



Bright Green Energy Foundation (BGEF)

Dhaka, Bangladesh

Bright Green Energy Foundation (BGEF) is one of the leading organizations to provide pollution free green energy to the underprivileged rural people of Bangladesh through innovative financing. BGEF is creating numerous green jobs all around Bangladesh by promoting entrepreneurs and green technicians focusing on women. BGEF is devoted for the expansion of Solar Home System, Bio-gas Plant & Improve Cook Stoves in rural Bangladesh.

The founder & Chairman of BGEF, Mr. Dipal C. Barua is the pioneer of Solar energy In Bangladesh. He had successfully introduced and implemented renewable energy projects especially solar home system since 1996.

Mr. Dipal Chandra Barua

First Zayed Future Energy Prize Winner (2009)

Chairman & CEO, Bright Green Energy Foundation (BGEF)

Advisor (PSAG), Green Climate Fund

Global Ambassador, 100% RE

President, Bangladesh Solar & Renewable Energy Association (BSREA)

IPCC : Lead Author (Chapter 16, Cutting edge and financial issues)

Councilor, World Future Council (WFC)

Former: Deputy Managing Director (DMD) & Co-Founder, Grameen Bank, Bangladesh.

Founding Managing Director, Grameen Shakti, Bangladesh.



Work of the Bright Green Energy Foundation

- Solar Home System (SHS) are being installed at rate of 5000+ every month totaling over 100,000 system till May 2014.
- Pioneered & established rural based Green Technology Centers (GTC) across Bangladesh and training hundreds of men & women.
- Trained over 5000 rural women as Solar technicians and entrepreneurs through GTCs.
- Created Green jobs for women in their home villages.

Entrepreneurship/Enterprise Development

As an Leading Renewable Energy Organization in Bangladesh, BGEF provides Trainings to its' staff and Customer and creating awareness about the climate change and mitigation.

Creating rural based technicians and green technology centers (GTC) for installation of renewable energy products and to take after sell service at the customers doorstep.

Created installment based innovative financial model for the expansion of renewable energy technology in Bangladesh at the price of kerosene and successfully disbursed over BDT 150 crore (USD 20 Million) with the collection efficiency of 100%.

At present, (June-14) BGEF has over 350 branch offices with over 1800 Skilled employees in all over Bangladesh installing over 5000 Solar Home Systems, 10 Bio-Gas Plant and over 1000 ICS per month.

Planned activities (2014-2015)

1. Campaign to increase clean and green energy use in rural Bangladesh (SHS, Bio-Gas & ICS).
2. To Install 100,000 new Solar Home Systems in off-Grid areas to eliminate the use of kerosene and to ensure the cleaner environment.
3. To Install Bio-Gas Plant and Improve Cook Stove to reduce the use of burning wood.
4. To create & promote 500 women Green Entrepreneurs in rural areas.
5. To train 1,000 technician (Local) to provide support and service to renewable energy users at their doorstep.
6. To train 10,000 users of renewable energy (Customer Training) and create awareness about climate change and mitigation.

International institute for Water and Environmental Engineering Ouagadougou, Burkina Faso

2iE is an international institute for higher education and research, whose expertise areas are Water and Sanitation, Environment, Energy, Civil Engineering, Mining and Managerial Sciences. 2iE's main objective is to support the African economy via green growth. The Institute counts 2,000 students from 27 countries attending courses onsite.



Elodie HANFF, Deputy Director at 2iE's Technopôle :

She manages the relations of 2iE with the private sector (recruitment of graduates, continuous training, expertise, valorization of innovations...). Moreover, she coordinates the business incubator services for students and graduates, including commercial and technical support, access to the business and scientific network, financial support, office facilities...



Energy Access

2iE's education program:

- Bachelor, Master's degree specialized in energy and electricity

2iE'research program "Sustainable Access to Energy for All in Africa"; objectives :

- Contributes to the development of industrial innovation capacities and technological break in Africa in the area of renewable energies (biomass and solar energy namely)
- Favors a better energy efficiency (residential and industrial buildings, electricity transport networks).

2 laboratories (around 70 staff) focus on energy fields :

- **The Laboratory Solar Energy and Energy Savings** aims at contributing to industrial innovation in the solar area for a rational production and use of electric and thermic energy in Africa.
- **The Laboratory Biomass, Energy and Biofuels** develops energetic conversion processes of biomass to produce heat, electricity and biofuels.

Entrepreneurship/Enterprise Development

2iE's Technopark aims to train engineers and help them become social entrepreneurs. The objective is to give them the desire and the capacity to undertake by providing technical, managerial and financial assistance to transform innovative ideas into a business reality. 2iE works to help green businesses emerge.

In an environment dedicated to innovation, we offer many services for business creation. In addition to providing essential business lectures to future engineers, there is also the opportunity for individuals to pursue their personal entrepreneurship projects.

Once they have graduated, students have the opportunity to join the business incubator, to develop a technological pilot and a solid business plan. Scientific and professional coaching by 2iE's world class faculty and partners is available. Services may also include financial and legal advice, continuous training, office facilities, access to laboratories, etc.

At the end of a positive incubation period, they are eligible for funding via 2iE's network of business angels.

Entrepreneurship/Enterprise Development

The greatest successes of the program are:

- 400 engineers trained every year on entrepreneurship
- The success of our students in international business competition, especially the Global Social Venture Competition, where 2iE students reached the finals in the University of Berkeley in 2011, in 2012 and again in 2013 (1st prize in 2013 after a selection among 600 projects)
- The management of 2 annual business competition at 2iE (100 candidates per year) to detect high valued projects for Africa
- The creation of 2 businesses based in the campus: InnoFaso and Sirea Afrique
- The attraction of 12 promoters in the business incubator (created 2 years ago) with an innovative project contributing to green growth

Planned activities

- 2nd International Conference “Africa Solar” (20 – 22 November, 2014)
- 5th International Conference on Biofuels (November, 2015)
- New editions of “Green Start Up Challenge” (Oct, 2014, 2015...) to detect new potential entrepreneurs for Africa, involved in green growth and innovation
- Increase the capacity of the business incubator (budget, coach, facilities, business angels network...) to help emerge more innovative and green start ups.

SunMoksha Power Pvt. Ltd.

Bangalore & Berhampur, India



- Develops and implements novel solutions for energy access to village communities.
- Provides consulting in and implementation of sustainability and clean technology solutions to corporates & institutions.
- Provides business mentoring and financial advisory services to MSMEs.

For Rural Stakeholders	For Corporates & Institutions	For Startups & MSMEs
<ul style="list-style-type: none">• Ecosystem for Scaling Energy Access• Renewable Energy Micro-grids• Business Models for Micro-enterprises• Remote Operations & Management of Microgrids and Energy Enterprises• Capacity and Skills Development	<ul style="list-style-type: none">• Sustainability Journey• Market & Technology Research• Energy Efficiency• Renewable Energy• Remote Energy Management• Green Campus• Capacity Building	<ul style="list-style-type: none">• Financial & Business Advisory Services• Market Strategies• Competitive Analysis• Capacity Building



**Ashok K. Das, Founder CEO SunMoksha /
Chair, TiE Bangalore CleanTech Special Interest Group**

Overall operations, management, and product development at SunMoksha.
Cleantech consulting and advisory to clients. Running the SIG at TiE Bangalore.

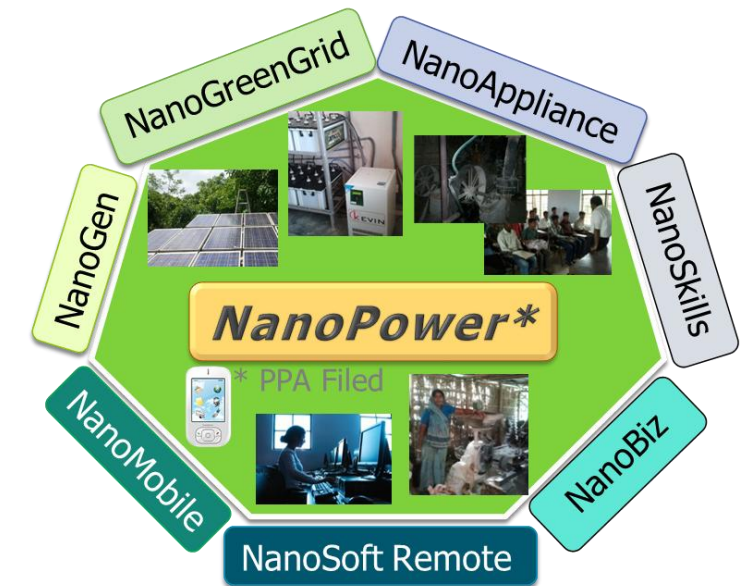
Energy Access Solutions and Services



We have developed solution to address the challenges of energy access. We work around the nexus of E³ – Energy, Education and Employment – to achieve Empowerment. We have particularly focused efforts on developing *scalable* solution for rural electrification to achieve socio-economic development.

We have taken a ‘systems’ approach to overcome the challenges hindering large-scale deployment of decentralized energy solutions, and have developed and patented a holistic solution, **NanoPower***. The word “**Nano**” signifies small, modular, and affordable for the masses. It establishes robust technical solutions and business models that can be rapidly deployed and scaled up in the villages, especially for the under-served and un-served communities.

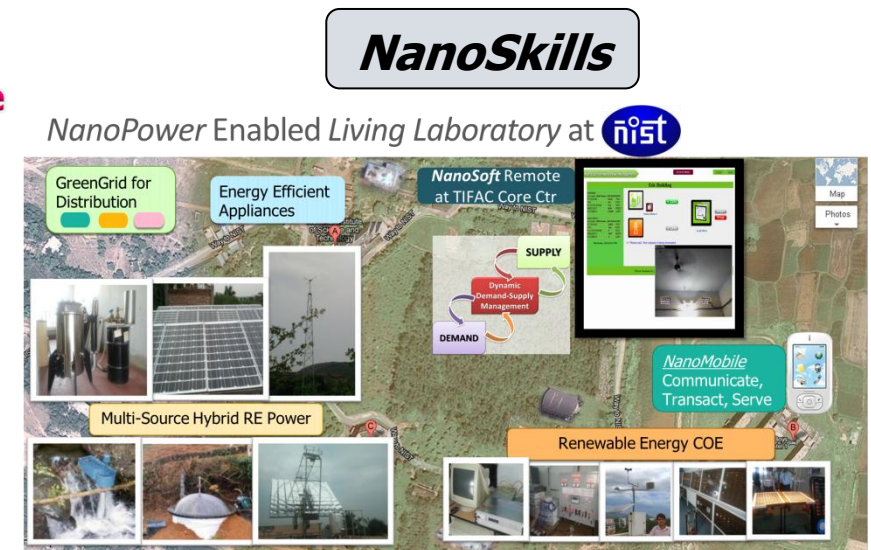
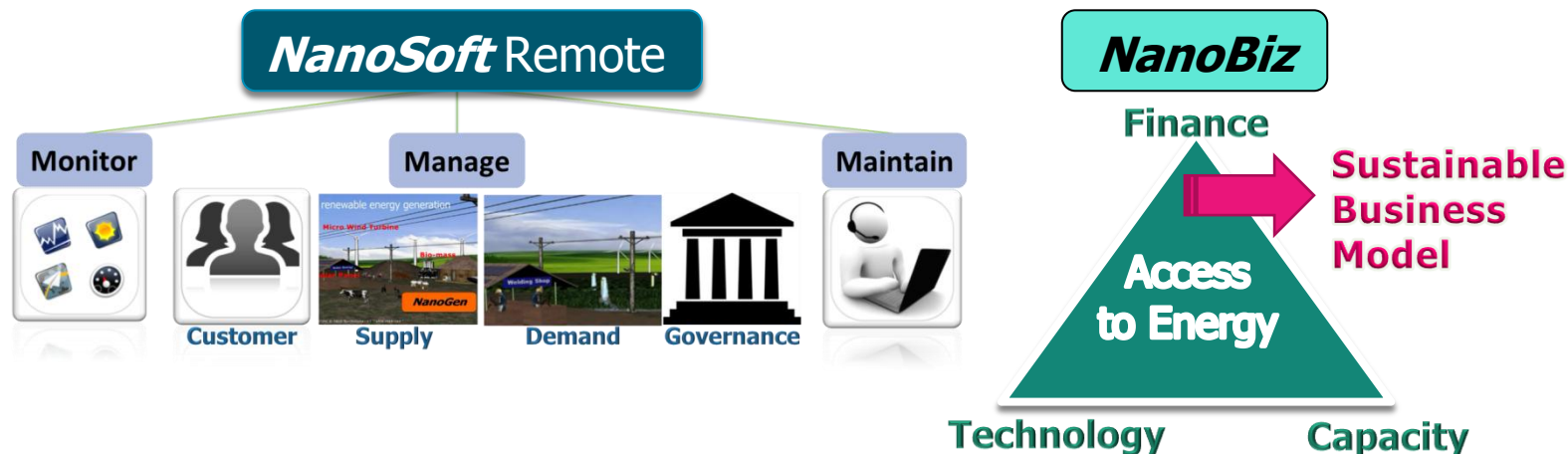
NanoPower* provides sustainable and scalable energy solutions through following key innovative interventions: (1) IT-based remote monitoring, management and operations of micro-grids and other energy services, (2) Active remote demand-supply management, (3) Customer interface over mobile devices, (4) Hybrid power generation and utilization of existing grid, where possible, (5) Scalable, sustainable micro-enterprise models & ecosystem, (6) Skills and capacity building in partnership with academic institutions, (7) Development & testing at *Living Energy Laboratory*, and (8) Close partnership with villagers through grassroots organizations.



*PPA Filed

Energy Access Solutions and Services (contd.)

