

# Waiting to Take Off

## Manufacturers' opinion

Renewable energy equipment manufacturers are stretched due to the demand slowdown resulting from delayed project allocation as well as the continuously declining solar and wind tariffs. The manufacturing community is also divided as far as the case for imposing anti-dumping duties on imported solar cells and modules is concerned. Leading manufacturers comment on the noteworthy developments in the past one year and their impact on the industry...

**What have been the key developments in the renewable energy sector over the past year and what are their implications for the manufacturing segment?**

### Allen Cao

There have been several developments over the past year that have affected the renewable energy market in India. These include the implementation of the goods and services tax (GST), anti-dumping investigation, steep fall in tariffs and uncertainty over the signing of power purchase agreements (PPAs). The market is, therefore witnessing a slowdown. The entire capacity of tenders released so far for the next year stands at about 5 GW; however, in my opinion, all of this will not be commissioned in that duration. Moreover, with elections impending in 2019, the political environment too could lead to policy-based changes. In sum, the market is now getting smaller, but increasingly competitive. There is an increased demand for modules from the Chinese

market, so the prices are expected to be higher in the short term, which could lead to extensions or cancellations of some projects. Since costs are now falling, developers will look at other measures to save costs and increase profits. Therefore, we believe that the demand for solar trackers will increase, especially in southern India where more tenders are expected to be released.

### Ashish Khanna

Currently, the total installed solar capacity stands at 15 GW, of which more than 5 GW has been added this year. The year 2018 looks even more promising with an estimated addition of 8 GW. While initially, the industry's focus was on large, grid-connected projects, with institutions, corporates and individuals adopting solar in a big way, there is now an increased focus on rooftops as well. Although the adoption has been slower than utility projects, it is currently slightly more than 1 GW as against the target of 40 GW by 2022.

In 2017, we saw tariffs fall to below Rs 2.50 per kWh for the first time, making solar cheaper than coal in some cases. This was owing to the streamlining of processes and price competition rather than technological advancement. This means that there is pressure on margins, especially for serious developers with a long-term focus.

There still exists a significant difference in price, not all of which is due to economies of scale or better manufacturing processes. A significant reason for the difference is state subsidy and the availability of long-term and low-cost loans.

While the solar industry has been going through robust times, manufacturing in India is still facing challenges and cannot compete with imports.

### Sujoy Ghosh

It is expected that 2017 will be another year of record growth for renewable capacity addition, especially in the solar segment,



**Allen Cao**  
Director,  
Arctech Solar

"The demand outlook for next year will depend on the anti-dumping tax levied by the government."



**Ashish Khanna**  
Executive Director  
and Chief Executive  
Officer, Tata Power  
Solar

"The solar segment is seeing explosive growth; however, the domestic manufacturing sector has not been able to follow a similar trajectory."



**Sujoy Ghosh**  
Country Head,  
First Solar

"Given the paucity of fresh auctions and the fact that utilities have not executed PPAs for some auctions, growth could slow down in 2018."

fueled primarily by the auctions that took place in the previous year. However, given the paucity of fresh auctions in 2017 and the fact that for some of the auctions the utilities have not executed PPAs, growth is expected to slow down in 2018. Maintaining the demand growth for solar through renewable purchase obligations is critical, and the central government and regulators would need to enforce the obligations on consumers.

### Sundeep Gupta

A key development in the solar segment over the past year has been the implementation of GST, which caused temporary turbulence in the market. Another development was the stabilisation of solar module prices as they increased slightly, from 29 cents to 36-37 cents, after a free fall for about four to five years. This happened primarily due to a surge in demand from China and the US. However, the market expects prices to fall again in January 2018.

### Donald Leo

On account of falling solar and wind energy tariffs and the need to move towards a more carbon-constrained future, several developments have taken place in the renewable energy sector. These include government policies, technological advancements, project deployment, and activity in the utility and residential segments in global and local markets.

During the past year, India has been a



**Sundeep Gupta**  
Vice Chairman and  
MD, Jakson Group

"Anti-dumping duties will have to necessarily be levied in the solar industry. The question is no longer if but when."

front-runner in showcasing many of these developments. This year, the country issued its first tender for solar power projects with energy storage. As the foundation for large-scale solar becomes stronger in the country, we will see increased adoption of distributed energy, off-grid systems and local storage options.

**What are the key issues and concerns faced by manufacturers and what steps need to be taken to resolve these?**

### Allen Cao

The primary concern right now is the low prices discovered in the recent tenders and whether these projects can be executed or not. In the event that these projects, with a collective capacity of over 1 GW, are unable to move forward, the capacity installed next year could fall from 5 GW to less than 4 GW. Therefore, the market has to find a way to procure cheaper modules or the PPA prices will have to be renegotiated.

