INDIA'S SOLAR GROWTH ENTERS A NEW ERA

Professional Backgrounder & Sector Brief

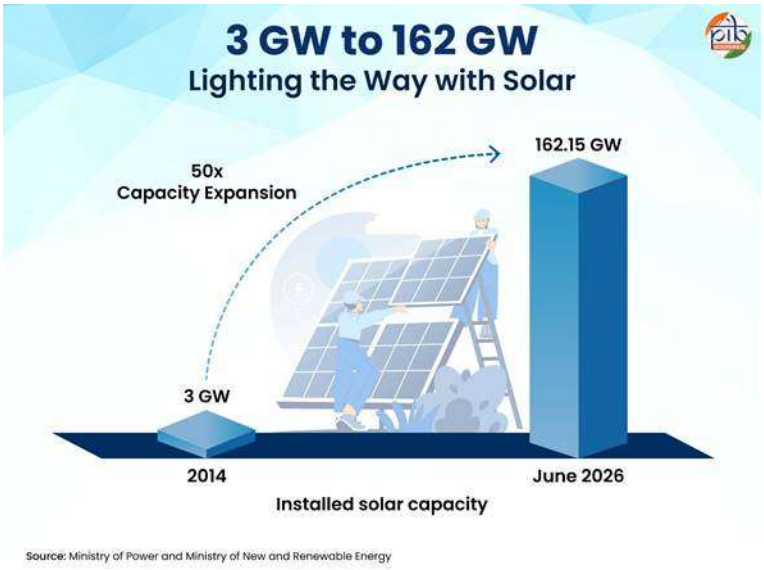
Based on Press Information Bureau backgrounder • 2 August 2026

Solar Capacity 30 Jun 2026	FY 2025-26 Solar Addition	Module Mfg. 31 Mar 2026	PM-SSY Floating Solar
162.15 GW	44.61 GW	~172 GW	5,000 MW

India's solar sector has moved from approximately 3 GW in 2014 to **162.15 GW** by 30 June 2026. The expansion now spans **utility-scale parks**, rooftop systems, agricultural solarisation, **domestic manufacturing**, storage-backed floating solar and stronger transmission infrastructure.

Executive Summary

- **Installed solar capacity:** 162.15 GW as of 30 June 2026, more than fifty times the level of roughly 3 GW in 2014.
- **Record annual growth:** 44.61 GW of solar capacity was added in FY 2025-26, compared with 23.83 GW in FY 2024-25.
- **Manufacturing scale-up:** solar module manufacturing capacity rose from 2.3 GW in 2014 to about 172 GW by 31 March 2026.
- **Floating solar push:** PM Surya Sarovar Yojana targets 5,000 MW of floating solar paired with at least 10,000 MWh of energy storage.
- **Distributed solar:** rooftop solar and PM-KUSUM together contributed 16.3 GW, or 36%, of FY 2025-26 solar additions.
- **Grid and infrastructure:** 54 solar parks with 39,188 MW sanctioned capacity and Green Energy Corridor investments support integration.
- **Long-term direction:** solar remains central to India's 500 GW non-fossil capacity target for 2030 and net-zero target for 2070.



PIB infographic: installed solar capacity expanded from about 3 GW in 2014 to 162.15 GW by June 2026.

1. Solar Expansion at a Glance

Solar has become the largest component of India's renewable-energy capacity. Large solar projects account for **118.79 GW**, while grid-connected rooftop systems contribute **27.88 GW**; the balance comes from hybrid and off-grid systems. Major solar states include Rajasthan, Gujarat, Karnataka, Tamil Nadu, Andhra Pradesh and Maharashtra.

Indicator	Position / Achievement
Solar installed capacity	162.15 GW as of 30 June 2026
FY 2025-26 solar additions	44.61 GW
FY 2024-25 solar additions	23.83 GW
Large solar projects	118.79 GW
Grid-connected rooftop solar	27.88 GW
2025 annual solar additions	37 GW; India identified as the world's second-largest solar growth market
Non-fossil capacity, Mar 2026	283.46 GW, including 274.68 GW renewable energy
Highest annual non-fossil addition	55.29 GW in FY 2025-26



PIB chronology of India's solar journey from the National Solar Mission to crossing 162 GW in 2026.

2. Pradhan Mantri Surya Sarovar Yojana (PM-SSY)

Approved on **31 July 2026**, PM-SSY is designed to accelerate **floating solar** deployment while pairing generation with **energy storage**. The programme uses reservoirs and suitable inland water bodies, reducing pressure on land and helping states manage peak demand.