NanoSoft Remote, is a state-of-the-art cloud-based solution to remotely monitor, manage, and maintain energy generation and distribution, demand management, appliances, equipment, personnel, financial transactions, reporting – a comprehensive solution for operations & management of **NanoPower** micro-grids. **NanoBiz** develops business models based on creation of micro-enterprises to sell electricity to consumers in the villages, as well as to move the villagers up the agricultural value chain by addressing post-harvest processing and livelihood trades. **NanoSkills** creates skilled workforce through a holistic ecosystem to address gaps in skill-sets and micro-entrepreneurship, in partnership with an academic institute and incubator, by creating *Living Laboratories* where hands-on training and incubation is facilitated.



Entrepreneurship/Enterprise Development



- Advise and mentor start-ups and SMEs in clean technologies sectors for business potential, market entry, financial support, etc.
- Develop rural micro-enterprises in clean energy and related trades.
- Mentor and nurture clean tech entrepreneurs at TiE Bangalore.
- Accredited Consultant to SIDBI for providing credit facilitations to MSMEs.
- Expert panel member to GoI for funding and business support to MSMEs.
- Mentor and guide students at academic institutes for innovation and entrepreneurship in clean technologies.
- Develop and strengthen capacities of incubation centers at academic institutes.

Entrepreneurship/Enterprise Development Achievements

- Developed business models for micro-enterprises in clean energy access.
- Developed *Living Laboratory* at National Inst. of Sci. & Tech., to incubate energy enterprises, and provide skill training.
- Advised and mentored several start-ups and SMEs in clean technologies – renewable energy applications & manufacturing, smart grid & energy efficiency, electric vehicles, bio-fuels, waste management, etc. Provided coaching and mentoring for CTI-PFAN's clean tech entrepreneurs.
- Established a vibrant ecosystem for cleantech entrepreneur in Bangalore through TiE Special Interest Group and across India through other TiE chapters.
- Consulted to World Bank's infoDev Climate Technology Program to design and develop business plan for a Climate Innovation & Entrepreneurship Center in India under DFID and DST.
- Spearheaded, with NVI and CII-GBC, a KfW/SIDBI joint project to design debt financing mechanism for innovative SMEs in the clean technologies.
- Providing support to the World Bank to establish Facility for Low Carbon Technology Development in industrial energy efficiency.

Planned activities 2014-15

- Implement **NanoPower** pilots for energy access in villages of Odisha, Jharkhand, and Bihar. Implement business models for micro-enterprises in energy access and agricultural value addition.
- Establish skill development centers for energy access and micro-entrepreneurship in collaboration with our academic partner, NIST*.
- Establish incubation center along with *Living Laboratory* for creating micro-entrepreneurs in energy, education, and agri-business at NIST.
- Continue mentoring and business & financial advisory to start-ups and MSMEs.

Ashden India Renewable Energy Collective Kolkata, India



- A network social entrepreneurs and innovators who have won the Ashden Award for Sustainable Energy.
- Focused on policy advocacy and research to increase foot print of renewable access to energy.

Hemant Lamba, Director

Coordination with government departments to introduce policies furthering Access to energy using decentralized renewable sources.



Energy Access

- Ashden India Renewable Energy Collective – a network of India-based winners of the prestigious Ashden Awards for Sustainable Energy.
- 21 winners in India of which 14 are active members – organisational members and 2 individual members work in space of access to energy.
- Most of the award winners are innovators and social entrepreneurs being awarded for their contribution in entrepreneurial innovations in access to energy space.
- Came together to speak with one powerful voice for bridging energy access gaps through sustainable means – provided by sustainable DRE technologies and models
- Main partner groups – policy community and financial sector

Entrepreneurship/Enterprise Development

- Preparing 12 briefing papers analyzing myths and perceptions around decentralized renewable energy to build a grounded view about the potential of DRE in bridging energy access gaps
- Developing a tool for evaluation of clean cooking energy systems with a focus on users' priorities
- Developing project documents for energy projects – focus on energy for productive uses – Odisha / Jharkhand, Assam / Meghalaya and Madhya Pradesh
- Developing a document on the renewable energy landscape of Odisha to reach out to parliamentarians and legislators

Entrepreneurship/Enterprise Development

Some key achievements

- In July 2010, the Collective was launched at a workshop on 'Scaling up off-grid renewables'.
- This was followed by a series of three policy round-tables in 2011. Policy makers, financial institutions, NGOs and donor organisations discussed innovative and flexible mechanisms to address the barriers to development of decentralised renewable energy in India. The Minister for New and Renewable Energy, Mr. Farooq Abdullah and several senior bureaucrats graced the final round-table. Drawing on the discussions at the round-tables, a summary of recommendations was published and shared with all key stakeholders. This document has been very well-received.
- In 2011, the Collective actively engaged with the MV Nair Committee to accord “priority” status to bank lending for household renewable energy applications.
- Through 2012 and 2013, Collective members participated in various forums and studies, providing insights on regulations and incentives for off grid energy, DRE standards and rating as well as mechanisms to address the manpower void.
- In December 2012 the Collective organised a session on Clean Cooking Energy for All, where the discussion underscored the importance of integrating local community priorities in clean cooking energy policies, programmes and projects.

Planned activities

- Strengthening the voice of DRE practitioners – more frequent interactions, interacting with other practitioners and networks
- Reaching out to policy community and regulators with a focus on:
 - standards / benchmarks that are efficiency-driven and user-oriented
 - financing and fiscal support are results-based and performance- related
 - Ensuring last mile delivery of products and services through effective training and / or enterprise development
- Reaching out to financial sector; sensitisation to:
 - How DRE can change lives,
 - finances and repayment abilities of customers.
 - identify and demystify perceived risks around reliability of the technology, financial sustainability of projects, borrowers' profiles.

Society of Technology and Action for Rural Advancement

New Delhi, India

...a Social Enterprise of Development Alternatives Group



Goal: Build capacity, incubate business models and manage processes to create economic, social & environmental value on large scale



SUSTAINABLE BUSINESS SOLUTION

1000 green building enterprises

30,000 green jobs created

INR 6,000 million revenue generated

Rashi

Manager – Energy, Resources and Social Enterprise

Provide **research expertise, management capability and strategic planning support across teams** in the area of Renewable Energy, Livelihood Support Systems, Green Value Chain Development, and Training and Capacity Building.



COMMUNITY DEVELOPMENT SOLUTION

300,000 households access to BNF

630,000 tons of CO2 saved 790,000 tons of waste utilized



CAPACITY BUILDING SOLUTION

80,000 women literate

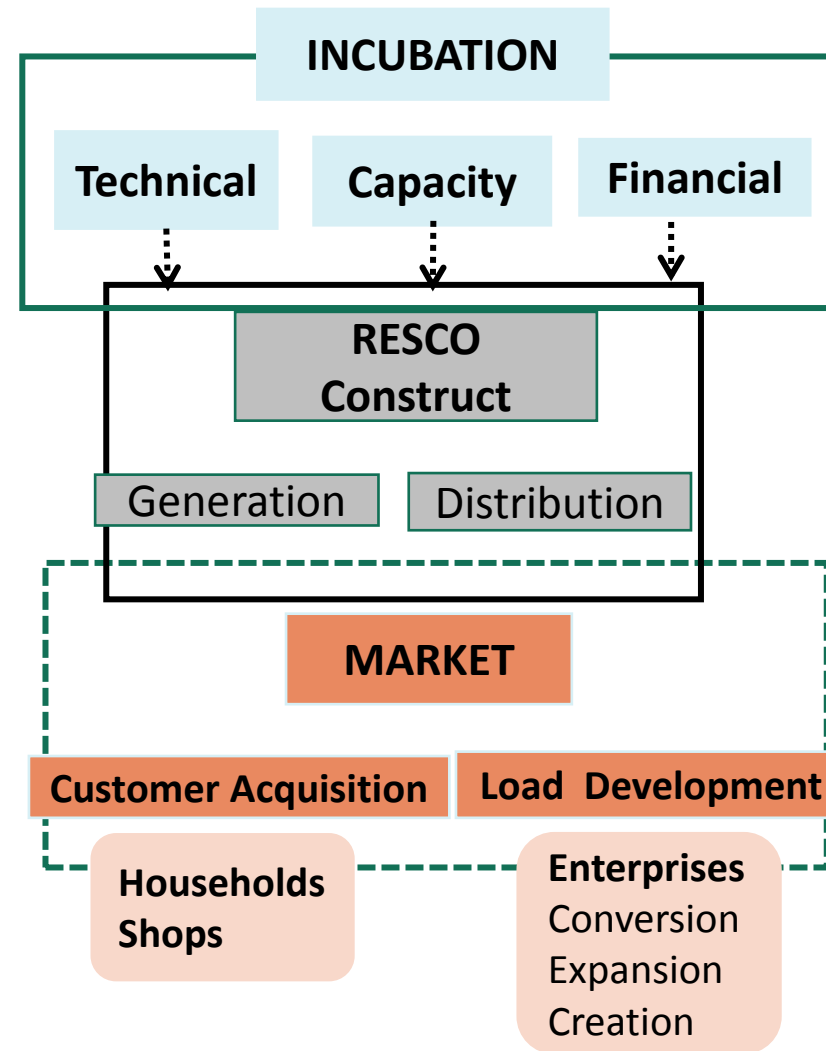
80,000 people trained



Energy Access

Why scale is not seen?

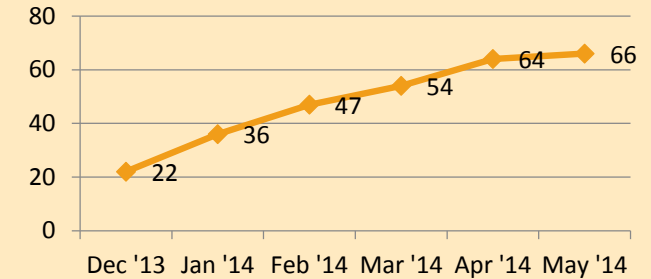
- Demand broad but shallow ... uncertainty around contiguity of demand leading to sustainability issues.
 - Under-developed industry and financing infrastructure to drive growth ... capability and appetite constraints to support the scale
 - Lack of clarity and adequate recognition around ability and willingness to pay
 - Under-developed regulatory environments
- ... the main grid has limitations and is under severe pressure to prioritize concentrated urban areas



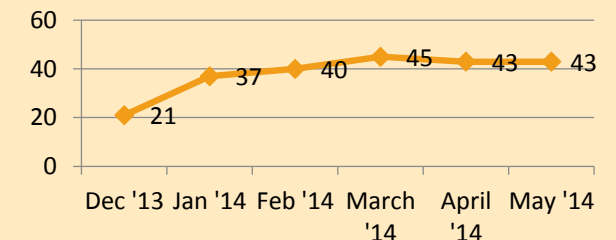
Businesses that serve enterprise, irrigation and other household needs

