

Business Plan for Accelerating Energy Access

ACEF, 2015 – Manila

**E-Hands Energy (India) Private Limited, India
16th June 2015**



Contents



- 1 Executive Summary
- 2 About E-Hands Energy
- 3 Business Case
- 4 Business Plan
- 5 Financial Projections & Funding Reqmts.
- 6 Risks and Mitigation Plan

Executive Summary: Growth & Vision



- Specialists in providing off-road clean energy access
 - 500 KW capacity addition
- Over 100 families on mini-grid access now (2015)
 - Scaling up to 5000 by 2017.
- Solar Home lighting System(SHS) on easy financing. Only US\$ 1 per week! Reached 1500 families/Micro enterprises
 - Target: 20,000 SHS deployments by 2017
- Financial inclusion: DC computing for rural banking/MFIs. 24X7 uptime, massive upside. 125 Branches done so far
 - Target to reach 700 more branches by 2017, some on OpEx
- 1st in Asia to bring World's largest private charity (United Way, US\$ 5.4 Billion entity) to participate in Energy For All initiatives
 - Facilitate grants of US\$ 3 million for energy access, CSR pool

Executive Summary: Growth funding



- Raise funds to build a sustainable and profitable business of providing RE to meet social and environmental objectives
- Funds for capacity building on execution excellence, innovation, sustainability of revenue generation and international expansion
- The funding requirement (Series A) over the next 3 years is US\$ 5 million – Equity: US\$ 3 million and Debt: US\$ 2 million
 - Equity IRR: 16% – 18%; 3 years from completion of investment
 - Preferred Interest Rate for Debt: 6% – 8%; Tenure: 5 or more years
- Target enterprise valuation: US\$ 45 – 50 million, with possible listing (at Singapore) by FY 2018

About E-Hands Energy: Founded in 2009



Social Enterprise, pioneering initiatives in energy access

Award winning, robust business plan



DC technology for low cost computing in rural banks



JV. Kestrel, S.A micro turbine.

