

Policy and financial support key to promoting domestic manufacturing

The government's Make in India initiative is generating a lot of interest among manufacturers looking to invest in the country's renewable energy sector. However, according to industry experts, the country's heavy dependence on solar equipment imports is affecting the competitiveness of domestic manufacturers with large and well-established foreign players. A strong policy framework and financial support are necessary for promoting domestic manufacturing. At the Renewable Watch conference "Solar Power in India", industry experts expressed their views and concerns regarding the emerging opportunities and associated challenges for domestic solar equipment manufacturing...

Hemal Ghelani

There are various issues prevailing in the Indian solar industry which need to be addressed by the regulators in order to support the government's push towards developing a strong manufacturing base. Over the past few years, the key focus of solar module manufacturers in India has been on improving their operational excellence, in order to lower costs and become more competitive. However, it is also important for these manufacturers to adopt new technologies which means that they need to get into cell manufacturing and even move upstream in the solar equipment supply chain so as to become competitive in the global market. While we are seeing a trend towards it, its pace is very slow.

Further, there is no discussion about the development of crystalline technology for the production of more efficient and affordable solar cells. The three key factors in this regard are improving technology, building scale and developing talent. Large-scale original equipment manufacturers of China are forming joint ventures in India to set up 50 MW or above solar equipment manufacturing facilities. This kind of scale is necessary in order to

become competitive in the global market.

In addition to this, it is essential to identify an appropriate business model to make the development of 100 GW of solar capacity profitable. Thus, with an aim to go upstream in the solar equipment supply chain with such a large capacity addition target, it is important to aim at developing 500 MW and above of manufacturing capacity within three years. The limited manufacturing capacity base has also affected the development of skilled manpower in the country, creating a dearth of the critical skill sets necessary for the production of upstream products like wafers, crystalline solar modules and cells. This, in turn, necessitates the sourcing of talent from countries like Germany and China.

Another major area that needs more attention is the availability of low-cost funds for the expansion of the solar manufacturing base. In this way, the government will subsidise not only the entire industry but also critical projects, which add value to the entire supply chain. In addition, the utilisation of unproductive land for setting up manufacturing facilities, instead of going through the long

process of acquiring productive lands, is necessary. The government should focus on developing logistics to improve the accessibility of these lands.

Anand Kumar

While developers are talking about financing 100 GW with deep equity, we must acknowledge that manufacturing also requires deep equity for supporting the 100 GW target. Indian manufacturers are taking the lead in scaling up their production line capacities to meet the expected surge in demand. There has been quite a bit of incremental capacity, at least on the module manufacturing front. We are one of the largest module manufacturing companies and have been preparing a roadmap for doubling our figures almost every year. While we have been taking the support of the government, we do wish to have more contribution from developers who have been bidding and winning the orders. There has to be systematic planning in terms of the placing of orders, so that the production lines and supply chain can be planned accordingly. We have encountered situations where developers have won projects with a take-off period of 18 months, but the orders for cells and



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"An area that needs more attention is low-cost funds availability."

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modules have been placed in the twelfth or even the fourteenth month. The developers then expect the delivery of, say, 50 MW of modules within a period of 30 days. This makes it difficult for the manufacturer to plan the production line.

The notion that Indian companies cannot deliver is not true. There are a number of Indian companies that deliver on time, but they must be supported by systematic planning of order placements. The country is witnessing an increase in manufacturing capacity. We have been doubling our capacities and are now at par with global organisations.

We expect a lot of destructive technologies to come up in the future and are, therefore, geared up for the resulting competition. The emergence of modules with higher efficiencies, inverters with improved performance and various other technologies is anticipated. We also expect the manufacturing value chain to consolidate soon. So far, manufacturers have been stitching together multiple raw materials, for instance, buying cells from one supplier, ingots from another, and then assembling them. However, most companies will soon be coming out with finished products.

Prashant Mathur

The 100 GW solar capacity addition target set by the government, though really ambitious, has created a positive sentiment in

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Anand Kumar

the industry. To support this capacity addition, the country would need to increase its current annual solar module manufacturing capacity to 10 GW. Although there is a strong positive sentiment in the market, a favourable policy environment is necessary for supporting this.

For increasing the confidence in the solar manufacturing segment of the country, two key areas that should be highlighted are the availability of adequate financing and favourable policy modifications. It is necessary to offer working capital subsidies without any cap in terms of interest subsidies. The current domestic content requirement (DCR) scheme is biased towards cell manufacturers. The government should modify the current DCR scheme to benefit solar module manufacturers as well. Recently, NTPC also changed its eligibility criteria, which were originally introduced to support local manufacturers.

The biggest challenge facing the domestic solar industry is the setting up of a complete value chain in the country. At present, there is no large-scale cell manufacturing facility, nor are there the resources to set up one. The key reason behind this is the lack of policy support. This makes it difficult for Indian manufacturers to compete with large-scale foreign players that have an entire supply chain. These issues need to be addressed in order to successfully achieve the Make in India targets, otherwise these modules will continue to come from China.

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Prashant Mathur

Gagan Pal

The government has set an ambitious target to achieve 100 GW of solar generation capacity by 2022. To fulfil this, it is important for synergies to be achieved within the industry. The target is quite achievable, provided that the efforts from the beginning of the value chain to the final delivery stage are properly aligned.

For manufacturers, the government has put in place incentives such as the Modified Special Incentive Package Scheme, to ensure that the sector is able to attract long-term investments. While it is important to send the right signals to attract investment, aligning these investments with the setting up of a long-term manufacturing process is equally important. However, such efforts at times remain limited to a certain section. For instance, the recent inclusion of renewable energy in the priority sector lending norms is applicable only to select sectors of the value chain. Once we apply a particular investment or incentive to just a part of the value chain, it becomes a deterrent for the entire output.

Another significant aspect is the supporting infrastructure. It is important for manufacturers to deliver products as expected by developers, which is only possible if the infrastructure is supportive. There have to be ports and lead times that can be managed effectively. There also have to be customs clearances that are carried out in time to enable the delivery of the end-product at the right price. All these factors affect the end-cost of the product, thereby impacting the price. While the industry is expecting tariffs to go down, this can only be possible by ensuring that the cost of solar equipment remains competitive. A well-developed infrastructure can play a vital role in ensuring this. ■



Gagan Pal

Vice-President,
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Systems India

"Tariffs can go down only by ensuring that the cost of solar equipment remains competitive."

Gagan Pal