A Case from Fakirtoli- Koreyan

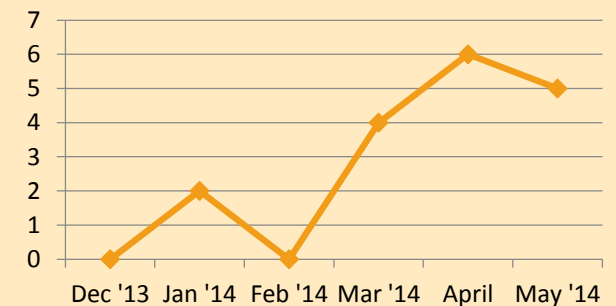
Load acquisition and development



HOUSEHOLD Ramp up



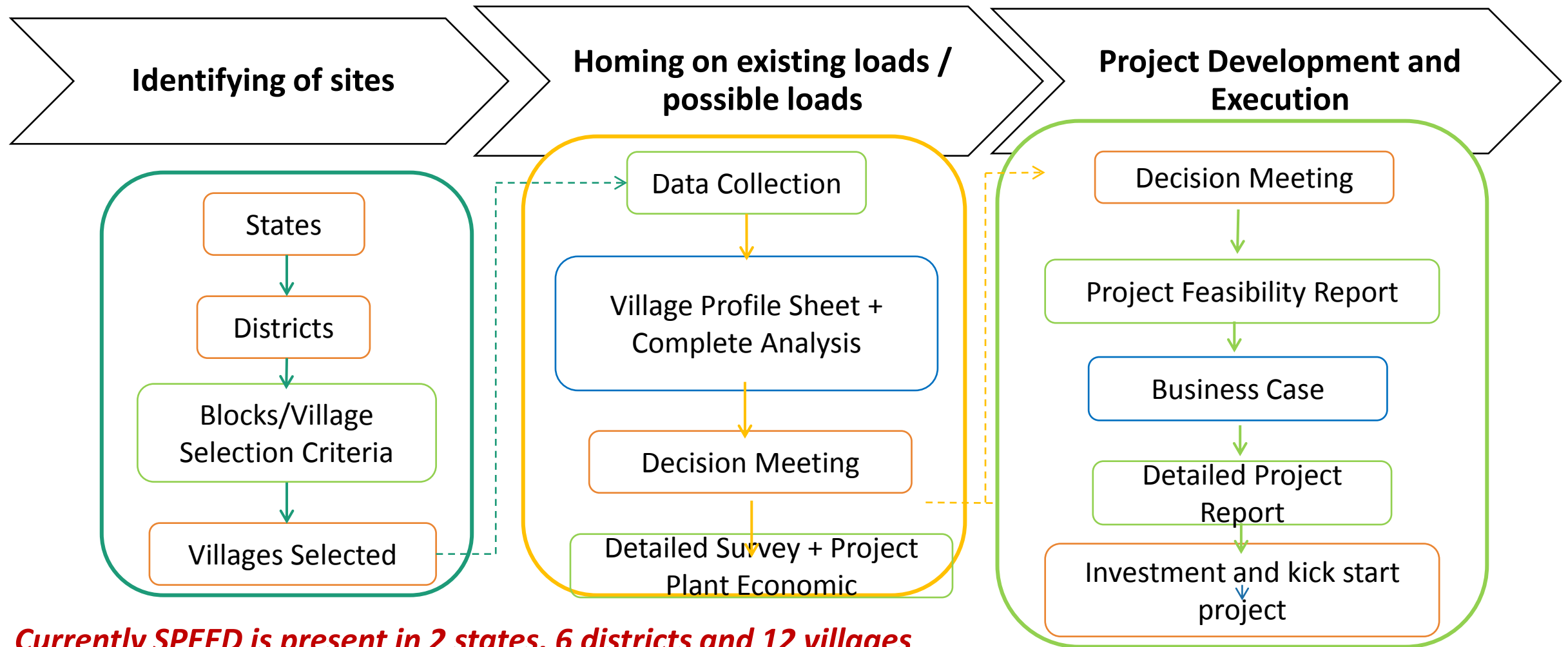
SHOP Ramp up



MICRO-ENTERPRISE Ramp up

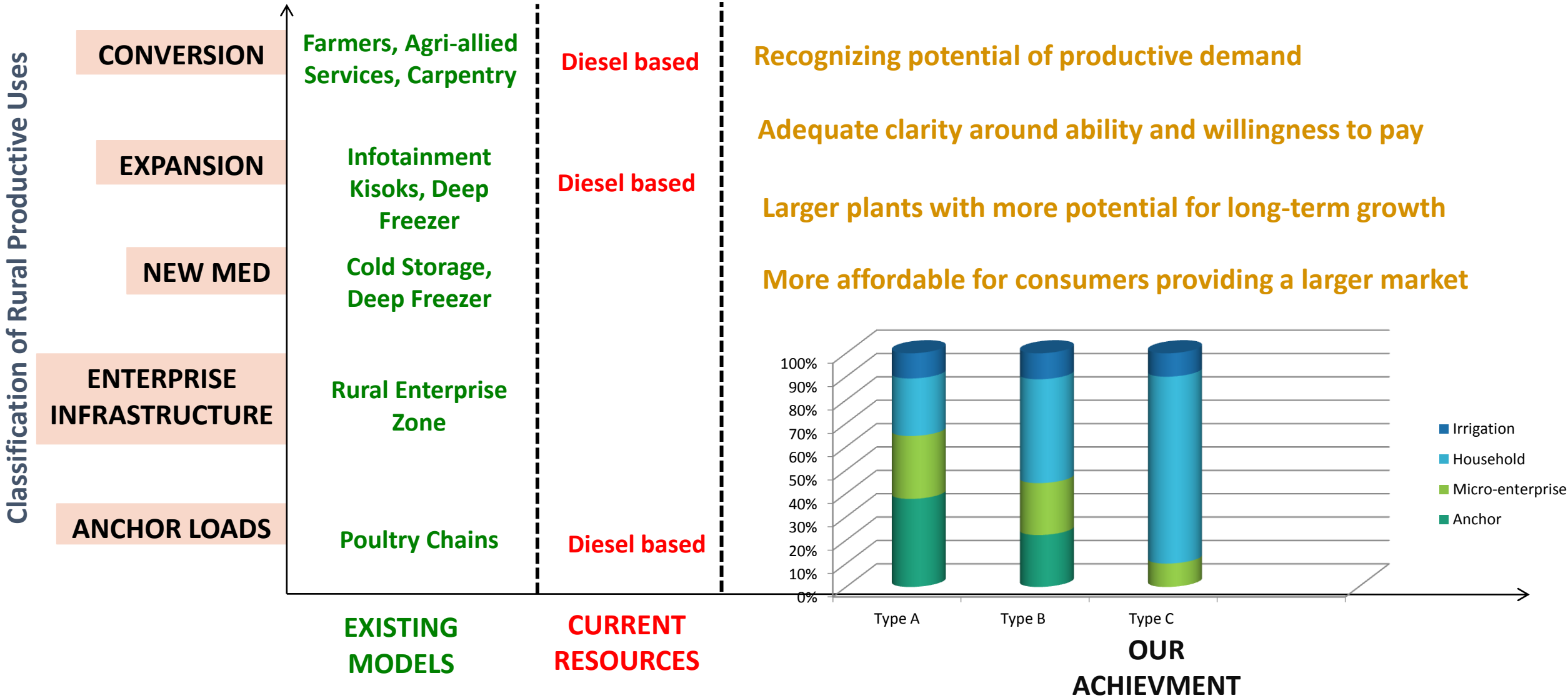
Entrepreneurship/Enterprise Development

Highlights of Models ... monetizing demand and mitigating risks



Currently SPEED is present in 2 states, 6 districts and 12 villages

Entrepreneurship/Enterprise Development – Key Achievements



Planned activities

Under SPEED Programme,

➤ Fast track 30 village projects (Sep, 2014):

RESCOs - Strengthening engagement with 4 Private Companies

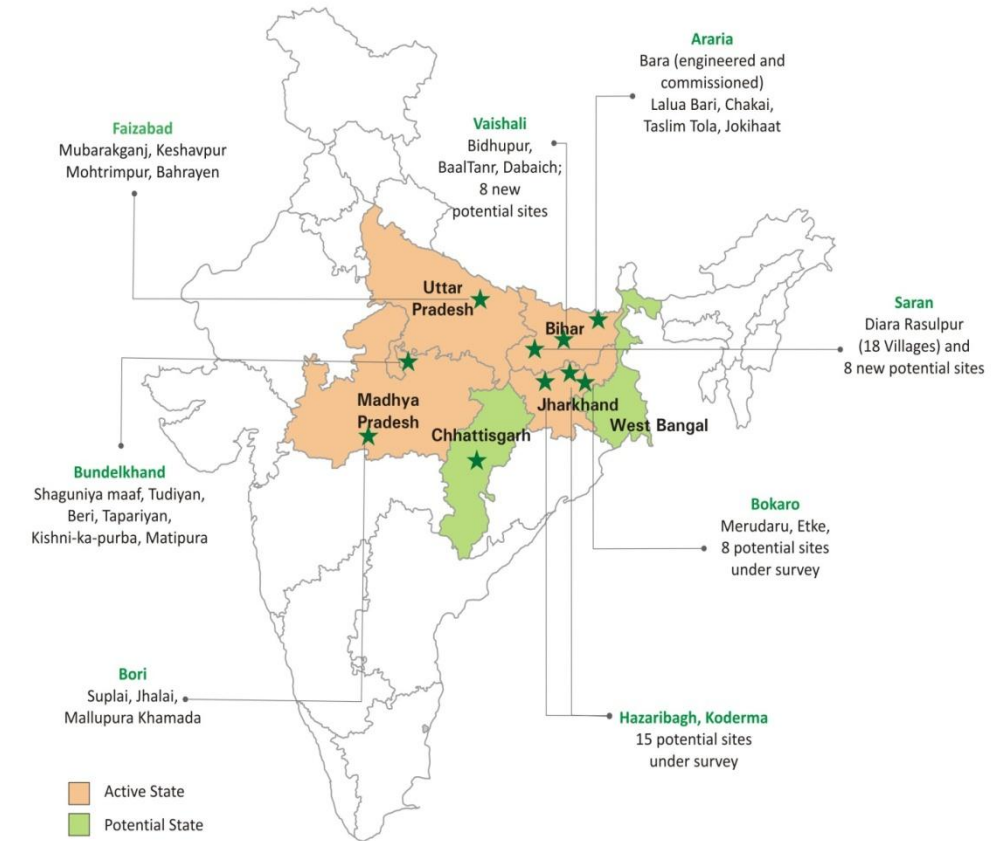
Regions – Extending electricity services to about 3000 Households, 30 villages, 6 districts

Partners – 4 Programme Partners, 2 CSO Partners, 1 Channel Partner

Industry Association - Telecom

Investment – USD 3.5 Million

➤ 1000 Village Plan (20 15 onwards)



Centre for Innovation Incubation and Entrepreneurship

IIM Ahmedabad, India



www.ciieindia.org



www.infuseventures.in

The Centre for Innovation Incubation and Entrepreneurship (CIIE) at the Indian Institute of Management Ahmedabad is one of India's leading **technology business incubators**. Set up with an aim to promote innovation and entrepreneurship in India, CIIE taps into the experience and expertise available at IIMA in the areas of management, innovation, technology networks and entrepreneurship.

Over **100** new companies / projects have been supported by CIIE over the last few years, through various initiatives. Some of these include the **Power of Ideas** (India's largest startup scouting competition), **iAccelerator** (India's first accelerator for IT, web and mobile start-ups), **Infuse Ventures** (India's first cleantech-focused early stage VC fund) and **MentorEdge** (a nation-wide network of mentors and experts across sectors and functions).



Manager – Cleantech Ecosystem Development, CIIE

Mohsin is primarily tasked with managing programmes focused on engaging early stage cleantech entrepreneurs, innovators, and other key stakeholders in the ecosystem. In this regard, he has been involved in the planning and management of the PowerStart Program - India's first boot camp & accelerator program focused on early stage cleantech ventures.



Investment Manager at Infuse Ventures

Vibhor is responsible for studying various sectors and segments that comprise the cleantech landscape, as well as explore and evaluate business models that have the potential to become game-changers. Specifically, he is responsible for deal origination, market analysis, due-diligence and transaction closure. His focus areas are renewable energy, energy efficiency, water & waste, recycling and sustainable agriculture.

Clean energy enterprise development

PowerStart Programme

**POWERSTART
BOOTCAMP**

Objective: Powerstart is the first and only bootcamp and accelerator programme for current and aspiring cleantech entrepreneurs in India. It is an intensive capacity building boot-camp and accelerator for entrepreneurs at prototype or execution stage. Partnership with ADB.

Impact: Total “Startup Team” applications received (across two editions in 2012 & 2013): **260**
Total “Startup Teams” that were/are considered for seed funding: **6** (3 each from each edition)
Total number of cleantech enterprises that received seed funding from Infuse: **4**

Solar Innovation Program (2008)

Objective: Launched with the Ministry of New and Renewable Energy to identify and develop technologies for sustainable development and maximum impact.

Impact: Over 10,000 posters were sent, 2,500 academic institutes covered; **9** organisations were selected and supported. A total of INR **22 lakhs** were meted out to institutes including IIT Madras, IIT Kanpur, UICT Mumbai, NIT Hamirpur and IIIT Hyderabad for development of solar-based innovations

Renewable Energy Search (2010)

Objective: Identify new and innovative ideas and business models in the cleantech sector.

Impact: Over **250** entrepreneurs and start-ups were attracted and over a dozen entrepreneurs were supported across areas like renewables, energy efficiency and other cleantech verticals

Other entrepreneurship development initiatives



India's largest entrepreneurship initiative with ET & GOI. 31,000 applications received over 2 editions (2010, 2012)



network of 300 + mentors across India to support entrepreneurs



Global Entrepreneurship Week India
India's largest festival for entrepreneurs



Multi-city series of workshops to train HNIs about angel investing

Publications



India's bestselling book on entrepreneurship



Coworking space @ CIIE



Incubator at Jaipur



Indian Fund for Sustainable Energy – a public private fund for sustainable enterprises



India's first integrated social venture development initiative



ICT focused initiatives and seed fund

- \$ 25 Million Venture Fund
- PowerStart – India's first cleantech focused accelerator
- 6 companies invested in
- 4 selected through PowerStart

- Social Venture Accelerator with Village Capital
- GIZ-Aarohan – Capacity Building Workshops for social enterprises and support organizations
- Act for Impact – Unlocking domestic capital for Impact Investing

- Sector focused incubation initiatives for Big Data, Mobile, Gaming, Infrastructure
- Month long entrepreneurial bootcamp for college students across India



India's first sustainable energy incubation fund and ecosystem
Launched in 2011; second closing achieved in March 2014

Why INFUSE?

sustainable energy is a large social and commercial opportunity in India

need to bring best global tech-enabled innovations to make large impact

ecosystem to support early stage energy innovations doesn't exist

www.infuseventures.in

How and who?

an incubator and ecosystem

a \$ 25 million sebi-registered venture fund focused on early stage cleantech enterprises

brings together

- government of India
- leading energy corporates
- academic institutes
- successful cleantech
- entrepreneurs
- policy makers

What?

seed-invest up to \$ 200k, provide scale-up funding up to \$ 1.5 mn per venture

provide active mentoring support through experts, strategic support, policy support through government

Our portfolio companies



Planned Activities (2014/2015)

- **Power of Ideas 2014**, with the Economic Times & Dept. of Science and Technology, Govt. of India.
- Capacity building and mentoring project for Social Venture Incubators with **GIZ India** (MSME Division): 10 social ventures incubators to be incubated in the next 2 years
- **PowerStart Programme 2014**
 - PowerStart Hackathon for cleantech devices leveraging ICT – in partnership with the Cleanweb Initiative – Bangalore, August-end 2014
 - PowerStart Bootcamp 2014 – in partnership with Asian Development Bank – Ahmedabad, November 2014
- More **seed stage investments** by Infuse Ventures (targeting min 4 new investments in early stage cleantech enterprises before end of the year)
- **SPEED** project with Rockefeller Foundation, cKinetics & TARA – debt financing for energy access ventures
- **Global Entrepreneurship Week 2014** (November)

Nuru Energy Mumbai, India



Nuru Energy is a for profit social enterprise with a dual mission to promote rural livelihoods and provide energy and lighting solutions to the rural poor. We currently operate in Sub Saharan Africa and in South Asia. Nuru Energy has developed the world's most efficient and affordable off-grid lighting and low-power energy system (Nuru POWERCycle) .

