



The most trusted person in the village isn't who sells you the best product, but who can fix it when it breaks.



Village Energy is restoring consumer trust in solar by building a rural solar technician network in East Africa to fix and service solar products and systems. We recruit and train young men and women as technicians, setting them up as franchisee entrepreneurs. Our goal is to build a regional servicing/distribution network and supply chain that will create thousands of jobs, promote women and men as technically-skilled entrepreneurs, and increase community access to affordable & reliable clean energy.

The Problem

600 million Africans lack access to electricity, including 80% of East Africans and 93% of rural Ugandans. Solving this has the potential to improve almost every social-economic indicator, as well as reduce carbon emissions from kerosene. One of the most promising paths is going “off grid” with solar lanterns and home systems. Many companies and organizations have jumped in with a variety of products and business models to reach rural customers in particular.

An underappreciated aspect of the last-mile distribution challenge is the lack of after-sales servicing and repair options in rural areas. Research and experience has demonstrated that more than 50% of solar systems/lanterns eventually need to be serviced due to defects, operating conditions, battery age, or user error. Repairs or replacements can take 4-8 weeks and cost up to \$20 in transportation costs, and that is if one is lucky: in many cases there are no available options due to geography or distributor neglect. This has led to a crisis of consumer trust in solar products in general that is inhibiting the growth of the market.

The Solution

We aim to solve this by building a network of franchised rural technicians that can cut repair times from 4-8 weeks to 48-72 hours. Once established, this network will become a trusted source of new solar and related products, provide ongoing maintenance/servicing of larger clients, and eventually become the local warranty servicing partner of product manufacturers. Our unique combination of vocational training, entrepreneurship support, supply chain development, and community outreach/marketing is creating not only jobs, but an entire new economy centered around localized entrepreneurship and technical skills.

Providing quick, affordable servicing by technicians recruited from their community will boost consumer confidence in and access to solar products, boosting adoption rates. This will have incredible environmental, health, safety, economic, educational, and social benefits, while also providing young men and women as strong role models in rural communities.

The Model

- 1. RECRUITMENT:** Going village to village and working with community leaders to identify and recruit the best candidates, starting with any existing radio/mobile phone technicians in the area.
- 2. TRAINING:** A full technical and business curriculum that incorporates market research assignments and on-going refresher trainings. Partnering with vocational institutes in Kenya and Uganda to eventually take over the technical training/certification of all technicians.
- 3. SETUP:** Re-branding shop, providing initial inventory/tools on credit, and conducting 3-day business launch events with radio/print/outdoor/word-of-mouth advertising.
- 4. SUPPLY:** Setting up a supply chain of quality-tested parts and new products, along with implementation of a CRM and inventory-tracking mobile platform.
- 5. SUPPORT:** Ongoing marketing and community outreach efforts, independent customer satisfaction measurement and monitoring, and subcontracting larger maintenance/servicing contracts.

Services and Value Proposition

- ❖ **For Households & Small Businesses:** Spare parts/repairs, new lanterns/systems, other products and services (i.e. cook stoves, water well repairs)
- ❖ **For Larger Institutions:** Customized system installations, maintenance/servicing contracts
- ❖ **For Product & Part Manufacturers:** Local distribution channel, warranty servicing partner
- ❖ **For Vocational Institutes:** Post-graduation business setup and support for their students

Competitive Advantage

Very few companies in the East African solar industry are taking a servicing-first approach that emphasizes the building of the relationship before the pitching of a new solar product or service. Costs force companies that do invest in customer service to keep their servicing operations centralized, increasing the time and cost of individual repairs. Our fiscal advantage comes from:

1. Brand Agnostic: Willingness to service any product/brand, thus widening our customer base.
2. Adaptable: As franchisees rather than employees, our technicians can continue with other income streams (i.e. mobile, radio repairs) and retain more decision power on pricing, inventory, etc.
3. Lean: The franchise model allows the core team to be kept lean and flexible, reducing overhead.

