



SOCIAL  
ENTERPRISE  
**WORLD  
FORUM 2015**  
MILAN - ITALY   July 1-3

# **BOOND Engineering & Development Pvt. Ltd.**

Rustam Sengupta  
Speaker



# Introduction

## BOOND Engineering & Development (P) Ltd.

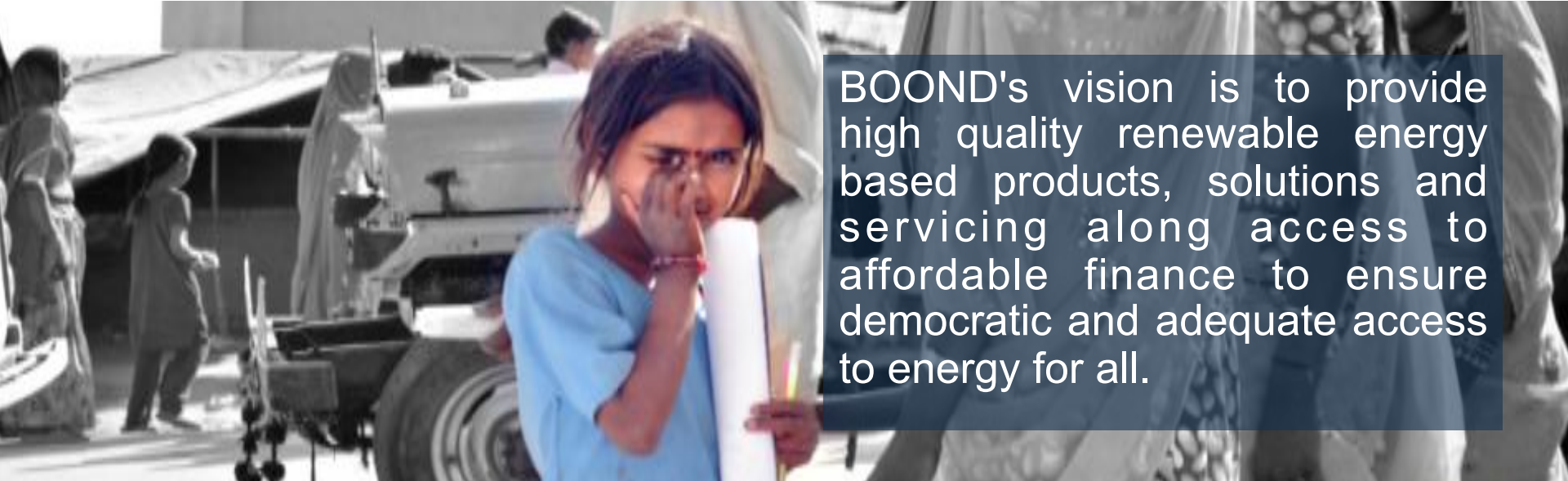
BOOND is a private limited company founded in 2010 promoting alternative energy in Rajasthan, Uttar Pradesh, Delhi NCR and other northern states of India. We are experts in providing customized solar solutions across the spectrum of various applications.

BOOND is also leading many projects which are bringing a positive impact in the lives of many communities through focused energy interventions. Light for Educations and Digital Education Programme is an excellent example of such interventions via which we are supporting education in remote and off-grid areas.

By the end of FY 2015 we implemented projects with installed capacity of over 1.2 MW



# Mission



BOOND's vision is to provide high quality renewable energy based products, solutions and servicing along access to affordable finance to ensure democratic and adequate access to energy for all.

# Landmarks

2010

Boond Incorporated & Seed funded by IIM-Ahemdabad-CIIE

2010

Winner of Economi Times-Power of Ideas

2011

Wiinner of UN Foundation Award & Times Now Amazing Indian

2011

Worked for Ladakh Relief providing Solar Solution to over 1000 families + Recognized by former President Shri APJ Abdul Kalam

2012

Partnership with leading rural banks in UP & Rajasthan + 5000+ products & system sold

2013

Implemented 400 Solar Milk Collection Centres + 5 Offices setup Team crosses 20 pepole

2014

Raised Series A investment from VC's – OPEs, Rianta & Individual Investors

2014

Implemented first of it's kind Prepaid Microgrid + Winner of Echoing Green Climate Change Fellowship (US)

2014

Over 10,000 products & systems installed for over 800 KW Capacity + Research Partnership with Columbia University (USA) & Aalto Univ. (Finland)

