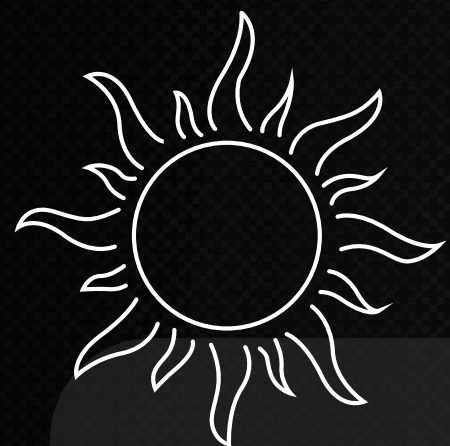




BLOG SERIES – EDITION 2

INDIA'S SOLAR MANUFACTURING REVOLUTION



India's Solar Manufacturing Revolution — Can 'Make in India' Power 2030?

From Shortage to Self-Reliance

Now the focus shifts to the next step – how to fix it.

The answer is simple: Make in India.

If India can make more solar panels, cells and raw materials inside the country, we can lower costs, create jobs and become truly energy independent.

This isn't just a business goal – it's a national mission.





1

Where India Stands Today

India's solar manufacturing has grown fast in just one year.



2

As of October 2025, we have:

- 118 GW of module capacity (around 80–85 GW operational) &
- 27 GW of cell capacity,

according to the latest MNRE and Mercom data.



3

In the first half of 2025 alone, India added 44.2 GW of modules and 7.5 GW of cells — a record growth.

Still, about 90% of upstream materials like polysilicon, wafers & glass are imported.

That means while we make modules here, many of the parts that go inside them still come from outside.

To become self-reliant, India needs to control the full chain – from sand to solar cells.

The Government Push — PLI and ALMM

The government is strongly supporting local manufacturing through:

PLI Scheme (Production Linked Incentive):

- Budget: ₹19,500 crore.
- Target: 65 GW of fully integrated capacity (from polysilicon to modules).
- By June 2025, the scheme had already driven 18.5 GW of module capacity.
- The government has now extended the commissioning deadline by two years (till 2027) to help new factories ramp up smoothly.

ALMM (Approved List of Models and Manufacturers):

- Promotes Indian-made panels for government and subsidy-based projects.
- Builds buyer confidence in “Made in India” quality.

Because of these efforts, India’s solar clusters — especially in Gujarat, Tamil Nadu, Telangana & Rajasthan — are booming with new gigawatt-scale plants.



Technology — The Next Big Leap



Solar technology is changing fast.



India's new factories are already planning to produce these advanced technologies.



Older PERC panels are being replaced by TOPCon, HJT & Perovskite hybrid panels that give higher efficiency (up to 26%).



If we start with the latest tech now, we can compete with China, the U.S. & Europe in the global market within just a few years.

₹ Private Partnerships & Green Financing

Government support is strong – but the private sector must take the lead.

India needs more public-private partnerships to bring speed, scale & innovation.

BANKS & INVESTORS MUST PROVIDE GREEN LOANS & EASY FINANCING.

