

NORMS ARE NEEDED TO ENSURE THE CUSTOMERS GETS WHAT HE HAS PAID FOR JANUARY – FEBRUARY 2016 SOLAR TODAY

Interaction / market perspective

Norms are needed to ensure the customer gets what he has paid for the Chief Executive Officer and Executive

- Ashish Khanna, Chief Executive Officer and Executive Director, Tata Power Solar Systems Ltd

In the light of past experience, the government invites bids from the players and decides which is the best technology and which is cost effective technology. In the context of distributed solar do you think that this procedure would help?

There are several large projects, for which the developers are competitive very aggressively on various parameters. I keep saying, for a 10,000 meter marathon, some developers are running like a 100 meter dash. We are all looking at the way the tariffs are going down. For organisations like NTPC, they have huge resources available at their disposal to validate the quality of products and services they are going to employ. If you consider in a similar manner a residential rooftop solar project, that is where all those individuals do not exist. And many of them are putting their hard earned money (I am not saying that others are not), and many of them have high expectations of it. And if these expectations are not met on quality parameters, I would say taking short cuts, or have utilised inferior products given the culture in our country where cost is paramount, providing the lowest cost product at the lowest quality parameters, I see the individuals feel that they have got cheated. And rightfully so they have the right to command the quality they deserve.

There are lot of products coming from across the border. Do you think that there should be a better regulatory mechanism to ensure that they fulfil their long term guarantees?

There is a system, policy and regulation required to make sure that these individuals get the product they are intended for or they have paying for, that is critical. At Tata Power Solar Systems Limited (TPS), a 25-year old organisation, today we can say with confidence that we can give guarantee of 25 years. Vis-à-vis look at the products that are coming in from across the border, except the top three or four, organisations are moving off the radar screen, leaving aside their commitment to the quality of the product and guarantee. They no longer exist after a few years as we have seen in our experience. I think it will be very difficult unless there is a policy framework and a regulation



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available for everyone providing these products should provide all the services and adhere to the guarantees, so the customer can derive benefits of these products. With government intervention and position in putting across these quality parameters and benchmarks and making sure that they are adhered to is very critical at the stage we are in the journey of solarising this country.

To avoid bitter experiences for customers and keeping up the momentum ...

Yes, we are at a stage where we have celebrated completion of 5 GW of installation and have a vision to take it to 100 GW by 2022. It is very important that we set the right parameters, right benchmarks and right examples for it to be replicated because it is going to see a very exponential growth in the years to come. So it is very critical that in the initial stage itself we put the right regulations in place to ensure that the legacy which has been created in the country to bring about 100 GW capacity by the end of the term of this government. In the next 2-3 years, we have to set up 95 GW of capacity should be put on the right platform and at right quality to ensure that they run for about 25 years. Some regulations have to be there, that is very critical. Indian manufacturers should be there to provide all these services.

But the Indian manufacturing industry is lagging in this sector. What measures are needed to beef up the solar manufacturing sector in India?

Somehow in the current sphere of things, the manner in which we are committing ourselves, on tariffs bars and on solarising programme, the manufacturing industry has not grown to the extent it should have. The government has taken many initiatives like domestic content requirement (DCR) rules and somehow if you see, during the last one year, when compared to the projects that have happened, the manufacturing did not happen. While TPS is investing in terms of quality as well as committed to enhancing our production too, we are taking all the steps for the same. If you see during the last one year, there are no new manufacturing capacities that we have come across for the modules, panels or even wafers within the country. I guess it is even critical that we have a holistic development and growth rather than one part of the whole programme. It will benefit the whole country in totality. Solar itself is very high potential area for employment too and solar manufacturing in particular. Thus, as part of the initiative of solarising, manufacturing should be equally encouraged. I am appreciative of the government initiatives towards DCR per se, but apart from the DCR most of the projects/ commitments made are based on the products that are coming from outside the country. I think there is a holistic approach

required towards improving manufacturing, so that the industry can compete with the products coming from outside.

There are a lot of things like modules, panels, supporting systems, inverters, batteries etc. How do you see the sunrise and sunset sectors emerging in the solar sector in the wake of Paris Summit?