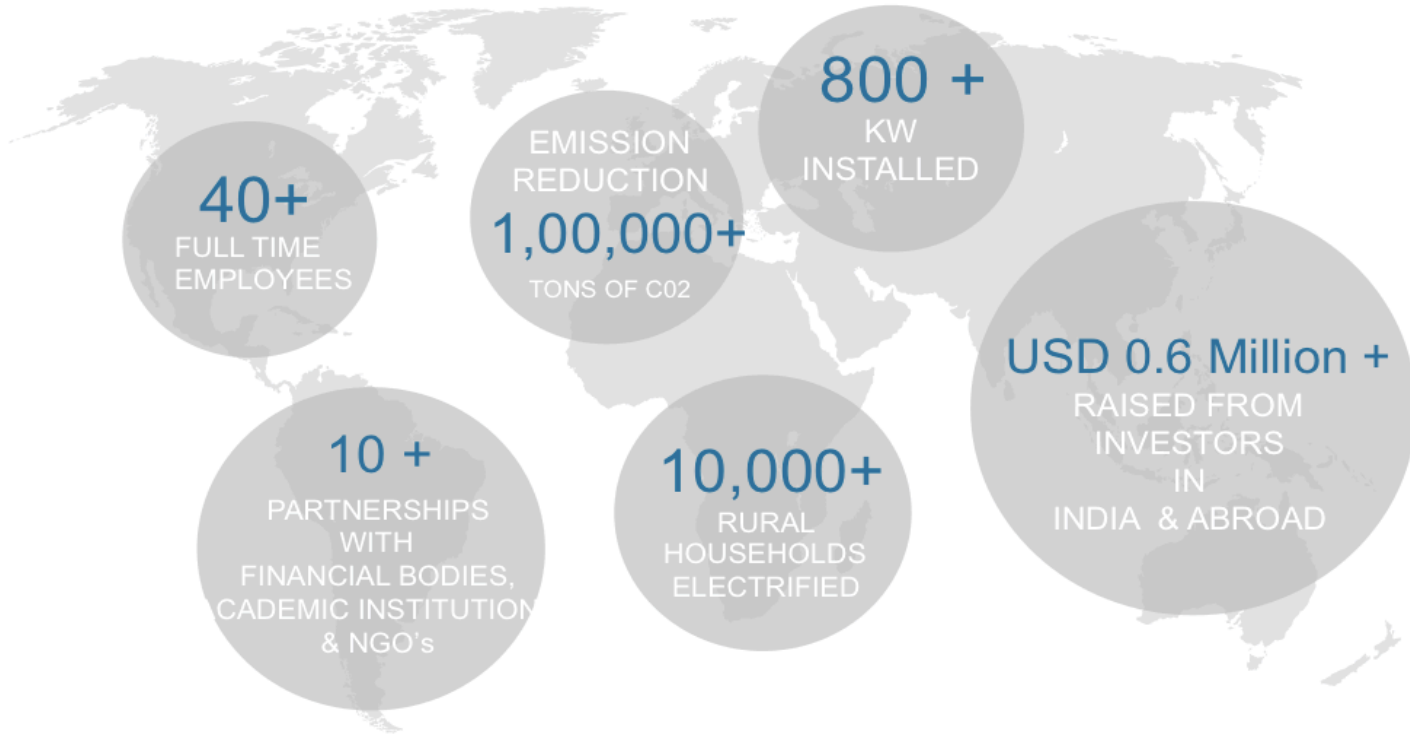
2015

Partnership with Finnish Co. for Solar Concentrator -10 Offices -40+ Staff





# BOOND Impact



# Products & Services



## Solar Home Lighting Systems

Implemented 12,000+ decentralized Solar Home Lighting Systems in last 3 years in the range of 10Wp upto 300 Wp.



## Solar Water Pumping

Provides VFD based solutions, with MPPT, along with online tracking of pump operation.



## Solar UPS Solution

Online and offline UPS solutions for multiple clients up to 10kWp capacity.



## Grid Interactive Solar Rooftop Solutions

We have the technical capacity to implement Grid –tied Solar Rooftop solution as per requirement.



## Solar Street Lighting Solution

Provide plethora of customized solutions in street lighting with features including dawn to dusk, auto dimming, etc. Solutions available with Tubular flooded type batteries, VRLA and Lithium-ion batteries.