Programme Element	Details
Floating solar target	5,000 MW
Minimum co-located storage	10,000 MWh / two hours
Government outlay	₹5,070 crore
Implementation	FY 2026-27 to FY 2030-31
Estimated floating-solar potential	~102.18 GWp
Current floating solar base	~700 MW
Expected annual CO_2 reduction	~10 million tonnes
Employment potential	16,000-17,000 full-time equivalent jobs
Coverage	All States and Union Territories

The scheme is also intended to stimulate domestic manufacturing of floatation systems, PV cells and modules, and energy-storage systems. It represents a shift from solar capacity expansion alone toward **generation-plus-storage** projects that can contribute more effectively to grid reliability.

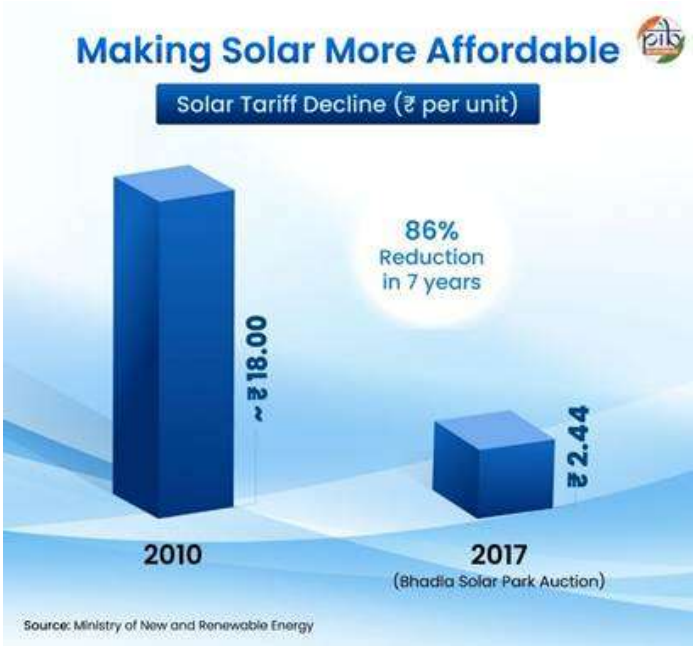
3. Policy Architecture Behind Solar Growth

India's expansion has been supported by a layered policy framework rather than a single programme. The PIB backgrounder groups the architecture around long-term targets, demand creation, competitive tariff discovery, infrastructure and domestic manufacturing.

Policy / Mechanism	Role
National Solar Mission	Established long-term solar capacity direction and early deployment momentum
Panchamrit commitments	500 GW non-fossil capacity by 2030; net-zero emissions by 2070
Renewable Purchase Obligations	Create long-term renewable-energy demand; 2026-27 target stated at 35.95%
Competitive bidding / e-Reverse Auction	Reduced tariffs and improved transparent price discovery
Solar Parks Scheme	Provides land and common infrastructure for utility-scale projects
Green Energy Corridor	Strengthens transmission and renewable-energy evacuation
PM Surya Ghar	Expands household rooftop solar
PM-KUSUM	Supports solar pumps, feeder solarisation and decentralised generation

4. Falling Solar Costs

Competitive bidding helped reduce discovered solar tariffs from around **₹18 per unit** in 2010 to a record-low **₹2.44 per unit** at the Bhadla Solar Park auction in 2017. The backgrounder also states that utility-scale solar PV LCOE in India was **USD 35/MWh** in 2025, compared with a global average of **USD 44/MWh**.



PIB infographic: solar tariff decline from about ₹18/unit in 2010 to ₹2.44/unit in 2017.

5. Solar Parks & Enabling Infrastructure

The Solar Parks Scheme was initially targeted at 20 GW and later expanded to 40 GW. As of February 2026, **54 solar parks** with a combined sanctioned capacity of **39,188 MW** had been approved.

State / UT	No. of Parks	Sanctioned Capacity (MW)
Andhra Pradesh	5	4,200
Chhattisgarh	1	100
Gujarat	7	12,150
Jharkhand	2	334
Jharkhand & West Bengal*	1	310
Karnataka	1	2,000
Kerala	3	255
Madhya Pradesh	9	4,208
Maharashtra	4	1,105
Mizoram	1	20
Odisha	1	40
Rajasthan	11	10,726
Uttar Pradesh	8	3,740
Total	54	39,188

** Includes one inter-state floating solar park spanning Jharkhand and West Bengal.*

6. Bhadla Solar Park & Green Energy Corridor

Bhadla Solar Park in Rajasthan demonstrates the utility-scale solar-park model. Spread across nearly **5,700 hectares** (56 sq. km.), it has an installed capacity of **2,245 MW**. Shared land preparation and transmission infrastructure supported rapid development and helped attract private investment.



Bhadla Solar Park, Rajasthan, reproduced from the source backgrounder.