Impact/M Measurement

In addition to the well-documented economic, social, health, safety and educational benefits of switching from kerosene to solar (a family can save up to \$70/year, 15-25% of their annual income), our model adds vocational training, economic empowerment and gender equality. Given the multitude of potential benefits, we are focusing on a few measurable outcomes to achieve by the **end of 2017**:

Business/Economic

- Target: **500,000 users gain/regain energy access through 100,000 products repaired/sold**
- Time to recoup initial setup costs on each group of technicians: **2 months**
- Technician CSAT: **90%**, Part Quality Pass Rate: **100%**

Vocational

- Number of technicians who remain active after 3 months: **3000 technicians**
- Average monthly income increase per technician: **\$150/month**
- Percentage of female technicians: **50% female**

Environmental

- Percentage of households/businesses in our service areas using kerosene: **25% reduction**

Budgeting and Growth Plans

Revenue Streams

- ❖ **Sales of Parts/Products:** 30% margin for Village Energy, 10-25% margin for technicians.
- ❖ **Service Fees:** Technicians independently charge and keep any cost-of-labor fees.
- ❖ **Phone Charging:** Equipping technicians with solar kiosks to provide phone charging services.
- ❖ **In-Warranty Servicing:** Contract with manufacturers to provide in-warranty servicing for a fee.
- ❖ **Larger Installations and Maintenance Contracts:** Current contracts are carried out by in-house staff, but the plan is to sub-contract the work to technicians to provide an additional income source.

Stage I (2014): Experiment with Non-branded Technicians **COMPLETE**

Last year we recruited/trained 9 technicians without additional setup/branding support, of which only 3 remain active. Our key learning was that training is not enough, technicians also need ongoing branding and marketing support. We plan to go back and offer to onboard them as branded technicians.

Stage II (Q2 and Q3 2015): Pilot Implementation and Assessment (\$97,000) **CURRENT**

We currently have one district with 7 branded technicians, one for each sub-county (500-1000 households). We aim to build out the pilot region to 35 technicians spread across 5 districts, which will require:

- ❖ Technician Recruitment/Training/Setup
 - Training, setup, and initial inventory for an additional 28 technicians
 - Equip trainers with **VOCTEC** kits and a standardized, scalable curriculum
- ❖ Supply Chain
 - Bulk inventory purchase and storage at HQ to secure better margins/pricing
 - Setting up storage hubs in each district to ensure fast replenishment of inventory
- ❖ Business Support Operations
 - Filling key district and HQ office roles
 - CRM & inventory mobile platform
 - Regional office overhead, inventory transportation, and marketing

Stage III (Q4 2015): Pilot Expansion **TBD**

- ❖ Expand to 1-2 additional regions in Uganda and/or Kenya to test replicability of the model.
- ❖ Work with **CREEC** and **SERC** to establish a training partnership.

Stage IV (2016): Regional Scaling **TBD**

- ❖ Launch in multiple regions in Uganda and Kenya with a regional supply chain.
- ❖ Secure large warranty servicing and maintenance contracts to be sub-contracted to technicians.

The Team

Abubaker Musuuza, Co-Founder and CEO: A native Ugandan and former Ashoka East Africa program manager, Abu co-founded Village Energy in 2009. Originally focused on producing and distributing solar systems, he pivoted to this new model in 2014, for which he was **elected as an Ashoka fellow** last October. Abu is a former Acumen fellow and a graduate of Makerere University in Kampala.

Jay Patel, Vice-President of Business Development: A five-year veteran of Google, Jay has extensive experience in sales, marketing and operations. Jay has long been passionate about social entrepreneurship and energy access. Upon his first trip to East Africa he was immediately drawn to Village Energy, and moved to Uganda to join full-time. Jay is a graduate of the University of Pennsylvania.

Peter Ojangole Regional Operations Manager: A native Ugandan and former Programme Coordinator for the Network for Stepping Stones, Peter has 6 years of experience in sales and marketing of commodity and financial services. He oversees the pilot implementation and daily operations of the technicians. Peter is a graduate of Makerere University.