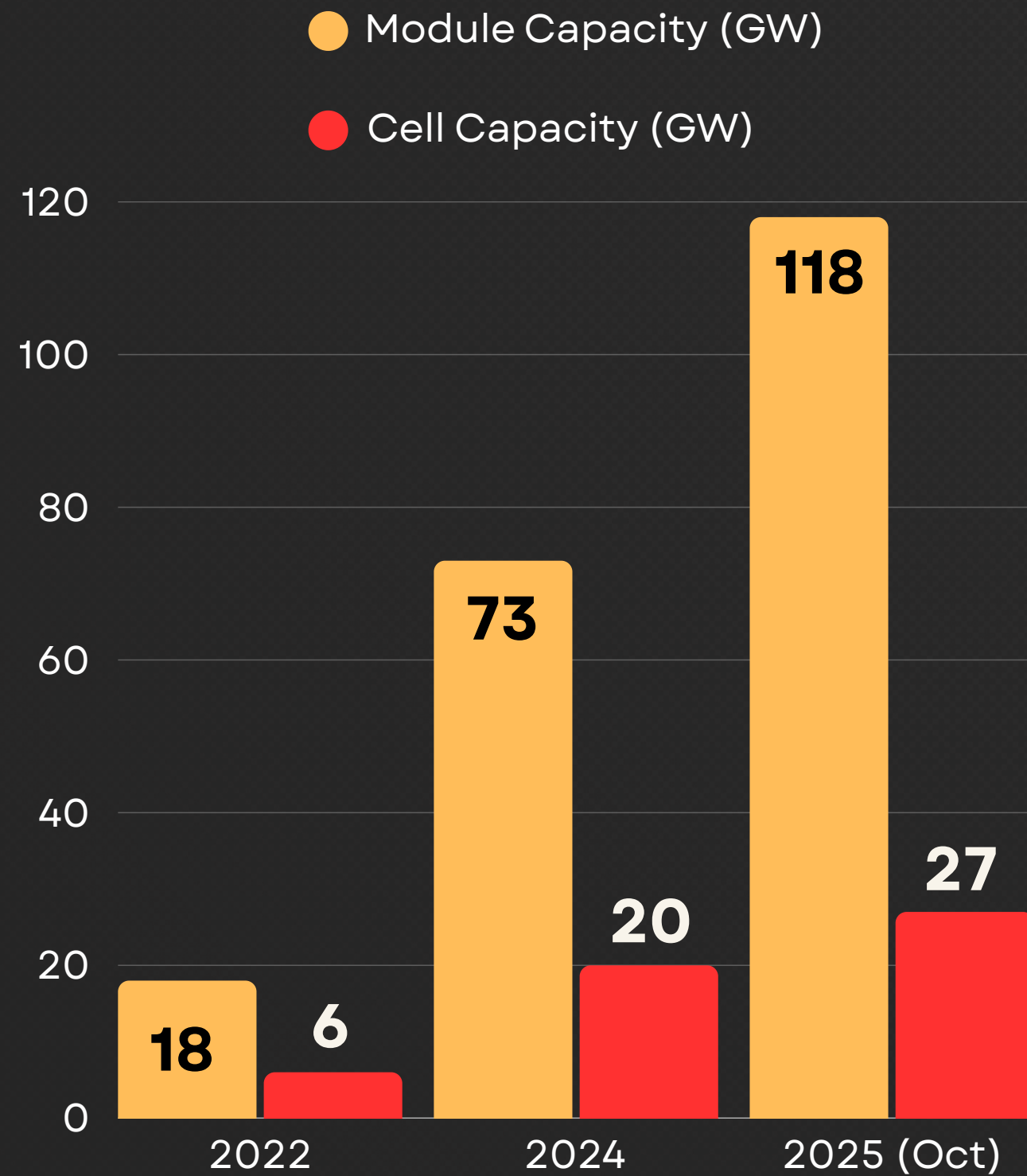
START-UPS & MSMES SHOULD GET A CHANCE TO JOIN THIS SUPPLY CHAIN.

R&D CENTERS MUST TRAIN ENGINEERS FOR NEW SOLAR TECHNOLOGIES.

When everyone works together — industry, policy & innovation — India will not just make panels, it will manufacture the future.



India's Manufacturing Growth at a Glance



(Source: MNRE & Mercom India, 2025)

The Bigger Picture

This manufacturing revolution isn't only about energy.
It's about jobs, exports & national pride.



Create over 10 lakh green jobs



Save billions in imports



Become a major solar exporter to Asia & Africa



Lead the world's green transition

**If 2010–2020 was the decade of solar installation, then
2025–2030 must be the decade of solar manufacturing.**

The Road Ahead

Here's the roadmap for the next five years:

- 1 Build factories for cells, wafers & glass.
- 2 Invest in R&D for advanced technologies.
- 3 Train engineers & technicians nationwide.
- 4 Ensure stable, long-term policies.
- 5 Create a "Solar Material Reserve" for future supply security.

**India has the sunlight, the people & the policy.
Now it just needs consistent speed and unity.**

CONCLUSION — THE MAKE IN INDIA MOMENT

India's solar story began with sunlight.

Now it must shine through our own factories & innovation.

Every new solar cell made in India is not just a component — it's a symbol of self-reliance.

The future of India's energy lies not only in the sun — but in how we make it, shape it & own it.

What do you think? Can 'Make in India' truly power the 2030 solar dream?



**Share your thoughts in the comments — let's shape
India's solar decade together!**



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Thank You

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