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# "India is to Reach 450 GW of Renewable Energy by 2030."

By diversifying our focus, we aim to capture a broader market share and foster sustainable practices across various industries. As we expand our capabilities in supplying solar cell manufacturing, we are also exploring export opportunities for our innovative products, says **Khushboo Doshi**, MD, Rajoo Engineers Ltd.

**Provide us an overview of Rajoo Engineers and its businesses.**

Rajoo Engineers based in Rajkot, Gujarat, has been a trusted name in plastic extrusion machinery since its inception in 1986.

Over the years, we have built a strong reputation as leaders in blown film lines, sheet lines, thermoformers, extrusion coating and lines across the world.

At Rajoo, we offer a wide range of machinery and solutions tailored to meet the needs of various industries such as renewable energy, packaging, construction, agriculture, automobile and healthcare.

Technologies / products categories available include:

- Mono & Multilayer Blown Film Lines - upwards and downward extrusion (up to 9 layers)
- Mono & multilayer sheet lines (up to 5 layers)
- Single & Multi-Station Thermoforming Machine (up to 4 stations)
- Cross Lamination Film Line for Tarpaulin
- Extrusion Coating & Lamination Line

**How is Rajoo Engineers serving the solar energy sector?**

Rajoo Engineers has strategically entered the renewable energy sector, building on over three decades of innovation in plastics extrusion machinery and extrusion being the forte.

Our commitment to supporting India's clean energy goals, including the ambitious target of 450 GW renewable capacity by 2030, has driven this strategic shift, particularly in the solar energy space.

We recognised the critical role we could play in this transformation and the significant opportunity in solar cell manufacturing. This move not only reinforces Rajoo Engineers' commitment to innovation but also supports the government's 'Make-in-India' initiative, emphasising self-reliance in the solar sector and reducing dependence on imports, particularly from China.

We are proud to actively contribute to India's journey toward sustainable development and energy security, further cementing our position as a leader in the industry, and more specifically in plastic extrusion with sheet extrusion technology

Leveraging our expertise in extrusion technology, we have introduced LAMINA-E, India's first mono & multi-layer EVA/POE sheet extrusion line for producing encapsulant sheets used in solar cells, Rajoo is set to transform the solar panel manufacturing industry.

With output ranges from 300 to 900 kg/hr and the flexibility to produce sheets of varying widths and thicknesses, LAMINA-E enhances the efficiency and quality of solar panels. Rajoo Engineers is actively leveraging government initiatives, particularly the Production-Linked Incentive (PLI) scheme, to enhance the solar manufacturing capabilities for processors.

While we do not directly manufacture solar cells or modules, our products are critical components in the solar panel manufacturing process. We are aligning our production capabilities to meet the increased demand expected from the PLI scheme and exploring partnerships with PLI beneficiaries.

Furthermore, our expansion into solar manufacturing is contributing to job creation and growth in the renewable energy sector. We are creating new jobs within our organisation, particularly in areas such as solar technology, materials science, and renewable energy systems. As we scale up our operations, we are also investing in training and skill development programs to ensure continuous up skilling in the renewable energy sector.

By providing cutting-edge technology to sheet manufactures catering to the solar panel manufacturers, we are indirectly supporting job creation in the broader solar industry, contributing to the growth of India's solar manufacturing capabilities.

### What are the key advantages of Rajoo Engineers' encapsulant sheets for solar cell producers? What is driving the demand for your products?

Our mono and multilayer EVA/POE sheet line for producing encapsulant sheets, LAMINA-e, offers numerous key advantages for solar cell producers.

The advanced features of LAMINA-E ensure precise and consistent material input, crucial for producing high-quality EVA/POE encapsulant sheets. This accuracy minimises material waste and ensures uniformity, resulting in more reliable solar cells.

LAMINA-E's energy-efficient extruders further enhance its value.

They reduce energy consumption during the manufacturing process, aligning with the renewable energy sector's focus on sustainability. Additionally, it provides versatility, allowing manufacturers to experiment with different materials and develop innovative encapsulant formulations.

First being high-output which is possible due to our high-performance technology that ensures low melt temperature. This is crucial for the quality of encapsulant sheets.

Coupled with our ability to process resins with different VA content and melt flow index using the same screw design, provides flexibility and efficiency to manufacturers.

Secondly, our system operates at high line speed with low winder tension, keeping shrinkage under control. This eliminates the need for post-annealing systems, streamlining the production process.

### What kinds of growth opportunities the solar sector presents to you?

The solar sector in India presents significant growth opportunities. With Government's ambitious targets, local manufacturing initiatives, technological advancements, and supportive infrastructure development, the country aims to achieve a renewable energy (RE) target of 450 GW by 2030. Thereby, the solar industry is expected to contribute around 280 GW.

It's notable that India is on track to reach 450 GW of installed renewable energy capacity by 2030, with solar power accounting for more than 60 per cent of this target.

This ambitious plan creates a robust demand for solar technologies and components. By implementing several measures to boost domestic manufacturing of solar modules and cells, the Government of India has initiated a Production-Linked Incentive (PLI) scheme, aimed at reducing import dependence on countries like China, thereby fostering local production capabilities.



### What are your plans to further tap the growing segment of solar energy? (with respect to capacity expansion, R&D/new launches, exports, etc)?

At Rajoo Engineers, we are actively pursuing numerous strategies to tap into the growing segment of solar energy, aligning with India's ambitious renewable energy goals.

We have recently installed and commissioned a 304.64 KW (DC) solar power plant in Hadamtala, Gujarat, as part of our commitment to increasing our renewable energy footprint.

Our growth strategy involves targeting key sectors such as infrastructure, agriculture, electronics, and renewable energy. By diversifying our focus, we aim to capture a broader market share and foster sustainable practices across various industries.

As we expand our capabilities in supplying solar cell manufacturing, we are also exploring export opportunities for our innovative products.

By leveraging our advanced manufacturing technologies and aligning with global standards, we aim to position ourselves as a competitive player in international markets.

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