Important factor is, like we say at Tatas, quality is that matters and it will be the critical differentiator. Highly efficient products will come in the front now. If we see the dynamics change from the large projects to say rooftops, you should have products which are suited for the rooftops, whether it is storage systems or structures. I am taking away panels part from the list though they also play a critical role. Restrictions of scale, safety as a parameter, we have to take time, space and shadows into consideration in the design part of it, and then come services and reliability of such services in terms of importance. That is where the difference between these and the large projects emerges. And if you are more efficient and a large player and a reliable service provider then you will have a sunrise industry, compared to those which are less efficient. The sunrise or sunset industry status depends more on the quality parameter and technology enhancement of the same product. There are new technologies coming in now with higher efficiency levels, which will also work as a differentiator. If you look into the past there were incremental changes that have not affected the industry to a

> technology and service levels, as identified by TPS, will play a critical role in differentiating between various sub-segments. Are there any other energy sources that can

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compete with solar on an equal footing? I think what you say is right. Even though

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on an equal footing? I think what you say is right. Even though solar is nonexhaustible and so much we can gather as a source of energy from sun light and what we have been

doing currently, what will be more beneficial to it will be either hybrid systems and/or the cost-effective storage systems that come with it, they will play a critical role. As we all know, solar is an infirm source of power and to provide it for 24x7, which is very critical that we have to couple it with some other system to make it a complete source of energy. There have been various researches which are taking place CFTR is also supporting the cause of development of cost-effective storage systems. That will be a great trigger point for growth as far as solar is concerned at least in distributed generation segment. There are many places where wind and solar were coupled together so that wherein non-sunshine times wind works and during sunshine times solar works to provide uninterrupted power supply. That is also a potent combination in times to come. And also critical is to provide a solution that is completely energy efficient. Currently, if you look at the way grid power is connected, the policy does not provide you with energy efficient house or an industrial establishment (as a concept). There is a big need for restricting this particular big energy source to a location and clubbing it with a big storage system to provide most effective energy solution.

What are the constraints that have to be ironed out for clearing the way for achieving the government's solar target of 100 GW?

There are two challenges to achieving the target right now. First is the investment in the grid. As I said solar per se is an infirm power source, so stability is critical at the grid level for large projects. That is the

challenge, I am sure, on which the government and PGCIL are working, we have to see how effective it is as a solution and how these are implemented. We have not added so much of solar power to the grid so you can see whether plans and reality of execution has made any difference or not. We as an organisation are very proud to say that we have implemented/installed the world's biggest rooftop power project in India, but we still need some quality parameters for the residential rooftop, which are basic for providing solutions. At the initial stage, you should not have examples that do not encourage others to take that kind of quality initiative. That would be the second factor and these two are the most critical ones and the third one is, currently, for large projects as well as rooftop, for taking up large projects you need investments. It is estimated that for installing 100 GW of solar generation target, we may need ₹2.5 lakh crore (about \$46.5 billion), which is three times India's Defence Budget. And we may need thousands of square kilometers of land acquired. These challenges are required to be overcome in order to achieve that ambition. The target is very aggressive,

Solar technology-wise what is the kind of R&D we have done, whether we are able to reach/adopt global benchmarks in anyway - generally as well as specific to your company?

but it is definitely achievable.

As far as improving the efficiency of technologies is concerned, yes, there is a rapid enhancement in these core technologies, that is happening, but they are more of incremental in nature. And there is no major

technology breakthrough in a very cost-effective way. There are investments that are happening mostly targeted at increasing the efficiencies of the products. Even in the TPS we are committed to increasing efficiencies

and bringing in cost-effective technologies, we have also invested in them. Currently, our products are at the global benchmark levels and measure up in terms of efficiency. There is a need to reduce the size of equipment too, physically. At the same time we have to ensure that the country's needs are met and the investment in technology has to meet the business needs as well as societal needs. There are a lot of research projects that are happening close to storage systems. There are other products which are coming up to drive a cost-effective solution. Suppose, if you look at the distributed generation/ rooftop perspective, that it is very critical that we optimize cost of those solutions. That can come to various products, that can come to a product which is very efficient. But if you are bringing on these products that will make the whole system in a costeffective way at the consumer end, you will not call that a technology breakthrough but there a technology involved in a way it is replicated in such a way that there is no customisation cost. And not only for the solar products, like for example cost of inverters, structures, cost of servicing, providing solutions etc. There are certain enhancements. value propositions which we are also investing in, so that the overall quality products and services are provided to the customer. That is the critical way that you look at technology, ensuring efficiency of the panel and providing an ultimate solution which is robust. utterly superior and cost-effective. TPS is doing a phenomenal job on all these parameters.

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