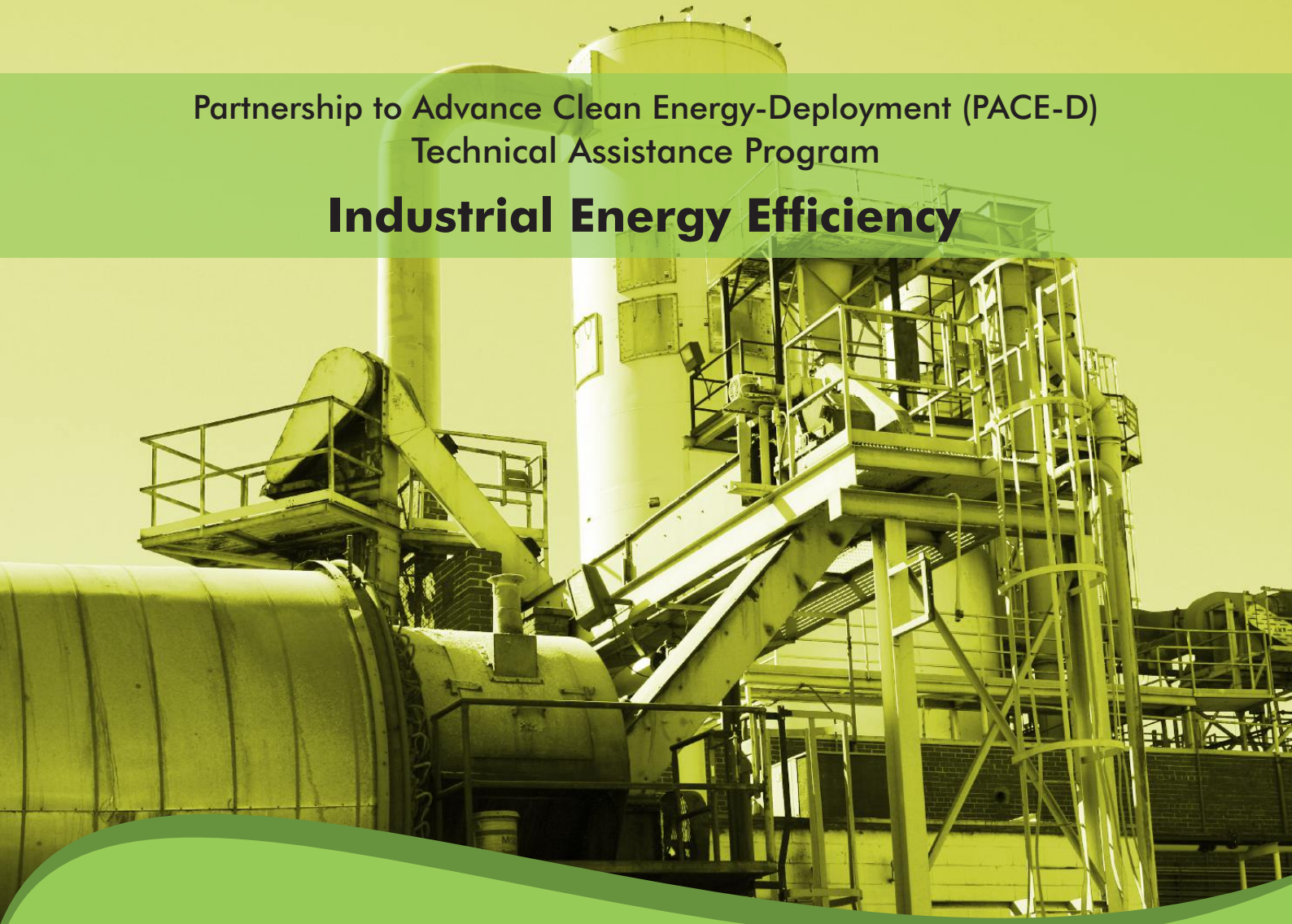
Partnership to Advance Clean Energy-Deployment (PACE-D)
Technical Assistance Program

# Industrial Energy Efficiency



## EE in the Industrial Sector

India's fast growing industrial sector has a unique opportunity to increase production efficiency and profitability by applying energy efficient best practices in industrial plants. Waste heat utilization (WHU) is one such technology that can contribute significantly to India's efforts towards energy conservation. Large quantity of heat from industrial processes and equipment such as boilers, kilns, ovens, furnaces etc. can be recovered to lower fuel demand.

Recognizing the critical need for policy and strategy interventions to popularize the WHU technologies in the industrial sector in India, the PACE-D Technical Assistance Program has adopted WHU as one of the core activity under its industrial energy efficiency program. The program is working on this initiative in collaboration with the Ministry of Power (MOP) and the Bureau of Energy Efficiency (BEE).

.

In its first year, the PACE-D TA Program undertook an in-depth WHU market assessment study of all existing WHU technologies based on desktop research and the available project data bases. Applicability of these technologies under different industrial operating conditions was prepared based on techno-economic considerations. The program also conducted a WHU pilot feasibility study for a sponge iron unit. A background paper outlining the strategies which are being deployed globally for promotion of WHU technologies was also developed.

USAID FROM THE AMERICAN PEOPLE

Ministry of POWER GOVERNMENT OF INDIA

Government of India
Ministry of New and Renewable Energy
Renewable Energy is Green, Clean & Sustainable

The program is currently working with the BEE to carry out a situational analysis on low grade WHU with a view to developing an appropriate policy mechanism for identified low grade WHU technologies. The situational analysis will be compiled in the form of a baseline report on low grade WHU technology deployment and potential in India, and presented at a stakeholder workshop organized under BEE umbrella.

The PACE-D TA Program is also exploring the formation of a stakeholder platform as a strategy for increasing the market penetration of WHU technologies in India. It will also support the development of a Government of India policy paper outlining the required administrative arrangements, fiscal and monetary support, financing, awareness, promotion and capacity building activities for market acceleration.

## Key Deliverables

- Create and launch a WHU promotion alliance and provide technical assistance and support to ensure long-term sustainability of the organization.
- Develop WHU strategy and policy paper outlining fiscal and monetary support, financing, awareness, promotion and capacity building activities which are required for increased deployment
- Promote WHU technologies through stakeholder engagement.

## Key Activities and Progress

- Prepared WHU pilot feasibility and potential assessment study.
- Survey of WHU potential in selected states in sugar and textile sectors
- Developed background paper on strategy for increased market penetration of WHU technologies.

## 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 for additional information.

**Anurag Mishra**
Senior Clean Energy Specialist
USAID/India
Email: amishra@usaid.gov

**Nithyanandam Yuvaraj Dinesh Babu**
Chief of Party
PACE-D TA Program
Email: ydbabu@nexant.com

June 2014
This publication is made possible by the support of the American People through the United States Agency for International Development (USAID). The contents of this publication are the sole responsibility of Nexant, Inc. and do not necessarily reflect the views of USAID or the United States Government. This publication was prepared under Contract Number AID-386-C-12-00001.