



PHOTO: MORGANA WINGARD FOR USAID

AFTER-ACTION REPORT: VILLAGE ENERGY



SUMMARY

In September 2016, USAID—as part of its commitment to Scaling Off-Grid Energy (SOGE) Grand Challenge for Development—provided a \$150,000 grant through the **Development Innovation Ventures** program to **Village Energy** (VE) to pilot a novel business model in Uganda, focusing on operations in Pallisa and Soroti districts. VE, founded in 2010 and having subsequently sold/installed 4,000 solar products prior to USAID’s grant, centered its business around training local talent to sell, install, and repair a variety of solar products. This emphasis on maintenance and custom installation for a range of products stood out from other, larger companies on the market. VE sought funding to test a small expansion of its business model to prepare for scale.

Through the SOGE grant, VE sought to 1) further develop its solar product sales model, including piloting a savings group model; 2) expand their custom installations for businesses, institutions and agriculture (at 200W to 5kW); and 3) develop a training institute for off-grid solar technicians.

With SOGE/USAID’s support, VE achieved or exceeded each of its designated milestones ahead of schedule. However, the commercial solar product distribution workstream encountered a range of operational and financial challenges (exacerbated by a major drought in Eastern Uganda) that stretched management bandwidth, ultimately leading to a strategic decision to abandon the business line.

INSIGHT: If the product supplier and distributor are distinct, the distributor’s cost of field agents must be offset by system financing revenue and mitigated by data platform access/integration

VE partnered with a major SHS company in Uganda as a commission-based reseller in an effort to expand VE’s business without needing to add vertical business components that many SHS companies retain (e.g. product design/production, importation, financing and radio/billboard marketing). VE encountered challenges

with their partner relationship however, that led to a split. The most difficult of these challenges was VE’s responsibility for recruiting and managing its own field agent team without access to appropriate data platforms and resources to properly manage the associated risks and sales/customer data. VE learned that there are two ways to be a distributor: either very tightly integrated into the data platforms of suppliers (essentially an exclusive franchise), or only providing logistics and warehousing support. VE found themselves in a no-man’s land: the

KEY FACTS

Date of award: September 2016

SOGE Grant: \$150,000 USD

Grant Milestones:

- Train 30 technicians through their training academy, Enlight Institute
- 60% of their shops breaking even
- Create 6 new shops
- 12 clients with larger rooftop installations

Timeframe to achieve milestones: 15 months

Milestones achieved? Yes

Milestones exceeded? Yes

Results:

- Over 30 technicians trained through their one-week program, with funding secured to train 50 more technicians over the next year
- 85% of its shops eventually achieved break-even
- Over 1,000 home systems sold through their expanded network of 8 retail points
- Over 70 custom installations between 200W-5kW completed, the vast majority of which were for schools, businesses or NGOs.

amount of investment and risk they were forced to take on to build a successful field agent operation was not matched by promised resources, access to customer data platforms or customer support integration.

INSIGHT: 200W to 5kW solar installations for businesses, institutions, and agriculture, require high levels of customization, service, and reliability; the service agreement should be bundled in the sale

Custom solar installations for businesses, institutions and agriculture (at 200W to 5kW) lead to increased incomes, job creation and/or access to key services for underserved populations but require much higher levels of service and customization:

1. **Sales:** Closing deals require many visits, negotiation, oftentimes approval from multiple stakeholders, and trust-building by the salesperson, who must be well-trained. Including remote monitoring and onsite servicing is critical to closing deals where day-to-day operations require reliability.
2. **Design:** Most systems >200W need to be customized for panel placement, wiring needs, and other factors through a site survey, which becomes expensive if the technician is not close by.
3. **Financing:** Each system requires a custom quotation, adding complexity to loan processes.
4. **Installation:** Unlike self-installed home systems, custom installations usually require trained technicians working onsite. User education needs are also much higher, given the exposed nature of key components.
5. **Servicing:** Service levels are much higher: issues need to be fixed

in hours, not days. This requires investment in remote monitoring and onsite support by locally based technicians. Word spreads fast in rural areas, especially among this segment: failing one customer in a particular area, diminishes a company's credibility and thus, ability to acquire more customers in that area.

INSIGHT: Combining household product sales with larger installations is commercially viable but operationally difficult

VE's experience demonstrated the difficulty in managing both home system sales and custom installations at the same time: both require completely different operations, financial management, procurement, training, logistics, and technical skill sets. Larger organizations might be able to build parallel business units, but it proved unmanageable for a company of small size and limited resources.

INSIGHT: There appears to be a gap in the market for both quality training for technicians as well as businesses specializing in maintenance as a service

Maintenance of solar systems (from pico to larger installations) remains an expensive, but a highly necessary component of a solar business seeking to build customer trust and operate effectively in rural areas. VE found that there was a huge need across the industry for not only in technical skills, but soft and sales skills as well. Other

solar companies have expressed strong interest in VE's donor-funded training academy that offers a data-driven 8-week course in technical/sales/soft skills with follow-on skill assessment protocols. In May 2018 the academy was spun off as a separate organization, Enlight Institute, to better serve the needs of the entire industry. Enlight is focused on data-driven skill development for the off-grid solar industry, starting with solar technician and sales agent trainings in rural Uganda funded by Signify (formerly Philips Lighting) Foundation. Enlight has funding to train 300 youth as technicians and sales agents over the next 2 years, is in talks with several solar companies to provide recruitment and training services, and has completed a GIZ consultancy to develop a pico solar technician curriculum



for the Uganda's Directorate of Industrial Training (DIT). Providing training has led to new distribution partnerships with other organizations as well as the creation of a pipeline of talent for field staff positions that can boost sales, increase trust in communities, and build local brand awareness.