## Solar MicroGrids

Provides turnkey solutions for off-grid solar micro grids, ranging from surveys, site analysis, system design, execution and operation and maintenance. **Boond is the only company in India to implement pre-paid solar micro grid, with a business model similar to pre-paid sim cards.**



## Solar Water Heaters

Customized solutions are available for domestic application starting from 100LPD.



# Rural Electrification



Over 500+ systems installed with support from **Grameen Bank of Aryavrat, Uttar Pradesh**



Over 500+ systems installed with support from **Baroda Rajasthan Kshetriya Grameen Bank, Rajasthan**



Over 300 + systems installed with support from **Rajasthan Marudhara Grameen Bank, Rajasthan**



Over 2000 + systems installed in e remote areas of Rajasthan with NGO **Mr. Keepi Foundation of Netherlands**

# Community Electrification



Micro-grids / Mini-grids installed with pre-paid and post paid systems in **Uttar Pradesh**



Solar Water pumps installed to help the poor farmers in Rajasthan



Over 6000 + lamps distributed across UP and Rajasthan with the support of various NGO's



Street lights installed at different locations of Rajasthan and Uttar Pradesh bringing light to the community





# Residential Projects



**Plant Capacity: 5 KW**  
Location: Delhi



**Plant Capacity: 1 KW**  
Location: Delhi



**Plant Capacity: 7 KW**  
Location: U.P



**Plant Capacity : 1.5 kW**  
Location: Greater Noida

# Special Electronics for Solar

Customized low cost, robust designed products manufactured by BOOND



Micro-grid  
Energy Meter  
(Pre-paid / Post Paid)



Charge Controller /  
Regulator  
5 / 10 amp



Street Light  
Electronics



LED Bulbs / Tube lights  
(DC & AC)  
1.2 to 7W



Array Junction Box



Charging Station  
Multi-household energy  
supply electronics



## Case Study – Milk Testing Center (In collaboration with PURICA, a milk cooperative based in UP)

BOOND re-engineered the milk collection chain by centralizing milk storage at rural solar-powered collection centers and providing chilling facilities.

Traditionally, dairy supply chains involved an intermediary, which added extra cost and often lead to quality control problems

### IMPACT:

- Supply chain became more efficient
- Improved Quality Control
- No Middle-man, profit goes directly to the seller
- Reduced cost and Energy use





## Case Study – Pre-Paid Micro Grid / Pico Grids

BOOND provides innovative technology solutions that caters to basic energy needs of non electrified households in a very cost effective manner.

Solution is analogous to modern day grid based energy; wherein a centralized solar unit produces the energy that is distributed to a number of households and end consumer for the wattage of power used.

### IMPACT

- 3 Payment system – Pre Paid, Post-Paid, Dynamic Pricing based; No fixed cost burden; Pay for only as much energy is used
- Controlled /Charged by customized mobile application
- Direct online updation of CRM system via internet to know user requirement and usage
- Successfully implemented model in many Unnao district of Uttar Pradesh





## Case Study – Light for Education (LFE)

Provide a reliable, clean and safe lighting source to students

Students are given portable LED study light powered by a solar charging station installed inside school premises

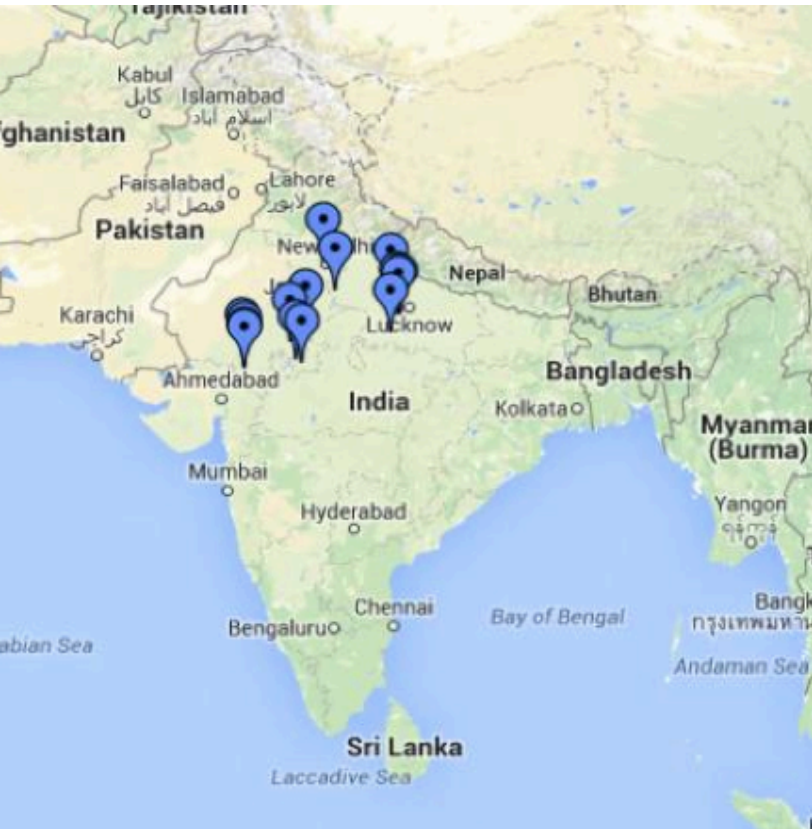
The students receive the light from the school and BOOND, and are expected to return the study lamp upon completion of schooling. The technology is then passed down to the next batch of students, creating a highly impactful model throughout the technology's lifespan.

