

LIGHTING ASIA

INDIA PROGRAM

Catalyzing Markets for Off-Grid Lighting

AN INNOVATION OF



**International
Finance
Corporation**

World Bank Group

Increasing Energy Access in Rural India through Technology Innovations

Lighting Asia/India program is working with Simpa Energy India to create a mobile-enabled, energy prepayment solution for rural India. The company's core innovation is a pay-as-you-go payment and service delivery model for the energy sector. In this model, customers make a small initial down payment for a high-quality solar photovoltaic system and then pre-pay for the energy service, topping up their systems in small user-defined increments using a mobile phone. Each payment for energy also adds towards the final purchase price. Once fully paid, the system unlocks permanently and produces free energy. The Lighting Asia/India program supported Simpa to refine its original pricing model and introduce a more effective and easily understood pricing plan. Moving from usage-based pricing to time-based pricing has simplified communications to the end customer, empowered the front line sales staff, and improved operating efficiency leading to more stable cash flows for the company.



Figure 1: The Simpa Top Up Box

Challenges of the pilot pay-as-you-go model

Simpa launched a pilot sales program in April 2011 in partnership with SELCO Solar Pvt. Ltd, a for-profit social enterprise based in Bangalore, India. When this pilot was launched, the pay-as you go scheme was attractive to consumers and there was a substantial increase in sales. However, it soon faced problems:

- the pricing model turned out to be confusing for the consumer and the sales staff as they found it difficult to deal with the multiple options being offered
- many consumers ended up selecting the wrong system, with higher capacity than they required leading to a higher outlay
- there were no emergent patterns in usage and pricing, all of which led to unpredictable cash flows for the company for this first cohort of customers.

Simpa Networks decided to do a deep dive into the problems and undertook a rigorous market research exercise. Apart from consumer interviews, data loggers were installed in several systems to track actual usage patterns.

Proposed solutions

Lighting Asia/India Program helped Simpa adjust the pricing model to arrive at two new pricing models that were simpler and less confusing for customers. Both models continued to offer the flexibility of a "top-up" or "re-charge" facility which all consumers found very attractive. Instead of paying based on energy consumption, customers paid per day to use the system. The company also offers monthly and other time-based plans.

Lighting Asia/India program also supported Simpa to engage in market research, consumer testing, research and development, financial modeling and market roll out of the new pricing models. This is

showing improvement in the company's key performance indicators. Other technical innovations came from a deeper understanding of the needs of the rural audience.

By end of November 30, 2013 Simpa had added 520 customers to the new time-based pricing plans. Vanaja, 40 years from Kundapur village, Udupi District, Karnataka is one such user. *"Initially we installed the Simpa system at home which was very helpful for the kids to study and do the household work in the evening. Impressed with the performance of the system we have installed one more at our grocery shop. My husband and I are very happy with the system and advised our neighbours to install a system. We were successful in introducing three more customers to SIMPA from our end."*



Figure 3: The Re-charge facility is a key feature of Simpa's business model

With all this momentum, the company is now venturing into new markets, like Mathura in Uttar Pradesh, exploring new partners beyond SELCO, and deploying technology and innovation to offer varied solutions to the customers. For the company's own growth, it can capitalize on assets like its solar assets, allowing it to fund expansion and innovation. With IFC's assistance, Simpa's innovative energy delivery model is now poised to enter into a second phase of subscriber growth and scale up operations.



Figure 4: A village entrepreneur with Simpa enabled lighting device

"Simpa's mission is to make clean energy simple, affordable and accessible to everyone. Support from IFC helped Simpa refine the pay-as-you-go pricing model and make it more relevant to the Indian rural consumer. Our new models have proved to be very popular with households and small businesses in rural India." says Paul Needham, President and Co-Founder, Simpa Networks.

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About IFC

IFC, a member of the World Bank Group, is the largest global development institution focused exclusively on the private sector. Working with private enterprises in more than 100 countries, we use our capital, expertise, and influence to help eliminate extreme poverty and promote shared prosperity. IFC leverages the power of the private sector to create jobs and tackle the world's most pressing development challenges. For more information, visit www.ifc.org.

Lighting Asia/India is a market-transforming program with the objective of promoting the value and presence of modern off-grid lighting amongst two million people in rural India. Modern off-grid lighting includes solar lighting appliances, home systems and connections to renewable energy mini-grids. The program is designed as a series of interventions to alter market behavior, reach two million people and displace at least 64,000 tons of CO₂ by the end of 2015.

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