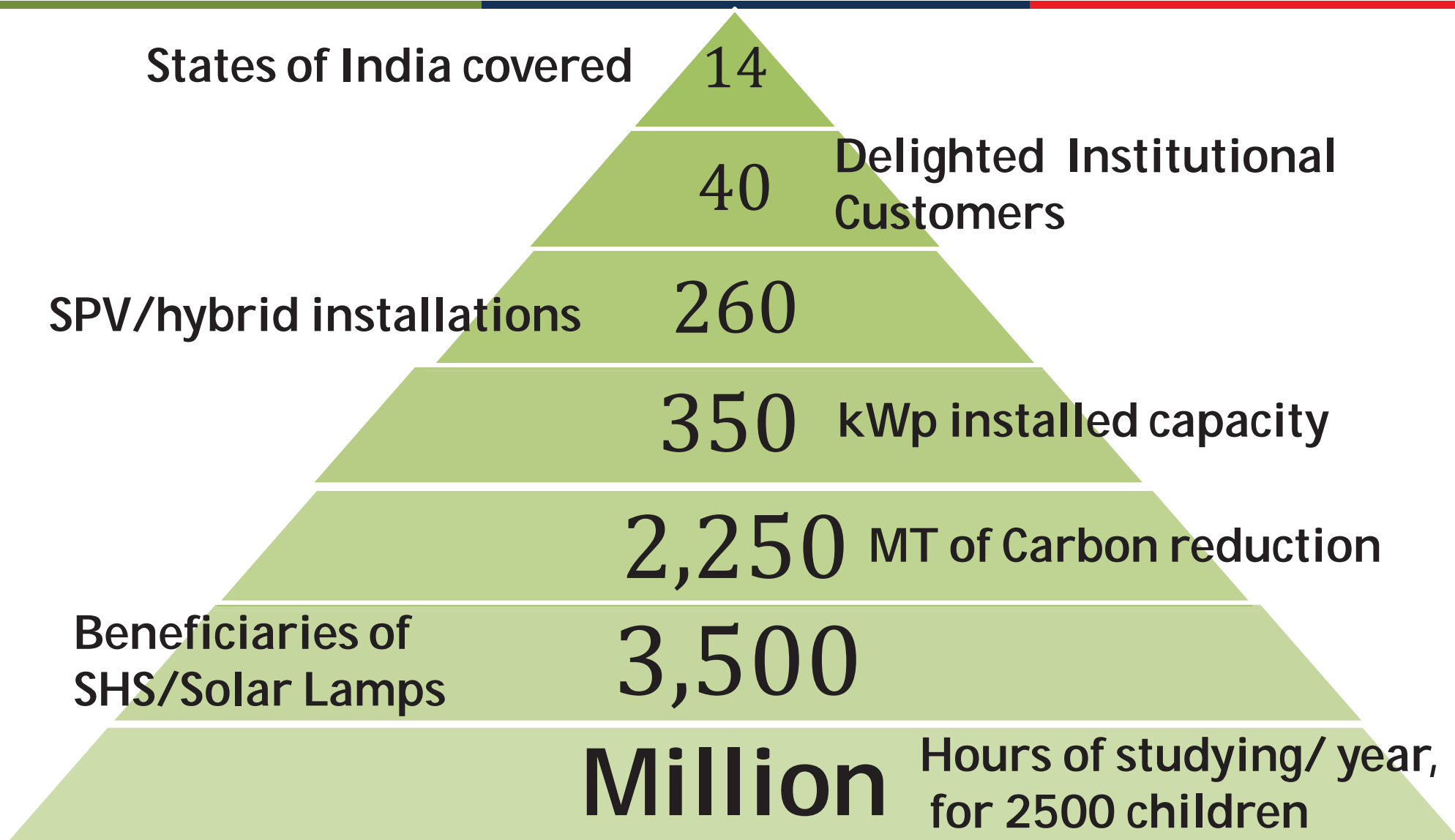


Professional management team from IITs and IIMs



Portfolio of ERM's LCEF

Our Reach and Impact





Leadership Team

Raghuraman
Founder

Alumnus of IIT-Roorkee and Indian Statistical Institute. 32 years of career. Held leadership/CXO positions in global organization. Treasurer & Founding Board Member of United Way of Chennai

Rajesh
VP, Diversity & Talent

20 years of experience in managing diversity of talent and culture in top Indian Corporates. Expertise in staffing, training, planning and development goals. 3 Years with E-Hands Energy

Krishnan
VP, Commercial

40 years of experience in administration, commercial and liaison. Vastly experienced to handle the interface with Government on energy policy, certifications and approvals.

Sreekanth
AVP, Energy Access

Alumnus of Indian Institute of Management Bangalore (IIM-B) and CEG. Handles the Investors, BD and Energy Access. Diverse management experience; over 5 years. 1 year with E-Hands Energy

Dharmender
AVP, Operations

Over 20 years in Operations. Was Head of Production at Publicis India. Rich experience in branding, product launches, and account management. Recently on-board at E-Hands Energy

Our Products & Solutions

Roof top Solar



Micro wind



Solar-Wind Hybrid System



NU™ SHS

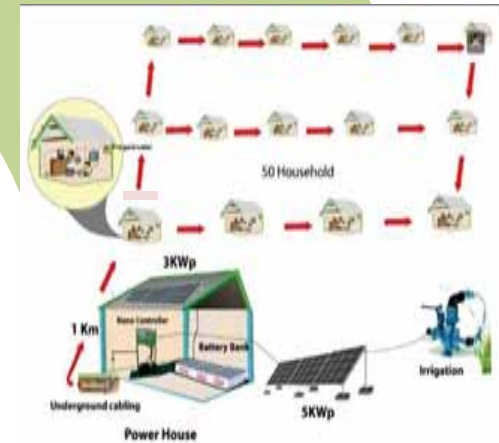


High Volume, Low EBITDA

- Solar lamps/SHS : 4-6 %
- BOOT Mini-grids: 5-6%
- OpEx Telecom: 2-3%

Low Volume, Good EBITDA

- Solar for Rural Banks : 20%
- Military/Armed Forces : 20%
- CSR Sponsored Mini grids: 25%
- Water Pumping: 35 %



Mini Grids



NU™ Solar Lamps

Business Case for Off-Grid Energy in India



- MFI lending to rural economy Approx. US\$ 6 Billion
 - 2% of lending for Energy Access Products.(120 Million US\$)

Customer Segment	Avg. Sale (INR)	Item Sold / Produced	Extra Revenue (INR)	Extra Income per month (INR)
Restaurant	1200	Snacks	100	7,500(125US\$)
Home agro processing	1200 – 1500	Peanuts, Fruit Jams	150	9,000(145US\$)
Poultry Units	3000	Eggs	200	14,000 (225US\$)
Agarbatti Units	1500 – 2000	Incense Sticks	150	15,000 (242US\$)

