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RENEWABLE ENERGY:

'Empathy,' not incentives or environmentalism, sells solar power in India

Malavika Vyawahare, E&E reporter Published: Friday, July 31, 2015

The market for off-the-grid solar products in India is heating up, with no incentive but profits.

Almost 80 million households in rural areas have little or no access to power, but efforts by small and medium-sized companies to reach them might pay off in the coming years. Frontier Markets, a company co-founded by Ajaita Shah, a U.S.-based entrepreneur of Indian descent, that offers solutions ranging from solar lamps to full-blown solar home systems, is aiming at what appears to be a promising frontier.

"It was a struggle beyond belief," is how Shah described her company's initial attempts to penetrate the enticing but elusive market in the years following the company's launch in 2011.

India is arguably one of the most important markets for solar energy. It will emerge as the third-largest energy consumer in the next 15 years, with energy demand rising on average by more than 5 percent between 2014 and 2024, according to some projections. And a growing chunk of the demand will be met by solar power.

This June, the country committed to more than quadruple its solar power capacity target from 20 gigawatts to 100 GW by 2022, mostly by bolstering its grid through small and medium-sized solar projects and rooftop installations. The country currently has a capacity of about 4 GW. Apart from narrowing a massive power deficit, through this initiative, the third-largest polluter also hopes to shake off 170 million metric tons of carbon dioxide emissions over this period, according to a government press release.



[+] Villagers in Rajasthan, India, get a sales pitch on solar-powered lamps from representatives of Frontier Markets. Photo courtesy of Frontier Markets.

"It is not lip service; they are all actively working on understanding how solar is becoming a need versus a PR story," Shah said of the Indian government's efforts to promote solar power. The optimism is not limited to grid solutions; enterprises promising off-grid solutions like Shah's are also on track to experience tremendous growth, said a report released earlier this year by Goldman Sachs and the Climate Group, a nonprofit.

They forecast that market penetration in underserved markets would swell from 5 to 6 percent to almost 35 percent as early as 2018. The small and medium-sized companies providing off-grid solutions could experience growth as high as 400 percent every year, the report said. Conservative annual growth projections range from 40 to 70 percent, but

importantly, these companies can expect sustained growth.

However, despite falling costs in recent years, the margins for solar products continue to be low, and most enterprises are relying on scaling up, selling more units, to grow revenues. Frontier Markets has sold almost 90,000 solar solutions in the past four years. Its sales are concentrated in Rajasthan, an Indian state that has huge solar potential on account of the abundant sunlight it receives. "We hope to expand to other states in maybe a year," Shah said, but the market in just Rajasthan is close to 40 million customers.

The first step is solar lamps

The report co-authored by the Climate Group noted that "deeper rural penetration and customer trust" are key to cracking this market. "One of the major challenges is reaching to customers in a cost-effective manner and providing them service support that will create trust among them," said Shirish Garud, an energy expert at the Energy and Resources Institute, a private research organization in India.

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-- RENEWABLE ENERGY: 'Empathy,' not incentives or environmentalism, sells solar power in India -- Friday, July 31, 2015 -- www.eenews.net The Issue tractompanies and policymakers need to trink about its scalability, said Catherine Wolliam, director of the Energy Institute at the University of California, Berkeley's Haas School of Business. "One thing companies don't account for are the soft costs like consumer acquisition cost and customer support cost," she said.

Shah concurs that her company's success can be attributed in large part to building trust that its products won't malfunction or break and also ensuring prompt customer support when needed. What is an encouraging sign for the company, she said, is that it is not spending as much to attract customers as it used to. Shah expects the company to come into profit by March 2016.

But the wave of rising incomes that these companies are tapping into may also prove to be a challenge. "Solar energy is attractive, but a lot of time, the solar solutions offer very limited power, enough to charge a mobile, to light an LED," Wolfram said, but this may not be enough for an aspirational class of consumers.

The strategy for Frontier Markets is to expand both horizontally and vertically, Shah said. Solar lanterns are only an entry product, she added. Once customers begin using the lanterns, she said, they will come back to buy other products like the more expensive home lighting system.

But sustaining growth also means that the companies will have to not only keep up with booming demand for power but also anticipate financial needs. The Climate Group report estimated that with the proper financing solutions, almost 7.2 million rural Indian households would be able to afford a home solar system by 2018.

Today, Frontier Markets' solar lanterns sell for as low as 450 rupees (\$7), which is still within the budgets of low-income rural households in India. But a home lighting system can cost almost 10 times more, and it will prove difficult for even better-off households to invest that amount upfront. Shah, for her part, is actively seeking to partner with microfinance institutions to ensure that the cost does not become a hurdle for households eyeing these big-ticket purchases in the future.

Selling 'is never environmental'

Many households in developing countries are not necessarily "off the grid," Wolfram and her colleague, fellow economist Edward Miguel, have argued, but are "under the grid," which means there are other barriers to access the grid -- like finances. "It is not that people prefer the solar, per se, but the fact that the solar products came with financing," Wolfram said.

Shah said her company understands that finances are a crucial factor, and even now, it tries to convince buyers that they will be saving in the long run by using solar products. Part of knowing your customer is knowing what the customer will buy and why. Environment usually doesn't even come into the picture when Frontier Markets sells its products, Shah said; instead, the company mostly focuses on how its products would improve the lives of people.

"With the end consumer," she said, "it is never environmental; it is just about how frustrating their lives are." The slogan of the company is "easy life," and in its campaign to promote solar power use, it has taken pains to point out how dangerous kerosene lamps are for children.

What really makes the company tick, Shah said, is empathy. "I am not saying it's social first, profits second," she said, "but if a company is going to create products for the rural poor, they are going to have to have empathy."

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