### **IMPACT:**

- Centralized charging station at a school
- Increased attendance and positive externalities for households in the area of indoor air pollution.
- The study light, kept in the student's house
- A pocket size battery pack, charged at school to power the study light



# Our Presence



We have branches / offices across India:

1. New Delhi
2. Unnao City(Uttar Pradesh)
3. Udaipur (Rajasthan)
4. Tidi (Udaipur, Rajasthan)
5. Sawai Madhopur (Rajasthan)
6. Ramganj Mandi (Kota, Rajasthan)
7. Chakravanshi ( Unnao, Uttar Pradesh)
8. Aira Bhadyar (Unnao, Uttar Pradesh)
9. Sumerpur (Unnao, Uttar Pradesh)
10. Bundi (Rajasthan)
11. Patan (Jhalawar, Rajasthan)

# Meet our Team



**Rustam Sengputa**

Chief Executive Officer

- MBA from INSEAD Business School
- MS in Electrical Engineering from University of California
- Base of Pyramid business model expert
- Over 10 years of work experience in consulting and banking with nearly 3 years of direct development field experience



**Tarun Kalra**

Chief Operating Officer

- Around 20 years of work experience in India with number of corporations and start ups.
- Serial entrepreneur with two successful design startups to his credit.
- Former Head of IT department in Zee Media and Consultant at Xansa, a UK based company



**Simran Grover**

Chief Technology Officer

- Graduate of Mechanical Engineering from Indian Institute of Technology (IIT), Delhi.
- Over 5 years of working experience in Middle East with Energy companies.
- Awarded fellowship (Youth for India) from State Bank of India for development work

# Meet our Team





# Partners



Centre for  
Innovation  
Incubation and  
Entrepreneurship

**SELCO**  
Incubation Centre



Confederation of  
Indian Industry



MAKING LIFE MORE BEAUTIFUL



GOONJ.. a voice, an effort



The Business School  
for the World\*



Aalto University



The Small-Scale Sustainable

## CERTIFIED BY



सत्यमेव जयते

Government of India  
Ministry of New and Renewable Energy

## OUR SUPPORTING BANKS



बड़ौदा राजस्थान क्षेत्रीय ग्रामीण बैंक  
Baroda Rajasthan Kshetriya Gramin Bank

**Mewar Aanchalik Gramin Bank**

(\*Govt. of India Undertaking\*, Sponsored By ICICI Bank Ltd.)

*Pride of Mewar*

*your bank for life...*



A Joint undertaking of Govt. of India,  
U.P. Govt. & Bank of India

# Media



**TIMES  
NOW**



**THE ECONOMIC TIMES**



**CNBC BUSINESS**



**THE ECONOMIC TIMES**  
www.ideas.economicstimes.com  
**THE POWER OF ideas**



**HispanicBusiness.com**



‘Lighting up Lives’  
By Outlook Business’  
September 2014 edition  
Edition : Good Businesses



**BMW Stiftung**  
Herbert Quandt



**rediff.com**



**VCCIRCLE**



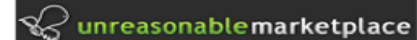
**INDIA  
MICROFINANCE**



**दैनिक भास्कर**



**NEXTBIGWHAT**



**unreasonable marketplace**



**firstbiz.**

And many more....



# Get in Touch

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