA and its partner agencies in developing a rating framework for solar rooftop projects to be financed by IREDA. The Program, in partnership with IREDA and its rating agencies, organized a workshop on November 19, 2015 to customize IREDA's rating framework for solar projects to a rating framework for solar rooftop projects.

## Renewable Energy

- **Training Needs Assessment (TNA) for Solar Energy:** There is a limited availability of technical professionals required to meet the growing demand for trained solar professionals in India. To address this challenge, the USAID PACE-D TA Program has contracted CII Godrej GBC to undertake a "Solar Training Needs Assessment" for the Indian market. The study will map and analyze the job creation potential for various markets segments using the value chain, and identify potential training opportunities for jobs across the value chain. This initiative will help the Program assess the training needs and develop customized and standardized training programs and modules. A task force has been established to guide CII to undertake the study and validate the findings. The first meeting of the TNA task force was organized on October 27, 2015 in New Delhi where industry representatives deliberated on the scope and coverage of the study.



**Solar Training Needs Assessment Workshop**  
From left to right: Ravi Chander, CII; Nikhil PG, NISE;  
K Krishnan, CII; Mark Newton, USAID/India;  
and Praveen Saxena, Green Jobs Council

- **Investment Showcase for Energy Lending:** The early successes of the energy lending pilot programs initiated by three partner microfinance institutions (MFIs) of the USAID PACE-D TA Program highlight the vast potential to create a high quality energy lending portfolio that would be attractive to investors. The Program organized a workshop on “Investment Opportunities in Energy Lending” on December 8, 2015 in New Delhi to showcase the energy lending programs of its three MFI partners (ESAF, Saija and Sarala), the results of the energy lending pilots undertaken by these partners and their projected investment requirements. Representatives from World Bank, Yes Bank, IndusInd Bank, IDBI Bank, Mahashakti Foundation, etc. participated in the workshop. A similar showcase is now being planned in Kerala in April 2016.

- **Support to Indian Railways for Solar Rooftop:** The PACE-D TA Program is assisting the Indian Railways in the procurement of 50 MW equivalent of solar rooftop power under the Renewable Energy Service Company (RESCO) model, a first such procurement initiative by the Indian Railways. The Program supported the Indian Railways to develop standardized procurement documents, including request for proposals and power purchase agreements, which will form the basis of all solar rooftop procurement in the near future by the Indian Railways. As the procurement will be done at the zonal level by Zonal Railways, the PACE-D TA Program made a presentation to the zonal representatives at a meeting held in Kolkata on December 2, 2015. The model documents are now available on the Indian Railways website. The Program will also provide technical assistance to the Indian Railways to develop a strategy to deploy 1 GW of solar in the next five years.



*Counsellor for Commercial Affairs Dillon Banerjee inaugurating the U.S. Pavilion at REI 2015*

- **Renewable Energy India (REI) Exposition:** U.S. Commercial Service India supported the 9<sup>th</sup> edition of REI 2015 Exposition held from September 23-25, 2015 at the India Expo Center, Greater Noida. REI 2015 saw participation of eleven U.S. companies representing the wind, solar, and biomass sectors. With over 10,000 square meters of net display space, 550 exhibitors from 35 countries with six country specific pavilions, and 20,000 trade professional visitors, REI 2015 was a hugely successful event.

## Smart Grids |||||

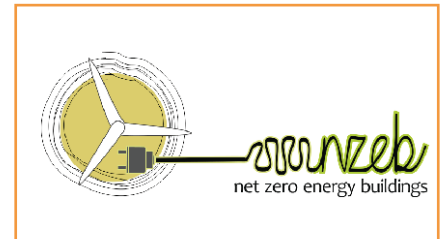
- **Smart Grid Pilot in Ajmer:** USAID’s PACE-D TA Program is providing technical assistance to Ajmer Vidyut Vitran Nigam Limited (AVVNL) to demonstrate select functionalities of Smart Grid. The pilot project will be implemented via an innovative "Pay for Service" model where the entire implementation would be treated as a service rather than considering it as a one-time capital expenditure. The Program has finalized budgets for the two vendors identified for the pilot and will now prepare the action plan for pilot implementation and timeline.