In addition we also design and distribute solar lights making us one of the few firms in the world that offer dual (renewable) source of charging . Our products are designed to be simple, versatile and durable making them ideal for indoor and outdoor use.

Deepak Punwani, COO – Nuru Energy India

The role is to grow the India operations for Nuru Energy. It involves building the team and product portfolio for the business. Role also involves setting the business and fundraising strategy. One of the main roles for me is also to develop “Go to market” strategy for the business to ensure profitable, sustainable operations



Energy Access

- Nuru Energy has designed a pedal generator (The POWERCycle). This device works on pedal power and 20 minutes of easy pedaling can charge 5 Nuru lights fully in 20 minutes. Each light then offers average of 8 hours of light
- The POWERCycle offers a community charging mechanism for off grid areas. Nuru Energy is engaged in developing Village Level Entrepreneurs (VLE) who help sell the Nuru lights and then offer light recharging services via pedal generator
- For on / off grid markets Nuru Energy has developed portable solar charged lights which retail at prices ranging from USD 7.5 to USD 26
- The POWERCycle and solar charged lights have provided energy access to consumers across 3 states in India in addition to Nepal, Bangladesh and Myanmar in South Asia



Entrepreneurship/Enterprise Development

- Nuru Energy has established VLE's in rural areas of India and Africa. These VLE's are chosen from within the community and they serve as a community focal point for charging the Nuru lights
- Each VLE caters to an average of 80 – 300 households. VLE's income comprises margin from selling Nuru lights and a recharge fee (7 to 10 cents US) per light recharge. They are also the first level servicing point for consumers. Some VLE's also sell solar charged Nuru light
- In India VLE's are identified with help of partners (NGO's, self help groups, micro finance institutions) and in Africa VLE's are identified by our own sales team
- Income from Nuru Energy provides them with a supplementary income source and allows them to carry on other income generating activity if they so desire

Entrepreneurship/Enterprise Development

- More than 500 VLE's trained across India and Africa
- Cumulatively VLE's earned more than USD 200 K annually in 2013 - 14
- Nuru Lights sold in over 20 countries. VLE's set up across 6 countries
- Lights being used by doctors, army personnel, sanitation workers, disaster rescue teams and students in rural areas
- Added conventional retailers to distribution network. These retailers sell the solar powered lights in more developed (semi urban) markets
- Established model to extend distribution in urban areas. Proceeds used to grow rural operations

Planned activities

- Launch new products to enhance the product portfolio across the community and individual charging model
- Develop new markets in South and South Asia for Nuru products
- Finalize private sponsors for potentially large scale public – private initiatives around energy access
- Build a product and delivery model around energy access for students in energy deficient areas
- Widen distribution access by targeting new states in India
- Evaluate funding options to enable 5 X growth

Arc Finance

New York, USA

Established in 2008, Arc Finance is a global non-profit that brings together practitioners, funders, pro-poor enterprises, and end-users to develop solutions for access to finance for clean energy and water. Our expertise is in providing the tools, technical services, catalytic investment, and linkages that allow these diverse groups to find common opportunity and achieve mutual benefits.

Arc Finance provides funding support for energy finance partnerships across the globe.

Sreyamsa Bairiganjan (Project Manager and Agent Model Specialist)

Srey serves as Arc's Project Manager for India and brings extensive experience in the social and cleantech enterprise engagement space with a special focus on Base of the Pyramid markets. Srey leads Arc's energy finance partnerships in India.



Energy Access

Arc Finance does a lot of work on energy access under the USAID supported **Renewable Energy Microfinance and Microenterprise Program (REMMP)**

- **REMMP Goal:** Increase access of underserved populations to clean energy products to improve livelihoods and quality of life among these target recipients while minimizing climate-damaging emissions.
- **REMMP Components:** The Program aims to achieve these goals by increasing end-user access to finance through 4 related components:
 - Demonstrating the commercial viability of a range of consumer payment models
 - Facilitating investment for clean energy financing
 - Improving the capacity of the private sector to finance clean energy
 - Documenting and disseminating case studies and best practices

Entrepreneurship/Enterprise Development

- Entrepreneurship Development: Arc Finance works with companies serving the BOP that grow successfully share the following attributes:
 - an understanding of the interrelationship between finance, distribution, and technology
 - a tailored approach that takes into account local market conditions and constraints
 - the leveraging of existing financing and distribution channels for easier and quicker growth
- Activities:
 - Typical Arc support activity includes combination of TA and financing (usually a challenge grant/seed funding that is matched by partner)
 - Arc introduces/matches companies with other potential funders and knowledge-sharing opportunities
 - Arc's REMMP works with USAID's Development Credit Authority and others to raise finance

Entrepreneurship/Enterprise Development

Microfinance Models

- Arc is working with 7 MFIs in India – both Tier 1 MFIs (e.g Bandhan with over 4 million clients) and Tier 3 (e.g. DCBS and WSDS with under 50,000 clients each)
- Arc also working with an MFI crowd-funder and an MFI apex funder to leverage private sector funding

Remittances Models

- SogeXpress (Haiti): Families in the diaspora use remittances to pay for solar systems in Haiti
- Partnered with local Haitian distributor who imports products, deals with shipping and customs and provides warranties
- Partnered with agent network in diaspora who promote project (add-on to primary business focused on phones)

Planned activities

- Creating a measurable impact by supporting more energy finance partnerships
- Showcasing entrepreneurial activity at the Base of Pyramid energy markets to highlight replicability
- Reaching around 100,000 households globally with the Arc partners who are being funded currently.

Mera Gao Power (MGP) Uttar Pradesh, India

Mera Gao Micro Grid Power (MGP) builds, owns, and operates the world's lowest cost micro grids which provide priority energy services to India's off-grid poor. MGP's village-level lighting facilities generate electricity to distribute across the village to power customers' LED lights and mobile phone chargers.



Brian Shaad, Co-founder / Director

Brian is responsible for designing MGP's field-level operations and new business development.



Energy Access

As an energy service company MGP's primary competitor is kerosene, in Uttar Pradesh alone nearly 21 million households depend on kerosene as their primary lighting source. MGP has targeted this market by designing a low cost solar village-wide micro-grid that allows customers to receive seven hours of high quality lighting and mobile phone charging for less than they currently spend.

MGP currently serves over 20,000 customer households across 900 villages in Sitapur and Barabanki districts of Uttar Pradesh.

Entrepreneurship/Enterprise Development

In less than three years MGP has grown from 15 customers to over 20,000, one reason for this success is our approach to the design and management of an Indian rural enterprise.

From a business development point of view we've turned upside down the Indian model of doing business – customer service is our number one priority, hiring local is essential to our model, and we invest in our employees so they can grow professionally and promote within the company.

Doing business in India is not easy, along the way we've learned and adapted to the layers and layers of red tape, managing a complex supply chains with goods coming from outside Uttar Pradesh has proven to be a challenge underestimated. Our mantra here is forms, forms, forms.

Fundraising can be a challenge. As a for-profit, access to grant support difficult. As a first mover in a new sector, traditional debt markets tend to be too risk adverse.

Entrepreneurship/Enterprise Development

- 20,000 household connections in less than 3 years
- Tried and tested technology
- Lowest cost micro-grid in operation
- Proved ability to replicate and achieve scale
- Local recruitment and training
- Overcame bureaucratic challenges related to supply chain
- Slowly accessing debt markets

Planned activities

- Expansion to a third district (Gonda)
- Pilots in a second state (Bihar)
- Market assessments in Nepal, Myanmar, Indonesia and Haiti
- Further improvements to process and design efficiencies
- Partnering with a telcom operator on a mobile payments pilot
- Solar Home System sales

SELCO India, Bangalore, India



- Established in **1995**
- A social enterprise that **combines doorstep service and financing to low income communities**
- Its strategy has been to **combine technology, finance and local supply chains** to deliver a customized solution.
- 45** branches, **300** employees, **6** states in India, **30** financial institutions, **1.2 million** people
- Today SELCO India includes **an entrepreneur incubation centre, grassroots R&D labs and policy centre** working towards building the off grid ecosystem

Participant's name and title: Lead, Communications

Currently looks at sustaining enabling conditions for social energy enterprises through a policy lens. Involved in program conceptualization, project management, communications and fundraising across SELCO.



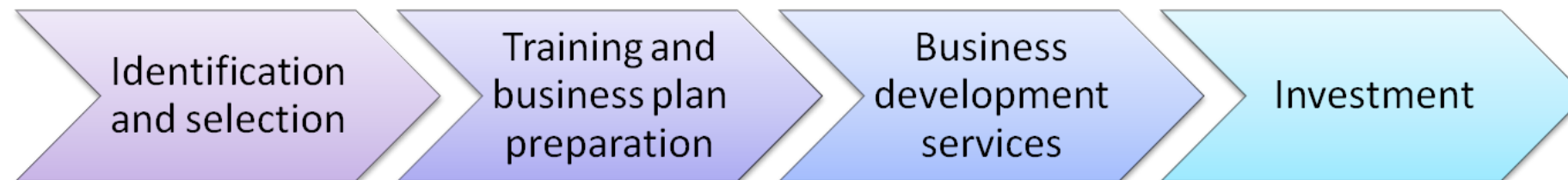
Energy Access

- Design solutions based on needs, contexts
- Provide mainly solar based solutions- lighting and other solar applications
- Solutions across livelihoods, education, health, agriculture, ICT, well being
- Facilitate critical linkages to enable uptake of solutions- enduser financing, enterprise financing, skill development, technology development, policy advocacy, capacity building
- Ecosystem builders: In the last 2 years created an entrepreneur incubation centre, network of grassroots LABS and policy advocacy arm under SELCO Foundation

Entrepreneurship/Enterprise Development

Key differentiator is mentorship and support during the critical early growth phase of the enterprise under a successful operational social energy enterprise like SELCO.

- Replicating decentralized business models and processes
- Providing mentorship in social enterprise management and business planning support
- Assisting in developing the enabling conditions to support delivery of energy services
- Facilitating access to seed and later stage capital
- Establishing a platform for networking, sharing of best practices, common sourcing , etc



Entrepreneurship/Enterprise Development

- Facilitated two MoUs with entrepreneurs and regional rural banks who previously never financed energy solutions
- Completed 18 workshops targeted at 25 banks and 370 bankers
- Provided business development services including finalization of business plan for 4 Medium Entrepreneurs
- Facilitated long term investments for 2 medium entrepreneurs
- Developed training curriculum for small to medium entrepreneurs
- Raising soft funds for working capital of small entrepreneurs (\$2000-10,000 ea)
- Established local vendor linkages for incubatees
- Established a regional hub based on geographical needs of incubatees
- Completed 2 successful workshops with over 40 African Entrepreneurs in 2013 and 2011
- Trained 57 technicians for 7 incubatees through 4 training programs
- Established CLEAN Network

Planned activities

- Establishing an innovation fund
- Securing soft funding to meet working capital needs of small entrepreneurs
- Establishing pipeline of patient investors to coincide with investment ready enterprises post incubation
- Establishing more local vendor linkages
- Expand identification channels of entrepreneurs especially small ones
- Building capacity of financial institutions to propel end user and enterprise financing
- Inclusion of energy curriculum in training institutes (technicians & entrepreneurs)
- Advocating for certification of these courses at a government level to institutionalize practice and ease lending for trained entrepreneurs
- Roll out year 1 plan of CLEAN Network to help energy enterprise community

The Climate Group

New Delhi, India

The Climate Group is an award-winning, international non-profit. Our goal is a prosperous, low carbon future. We believe this will be achieved through a '**clean revolution**': the rapid scale-up of low carbon energy and technology. We work with corporate and government partners to develop climate finance mechanisms, business models which promote innovation, and supportive policy frameworks. We **convene** leaders, share hard **evidence** of successful low carbon growth, and pilot practical solutions which can be replicated worldwide. Our offices are in Greater China, North America, India and Europe



Pallassana Krishnan,
Executive Director, India:

Role:
Strategic leadership,
program management,
donor relations, policy
advocacy, resource
mobilization and
networking



Subaskar Sitsabeshan,
Program Analyst, UK:

Role:
Development and research
co-ordination of programs,
Corporate, NGO and
government partnerships,
support funder
relationship management



Jarnail Singh
Program Manager, India

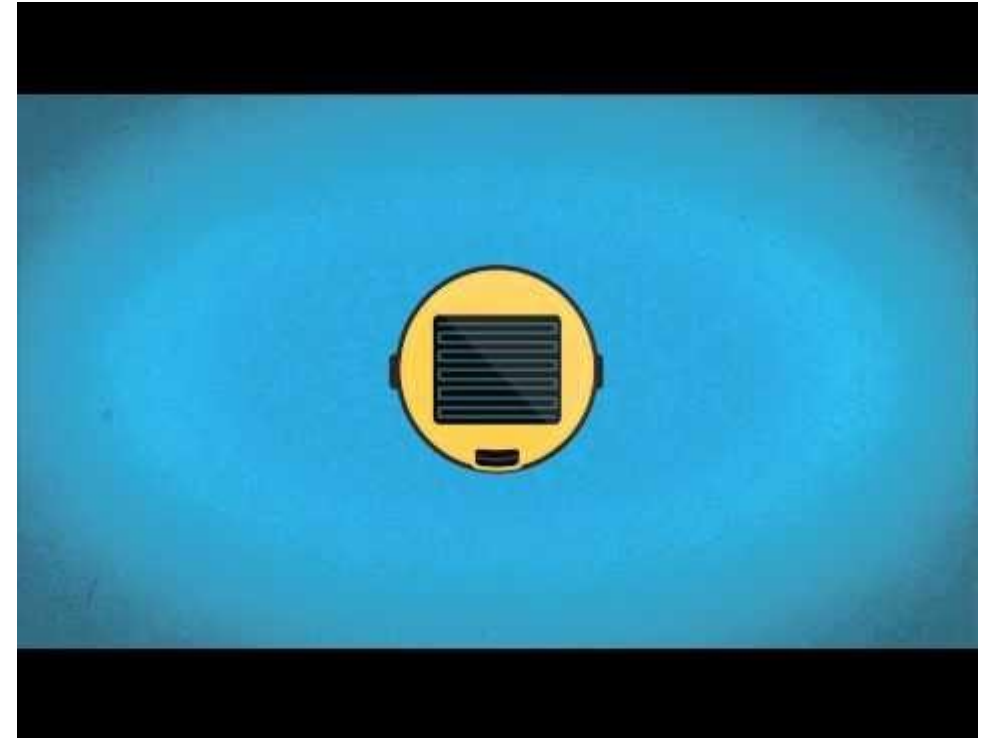
Role:
Clean Energy Access
Specialist, Program
management, Policy
research, Monitoring and
Evaluation and
Networking

Energy Access

The Climate Group's Access to Rural Energy in India programme, ***Bijli – Clean Energy for All***, which is principally funded by the Dutch Postcode Lottery, aims to reduce greenhouse gas emissions and enhance the lives of rural inhabitants in India by deploying renewable energy technologies and improving infrastructure quality.