Key Drivers:

- Off-grid energy market potential: USD 350 – 400 million by 2018
- 8000 rural bank branches with centralized server – TC/Core Banking underway – 220V DC power

***Data: E-Hands Energy survey in 90 villages/towns across India, 400 customers*

Business case – Namma Urja™ Lite (SHS) *Success Story (Location – Tamilnadu, India)*



- 1500+ SHS, 5 months
 - Increased hours of studying for *children*
 - Improved throughput and efficiency - like *flower plucking*
 - Higher sales for shop owners and vegetable vendors



- Potential: 10% of the 1 million customers of the MFI

Flagship Initiative: *RE Micro/Mini Grids*



Basti, Uttar Pradesh

- Access to basic sanitation; promoted entrepreneurship among village youth

Palghar, Maharashtra

- Enable schools setup computer labs to deliver e-learning programs

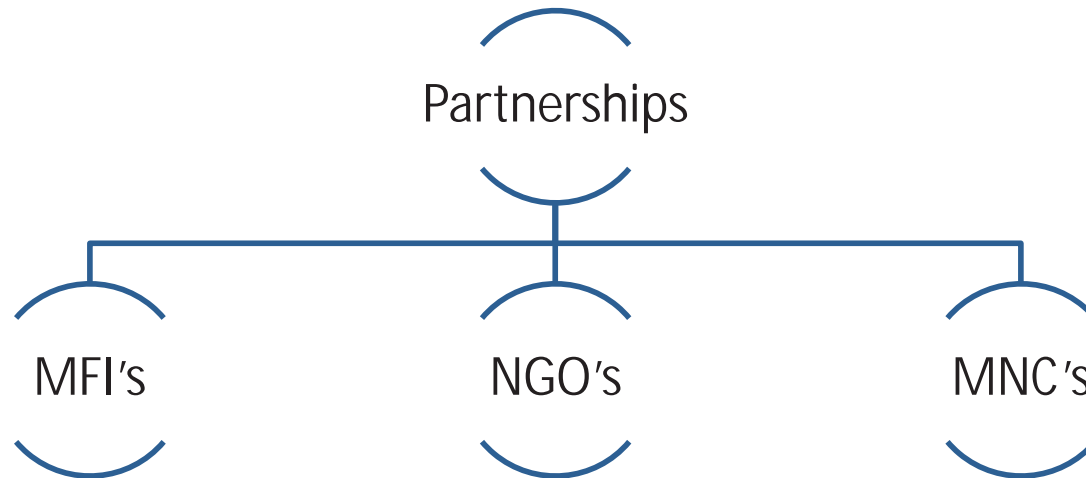


Kalap, Uttarakhand

- Develop village as a responsible tourism destination, support education & create livelihood options



Mini Grid Business Case & Plan: Expansion through Partnerships



- E-Hands Energy has strong partnership with MFI's ,NGO's-United Way & Kalap Trust, MoU with 6 NSE listed/Leading corporates.
- Key Drivers: 2% CSR Spending, white goods penetration in rural
- Planned Breakeven: < 6 Years.
- Pay for use/home: INR 250/month(approx. 4US\$/month)
- Capacity: 3kWp, DC technology, Pre-Paid Metering, Smart Distribution

Financial Highlights



Summary, 2012 to 2015

Highlights

In INR Million	FY 12	FY 13	FY 14 – 15**
Revenue	9.51	15.45	34.84
Expenses	8.70	14.95	32.93
PBT	0.81	0.50	1.91
PAT	0.57	0.35	1.34