### Ashish Khanna

We know that the Indian solar segment is seeing explosive growth; however, the domestic manufacturing sector has not been able to follow a similar trajectory. Consequently, domestic manufacturing has not been able to take advantage of this unprecedented growth in the solar segment. We are still dependent on imports for raw materials for cell manufacturing. We believe that domestic manufacturing is one of the two legs of the Jawaharlal Nehru

National Solar Mission. Not only can manufacturing help us in becoming self-reliant from an energy standpoint, but it also has the potential to generate employment, boost exports and thus bring foreign exchange and contribute to the overall growth of the economy.

There is a need to focus on building and strengthening the domestic solar ecosystem and the technology that is best suited for Indian requirements. For the domestic sector, technology has not been the major problem; it is the lack of a sustainable pipeline that has hit the business at the budding stage. Consequently, the lack of capacity ramp-up results in the short supply of domestic modules in the market. This is a vicious circle. In this context, the government's impetus in terms of policy support and building a favourable ecosystem for the sector can pay significant dividends.

Greater focus on the manufacturing industry is the key to bringing down the volume of imports. Solar has a long way to go and if certain fundamentals can be rectified to enable a level playing field for the domestic sector, it can surely be a game changer for increasing the deployment of made in India products.

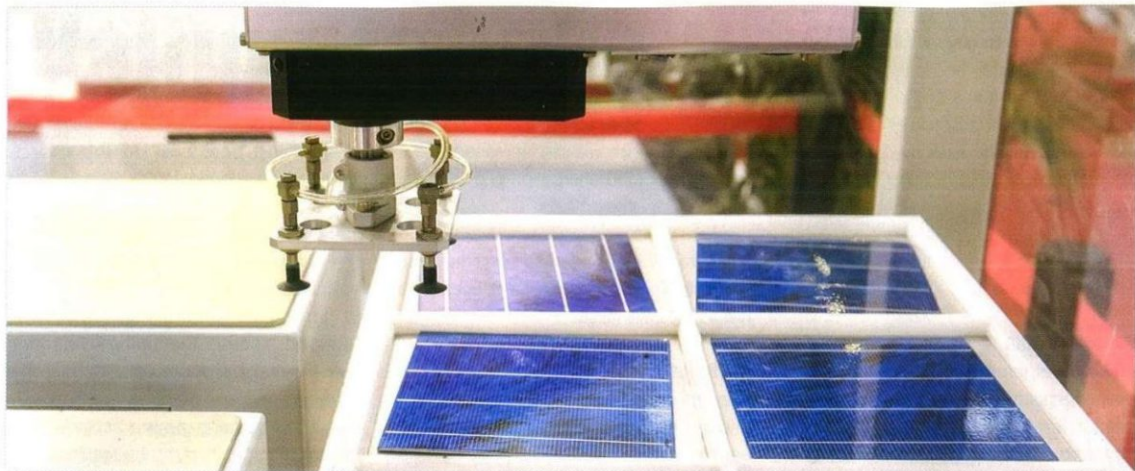
### Sujoy Ghosh

On a strategic basis, the key challenge is the lack of visibility regarding the long-term and cyclical nature of demand, despite clear policies being in place, which affects our ability to plan capacities. On a more tactical basis, the recent challenges faced by importers with regard to the interpretation of harmonised system codes by Indian customs authorities is a big problem that should not exist as there is ample clarity and prior precedence on the implementation of codes. The Ministry of New and Renewable Energy has, in an earlier instance, given its clarification on this matter but cognisance has not been taken of it. This has been delaying the clearance of solar modules at various ports in the country and creating a negative perception about



**Donald Leo**  
Managing Director,  
Asia South,  
JinkoSolar

"The anti-dumping duty and any such trade barrier may pose a threat to the achievement of the solar target."



the ease of doing business in India.

#### **Sundeep Gupta**

One of the major challenges for the Indian solar market remains the lack of cost competitiveness of domestic cells and modules as compared to their Chinese counterparts, despite being at par in terms of quality. The market for Indian modules is largely restricted to the rooftop segment, which has a domestic content requirement but has not been able to penetrate the large capacity solar power segment. Another challenge is the confusion surrounding GST and the tax brackets for non-solar-specific components.

Chennai Port is reportedly charging 7.5 per cent customs duty on the import of solar modules, as opposed to no duties charged by other ports, creating an unnecessary issue for the solar market and developers importing through that port.

#### **Donald Leo**

Some of the challenges faced by manufacturers are low solar tariffs with the reverse auction process driving module price downwards, tender/auction delays impacting planning, project deferment by developers, low-quality modules flooding the market and causing confusion in product differentiation, GST-related uncertainties and, of course, the recent anti-dumping issues.

**What is your perspective on the anti-dumping investigation? How will it affect manufacturers?**

#### **Allen Cao**

The primary purpose of the anti-dumping investigation is to protect local manufacturers. However, it will not affect the government's renewable energy target. The government will have to work out a reasonable anti-dumping tax rate that can allow local vendors to compete with international vendors at the same price level. In this way, local vendors will find their way to survive, and the entire market capacity will not shrink dramatically. If the tax is too high for international modules to be sold in India, it could lead to only 1 GW or 2 GW of capacity being executed, as the market would not be able to survive only on the back of local vendors. On the other hand, if the tax is too low, domestic manufacturers would not be protected and the purpose of levying the tax would be defeated.