The program aims to identify sustainable off-grid electrification models, in addition to addressing the challenges of scalability in the off-grid electrification context, and ultimately stimulate India's Clean Revolution.

The Climate Group aims to deliver this program by working with local delivery partners across three different off-grid electrification models (hand-held lights, home-lighting systems and micro-grids) in the states of **Maharashtra, West Bengal and Uttar Pradesh, India.**



Bijli - Clean energy for all - available on YouTube

<https://www.youtube.com/watch?v=X5v4yAZDiQE>

Entrepreneurship/Enterprise Development

The Climate Group's aim has been to accelerate the involvement of the private sector to scale up off-grid projects and develop strategic long term programs. In view of this, TCG has been working with small scale private entrepreneurs to scale up innovation and financing through various initiatives.

This involves efforts to create a pipeline of projects in the off-grid sector coupled with innovative financing schemes. Most notable of these are our ongoing efforts to invest through the first loss capital route as well as an affordable debt funding facility for entrepreneurs in India.

We are hoping to utilize TCG's global networks to develop and organize a leadership (capacity building) program for off-grid entrepreneurs in India.

TCG would also be conducting a detailed financial research exercise on off-grid business models in India with support from the Goldman Sachs Environmental Markets Group.

Entrepreneurship/Enterprise Development

Some key achievements

- Creation of a low cost line of credit for rural micro-entrepreneurs and customers by supporting a revolving fund of £ 120,000 in Maharashtra and West Bengal. Our partners are SELCO, Small Scale Sustainable Infrastructure Development Fund (S³IDF) and SwitchON
- TCG-WBI Off-grid Energy Challenge: We are supporting social enterprises in the off-grid solar micro-grids and innovative delivery models for home based systems in Uttar Pradesh. The winners of this competition are Mera Gao Power, Naturetech Infra, Simpa Networks and OMC Power who will get \$ 30,000 each for supporting their operations.
- Development of targeted visual communications to sensitize global investors about the enormous opportunity within the off-grid sector in India
- Founding member of Clean Energy Access Network (CLEAN) to support market (technology, policy, finance and capacity) development of the off-grid sector in India

Planned activities (2014/2015)

- Reach out to 50,000 people in rural India with Clean Energy by supporting social enterprises in Uttar Pradesh, Maharashtra and West Bengal
- Financial research on selected off-grid business models in India with support from Goldman Sachs Environmental Markets Group
- Catalyzing the incorporation of Information and Communications Technology (ICTs) within the off-grid energy sector in under the ICTs for Sustainable Energy Partnership (ISEP) lead by The Climate Group UK
- Developing a Leadership Program tailor made for off-grid energy entrepreneurs
- Facilitate creation of an affordable debt fund for off-grid energy in India by mobilizing global network of private investors
- Develop a South Asia Off-grid Network to accelerate regional coordination among South Asian countries viz. India, Nepal, Bhutan, Bangladesh and Sri Lanka
- Demonstrating and gathering evidence for the role of off-grid energy in productive uses such as irrigation, flour mills etc.

GIZ, India



Implemented by



GIZ is a German government owned not-for-profit enterprise supporting sustainable development.
GIZ is a federal enterprise supporting the German Government in the field of international cooperation for sustainable development.

Santosh Kumar Singh

(Technical Expert, IGEN-RE)

My work focuses on addressing challenges developing market for off-grid renewable energy products.



Energy Access

The objective of IGEN-RE is to improve the conditions for energy supply based on renewable energy in rural areas. In order to achieve that goal IGEN-RE is engaging in the following types of interventions:

- Implementing pilots together with the private sector to demonstrate replicable business models (e.g. for Improved Cookstoves, Solar Mini-Grids, Solar Water Pumps)
- Facilitating the development and implementation of supportive policies and programmes at state and national level (e.g. West Bengal Fixed Cookstove Programme)
- Capacity development & support for key stakeholders in the rural renewable energy sector (supporting the Selco Incubation Center)
- Facilitating knowledge dissemination through conferences, workshops, and strengthening of practitioner networks (e.g. annual India Clean Cookstove Forum)

Entrepreneurship/Enterprise Development 1/2

- GLZ supported in setting up of the [Selco Incubation Centre](#) (August 2012-February 2014)
- GLZ is working with entrepreneurs to develop sustainable business models for provision of clean cooking energy.
 - Publication of the [User's Acceptance Report](#) on Improved Cook Stoves.
 - A large scale household survey (7200 households) in four states for providing key market information.
 - A low cost marketing and communication strategy for demand creation is being developed.
 - A national PoA for tapping carbon finance for cookstove registered.
- Developing market for solar water pumps
 - Publication of the [Report](#) on the potentials for Solar Water Pump in Bihar.
 - Setting up of solar water pump technology demonstration site at Vaishali district, Bihar, India

Entrepreneurship/Enterprise Development 2/2

- Development of a demand driven and economically viable approach for upgradation of small water mills in Uttarakhand
 - Two pilot projects in Dehradun and Uttarkashi
- Development of policy guideline for pine-needle gasification power plants
- Developing financing products for off-grid renewable energy enterprises.
 - A detailed analysis of financing needs of different segment of off-grid renewable energy enterprises done.

Entrepreneurship/Enterprise Development

- Incubation support for 12 district level enterprises covering 9 states has been provided
- 18 training programmes in 5 states reaching 371 bankers of 25 banks have been conducted
- Development of 3 [training manuals](#) on solar technology, sales/marketing, finance
- Two technology demonstration sites for solar water pumps set up.

Planned activities (2014/2015)

- Providing technical support to entrepreneurs graduating from Selco Incubation Centre
- Pilot project to integrate solar cooling and solar water pumps within agricultural value chain in West Bengal.
- Pilots of two financial mechanisms for off-grid renewable enterprise finance
 - A catalytic facility for providing working capital for renewable energy enterprises
- Support for creation of sector wide network/representative organization for renewable energy enterprises
- Mini-grid and micro-grids pilots



KERA
Kenya Renewable Energy Association

Kenya Renewable Energy Association Nairobi, Kenya

KERA is a business members organization established in 2002

It aims to improve the environment for renewable energy business in Kenya

Among other functions, KERA undertakes advocacy work, facilitation of projects and awareness creation activities

Aisha Abdulaziz

Provide assistance in the development, planning and implementation of projects



Energy Access

KEREA focuses on three key aspects:

- Creating an enabling and conducive business environment – policy, regulations
- Building the capacity of private sector to contribute to energy access- curriculum development, training, business and study tours
- Awareness creation – vendors, technicians and consumers on good quality products and services

Entrepreneurship/Enterprise Development

Financing:

KEREA facilitates roundtable discussions on priority areas for intervention in RE sector -

Preparation of reports which are shared with financiers

- Co-convening financiers-stakeholders meetings

Planned activities

Continuation: Project to develop and institutionalize a training curriculum for solar PV. Building capacity of technical training institutions (ToT, Equipment)

New

Project to develop and implement a voluntary accreditation framework for vendors of off grid lighting products in Kenya

Project to develop a training curriculum for solar water heating

Publication of Energy Digest magazine (3rd Edition +)

<http://kerea.org/the-energy-digest-kenyas-premier-renewable-energy-magazine/>

Chandaria Business Innovation and Incubation Centre, Kenyatta University, Kenya



Chandaria BIIC is an innovation incubation Centre located in Kenyatta University. Kenyatta University recognised innovation as a key driver of long-term economic growth, the primary basis for competitiveness in world markets and part of the response to many societal challenges (e.g. unemployment, sustainable development, among others). The innovation process itself is facing major challenges, especially in developing countries such as Kenya. It is under this backdrop that Kenyatta University (KU) decided to undertake innovation and incubation as one of its major strategic goals. As a leading University in the region, it embarked on the establishment of dedicated innovation hub which provides effective nurture and management of innovations.

George Kosimbei, Coordinator, Chandaria BIIC:

The Coordinator is in-charge of the day to day running of the Centre, ensuring that innovations are properly incubated and supported so that their growth is accelerated. Support includes mentorship, coaching, seed capital, development of prototypes, identification of market, business basics among others.



Energy Access

- Chandaria BIIIC promotes energy access by supporting innovations in the energy sub- subsector.
- It works closely with the Department of Energy Engineering at Kenyatta University to incubate innovative projects from students
- The Centre promotes social entrepreneurship in use of cheap, accessible alternative energy sources (HAMK University, Finland Connect project).
- E.g. Portable biogas gas kits, Battery Powered by Chicken droppings, efficient solar water heating system.

Entrepreneurship/Enterprise Development

1. Assistance with business basics
2. Help with accounting/financial management
3. Access to seed capital, bank loans, loan funds and guarantee programs
4. Help with presentation/ pitching skills
5. Links to higher education resources
6. Links to strategic partners
7. Access to angel investors or venture capital
8. Comprehensive business training programs
9. Advisory boards and mentors
10. Management team identification
11. Help with business etiquette
12. Technology commercialization assistance
13. Assistance with regulatory compliance
14. Intellectual Property management

Entrepreneurship/Enterprise Development

<i>S. No.</i>	<i>Idea</i>	<i>Company Owner</i>	<i>Status</i>
1	Solar Water heating system	Joab Oito	Prototype and Patent filed KE/U/2014/00407
2	Briquetting Machine	Anthony Gathogo	Selling the products
3	Battery Powered by Chicken Droppings	Alex Kibet	Developing the Cells to be used by poultry farmers
4	Portable biogas kits	Johnson Gituma	Setting up the kits in rural households in Kenya

Planned activities

1. Developing capacity for effective management and nature of innovations
2. Providing highly effective innovation and incubation services in line with international best practices.
3. Creating demand for innovation and incubation services rendered at Chandaria-BIIC.
4. Strengthening and expanding innovation and incubation services delivery using the virtual platform.
5. Building human resources capacities for effective delivery of innovation and incubation services.
6. Establishing a collaboration framework between Chandaria-BIIC and Partners.
7. Establishing a robust planning, research, monitoring and evaluation framework and mechanism.

Kenya Climate Innovation Center, Nairobi, Kenya



- We support Kenyan small and medium enterprises (SMEs) that are developing innovative solutions that address climate change challenges in three sectors including : **energy, water** and **agribusiness**
- Our aim is to accelerate the development, deployment and transfer of climate technologies by providing SMEs a set of holistic country-driven support services, including **early-stage financing, business support, technology incubation** and **capacity building**.
- This is an initiative supported by the World Bank's *infoDev* and is the first in a global network of CICs being launched by *infoDev*'s Climate Technology Program (CTP). (Ethiopia, India, South Africa, Vietnam, Morocco, the Caribbean and Ghana)
- The Kenya CIC is funded by the United Kingdom's UKaid and the Danish Ministry of Foreign Affairs.

