Regions, Cities and Energy transition

World Forum for a Responsible Economy
Lille, 16th October 2018
ABOUT THE ORGANISATION

Background

Established in 2008 – Celebrating 10 Years of Impact and Innovation

Incubates Scalable Technologies and Business Models

Creates an ecosystem that facilitates Opportunities for Livelihood Development

Works in Areas of Energy, Agriculture / Livelihoods, Skilling and Wellbeing

ABOUT THE ORGANISATION

Vision

“A Sustainable and Equitable India”

Mission

“Promoting Livelihoods and mitigating climate change through Sustainable Development”

Goal

“To impact 10 million lives by 2030”

Awards

Social Impact Awards

Pacesetter Award

SEED Award

MINISTRY OF NEW & RENEWABLE ENERGY 

IUSSTF

INDIA-USA SCIENCE AND TECHNOLOGY FORUM
AREA OF WORK

Sectors

Renewable Energy
Access

• Setting up Solar Powered Model Villages
• Incubating innovative technology and Financing

Agriculture / Livelihood

• FPO Promotion
• Organic Agri Ecosystem Development

Skilling

• Government / CSR sponsored Skill Trainings
• Imparting Employable Skills

Wellbeing

• After School Program
• Urban Issues – Mobility and Air Quality

Initiatives

Partners

SE

Ministry of New and Renewable Energy

Good Energies

NABARD

i see

NABARD

Sustainable Energy and Innovation Centre

ETC

Skill India

NISE

SWF

UN Women
THE ENERGY PROBLEM

Demand for renewable energy – About 75% of India’s electricity generation comes from fossil fuels and India is expected to account for 18% of the rise in global energy consumption by 2035. India also faces an overall power deficit of 0.7% across the country in 2017-18. There is a need for alternative sources of electrical energy to reduce reliance on grid electricity and environmentally harmful fossil fuel.

Unreliable and affordable energy for farmers – Agriculture is largest source of livelihood in India, accounting for 70% of livelihood in rural villages. In most states, farmers only receive between 4-7 hours of electricity per day for their agricultural pumps, causing 55% of cultivable land in India to be dependent on rain. There is a need to get reliable electricity access to farmers, especially those in off-grid villages.

Lack of access to energy for rural communities - India currently reports 99.4% electrification rate yet there are 304 million people in India, especially in off-grid communities, who still lack access to electricity. There is a need for a viable way to enable rural electrification and reach out to off-grid communities.
MARKET OPPORTUNITY

Strong Government Support
- The Indian government is actively pushing for the renewable energy of India, both for industrial purposes and for rural communities.
- The Indian government is offering several tax and financial incentives to support the rooftop solar market. E.g Kisan Urja Suraksha Evam Utthaan Mahaabhiyan (KUSUM) scheme and 24x7 initiative.

Market Gap for Solar Solutions
- India’s energy consumption is projected to grow the fastest among all major economies by 2035, overtaking China as the largest growth market for energy in volume terms by 2030.
- Agriculture accounts for 20% of India’s total electricity consumption. There is a huge market for solar irrigation pumps following India’s drive to replace over 30 million diesel pumps with solar pumps.

Strong Market Growth
- The rooftop solar market in India is one of the fastest growing energy sector, expanding at a compound annual growth rate (CAGR) of 98% in the last four years, reaching a total capacity of 1,020 MW as of end-September 2016.
- Total capacity expected to reach 12.7 GW by 2021.

Lower Cost of Adopting Solar Systems
- Rooftop solar energy is cheaper than commercial and industrial power in all major Indian states in a report released by BNEF.
- There is huge cost incentives for industrial rooftop projects and related off-grid solar projects. Previously it would had taken 7 or more years to pay off solar solution investments, now investments pay off between 3-5 years.
**THE SOLUTION**

- **Solar rooftop solutions**
  - Clean alternative source of energy taking advantage of India’s high solar insolation and growing consumer base density

- **Solar irrigation pumps**
  - Solar powered pumps to replace costly diesel pump and give farmers the ability to water crops beyond the 4-7 hours

- **Rural lighting solutions**
  - Simple innovative solar solutions to replace kerosene lamps and provide lighting in off-grid communities
INNOVATIVE SOLAR PUMP FINANCING

1. Farmers clustered into Farmer Producer Organizations (FPO) or Joint Liability Groups (JLG)

2. JLG Account

3. First loss guarantee

4. Priority financing

5. Solar pump

- Fixed Deposit
- Revolving Corpus Fund
- CSR Grant
- Government

- Partial down payment + Monthly payments
- Back ended 60% government subsidies (KUSUM)
- Soft loan to cover partial down payment
- EMI
IMPACT

500000+ Lives Impacted

1000+ Villages Covered
Electrification, Organic Farming, Skilling

5000+ Individuals Trained
Youth, Women, Farmers

4000+ Enterprises / Livelihoods Impacted
Entrepreneurs or Enterprises covered.
ENVIRONMENT CONSERVATION SOCIETY (SWITCH ON)

info@SwitchON.org.in

ON-Powering Opportunities