

QUALITY MATERIAL SOURCING FOR INDIAN PV MODULE MANUFACTURING



SOLAR CELL PRE-SHIPMENT INSPECTION AT A CHINESE FACTORY



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India has made significant improvements in its PV module manufacturing sector in recent years. However, the country needs some herculean measures to achieve the target of 300 GW of solar installations by 2030, which boils down to an average of 30 GW/year. India has a manufacturing capacity of 18 GW modules and 4.3 GW cells. However, these are nameplates capacities and the Capacity Utilization Factor (CUF) of these factories is currently around 50%. Also, the current manufacturing setup is comprised of 50-60% multi-Si technology that is on the verge of extinction. With no capabilities in manufacturing silica, ingots, and wafer, India is highly dependent on imports for sourcing raw materials (90% imports are from China).

Indian PV module manufacturing landscape

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Fig 1 - Indian Solar Sector - Yearly Installation



Source: STS research