Serah W. Nderitu, Research and Policy Officer

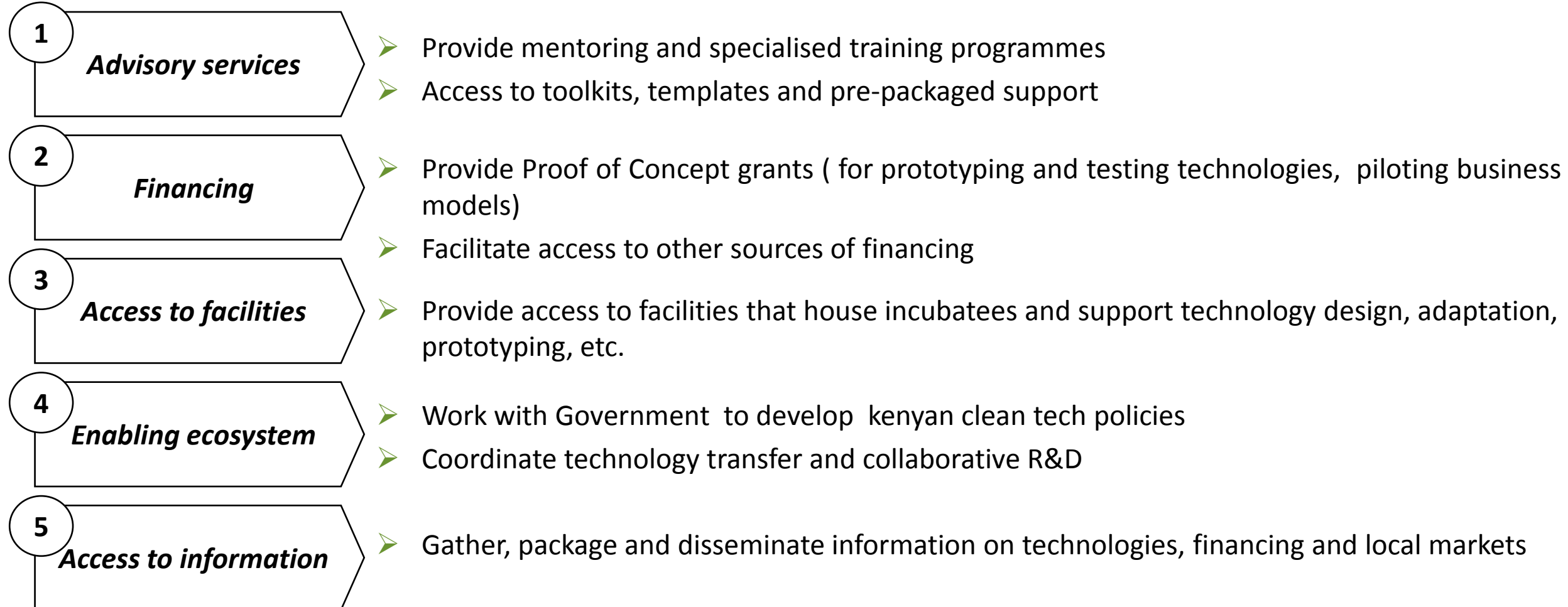
- Responsible for developing and implementing research and policy programs within CIC and ensuring that research results are documented and disseminated.
- Identifying and developing appropriate policy recommendations relevant to CICs programs and keeping the team abreast with external policy developments.
- Liaison with other with other research institutions and network operating in the climate technology.



Energy Access

- The KCIC supports Kenyan enterprises developing solutions to increase energy access. This is done through an integrated set of services that leverage and expand existing innovation capacity and support the development and scale up of climate technology enterprises.
- In order to support SMEs to realize opportunities in the renewable energy sector and grow the industry, the CIC focuses on: facilitating knowledge sharing and access to relevant, easy-to-understand information. Providing SMEs with business and technical advisory services, and facilitating access to finance from banks, investors and other sources of financing while at the same time working with policy makers to create an enabling regulatory framework.
- Enterprises currently being supported at CIC are developing renewable technologies in: solar, biogas, clean cookstoves, briquettes, wind and small hydro,

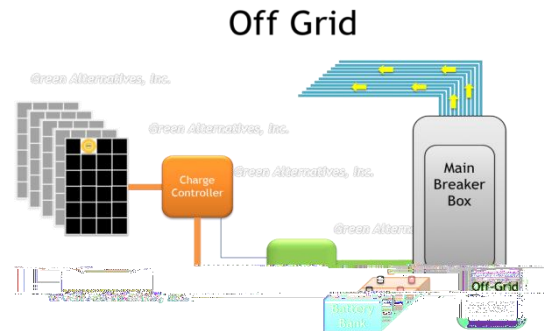
Enterprise Development



Key achievements



- More than 80 entrepreneurs being incubated ,
- 60% are renewable energy



**31,777 kW off-grid
power installed**



**1,707 households /
businesses accessing off
grid electricity**



**63,791 households using low
carbon energy sources**



**Partnerships forged with key institutions:
(government, research, financial, academia etc.)**



**759 green jobs
created**



**1.2 Million USD leveraged from
other sources**

Planned activities for 2014/2015

Advisory services & mentoring

- Equip clients with appropriate business management skills and best practices through delivery of high quality training programs and day-to-day advisory services
- Develop a mentorship program where CIC entrepreneurs are linked to successful entrepreneurs for experience sharing and strategic networking

Financing

- Increase clients access to other sources of funding through mapping out relevant financing opportunities and assisting the clients to develop bankable business plans and investment proposals

Access to information

- Undertake an annual information needs assessment to understand the information gaps currently in place and ways of improvement on efficiency.
- Facilitate exchange visits to relevant technology hubs, successful companies, research facilities for knowledge sharing

National Association of Community Electricity Users Nepal, (NACEUN)

Lalitpur, Nepal

Establishment

- 2005 under the NGO registration act under Go/N
- Non profit member base organization dedicated for rural electrification

Main working area

- Promotion and development of rural energy access and electrification(off and on grid)
- Consumer capacity building and institutional strengthening
- Promotion of productive use of electricity
- Lobby and advocacy for consumer familiar RE Policy and program and consumer right

➤ *NACEUN has great emphasis on people's participation for rural electrification (90 % Go/N, 10 % public participation) and their area electrification.*

Role in NACEUN

Founder of NACEUN, my role in this organization is to provide leadership in overall area of work:

- Coordination with government agencies
- Partners and collaborators for fund raising
- Policy improvements
- Consensus building among the stakeholders for rural electrification
- Network building , advocacy and representation
- Involvement in day to day management



Participant's name and title:

Dilli Ghimire
Chairperson
NACEUN

NACEUN: working for energy access in rural Nepal

- Involved for the development of off grid and on grid electrification and service.
- Expanding grid based community rural electrification and promoting micro hydro in rural Nepal.

Achievements

- Electricity connection/ access to 286,000 households
- Additional 90,000 households will have electricity access after completion of on going rural electrification (RE) projects
- 10 Millions of USD invested by community as 10% cost sharing for RE.

Members and network

- 249 member electricity users organizations across country
- District coverage 51 out of 75

Actions to promote energy access

- Promotion and development of Rural electrification and community mobilization
- capacity building and policy advocacy activities,
- awareness campaigns,
- Institutional development support activities with respect to community rural electrification in Nepal.



Entrepreneurship/Enterprise Development

PU activities –Promotion of Productive End Use of Electricity

Motto -- Promote productive use of electricity in the community, through training and business development support

Activities:

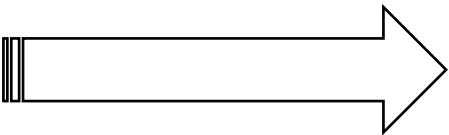
- CREE Business planning facilitation
- Preparation of productive end use promotion manual.
- Productive end use promotion facilitator's trainers training
- IEC materials dissemination
- Training on market linkage
- Facilitation to formulate SME familiar program in CREE
- Coordination and facilitation for financial service
- Provision of soft loan through CREE to entrepreneurs
- Enterprises development training and exposure to entrepreneurs.



Entrepreneurship/Enterprise Development

➤ Considering only the first phase CREEs the total SMEs are found 1380

➤ Breakdown of the enterprises of SLREC as an **example** is as shown in table.



S. No.	Enterprises (SLREC)	No.
1	Mills(Rice/ Flour)	23
2	Carpentry (furniture)	25
3	Milk Chilling Center	8
4	Electronic items (mobile, TV, radio) maintenance centers	16
5	Poultry farm	25
6	Computer training institutes	3
7	Oil Expelling mill	4
8	Photocopy and Photo Studio	7
Total		256

Planned activities

- Energy Access to - 15,000 HHs
- Create new Enterprises - 75
- Entrepreneurs – 50



Trainings and capacity building

- Business plan facilitation training to business development facilitators
- Enterprise Development Training
- Manual on Saving and Credit Management Cooperatives
- CREE business plan review workshop
- Credit mobilization guideline preparation for CREE
- Facilitation for CREE business plan

Policy Advocacy

- Lobby for new Electricity Act (including rural electrification and energy security provision)
- Rural electrification policy
- Electricity Regulation Commission Act
- To create Rural Electrification Board

Danyabad!

Alternative Energy Promotion Center, Nepal



Alternative Energy Promotion Centre (AEPC) is the nodal agency of the Government of Nepal (GoN) formed to promote sustainable lifestyle through usage of alternative energy in Nepal. The main mandate of AEPC is to provide and suggest the GoN in formulating the national policy and programme, to coordinate all organizations involved in alternative energy technology, standardize the alternative energy technology equipments, to act as a facilitator for the development of the renewable energy sector. At present, AEPC is implementing National Rural and Renewable Energy Programme (NRREP), for five years from mid-July 2012 to mid-July 2017 in a single programme modality with the prime aim of improving income generation and livelihood activities in rural areas.

Nawa Raj Dhakal

Assistant Director

Ministry of Science, Technology and Environment

Alternative Energy Promotion Centre (AEPC)

Energy Access

AEPC was set up to promote the use of alternative/renewable energy technologies to meet the energy needs in Nepal. The institution is a national focal point for resource mobilization recognized for the regional/international examples it has set in promoting large-scale use of renewable energy and sustainable technologies.

The specific focal tasks of AEPC are enlisted below:

- Promotion of Renewable Energy Technologies.
- Standardization, quality assurance and monitoring.
- Service and support.
- Subsidy and financial assistance delivery.
- Co-ordination with various government organization, development partners, NGOs/INGOs and private sector.
- Monitoring, evaluation and quality control.
- Strengthening partners.
- Poverty and inclusive growth.
- Enhancing wider use of energy services.
- Energy for Sustainable Development.

Entrepreneurship/Enterprise Development

- AEPC has established Productive Energy Use (PEU) component for Entrepreneurship/Enterprise Development. Productive energy use (PEU) promotion seeks to enable the translation of Renewable Energy (RE) provision into positive economic outcomes for Micro, Small and Medium Enterprises (MSMEs). Those positive outcomes (i.e. increase in product outputs, improved product quality and increased productivity) will result in income generation growth for MSMEs and contribute to poverty reduction in rural areas of Nepal. This component seeks to promote productive energy use of RE in order to generate employment and income of the rural men and women by establishing MSMEs.

Major achievements

116 numbers of enterprises are expected to be benefitted.

58 numbers of Agro Processing Mill.

49 numbers of service oriented business.

9 numbers of Information and Communication (ICT) Center.

Planned activities

Please outline some of the planned activities of your organization for 2014/2015:

1. Preparation of the New Subsidy Policy
2. Preparation of the Renewable Energy Policy
3. Preparation of the Strategic Organisational Development Plan
4. Achievements of Target for various RE technologies as per the National Rural and Renewable Energy Program

Renewable & Alternative Energy Association of Pakistan (REAP) Islamabad, Pakistan



Renewable & Alternative Energy Association of Pakistan (REAP) is the very first registered, membership based, non political, non for profit, non sectarian & non governmental, association, in the field of Renewable Energy, of Pakistan. REAP is committed to achieve energy independence & reduce green house gases in order to achieve national energy saving targets.

Shahid Bokhari

General Secretary

(Islamabad Chapter) REAP – Pakistan.

Primary duty is to represent association in National & International Organizations for the development of RE sector In Pakistan. To get projects with the help of donors for the sustainable rural Economy's development through RE. Organizing Annual Exhibition & Conference in Islamabad.



Energy Access

Access to energy is imperative for achieving development goals, e.g. poverty reduction, better health, enlarged productivity and economic growth. The poor have a right to development and it is in the interests of all, if this development takes place using clean, affordable sustainable energy.

Unfortunately, lots of people living in far flung Areas of Pakistan do not have access to energy and due which they suffer from poor health, social and economic development conditions whilst paying a large part of their revenue for a harmful and polluting energy.

Renewable & Alternative Energy Association of Pakistan (REAP) has fabricated this platform to facilitate the Renewable Energy Business community to establish their business and creation of awareness amongst masses. In this regard REAP arranges trainings, Exhibition, conferences & Seminars.

Entrepreneurship/Enterprise Development

As an Association in energy Sector, REAP provide Trainings of RE Products, for Technology Development, and also help our Associated Members in developing collective solutions for comprehensive village electrification, domestic solutions for basic energy-related needs and the business models that make these solutions sustainable. Markets for household lighting with solar home systems, biogas, and small hydro power have expanded through entrepreneurship, government programs, and some how with donor assistance. Applications in agriculture, small industry, and social services are emerging and anyone working in the renewable energy sector also needs to be keenly aware of global trends, therefore, REAP congregates and shares all possible information with its members and the public, if deem necessary.

Entrepreneurship/Enterprise Development

Major Achievements:

1. Organized Solar Water Heating Training at Islamabad, Lahore & Karachi
2. Organized Off Grid Solar PV Panel Trainings at Islamabad, Lahore & Karachi.
3. Organized REAP 1st, 2nd & 3rd International Exhibitions and Conferences in 2011, 2012 & 2014.
4. As Pakistan is an agri based economy and about 65 % of it population is engaged with this sector, REAP has installed 100s of Solar Tube wells for sustainable rural economy, through its members, partners & donors.
5. REAP is working on clean water project through clean energy (Solar desalination plants) at Coastal belts (780 km) in Pakistan.
6. A professional advisory board has been established for the assistance of local as well international businessmen, interested to work in this sector.
7. 400 business companies and around thousands of professionals has taken an opportunity after REAP's establishment in Pakistan. A market of 500kw is not approaching 100 MW by the end of 2014.
8. REAP calls on governments, the UN, multilateral development banks, investors and NGOs to make the valuable links between their work on social protection and access to sustainable energy and to deliver innovative approaches that benefit the poorest.

Planned activities

- REAP has chosen the theme of “Renewable Energy for every one” for its 4th International Expo 2015 on Renewable Energy & Energy Efficiency to be held from 26th to 28th February 2015 at Pak China Friendship Center, Islamabad. The Expo 2015 will provide Pakistan an opportunity to share these success stories with the rest of the world and showcase its' vast potential for trade and investment.
- The Expo 2015 is also an opportunity to confront the challenge being faced by humanity in the form of Energy Crises. The Expo will serve as a platform to raise awareness about this global threat and to identify the innovative ways and means to cope with it through alternative and renewable forms of energy and through sustainable growth.
- Working with International manufacturers, EPC companies, Consultants, Master trainers for transfer of technology, trainings & financing to create opportunity of every one in growing economy of Pakistan.

