

Selco:

Reaching out to rural India

Solar power in India has immense potential, provided it is supported by the right financial products, **Dr Harish Hande**, managing director, SELCO Solar Light and winner of the Ashden and AcelorMittal Boldness Business Awards, tells **Sheetal Vyas** in a candid chat



Dr Harish Hande

Q: What has been the inspiration behind the kind of work you have been doing?

A: My PhD thesis was basically on rural electrification and the fieldwork during that time made me think of a lot of things because I spent a lot of time on the field. I thought, why not start an experiment and see if there are any solutions that link poverty and sustainable energy.

Q: It must have been difficult convincing rural people to use technology.

A: It's human nature. Until you see the product and evaluate it, a customer will not be convinced. I don't see much of a difference between an educated or uneducated person or rural or urban areas when it comes to choosing a product. There was also mistrust among people, who doubted individuals coming from urban areas to sell stuff. These were some of the barriers we had to break. Once done, it was easy to convince.

Q: India is blessed with abundant sunshine, yet the use and generation of solar power hardly makes for just 8 per cent in the country. Why?

A: It's not just to do with the solar panel itself, we need to analyse how technology can be integrated with the present usage. Other related infrastructure needs to be put in place and appropriate, site-specific and segmentation-based financing has to be looked into, because a paddy farmer needs different type of financing than a peanut farmer or a mid-wife. A product that will make it happen is appropriate financing. Affordability of technology and financing are the main issues in unelectrified areas. In the rural electrified areas, it is the creation of hybrid systems that interact with the grid and create appropriate solutions, along with appropriate financing. In the urban areas, where cities are becoming vertical cities with multi-storeyed buildings, technology is not the issue, it's societal pressure because people are not willing to give up their roof space.

Q: How does it work abroad?

A: The US and Germany have gone for suburbanisation of households. However, in India, space becomes a constraint in cities. If we have to go for a viable option, we have to look at

the rural areas and the secondary urban cities. It will require different financing, skilled manpower right from the ground levels of ITIs to the top level for after-sales services, designers and appropriate value added products.

Q: Solar power has been described as expensive because of the cost of resources. Does it not add to the product's cost?

A: Yes, the resources have become expensive. The challenge is to create decentralised applications. People use kerosene lanterns. Take the delta expenditure that they do on a monthly basis or a daily basis and compare it to the lighting they could have and then look at the cost of what solar can provide it for. With affordable financing, solar becomes equal or cheaper for the poor. Solar is expensive for the rich and affordable for the poor, it is because the poor spend more on energy. We have a range of clients – more than 10,000 households and around 3,000 street vendors, mid-wives and small farm holding farmers. If the cost of silicon or solar panels comes down, it will lead to more market diffusion obviously. Even then the market is

not going to double because the related infrastructure is not in place.

Q: Your financing system involves regional rural banks. What is the mechanism like?

A: Once our technician convinces the end user of a system they would need in their house, they together or separately go to the bank, which evaluates the credit of the end user and give approval. We then install the system and maintain it on a regular basis. We, in turn, get paid by the bank.

Q: How many districts is your technology catering to? How do you plan to extend?

A: As of now we are looking into 16 districts of Karnataka and a few in Gujarat. Our next four-year plan involves the bordering areas of Karnataka, i.e. Maharashtra, Tamil Nadu, Kerala and Andhra Pradesh. However, we would like to go deeper into the economic strata. By 2012, if we are able to reach people who earn Rs 1,000 a month then I would consider Selco as a success.

Q: Where does the finance for Selco come from?

A: We have social ethical investors. Our philosophy is that we take money from shareholders whose vision matches that of the technicians. We consider the technicians as gurus.

Q: At a time when every company is looking to make profits, you have chosen to be a social corporate. Why?

A: We keep asking ourselves what is the excitement in the corporate world. If we install solar lights at a grocery store that sells soaps, we enhance his business. What drives us is the frustration that with the kind of education level we have been fortunate to get we should be employing it well, but very few do that. We get problems on our table that hit us in the face. It's frustrating to see nothing is being done to solve simple problems.

Q: The work you have done with silk worm farmers, sewing units and the rural areas is unusual. Solar

power application has not reached this level till date.

A: That's because solar power has been taught about only by the manufacturers and the government. Manufacturers think about it from the solar panel point of view, while the government does from a two-light or four-light point of view. Manufacturers then cater to selling to four-lights because that's how the subsidy mechanism works. Everybody screams that India does not have light, not realising that there is a deeper question as to why people require lights and for what. We are not giving the poor the choice. We are deciding for them, which does not make sense.

Q: Is there any other product that you are working on?

A: Yes, lights for fishermen who have these kerosene lights of a floating buoy to warn approaching ships that there is a fishing net that has been laid. These lights are being designed to replace the kerosene lamps which are not reliable. Then there is a special vending (mostly food) cart being designed for vendors in India. If you take the example of a lady selling chaat, when she goes downhill, she doesn't have breaks and all her attention is on the cook stove and the petromax light she has. We are looking at an integrated cart with an efficient solar cook stove and lighting.



Q: How helpful has the government been with your efforts?

A: They have been helpful in that they have not interfered or stopped what I have been doing. However, there are a few people in the government who have been helpful and guided me. At times I have been approached by such people with queries on the changes that can be incorporated to improve conditions.

Q: How about finance incentives that have been given to investors in solar energy?

A: When Mr Chidambaram gave these incentives, it was for those generating 5 mega watts or 10 mega watts of power. Had these been given to financial institutes to create appropriate financial products for end users, it would have made sense on a long-term sustainability. If we are to look at sustainable business, we have to liberate the fantastic financial network this country offers.

Q: You have had a lot of participation from students from universities abroad looking to do some research and work at the ground level. How about students in India?

A: Yes, I have had applications pouring in from the best of international universities, be it Yale, Harvard or Oxford. However, what's disappointing is that I have never received one from Indian institutes. It's sad because they are not ready to look into the rural aspect of our economy, which has rich lessons to teach them.

Q: Technological advancement is one area that needs more attention in India. How far do we think we have progressed?

A: Technologically we have the capacity. It's the question of people's farsightedness. If you look at lighting technology, it crosses boundaries, it spreads and it has improved from an incandescent bulb to LEDs. A sewing machine or bangle-making machine does not cross boundaries, but these are income-generating machines. We need to look at enhancing these and make them more efficient. 🌍