#### **Ashish Khanna**

In 2016-17, 89 per cent of the solar modules used in India were imported. The proliferation of these low-cost modules in the Indian market fuelled aggressive bidding. Lower pricing ensures higher accessibility to solar. However, low pricing can sometimes affect the quality as developers seek to protect margins. We need to be aware and understand that pricing can be

strategic and it is quite possible in some cases that it does not even cover the input cost. However, it dents domestic manufacturing capabilities in many ways.

To make the Indian solar segment vibrant and competitive, there should be a consistent and transparent policy framework, investment in R&D, skill development, creation of special economic zones with fast-track project clearances and a focus on quality.

#### **Sujay Ghosh**

In my opinion, dumping is an unfair business practice and protective measures against it are a legitimate right of the domestic industry of any country. With regard to the specific anti-dumping investigation instituted in July 2017 based on a petition filed by the Indian domestic module manufacturers, our assessment is that the industry's revenues have grown while costs have dropped, and hence profitability has improved in the same period that the manufacturers claimed injury. Therefore, the very basis of the claim appears to be inconsistent as per the data submitted and we expect the investigators to take cognisance of this aspect as they evaluate the case.

#### **Sundeep Gupta**

Anti-dumping duties will have to necessarily be levied in the solar industry. The

question is no longer if but when, as it is only a matter of time for these duties to be applicable. The industry has more or less accepted this as well as the consequent price rise. As of now, nearly 80 per cent of the modules are imported from China, which defeats the purpose of having a national solar mission, as it does not help domestic manufacturers. It is yet to be seen if anti-dumping is the right solution, perhaps it is in the short run, but there has to be a proper mechanism for promoting domestic manufacturing of solar cells and modules. The Make in India initiative has also not done enough to boost domestic manufacturing in the solar segment.

### Donald Leo

India has a hefty solar installation target of 100 GW by 2022. The anti-dumping duty and any such trade barrier may pose a threat to the achievement of this target. The government will have to weigh the pros and cons of introducing this duty, as it will affect the pace of installation on the ground.

**What is the demand outlook for the manufacturing sector for the next year? What kind of investment environment is expected over the medium to long term?**

### Allen Cao

The demand outlook for the next year and onward will depend on the anti-dumping tax being levied by the government. If the market yield remains the same, most companies will remain unaffected. However, if it declines, the margins of all stakeholders will be affected, as everyone will be competing for the handful of projects available. There is, therefore, a lot of uncertainty in the market.

### Sujoy Ghosh

In order to create manufacturing capacities that are competitive with the global supply chain, there needs to be a clear policy around incentivising fresh investment. The additional capacities need to be of a large scale and should be completely integrated such that they can compete against the existing supply chain.



The policy must address the issue of how domestic capacity can be competitive by evaluating the subsidies provided by other countries such as China, Malaysia and Taiwan. A combination of tax holidays and lower cost of capital is required to match the subsidies provided by other countries, or else manufacturing will always be disadvantaged from a cost standpoint and hence not be sustainable.

### Sundeep Gupta

The rooftop segment is likely to grow up to 3 GW in the next two years. There are market forces in place that will enable the growth of this segment. It is also a key focus area for us as we look to add another 20-25 MW to our existing portfolio of about 75 MW (installed and EPC combined). The industrial and commercial sectors are expected to be the biggest demand drivers for rooftop solar in the near future, while the residential segment will pick up gradually. For the next two years, the demand for ground-mounted solar projects is expected to remain stagnant. Meanwhile, demand from hybrid solutions is likely to grow.

In 2017-18, the installed capacity in the solar segment is expected to be in the vicinity of 5 GW, while the overall renewable energy space is likely to be a bit damp given the slowdown in the wind energy segment.

The government must work towards resolving the issues associated with GST in order to remove the confusion in the market. We expect significant consolidation in the manufacturers' segment in the solar market as companies look to grow their portfolio.

### Donald Leo

In order to support India's growing solar energy demand, quality manufacturing will be the key to support this growth. We are likely to witness a heavy demand for utility projects, which will touch 8.8 GW by the end of this year. Meanwhile, the rooftop market is also making a move towards maturity with corporates, institutions and commercial entities showing interest in rooftop systems. Around 11.9 GW of rooftop solar capacity is expected to be added between 2017 and 2022.

India is aggressively pushing local manufacturing and has set out around \$3 billion in state funding for developing the country's solar panel manufacturing infrastructure. Besides, the global investment community is mobilising to back solar activity, with over \$100 billion in commitments. In addition, India is coming up with innovative financing options including green finance and is planning to set up its first green bank. This will go a long way in supporting local banking options through unique public-private mechanisms. ■