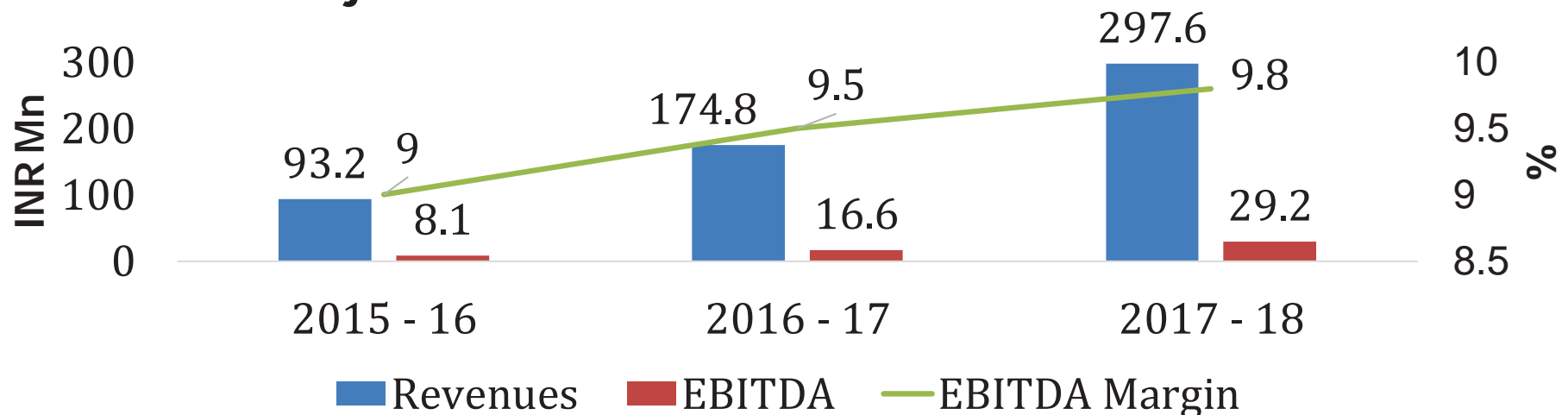
- Positive earnings for past 3 years.
- 120% y-o-y growth in the last financial year
- Zero debt.
- Annuity Revenues (AMC)
- 3 year CAGR of ~90%
- Diversified portfolio of business to mitigate risks

Projections, FY 2015 to FY 2017

Financial Projections

In INR Million	FY15-16	FY16-17	FY17-18
Total Revenue	93.2	174.8	297.6
Expenses	85.1	158.2	268.4
EBITDA	8.1	16.6	29.2
EBITDA (%)	9%	9.5%	9.8%

Projected Revenue and EBITDA Growth



Funding Requirements for Capacity Building

Investment Need: US\$ 5 million till FY 2017-18



Proposed Area of Fund Deployment	US\$ Mn.
Manufacturing Assembly: tools, machines& facilities	0.85
Capital Expenditure, 30 large projects on Opex	1.05
Capital Expenditure: 100 mini grids (B-O-O-M)	0.90
Executive Compensation & Benefits	0.60
Centralized NOC, Service support infrastructure	0.40
Working capital: Salaries, rent and overheads	0.30
Sales Force Expansion/CRM/IT Tools	0.30
Marketing & Branding;Promotions & Sponsorships	0.20
Technology Incubation Center & R&D/Innovation	0.25
Inventory/Global entry/Interns/Impact surveys	0.25

Risks and Mitigation Plan



Risk Factor	Impact	Mitigation
Sustainability & High delinquency	<i>High</i>	Mini grids linked 90% to economic benefits Volunteers for assessment
Ownership (Mini-Grid)	<i>High</i>	100% buy-in from villagers
Maintenance/Abuse	<i>Medium</i>	Training/Smart distribution
Competition & Pressure on margin	<i>Low</i>	High impact technologies, Price premium
Forex Risk – 30% US\$	<i>Low</i>	Hedge currency when required
Discom Connectivity reaching village	<i>High</i>	<ul style="list-style-type: none"> - Supplement grid power - Reverse metering. - Relocate assets: India/Abroad

The E-Hands Energy Advantage



- Board Room influencers: 80% orders for E-Hands are CXO driven
- Highest ratio of Revenue/Staff in India among Off-Grid energy SMEs
- World class quality, almost ∞ (*infinite*) MTBF for our turbines
- Execution Excellence
 - On-time, 99.6% SLA adherence
- Proven & Consistent in Expertise : Key staff from Wind/Solar industry
- Pan-India Presence: 60% support staff located closer to customers
- Skilled and Talented Workforce
 - Fast track career growth; attracts the best talent. ESOPs.
 - Japanese Volunteers (Hitachi, Nissan) provide Technology inputs
 - Expertise in wind/solar installations in challenging terrains; 15,000 ft.
- Recognized by The Climate Group for pioneering end user financing of portable SHS through MFI network



Thank You

Contact Us:

E-Hands Energy (India) Pvt. Ltd.

*Address: G-2 Sai Paduka,
2/576 Singaravelan Road,
Chinna Neelangarai,
Chennai – 600041*

Website: www.ehandsenergy.in

*E-Mail: raghu@ehandsenergy.in
sreekanth@ehandsenergy.in*