SEEDLinks Philippines, Inc.

Pasig City, Metro Manila, PHILIPPINES

Please briefly describe your institution:

- 1) Assist project owners on the monetization of their projects' 'carbon credits' through the CDM and the VCS.
- 2) Prepare greenhouse gas (GHG) inventories for countries, corporations, etc.
- 3) Energy planning and policy – includes the use of computer model LEAP, an energy-environment modeling planning tool

Participant's name and title: Mila J. Jude, Vice President

Role at the institution: In-charge of planning, operations and implementation of the Company's services – 1) Assist project owners on the monetization of their projects' 'carbon credits' through the CDM and the VCS.

- 2) Prepare greenhouse gas (GHG) inventories for countries, corporations, etc.
- 3) Energy planning and policy – includes the use of computer model LEAP, an energy-environment modeling planning tool



Energy Access

- Assist project owners of renewable energy (RE) projects on the monetization of their projects' 'carbon credits' through the CDM and the VCS.

Entrepreneurship/Enterprise Development

Identification of financing for the registration cost for monetization of carbon credits. Linking project owners to buyers of CERs.

Some key achievements

- Identified upfront financing to a forestry project, for the registration to the VCS and link to buyer of carbon credit
- Successfully registered to the CDM 2 projects – a hydropower plant and a wind power plant

Planned activities

- Registration to the VCS of several forestry projects – more than 6,000 hectares of reforestation projects
- Registration to the VCS of RE projects – geothermal and wind

Impact Investment Exchange Asia (IIX), Singapore



IIX's mission is to provide Social Enterprises (SEs) in Asia with greater access to investment capital, allowing them to more rapidly expand the impact of their activities. IIX is the home of Asia's largest private placement platform for SEs to raise capital efficiently as well as the world's first social stock exchange.

Robert Kraybill, Managing Director:

Robert provides executive leadership to IIX and leads its business development and advisory activities. Robert also oversees IIX's capital raising activities on behalf of SEs. In addition, Robert works closely with IIX's non-profit affiliate, Shujog.



Energy Access

- IIX works with Social Enterprises throughout Asia and the Pacific
- These SEs are active in a range of sectors and create a variety of beneficial social and environmental impacts
- Among these sectors, **clean energy access** is the largest and represents one of our key focus areas
 - Generates both social and environmental benefit
 - Partnerships with ADB's Energy for All, CTI PFAN, and the Sustainable Energy Association of Singapore

Entrepreneurship/Enterprise Development

- Social Enterprises, including energy access enterprises, have the potential to tackle social and environmental issues on a large scale, but most are unable to make a widespread, systemic, positive impact because they don't have access to growth capital to expand their operations.
- IIX aims to provide SEs in Asia with greater access to capital, allowing them to more rapidly expand the impact of their activities. IIX helps SEs access investment in two ways:
 1. by facilitating investment through its investment platforms
 - **Impact Incubator** – a partnership with an investor group led by an established Silicon Valley entrepreneur to provide seed-stage funding for innovative and financially viable SE start-ups
 - **Impact Partners** – a private, online platform where accredited Impact Investors are introduced to pre-screened growth-stage SE investment opportunities
 - **Impact Exchange** – the world's first social stock exchange dedicated to listing and trading securities issued by mature SEs and other socially driven organizations – allowing retail and institutional as well as accredited investors to make impact investments
 2. by providing Technical Assistance to SEs to help them become investment ready
 - IIX provides guidance and support to finalize key investor documents, in particular business plan, financial model, social impact assessment, draft term sheet and investor pitch

Entrepreneurship/Enterprise Development

➤ Capital raising

- In 2013, IIX helped 8 SEs attract investment
- So far in 2014, IIX has begun marketing 14 SEs to investors
 - Of which , 2 have already raised capital
 - And several others are actively engaged with investors
- In 2014, we have already hosted 2 live SE Showcases and 1 via webinar, allowing 12 of these SEs to pitch directly to a group of investors

➤ Technical Assistance:

- In 2014, IIX has provided TA services to 9 SEs across the region (India, Bangladesh, Philippines, Cambodia, Singapore, Malaysia, and Indonesia)
- 2 of these SEs are already in due diligence with potential investors

Planned activities: 2014/15

➤ Impact Incubator:

- Launch a pilot incubator program in the Philippines for SEs at the pilot stage.
- Provide mentoring and guidance to four SEs over a period of 6-9 months

➤ Impact Partners:

- Organise 1 more SE Showcase in 2014 to introduce SEs to investors
- Provide Technical Assistance to 5-7 more Asian SEs during the rest of 2014
- Close financings for 8 or more SEs by the end of the year

➤ Impact Exchange:

- Launch “Retail Impact Bonds” allowing retail investors to participate in the sector, as part of IIX’s continuing efforts to develop Social Capital Markets.

Tanzania Renewable Energy Association (TAREA)

Dar es Salaam, Tanzania



TAREA stands for uniting the renewable energy stakeholders for the promotion of the sustainable renewable energy technologies in Tanzania Mainland.

Found in 2000 as TAREA and changed in 2010 to TAREA

Godwin David Msigwa

My role as a **Chairperson for the Advisory board** is to provide technical support and advice to both the Executive Committee and the Executive Secretary of the Association on matters pertaining to smooth running of TAREA.



Energy Access

Please explain the work your organization does on energy access:

- ❖ Capacity building : training technicians, VETA instructors, regulators (staff of TRA, FCC, MEM and TBS)
- ❖ RE awareness raising
- ❖ Policy lobby and advocacy
- ❖ RE industries and consumers protection against counterfeit and substandard products
- ❖ Research work on RE
- ❖ Provision of consultancy service

Entrepreneurship/Enterprise Development

Our Objectives :

- ❖ To advance knowledge and skills.
- ❖ To advance knowledge and dissemination of information.
- ❖ To network members and other key actors in the public and private sector.
- ❖ To support the creation of an enabling environment and framework for a sustainable Renewable energy market.
- ❖ To support and encourage best practice, including development and enforcement of standards and codes of conduct.
- ❖ To promote the local manufacture of Renewable Energy products and enterprise development in the Renewable Energy e.g Wind turbines.
- ❖ To facilitate market development of Renewable Energy technologies , application and services.

Entrepreneurship/Enterprise Development

Some key achievements by building enabling environment :

- ❖ Since 2005 removal of taxes on solar and wind power and continue to follow-up on enforcement.
- ❖ Since 2012 removal of import duty of raw materials for the manufacture of panels
- ❖ Since 2013 removal of import duty of plastic Bio-gas digester
- ❖ Sep 2013 – March 2014 Ewura developing REFiT
- ❖ Review of SPP rules exempting projects under 100 MW to have licence

Planned activities

Please outline some of the planned activities of your organization for 2014/2015:

- ❖ Establishing Renewable energy information centre at the District level
- ❖ Networking RE actors all over the country
- ❖ Strengthening awareness raising on RE technologies
- ❖ Building RE capacities and market information
- ❖ Strengthening regional RE exhibitions
- ❖ Increasing membership
- ❖ Implementing projects that catalyze the access of RETs
- ❖ Continue with consultancy services
- ❖ Updating the directory to the district level

Institute of Management and Entrepreneurship Development

Dar es Salaam, Tanzania

The Institute of Management and Entrepreneurship Development is a leading provider of training, consulting and research services in the area of entrepreneurship and private sector development. The Institute operates from Mwalimu House, Ilala, Dar es Salaam, Tanzania, but is completing its learning centre in Bagamoyo. Our directors and resource person combine a rich academic background with practical experience as entrepreneurs and consultants for entrepreneurs, business development services providers, policy makers, financial services providers, donors, educational institutions, incubators. IMED's not-for-profit activities are delivered through IMED Foundation, which also runs the Renewable Energy Incubator (REI). The incubator support nascent entrepreneurs to establish or scale up renewable energy enterprises.

Dr. Donath Raphael OLOMI, Chief Executive Officer

As the Chief Executive Officer, I am responsible for strategic leadership, resource Mobilisation and marketing of the organisation



Energy Access

- We have just launched a renewable energy business incubator, which supports entrepreneurs to start and scale up enterprises in this sector in Tanzania. Eligible individuals should be starting or already involved in manufacturing, installing, distributing or maintaining alternative energy products (solar, wind, biogas, thermo, improved appliances, etc) or providing research and development, training, advisory, financial or other services to renewable energy enterprises. Start-ups will initially be admitted to a pre-incubation service. Full service incubatees will get assistance to scale up their businesses. Incubated entrepreneurs will benefit from support in business planning, applications for funding, a network with finance and other services providers, regulators, the industry and universities; coaching, training and mentoring; link to markets and suppliers; office space, a renewable energy resource for literature and databases; and investment support.

Entrepreneurship/Enterprise Development

We provide a range of services related to entrepreneurship and enterprise development, including:

- 1) Short term training for entrepreneurs, consultants, trainers, policy makers, policy influencers, employees, those nearing retirement, etc. Areas of expertise include entrepreneurship, business growth, customer care, strategic and business planning, leadership, family business and succession planning, microfinance, monitoring and evaluation, etc
- 2) Consulting and contract research services for small and medium sized enterprises, government agencies, donors, NGOs, etc. Major areas of expertise and experience include business and strategic planning, policy research, baseline studies, project design, project monitoring and evaluation, curriculum development, training materials development
- 3) Project management. This includes business incubation for renewable energy and graduates

Entrepreneurship/Enterprise Development – Achievements 2013/14

- 1) Successfully concluding a tweet based business ideas challenge, in collaboration with IPP Group of Companies in May 2014
- 2) Developed the National Framework for Entrepreneurship Education and Training in collaboration with the National Economic Empowerment Council
- 3) Launched an action research project for deepening financial access in Tanzania in collaboration with the Financial Sector Deepening Trust (FSDT)
- 4) Supported Tanzania Private Sector Foundation (TPSF) in organizing the sector associations and advocating for implementation of business environment reforms
- 5) Completed advocacy research projects for the Tanzania Chamber of Commerce, Industry and Agriculture – Iringa; Sokoine University Graduate Entrepreneurs Cooperative (SUGECO) and Alliance for Non State Actors in Agriculture Foundation (ANSAF)
- 6) Developed support materials (case studies, role plays, games, songs, assignments, etc) for piloting entrepreneurship education in 64 primary and 64 secondary schools in Tanzania

Planned activities – 2014/15

Roll out the Renewable Energy Business Incubator with at least 8 growth companies and 10 start-ups

- 1) Complete construction of Phase 1 of the learning centre in Bagamoyo, Coast Region
- 2) Develop and launch a graduate incubation/start-up accellerator program, focusing on building employability and enterprise skills
- 3) Deliver at least 10 consulting projects in SME development, agribusiness and financial services
- 4) Deliver at least 10 training workshops for corporate clients
- 5) Deliver at least 6 courses for SMEs in Tanzania

Unreasonable East Africa

Uganda, Kenya, Tanzania



unreasonable
east africa

We find Unreasonable entrepreneurs tackling problems like the lack of access to energy and get them the knowledge, resources and tools that they need to create progress to our world's needs.

Joachim Ewechu, Co-Founder and CEO

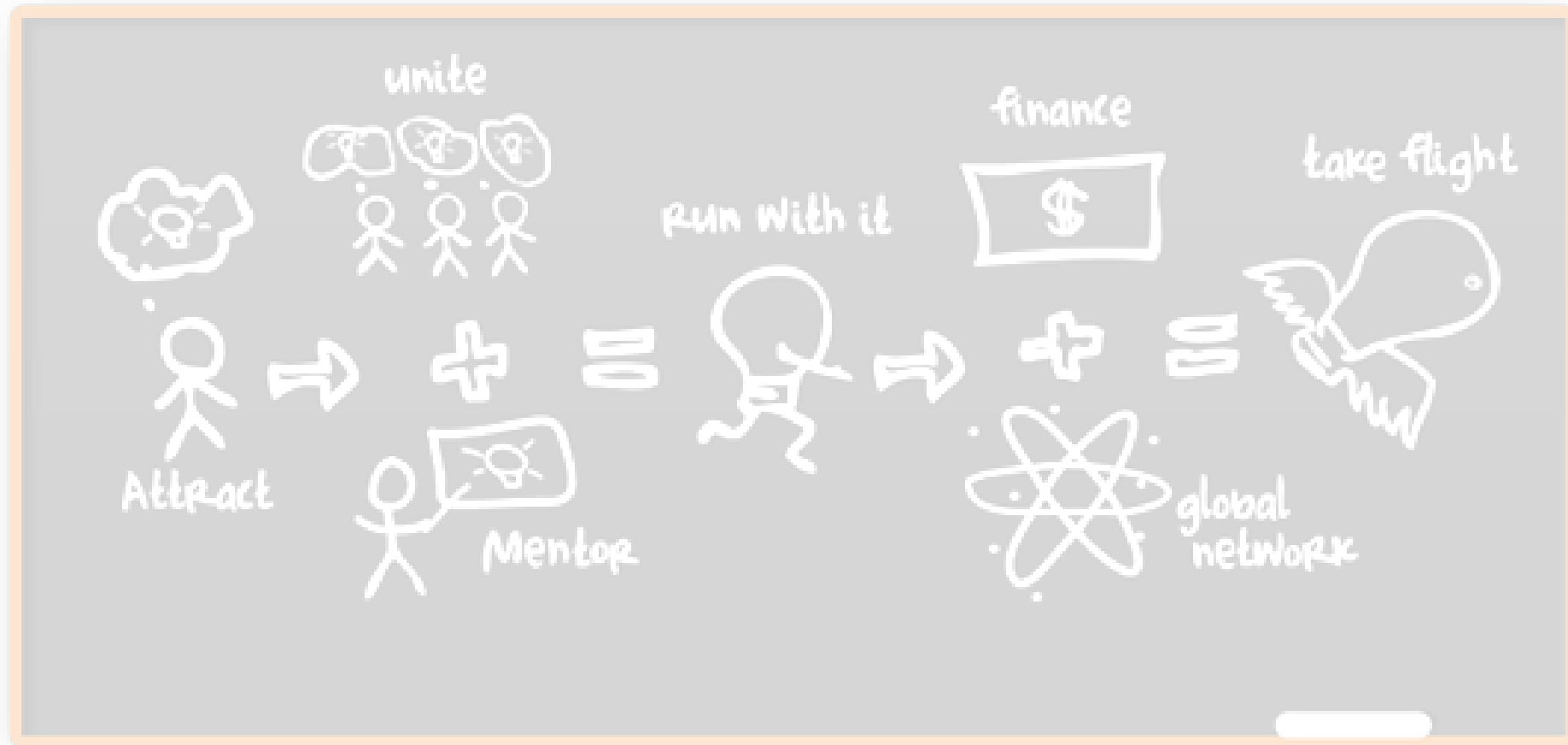


*"The reasonable man **adapts** himself to the world. The unreasonable **persists** in adapting the world to himself, therefore all **progress** depends upon the **unreasonable** man (and woman)."*

-George Bernard Shaw

What we do...

