

A new dawn under the sun



A year has passed since BP's joint venture with Tata (Tata BP Solar) ended and Tata Power Solar Systems came into being. **Ajay Goel**, the chief executive of the new enterprise, talks to *Vibha Rao* about the solar energy industry, the company's new business strategy and the various challenges it faces.

Tell us about the Tata Power Solar Systems journey since August 2012, the time when it was recast.

We have transformed ourselves in many ways to continue to stay on top of the fast-growing solar energy market. We have reorganised the company to sharpen our focus in each of the three businesses we operate in: manufacturing, projects and products. In each of these businesses we have redesigned our processes and approach to improve our customer centricity and establish cost leadership in the marketplace.

Could you elaborate on the company's new business strategy?

On the manufacturing front, our focus is to reestablish ourselves as a leading global player.

This requires us to be cost competitive vis-a-vis the Chinese, and that is what we have achieved over the past year after a lot of hard work. We are also actively working to build our brand and our export channels outside India.

On the projects side, we want to lower the cost of solar energy in India and make it grid-competitive. We have built an ecosystem of financing partners who can offer rooftop solutions to our customers at a price that is lower than what they are paying today. Many clients, including Tata companies, have found our solutions compelling. We want to help move the market, reduce the reliance on subsidies and provide the right quality at the right price.

On the products side, our strategy is to bring the power of the sun to more people. A large number of Indians still do not have access to reliable grid power, which is unfortunate. But this is also a tremendous opportunity for us and we are launching innovative products to make the most of it.

What about your export strategy?

We have a 20-year history of strong exports, under the BP Solar brand, to the United States and European markets. After BP exited the solar business, we have been working actively to rebuild our export channels and establish the Tata brand in these markets. Given our proven track record and bankability, many customers and distributors are coming back to us. However, with the overcapacity in the supply chain, we want to be selective about how we grow our exports. We are signing up with a handful of strategic partners who will buy our modules on an on-going basis.

Could you tell us about the new products and solutions that Tata Power Solar Systems has launched?

We are in the process of launching three new products in the subsidy-free market. One is SunJeevini, a solar retrofit for people who already have an inverter-based power backup system. Consumers can charge the inverter's batteries with free solar energy rather than expensive grid power.

The second series of products to be launched are LED-based solar home lighting solutions, which we think will be a game changer. Another new product is a consumer-oriented solar power pack that consists of batteries, solar panels and 'intelligent power electronics'. The batteries are charged by sunlight and the entire household can be run using solar power. It is a fully integrated solution and we are working on an affordable version that people can buy without any subsidy.

Our aim is to eliminate the dependence on subsidies and make solar products affordable to more and more people.

There are also some new projects...

We are executing about 100MW of projects this year. The largest is for National Thermal Power Corporation [NTPC], at an extremely attractive



SunJeevini: The charge is on

SunJeevini is a retrofit unit that allows conventional inverter batteries to be charged using free solar energy rather than expensive grid power. A zero maintenance unit, SunJeevini can provide up to three-and-a-half hours of additional power backup in a day. With prices starting at an affordable ₹11,000, SunJeevini is designed to be scalable from 80 to 600 solar peak watts without any big changes in the consumer's existing system.

"SunJeevini is a uniquely innovative product that lets people charge their inverters using free solar power," says Ajay Goel, Tata Power Solar Systems' chief executive. "It is the perfect example of our commitment to Indian innovation and our vision of enabling solar power everywhere."

cost of less than \$1 a watt, which is close to ₹60 million per megawatt. We are also using our own India-manufactured modules, demonstrating the value of our integrated solution offering. The project is being built to NTPC's exacting standards and we are working closely with its engineering and design teams.

Furthermore, we are executing a 29MW project in Maharashtra for Tata Power. This will not only bring affordable solar energy to the people of the state, but will also help Tata Power take the lead in meeting its 'renewal purchase obligations' as the largest private independent power producer in India. These are showcase projects to highlight our competitiveness. Additionally, we are executing a series of smaller projects, ranging from 1 to 10MW.

Manufacturing excellence has been one of the strengths of the company. Have there been any changes here after the BP exit?

There are two parts to our manufacturing business: capital-intensive solar cell manufacturing and labour-intensive solar module manufacturing. We are well established as one of the most bankable tier 1 module manufacturers in the world. To meet the



The company's goal is to eliminate the dependence on subsidies and make solar energy products more affordable

growing demand, we are currently in the process of adding capacity and upgrading equipment in our module manufacturing lines.

On the solar cell side, the business is highly capital intensive and the efficiency of the product is driven by the type of equipment. While we are competitive, we have not yet invested in the latest cutting-edge machines, given the overcapacity in the market. We continue to evaluate the situation closely and will make such investments at the right time.

Does the company have any technical alliances?

We keep abreast of new technologies on a continuous basis and we have made investments in some promising technologies. For instance, we have invested in Flisom, a Switzerland-based company working on building flexible solar modules; at the right time, we hope to integrate its cost-effective products with our projects. We are also looking at other opportunities in modules, trying to drive innovation in each one of them. We have reduced the weight of our structures by 30 percent, which translates into significant savings because of the lesser amount of steel used. We are an end-to-end solution provider and strive to innovate around the whole system, rather than just with components.

Where do you see Tata Power Solar Systems five years down the line?

Five years is a long time in the solar energy industry. Five years ago this industry, not just in India but worldwide, was at a nascent stage. Today there is a lot more interest in and acceptance of solar-powered products all over the world, including in India, where solar energy is destined to become the mainstream source of power generation.

Our vision is to be one of the top companies in the world providing integrated solar solutions, but our growth depends on where and how the market expands. The solar energy market continues to be in a state of flux and is a policy-driven market in the short-term. We have a fairly ambitious vision, which we think is realistic given the potential of solar energy. □