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With 37 GWp of installed solar capacity, today India is the third fastest growing nation in Solar energy (after China & the US), demonstrating that power generation from sustainable energy sources is achievable. With the new power tariff, below Rs 2/unit, it also proves that Solar Power is cost effective & will be the leading technology amongst new power generation capabilities for the next decade. The annual demand of Solar Modules in India is likely to be more than 20 GW for next 10 years.

However, despite this growth momentum and increased demand, Indian Solar Manufacturing is still in the nascent stage & struggling to survive the competition from Chinese Manufacturers. Module manufacturing capacities in India have remained underutilized in the past. Cell supply is in shortage with the recent spurt in demand of DCR Modules through Government Policies. This has resulted in increased prices for DCR modules which is not in the growth interest of the Solar sector.

This leads us to one very important question - How can Solar Manufacturing in India become competitive & sustainable in meeting the Indian market demand of superior quality products at competitive prices?

To address this issue, new PLI (Performance Linked Incentive) schemes being introduced by the Government of India for 10 sectors consists of "High Efficiency Solar PV Modules" as one of the sectors identified for the Solar Industry. Stating his views on this scheme, Mr. Sundeep Gupta, Vice Chairman & Managing Director Jakson Group quoted "The PLI scheme will fast track manufacturing in India, thus leading to the mission of our country being self-reliant - this is indeed the right step in the right direction. It will motivate industry to focus on innovation and will help industry position itself as the best alternative destination to China from a supply chain perspective."

Under this scheme (to be implemented through MNRE/IREDA), incentives worth ₹4500 Crores will be provided to manufacturers over a period of 5 years from commissioning. It will be provided based on achieving certain predefined parameters namely - new technologies, higher efficiency & better temperature coefficient for modules, manufacturing capacities, backward integration capabilities, local value addition and so forth.

Although this step is in the right direction, the question still lies on whether it will be sufficient to make solar manufacturing in India self-sustainable as the following limitations continue to persist:

### Raw Material Availability

Non availability of critical raw material i.e. Ingots, wafers & limited cell capacity in the country increase our dependency on imports.

Even with increase in module manufacturing capacity, prices will be controlled by foreign suppliers.

### Technology Upgradation

Last few quarters have seen new technologies/ bigger cell sizes/ bifacial emerging up rapidly making earlier technology and investments unviable. Organizations need to have in-house R&D capabilities in the country, become leaders and not just followers of new technologies.

### Investments & Cost of Finance

Downstream manufacturing (Ingots/ Wafers/ Cells) need huge initial investment. With higher cost of finance /rapid technology upgradation, confidence in investors is limited as far as large investments are concerned. Availability of funds at lower rate of interest should be provided.

### Skilled Manpower

Though India has a huge manpower base, it lacks the required skills to take up specialised jobs. The need to revamp and upskill is pivotal.

### Reduction in Cost of Production

Efficient use of all resources, availability of land, power & water for manufacturing processes at competitive prices, solar manufacturing zones, etc., will help in reducing the cost of manufacturing.

With aim of achieving 100 GWp by 2022 & 300 GWp by 2030, we are on the verge of taking a fine leap in the growth of Solar Power in India & becoming a major manufacturing destination catering to global requirements. This will help in not only boosting Indian manufacturing, creating more employability but will also reduce trade deficit significantly.

