

Productive Power

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Who is Practical Action?



- International NGO
- Founded on belief that technology can play an important role in lifting people out of poverty
- Offices in 8 countries - Africa, Asia and Latin America
- Energy access is a core sectoral focus
- **Practical Action Consulting** - technical arm of Practical Action
 - Provide high quality advisory services in the use of technology for poverty reduction

Practical Action and Productive Power



- We work alongside private sector, government and NGOs to enable productive power
- Productive power an important mechanism to improve incomes and livelihoods
 - Also to ensure commercial viability of energy projects
- Focus on **COMMUNITY ENGAGEMENT** and **MARKET LINKAGES**
 - ensure community participation and ownership
 - bringing added value into the community

Role of energy provider

- Now accepted that energy providers need to play an active role in productive power - doesn't happen organically
- But energy providers can play different roles in stimulating productive power, eg:
 - Step into the value chain as a market actor vs enable market development
 - Facilitate loans to entrepreneurs for appliances/equipment vs purchasing equipment upfront and leasing to entrepreneurs

CASE STUDY: Solar minigrid in Kenya

- Solar minigrid developer
- TA provided under Kenya GMG Facility
- Seeking support with generating productive power



The model

- Off-grid utility company
- Setting up 100 sites in Kenya by end 2017 – each site 10kW, serves 200 HH
- Remote automated operations through smart meters and cloud-based software
- Most customers small-holder farmers
- Revenue: connection fee + fixed daily fee + variable daily rate (day/night)
- Launching microenterprise program to stimulate PUE

STEP 1: Market assessment

- GOAL: Identify high potential sector(s) for productive power
- METHODOLOGY
 - Define criteria for decision-making
 - Sector mapping to shortlist sectors
 - Interviews with key experts, community members, local market actors
 - Value chain analysis for key sectors

Outcome: feed production

1. Energy usage
 2. Market size
 3. Ease of entry into value chain
 4. Community impact
 5. Community interest
 6. Availability of product/inputs
 7. Ease of sector start/up growth
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STEP 2: Go-to-market strategies / business plans

- Assess how bottlenecks in value chain can be addressed
- Develop business plan and financial model
- Identify pilot sites and pilot plan
- As much as possible, link up with existing development programs and projects

STEP 3: Productive power entrepreneurs – BDS

- Identify entrepreneurs
- Develop training package
 - Technical skills – purchasing and operating equipment/machinery
 - Entrepreneurial and business management skills
 - Information about inputs, market access, service providers, credit facilities, etc
- Ongoing support – mentoring/training

STEP 4: M&E to assess impact of productive power

- Why M&E matters
- Elements of M&E
 - Theory of change
 - Social and environmental impact metrics – baseline/target and MOV
 - Plan for data collection
 - Tools for data collection
 - Don't forget the E in M&E!



Future work

- Currently developing a toolkit for productive uses – series of business models
 - Clear links with business model packages - potential for collaboration?



Thank you

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