The Green Energy Corridor Programme complements solar-park development by strengthening transmission from renewable-rich regions to demand centres. By February 2026, strengthened networks had enabled evacuation of **24,567.8 MW** of renewable energy; projects across ten states are planned to support around **44 GW**.

7. Domestic Solar Manufacturing

Solar module manufacturing capacity increased from **2.3 GW** in 2014 to about **172 GW** by 31 March 2026. The manufacturing strategy combines production incentives, quality-control frameworks and measures intended to reduce import dependence.

Initiative	Key Details
PLI for High-Efficiency Solar PV Modules	₹4,500 crore initial outlay in 2021 plus ₹19,500 crore expansion in 2022
PLI investment by Oct 2024	Around ₹35,000 crore attracted
PLI direct employment by Oct 2024	About 10,000 people
ALMM	Quality-assurance framework introduced in 2019 for eligible solar PV modules/cells
Manufacturing objective	Increase domestic value addition, quality assurance and self-reliance

8. Rooftop Solar: PM Surya Ghar

PM Surya Ghar: Muft Bijli Yojana was launched in February 2024 with an outlay of **₹75,021 crore** to expand residential rooftop solar. The source backgrounder reported more than **43 lakh households** solarised as of June 2026. Subsequent PIB reporting on 22 July 2026 placed the number of beneficiary households **above 48 lakh**, showing the programme was still scaling rapidly after the backgrounder cut-off.

Metric	Source Backgrounder / Update
Programme launch	13 February 2024
Outlay	₹75,021 crore
Households solarised, source cut-off	Over 43 lakh as of June 2026
Later PIB update	48.02 lakh beneficiary households as of 22 July 2026
Central Financial Assistance, source	₹14,771.82 crore disbursed till Dec 2025
Zero-bill households, source	Over 7.7 lakh as of 9 Dec 2025

The later July 2026 household figure is supplementary research and is separated from the original 2 August backgrounder text.

9. Agricultural Solarisation: PM-KUSUM

PM-KUSUM supports decentralised solar power plants, standalone solar agriculture pumps and solarisation of grid-connected agricultural pumps. It is intended to improve daytime irrigation supply, reduce diesel dependence and create opportunities for farmers to earn from surplus electricity where permitted.

Indicator	Achievement / Target
Target solar capacity	~34,800 MW by 2026-27
Central financial support	₹34,422 crore
Off-grid solar pumps installed	~11.49 lakh
Pumps under feeder-level solarisation	More than 15.89 lakh
Decentralised capacity on farmers' land	~1,726 MW
Farmers benefited	Over 21.77 lakh

Distributed solar solutions contributed **16.3 GW**, or **36%**, of the 44.61 GW added in FY 2025-26. The backgrounder attributes **7.6 GW** to PM-KUSUM and **8.7 GW** to rooftop solar.

10. Global Solar Cooperation

- **International Solar Alliance (ISA):** co-founded by India and France at COP21 in 2015 to promote solar deployment, knowledge sharing and capacity building.
- **One Sun One World One Grid (OSOWOG):** an India-proposed vision for interconnected renewable-energy grids and cross-border power trade.
- **G20 renewable-energy consensus:** India helped build consensus during its G20 Presidency around tripling global renewable-energy capacity by 2030.

11. Sector Outlook & Strategic Implications

The backgrounder presents solar as a core pillar of India's energy-security, industrial and climate strategy. The next phase is increasingly defined by integration: **solar plus storage**, **distributed generation**, stronger transmission, **domestic manufacturing** and deeper participation by households and farmers.

- **Utility-scale opportunity:** solar parks, floating solar and storage-backed procurement continue to create large project pipelines.
- **Manufacturing opportunity:** the rapid rise in module capacity increases the importance of upstream cells, wafers, materials, equipment and quality systems.
- **Distributed-energy opportunity:** rooftop solar and agricultural solarisation expand the addressable market beyond utilities.
- **Grid opportunity:** transmission, storage and flexible power systems become more valuable as renewable penetration rises.
- **Execution risks:** land/water permissions, grid connectivity, supply-chain quality, financing and project delivery remain material implementation considerations.

12. Source & Research Notes

Primary source: Press Information Bureau, "India's Solar Growth Enters a New Era," posted 2 August 2026. The source is a government backgrounder and contains policy descriptions, programme achievements, capacity data, tables and PIB infographics. Website-navigation material, timestamps, raw URLs and the long reference-link dump from the captured webpage have been removed from the body of this formatted edition.

Supplementary verification used current PIB/MNRE public releases for figures that had advanced after the source cut-off, particularly PM Surya Ghar beneficiary counts. Such updates are explicitly identified as supplementary rather than silently replacing the source figures.