- **Smart Grid Training Network (Smart-NET):** Training and capacity building have been identified as one of the key focal components of the National Smart Grid Mission (NSGM) with a clear goal of providing Smart Grid-related training to 10 percent of utility technical personnel across India. The USAID PACE-D TA Program is developing a Smart Grid training program—Smart-NET—that aims to meet the capacity building targets as laid under the NSGM. The Program will design and roll-out a basic course related to Smart Grid for the state utilities. It has developed the draft outline and presentations for the half-day orientation module for the top management of distribution utilities. The Working Group, appointed by the Ministry of Power, will meet in December to provide inputs to the training materials. The first half day program for distribution utilities is expected to be organized in Bengaluru on January 21, 2016.

## Building Energy Efficiency |||||

- **Workshop on India AC Challenge:** As part of the U.S.-India Collaboration on Smart and Efficient Space Cooling, the first workshop of the ‘India AC Challenge - Identifying Goals and Market Barriers’ was held on September 10, 2015 in New Delhi. The workshop, held jointly by the Bureau of Energy Efficiency and the U.S. Department of Energy, focused on feedback from stakeholders on the current air conditioning market scenario in India, barriers to adoption of energy efficient products, potential structure of the Challenge program and incentives.

- **Knowledge Portal on Net Zero Energy Buildings (NZEB):** Nearly two-thirds (66 percent) of the building stock in India is yet to come up. It is critical to promote NZEB awareness amongst stakeholders and encourage them to adopt green technologies in the building sector. The USAID PACE-D TA Program has developed a NZEB knowledge portal that aims to serve as a go-to platform for all NZEB-related information including policies, technologies and products. The portal has been reviewed by the Bureau of Energy Efficiency and is expected to be launched in January 2016.



- **Energy Conservation Building Code (ECBC) Update:** The Technical Working Groups established for ECBC update met in December to finalize stringency boundaries for various sections of the code update. The baseline analysis and stringency reports for 16 prototypes buildings in five climatic zones have been approved by Working Groups. The contours of the ECBC update will now be finalized. The USAID PACE-D TA Program plans to organize regional stakeholder consultation meetings across India in January 2016.

## Upcoming Events



**ECBC Stakeholder Meeting:** This meeting will facilitate discussion on the draft ECBC 2015 with building experts, regulatory bodies, architects, academicians, energy efficiency specialist and experts from building material sector.

- January 12, 2016- Mumbai

Organizer: USAID PACE-D TA Program. For more information please contact [sramasamy@nexant.com](mailto:sramasamy@nexant.com)



**Executive Orientation Program on Smart Grids:** The one day executive orientation program on Smart Grids will provide an overview of latest Smart Grid technologies and related implementation procedures to the top management of distribution companies in India.

- January 21, 2016- Bengaluru

Organizer: USAID PACE-D TA Program. For more information please contact [sramasamy@nexant.com](mailto:sramasamy@nexant.com)



**ECBC Stakeholder Meeting:** This meeting will facilitate discussion on the draft ECBC 2015 with building experts, regulatory bodies, architects, academicians, energy efficiency specialist and experts from building material sector.

- January 29, 2016- Bengaluru

Organizer: USAID PACE-D TA Program. For more information please contact [sramasamy@nexant.com](mailto:sramasamy@nexant.com)



**Smart Cities Infrastructure Business Development Mission:** The focus of the mission to India (New Delhi, Mumbai, and Chennai) includes safety/security, intelligent transportation, water, wastewater, and power.

- February 8-12, 2016, India.

Organizer: U.S. Commercial Services. For more information please contact [Tyrena.Holley@trade.gov](mailto:Tyrena.Holley@trade.gov)

**About PACE:** Launched in 2009, the U.S.-India Partnership to Advance Clean Energy (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, non-governmental, and private sector organizations on both the U.S. and Indian sides and contains three key components: Research (PACE-R), Deployment (PACE-D), and Off-Grid Energy Access (PEACE). In September 2014, Prime Minister Modi and President Obama agreed to strengthen and expand PACE through a series of priority initiatives that build on PACE's ongoing work.

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