We are replicating the successful [Unreasonable Institute](#) model in Boulder, Colorado, focused on tailoring their model to the East African context.



Some of the entrepreneurs we are working with...



What we have done so far...

- Working with 5 entrepreneurs in Energy Space
- Recruited 39/50 Mentors so far, including;
 - Founder of 10 companies, 3 IPO'd btn \$700m and \$1m
 - Co-Founder of company, moved 760,000+ out of poverty
 - Early Founders and Former COO Nuru Energy Africa
- Working with 20+ Funders, including;
 - Blue Haven Initiative
 - LGT Venture Philanthropy
 - Mango Fund

Next Steps...

- Giving our entrepreneurs access to 50+ world class mentors
- Giving our entrepreneurs access to and working with them to build relationships with 20+ different funders
- Working with our entrepreneurs to develop 12-18 month strategic work plans
- Giving our entrepreneurs access to a global network of support

Thank you!

Uganda National Renewable Energy Association (UNREA), Kampala Uganda, East Africa Region, Africa

The Uganda National Renewable Energy Association (UNREA) is a private business member organization founded by private RE Business Entities, RE Associate Member Bodies & Individuals dealing in deployment, marketing, distribution of solar PV & other renewable energy options with a common goal of delivering clean modern energy services to the off-grid rural communities & conservation of the natural environment in Uganda.



Mr. Kimbowa Sempeebwa Emmy **Chairperson UNREA & CEO, Energy Systems Limited:**

- CEO of a RE company called Energy Systems Limited which is one of the seven (7) initiators / founder members of UNREA.
- Current Chairperson of UNREA.
- Head of UNREA Board of Directors / Executive Committee.
- Oversee & direct the operations of the UNREA Secretariat.
- Interface between UNREA and all other RE Stakeholders in Uganda / E. Africa Region.



Expected Role of UNREA in Energy Access in Uganda:

- a) Carrying out unified RE awareness, promotions & practical demonstrations.
- b) Establishing RE distribution infrastructures / delivery networks in the country.
- c) Setting up sustainable RE financing schemes for both RE vendors & RE users.
- d) Develop sustainable RE technical capacity for marketing, designing, installation & maintenance of RE solutions complying with good quality standards.
- e) Setting up regional demonstration sites to exhibit the viable RE solutions relevant to specific community cultural, social & economic transformation needs / preferences.
- f) Orientating clean RE services towards delivery of social, economic, income generation and productive applications.
- g) Serve as a RE unifying entity for all RE stakeholders: vendors & end users.
- h) Carry out practical demonstrations & research on existing RES / RET to establish their relevancy / viability to deliver modern energy services for rural electrification.

UNREA's achievements in Entrepreneurship / Enterprise Development in Uganda.

- a) UNREA is the Custodian of RE Information / Resource Center & Demonstrations.
- b) UNREA interfaces with Government to formulate good RE Policies / Regulations.
- c) UNREA interfaces with RE Financing Institutions / Organizations – here now with IRENA.
- d) UNREA interfaces with RE Quality Standard Enforcing Organizations – UNBS.
- e) UNREA is a Center for Development of RE Technical Capacities- UNCDC, DIT, TI
- f) UNREA is the Center for RE Consumer Protection & Professional Code of Ethics.
- g) UNREA initiate and develop relevant Pilot RE Projects / Demonstrations.
- h) UNREA provides Supervisory roles for RE Projects / Programmes in Uganda.
- i) UNREA spearhead the neutral implementation of RE Market Development.
- j) UNREA share, exchange & compare notes with Regional Country Associations in E. Africa.

UNREA's achievements in Entrepreneurship / Enterprise Development in Uganda.

- a) Influenced Government to put in place some supportive policies / regulations – waiver of VAT + import duties on RE products.
- b) Unified RE focused awareness, promotions & demonstrations.
- c) Establishing RE distribution infrastructures / networks in Uganda.
- d) Setting up some RE financing schemes for RE vendors & users.
- e) Implementing community based RE technical capacity building in marketing, designing, installation, maintenance, compliance with good quality standards & adhering to the ethical code of conduct by the RE vendors + users.

Planned Activities of UNREA: 2014 -2016

- a) Intensifying RE focused awareness, promotions & demonstrations in all off-grid areas.
- b) Establish RE distribution infrastructures / delivery networks in places where there is none especially in the post civil war mid Northern part of Uganda.
- c) Set up more affordable RE Financing Schemes for RE Vendors, Distributors & Users.
- d) Continue to develop RE technical capacity in forms of marketing, designing, installation & maintenance especially in the remote off-grid rural communities.
- e) Establishing a central RE Resource Information Center + 5 Regional Demonstrational Sites.
- f) Set up more demonstrational sites to exhibit viable RE solutions relevant to specific community social / economic transformation.
- g) Spearhead orientation of RE services towards delivery of socio-economic, income generation and productive applications.
- h) Continue to serves as a unified RE entity for all RE stakeholders: Vendors & End Users.
- i) Continue to carry out practical demonstrations & research on existing RES / RET to establish their relevancy / viability to produce modern energy for rural electrification.

United Nations Foundation

Washington DC, USA



The United Nations Foundation links the UN's work with others around the world, mobilizing the energy and expertise of business and non-governmental organizations to help the UN tackle issues including climate change, global health, peace and security, women's empowerment, poverty eradication, energy access, and U.S.-UN relations.

[Website: http://www.unfoundation.org](http://www.unfoundation.org)

Tripta Singh, Deputy Director, Energy Access:

In my role, I work on partnership-building to promote energy access and act as a focal point for our activities in Asia and on the mini-grids thematic area.



Energy Access

Energy and Climate is one of the core areas of activity for the UN foundation. Within the Energy and Climate program, the Foundation works on separate but inter-linked issues of tackling global climate change, improving energy efficiency and improving universal energy access.

The UN Foundation supports the United Nations in achieving its goal of universal access to modern energy services through its Energy Access Practitioner Network, under the umbrella of Sustainable Energy for All. In addition, it leads the High Impact Opportunity on Energy and Women's Health and is part of the coordinating committee for the High Impact opportunity on Mini-grids.

Entrepreneurship/Enterprise Development

Through its Energy Access Practitioner Network, the Foundation brings together a wide range of businesses, investors, and civil society organizations working to deliver sustainable energy services to communities and households in areas beyond the reach of the conventional grid. The Network currently has over 1600 members representing 191 countries globally.

The Network draws on the combined practical experience of the people working on the front lines of delivering energy services around the world, with a strong focus on market-based approaches. It serves as a platform to highlight both the barriers faced by practitioners on the ground as well as the best practices on policy, financing and technology available in the sector.

Entrepreneurship/Enterprise Development

- Mobilizing the collective voices of practitioners and bringing them to a global audience on issues critical to the ability of the off-grid sector to contribute to the goal of achieving universal access to modern energy services.
- Serving as a channel to feed practitioner input on barriers and recommendations on best practices into global dialogues such as Sustainable Energy for All.
- Resource for practitioners to link them to other stakeholders in the sector, for example, linking enterprises with potential investors.
- Mobilizing action on the key areas of mini-grids and linkages between health and energy through leadership of high-impact opportunities.
- Catalyzing action at the country level (Ghana and India) to form a country-wide alliance to create better coordination in the off-grid sector in those countries.

Planned activities for 2014-15

Knowledge-sharing:

- Workshop in partnership with the Worldwide Fund for Nature to showcase the work of selected enterprises working in the decentralized renewable energy sector.
- Support knowledge-sharing activities in India and Ghana in collaboration with in-country partners.

Energy and Health:

- Design and implement on-the-ground needs assessments for the electrification of rural health clinics in five African countries – Ghana, Sierra Leone, Liberia, Malawi and Uganda – in support of the Energy and Women's Health High Impact Opportunity area under the United Nations and World Bank-led Sustainable Energy for All initiative.

Mini-grids:

- Serve as a joint Secretariat for the Mini-grids HIO along with the Alliance for Rural Electrification to help promote greater coordination in and advancement of the mini-grids sector.

cKinetics New Delhi, India

- **cKinetics is a specialized Sustainability Advisory firm, that provides end-to-end solutions for investors and businesses to transition toward resource sustainability.** cKinetics leverages a thought process for accelerating actions on sustainable practices that include: (a) Closed loop systems, (b) Decentralized production and consumption, and (c) Resource conservation.
- cKinetics has been at the forefront of shaping innovative operational approaches and financing interventions in the DRE mini-grid and resource sustainability domains in emerging economies.



Upendra Bhatt, Managing Director, cKinetics

- Upendra is the co-founder of cKinetics and leads the company's Decentralized Renewable Energy practice for both rural and industrial applications. As a techno-financial specialist with expertise in technology evaluation & linkages, Upendra has led various assignments at cKinetics to facilitate deployment of over \$30 million in the DRE mini-grid space in last 2+ years.



Energy Access

- In the “DRE solutions for energy access” space, cKinetics has been working with a variety of Project Developers, ESCOs, Investors, Development Financial Institutions, Donors and Public Sector entities on assignments across the entire spectrum of activities needed to implement projects and catalyze the space
- The firm has been **at the forefront of helping shape innovative business models and financial structures** to help unlock capital and catalyze scale in the DRE mini-grid space
- cKinetics’ service offerings for the Energy Access Space are outlined below

Project development and technical assistance

- Operational handholding support to ESCOs in site assessment, technocommercial modelling, plant deployment etc.
- Providing assessment tools and processes for activities such as load profiling, load curve optimization, plant sizing and preparation of Detailed Project Reports

Portfolio preparation and Financial Closure

- Business and Investment Advisory Support to ESCOs
- Preparation of Investor Outreach Kit and assistance in investment roadshows
- Recommendations on portfolio structuring for investors
- Support in fund / instrument design and due- diligence

Incubation of operational entities

- Under DRE, cKinetics is currently incubating 2 solutions – 1st for an innovative fund approach and structure and 2nd for a franchising approach for DG conversion

Entrepreneurship/Enterprise Development

cKinetics' enterprise development offerings in the space are **directed to create the key link between technology, business systems and finance for clients and partners.**

The firm's incubation arm, **cKinetics Accelerator**, undertakes:

- Angel investment into young cutting edge solutions and tools to accelerate sustainability
- Active evidence based model for Venture Discovery and Venture Creation

**Incubation
support to cutting
edge businesses**

- Through platforms such as iDiya and Parivartan Awards, cKinetics identifies innovative business models and technologies and supports them with Market Acquisition / Penetration and Angel Funding

**Venture discovery
and Venture
Creation**

- cKinetics' process of venture creation stems from a market stimuli – i.e. an indication by market that a *need* exists
- Thus begins the process of identifying a solution, for which the market demand and opportunity is validated

Key Recent Achievements

- **Structuring of innovative financing instruments to unlock capital**
 - Designed and piloted a Catalytic debt facility for ESCOs in the DRE based mini-grids space
- **Structuring and Incubation of Innovative Business Models**
 - The cKinetics Accelerator has identified, and is the process of incubating 2 operational entities, which are needed to solve the market's challenges. These are:

A Master Franchisee ESCO PILOT STAGE

- An ESCO adopting a franchising approach for conversion of existing DG operators in rural India to DRE mini-grid operators

A Co-developer Fund PROTOTYPING STAGE

- A fund which adopts a “Finance+ Operational Handholding” approach to assist new / innovative ESCOs in scaling up – This is currently in the prototyping stage and is expected to be piloted by July 2014

Planned activities

- **The following activities are currently being undertaken by cKinetics, which will continue in 2014 onwards**
- **Design and launch of a Debt fund dedicated to DRE based grids through the Co-Developer Route**
- First stage portfolio of USD 3 million will be structured / acquired by June 2015
- The fund will potentially be enhanced to USD 15 mn by 2016
- **Providing operational support for “Project Preparation and Debt Sourcing” to DRE mini-grid projects (both, established under License Exempt mode as also Govt. Tenders)**
- Establish term sheets / in-principle financial closure for about 125 projects by June 2015
- **Developing a DRE Franchising model and Approach for catalysing diesel mini-grid operators to transition to DRE based mini-grids**
- 5 pilots under this model and approach to be deployed by June 2015

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