

SELCO

www.selco-india.com

Sustainable energy solutions and services in India



History of organization: SELCO was founded in 1995 by Dr. Harish Hande as a company distributing solar home systems (SHS) in the Indian state of Karnataka. Based in Bangalore, it defines itself as a “system integrator and service provider, selling to poor rural customers, with a focus on quality rather than quantity”. Over the years, SELCO’s social impact has gained international recognition. It was notably a winner of the Ashden Award for Sustainable Energy in 2005 and for “Outstanding Achievement” in the energy sector in 2007, while Harish received the Social Entrepreneur of the Year Award in 2007 and the Ramon Magsaysay Award (sometimes compared to the Nobel Prize for Asia) in 2011, among other prizes. Over the course of its existence, SELCO’s economic model has also raised the interest of the social investment space, materialized by investments of \$1.7 million (in total) received from the Good Energies Foundation, the Lemelson Foundation and E+Co, the pioneering investment fund in energy for the poor.

Product/service offering and value proposition: SELCO offers a range of customizable models of solar systems (including solar panel, battery, controller, and lamps) tailored to clients’ needs and capacity to repay, with strong customer service (all customers are in a two-hour traveling time from the local branch so that all complaints can be answered within 24 hours and technicians intervene within 48 hours of call). The 4-light system (the best seller system, representing more than 50% of products sold in volume) is sold ~\$330, including installation, 1-year maintenance, 8-year warranty on the panel and 5-year warranty on the rest of the system. SELCO helps customers who cannot pay cash access credit, via regular banks (mostly regional rural banks) for 70% of clients or through their existing Self-Help Groups. Typical loan conditions would be in a 15% upfront payment, up to 5 years installments, and ~13% interest rate. SELCO also offers credit guarantee for the clients who are too poor to pay the 15% down payment, on a case-to-case and merit basis (done for ~5% of SELCO customers).

- 80% of SELCO sales are made on such SHS for households.
- 10% of sales are made on solar systems for community building (schools, hospitals etc) or larger houses (i.e. richer clients).
- 10% of sales are made on solar water heaters.

Value chain: SELCO sources all the components of its solar home systems from various Indian companies. Final assembly is done by SELCO technicians on client premises. SELCO is organized in 28 local branches (called Energy Service Center) staffed with ~160 employees (60 technicians, 45 sales reps, 28 branch managers and 28 administrators), plus 20 people at the head office, plus ~ 60 active “business associates” commissioned on sales (bringing around 10% of total revenues), and “technical associates” offering repair services for a fee. Each branch covers a radius of 25-50km. 23 branches are located in Karnataka (the others are in Gujarat and Kerala). Each local branch manages marketing (done mainly via demonstrations and other below the line activities), sales, installation and maintenance of SHS. Each 5 local branches report to 1 regional branch. Hiring is currently done either by regional managers, or centrally when there is a large need.

Results: Since 1995, SELCO has sold SHS to 135k rural homes, businesses and institutions (schools, seminaries, clinics). SHS enable money savings (once the system has paid back in kerosene savings), better health compared to using kerosene, improvements in education for children who can study at night and increase of economic activities from a better light at night.²⁰ In 2011, SELCO generated \$2.9m in sales (down 2% compared to 2010 due to a focus on poorer consumers who buy smaller systems, even though sales volume increased by close to 15%), and \$90k in profit (+60% thanks to a decrease in cost of solar systems). Repayment rates are over 97%. SELCO also sells carbon credit on the voluntary market to The Carbon Neutral Company. On the social impact front, SELCO clients report more time

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for children to study at night in better conditions, more time to work (especially for women who work at home to manufacture various products) and thus increased productivity and higher income, and finally less smoke and less danger than kerosene lamps. SELCO is conducting additional social impact assessment surveys to gather customer feedback and measure client satisfaction. Today, SELCO is continuing its expansion in Karnataka where it plans to open 8 new centers in FY 2012 (in addition to its existing 28 ones), while slowly diversifying in other energy products (e.g. solar water heaters, cook stoves) and launching an incubation center for products addressing specifically the needs of the poor. SELCO aims to reach 200k systems sold by 2014.

Exchange rate: 1 USD= INR 50

Sources:

Field visit to SELCO operations, May 17-19. Interviews with Sree Harsha Karanam, Senior Manager; Ananth Aravamudan, Senior Technical Manager at SELCO Labs; Mrs. Ramamani Rao, Manager – Mission Projects; Mr. Krishnaraj, Puttur Branch Manager, Mr. Radhakrishna, Sullia Branch Manager

SELCO website: www.selco-india.com

Previous Hystra analysis

UNDP, Growing Inclusive Markets, SELCO: Solar Lighting for the Poor, 2011

IFC Energy Access Report, 2011

Alekal, Best Practices for the sustainable scaleup of lighting technologies in the BoP, 2005

McNall, Hershauer, The Business of Sustainability. Trends, Policies, Practices, and Stories of Success, 2011

<http://books.google.fr/books?id=48czEtUY908C&pg=RA2-PA240&lpq=RA2-PA240&dq=selco,+The+Business+of+Sustainability,+Trends,+Policies,+Practices,+and+Stories+of+Success,+2011&source=bl&ots=5JpeFF21Da&sig=R4RGrAnzuEiP75eTAz5LmW9EKVg&hl=fr&sa=X&ei=IWOeT8i4FsPU8QPxobSbDw&ved=0CCQQ6AEwAA#v=onepage&q&f=false>

National Research Council (U.S.), Mobilizing Science-Based Enterprises for Energy, Water, and Medicines in Nigeria, 2007

http://www.nap.edu/openbook.php?record_id=11997&page=77

<http://nexus.som.yale.edu/design-selco/>

<http://forbesindia.com/article/work-in-progress/selcos-harish-hande-wants-to-spread-the-light/32048/1>

<http://www.thehindubusinessline.com/features/brandline/article2942972.ece>

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