

Greenway Appliances: Manufacturing set up for Scale Up

Organization Profile

- Year Established: 2011
- Countries of Operation: India, Mexico
- Headquarters: India
- Type of organization: For-profit stove designer and manufacturer
- Product(s) – Greenway Smart Stove <http://catalog.cleancookstoves.org/stoves/220>
- Grant type and date of award: Spark Fund Round II, 2014

Organization Overview

Greenway Appliances, formerly Greenway Grameen Infra started out as a stove design and marketing company in India. Greenway aims to be the choice in home energy appliances for rural consumers, creating a category of products that consumers can choose from. Greenway's products provide a fuel efficient, smoke-reducing, affordable alternative. Today Greenway designs, manufactures and markets two stove models with two additional models in their pipeline. Greenway's Smart Stove and Jumbo Stove are now the highest selling biomass stoves in India.

Grant Objective

Like other Spark grantees, Greenway had outlined a number of initiatives to scale their operations as part of their application in 2014. Notably, they had planned to hire a 2nd manufacturing vendor. The current vendor was not able to keep up with orders and Greenway had hoped a second vendor in another state would reduce transportation costs in that region. In addition, Greenway planned to take the Jumbo stove to market, expand their management team and expand marketing to attract small retailers to carry their product, increasing sales in that channel.

Greenway had secured a second vendor soon after the grant started, but then began to experience a high incidence of product defects with the first vendor. They moved all production to the second vendor, but again had issues with stock outs and quality control. Product defects and stock outs were particularly harmful to Greenway at this time since they were focused on building a brand. Customers and retailers alike were not likely to trust a brand that was not able to deliver product or did not fit with the aspirational product image Greenway was creating. Greenway's management made the ultimate decision to set up their own manufacturing facility to avoid stock outs and keep quality up to their standards. They approached the Alliance secretariat for a reallocation of Spark budget resources to the factory build out, which the Alliance approved.



Grant Achievements

Greenway delivered on their goal of establishing India's largest cookstove manufacturing facility that employs over 65 staff, has a fully automated process for manufacture of Greenway cookstoves, and the capacity to produce 800,000 stoves a year. With the establishment of its own manufacturing unit, Greenway no longer relies on external vendors for manufacture its products and has the ability to control and plan production based on demand.

Before the Spark Fund, Greenway had not been able to produce more than 10,000 units per month. During the festival season when sales are higher, they used to have to taper down distribution and intentionally sell less units than there was demand for.

Before receiving the Spark grant, Greenway had sold approximately 60,000 units mostly to MFIs and institutional buyers. As of November 2015, Greenway had sold more than 250,000 units since inception, or about 190,000 units since the start of the Spark grant.

Greenway has also raised follow on debt and equity investments of more than \$3 million US, which will help the company purchase raw materials for inventory and scale up distribution in India and internationally.

Lessons Learned

Finding the right vendor and including quality standards are essential to building up a cookstove company. Greenway learned that certain aspects of contracts with vendors were important to establish up front and that did not necessarily guarantee a successful partnership. Greenway found that the most challenging areas of their contracts were ownership of the molds for the stoves, intellectual property infringement, agreement on defect rates and quality checks. Ultimately, Greenway found that despite the fact that India has a vibrant manufacturing sector, manufacturing vendors in India were not able to deliver quality products in a timely manner.

Owning a manufacturing facility places an additional burden on cash flow. In the early months of the factory's operations, Greenway made an error of under-estimating supplies and was not able to meet growing demands for cookstoves. For Greenway, their market expansion did not adequately address obtaining supplies – even if projection estimates of the number of stoves increase that does not mean the supplies will automatically be provided as well. Now Greenway makes sure to over-estimate supplies in order to be able to react adequately to fluctuations in demand. While this is helpful to keep the product in stock and maintain their brand reputation, it keeps cash tied up in inventory and works in progress.

A good quality control system includes an after sales service component. Greenway experimented with a few different quality control procedures in their factory once production began. Ultimately, they decided on a quality control (QC) checklist for each stove with a QC sticker attached after the checklist was complete. They also conduct drop tests on a sample stove from each batch of production and have sought to track the results of their QC procedures through their management information systems. However, the best way to ensure customer satisfaction is offer a warranty. Greenway took this idea one step further by creating a toll free call number available to customers in any language across India. The

toll free call number makes it easy to redeem the warranty, track productions on defects that escape the QC process and improve user satisfaction. Greenway tracked about 15 calls per day in the first months of the toll free number set up. Most were callers asking for follow up instructions on the stove's use.