



Comprehensive Performance Report



नवीन एवं
नवीकरणीय ऊर्जा मंत्रालय
MINISTRY OF
**NEW AND
RENEWABLE ENERGY**
सत्यमेव जयते

PM SURYA GHAR MUFT BIJLI YOJANA February 2024 - February 2026

GRX10 RESEARCH

Prepared by: GRX10 Research | Date: February 26, 2026

30 Lakh+ Installations	30% Target Achieved	26.14 Lakh HH Benefitted
----------------------------------	-------------------------------	------------------------------------

Research Report | For Informational Purposes Only | Not Financial Advice



Table of Contents

Table of Contents.....	2
Executive Summary	4
Key Headline Metrics (as of February 2026).....	4
What It Means for the Consumer	4
Top 10 State Installation Rankings (as of December 31, 2025)	5
Progress Against Targets	5
Strategic Recommendations Summary.....	6
Section 1: Scheme Overview	7
1.1 Launch Details.....	7
1.2 Objectives.....	7
Section 2: Budget & Subsidy Structure.....	8
2.1 Total Budget Breakdown.....	8
2.2 Annual Budget Allocation History	8
2.3 Central Financial Assistance (CFA) Structure	9
For General States:.....	9
For Special Category States (NE States, J&K, Ladakh, Himachal, Uttarakhand, A&N, Lakshadweep):.....	9
State Additional Subsidies (On Top of Central CFA):	9
2.4 Loan Facilities.....	10
Section 3: Progress Chronology & State Rankings.....	11
3.1 Key Milestones Timeline	11
3.2 Target vs. Actual Achievement	13
3.3 State-Wise Installation Rankings (December 31, 2025)	13
Section 4: Consumer Experience & Challenges	14
4.1 Installation Process Timeline: Official vs. Reality	14
4.2 Documented Consumer Complaints	14
Bank Loan Rejections (Critical Severity)	14
Subsidy Application Rejection Reasons	14
Inflated Bills After Installation (High Severity)	15
Free Electricity Disincentive – State vs. Central Policy Conflict	15
4.3 Consumer Success Stories.....	15
Section 5: DISCOM Perspective	16
5.1 Revenue Impact on DISCOMs.....	16
5.2 DISCOM Performance Scorecard.....	16
5.3 Root Causes of DISCOM Delays	17
5.4 Positive Models: DISCOMs That Got It Right.....	17
Kerala's KSEB – The Benchmark.....	17
Gujarat DISCOMs – Scalable Digitalization	17
Varanasi (UP) – Replicable District-Level Blueprint	17
Section 6: Atmanirbhar Bharat – Domestic Manufacturing.....	18



6.1 Manufacturing Capacity (as of early 2026).....	18
6.2 US CVD Tariffs – Impact on Indian Solar Exports	18
6.3 Stock Market Impact – Investment Disclaimer.....	Error! Bookmark not defined.
Section 7: Company Performance.....	19
7.1 Waaree Energies – India's Largest Module Maker	19
7.2 Tata Power – #1 Rooftop Solar Company (10 Consecutive Years)	19
7.3 Premier Energies – Highest EBITDA Margin.....	19
7.4 Vikram Solar – Growing Pure-Play.....	19
7.5 Adani Green Energy – India's Largest RE Company.....	19
7.6 SolarSquare Energy – Leading D2C Rooftop Installer (Private)	20
Section 8: Misses, Challenges & Critical Analysis	21
8.1 Gap Analysis	21
8.2 Key Challenges (IEEFA/JMK Research, October 2025).....	21
8.3 Karnataka – Case Study in Underperformance	21
8.4 Vendor Quality and Ghost Vendors.....	22
Section 9: Strategic Recommendations.....	23
Sources Register.....	25



Executive Summary

PM Surya Ghar: Muft Bijli Yojana (PMSG:MBY) is India's flagship residential rooftop solar scheme, launched on February 13, 2024 by PM Narendra Modi with a total outlay of ₹75,021 crore. The scheme aims to install 1 crore (10 million) rooftop solar systems by March 2027, providing up to 300 units of free electricity per month to beneficiary households. [1][2]

As of February 23-24, 2026, the scheme has crossed 30 lakh (3 million) installations — achieving approximately 30% of its 1-crore target with about 13 months remaining. A total of 26,14,446 households had benefited as of December 31, 2025, with ₹14,771.82 crore in Central Financial Assistance (CFA) disbursed. [1][3]

Key Headline Metrics (as of February 2026)

Metric	Value	Source
Total Installations (Feb 24, 2026)	30 lakh+ (3 million)	[1]
Total Households Benefitted (Dec 31, 2025)	26,14,446	[3]
Total CFA Disbursed (Dec 31, 2025)	₹14,771.82 crore	[3]
Households with Zero Bills	7,71,580	[3]
Loans Sanctioned	8,30,617 loans	[4]
Applications on Portal (Dec 3, 2025)	53,54,099	[5]
Annual Consumer Savings (Feb 2026)	₹20,000 crore/year	[6]
FY27 Budget Allocation	₹22,000 crore	[7]

What It Means for the Consumer

For a typical Indian household consuming 200-300 units of electricity per month, the PM Surya Ghar scheme is transformational in financial terms. A 3 kW rooftop solar system (the most common size installed under the scheme) costs approximately ₹1.5-1.8 lakh to install. With the government providing up to ₹78,000 in CFA subsidy, the consumer's net outlay is reduced to ₹72,000-1.02 lakh. Additional state subsidies (see Section 4) can reduce this further. [8]

A 3 kW system generates approximately 300-360 units per month under average Indian solar conditions (4-5 peak sun hours). At average electricity rates of ₹5-8 per unit, this translates to monthly savings of ₹1,500-2,880. The payback period on the consumer's net investment (post-subsidy) is typically 2-4 years, with the system having a 25-year operational life. This implies a return on investment of 6-12x the initial net outlay over the system lifetime. [9][10]

As of December 2025, 7,71,580 households (approximately 29.5% of all beneficiaries) are now receiving zero electricity bills, representing the most powerful validation of the scheme's consumer impact. [3]



Consumer Benefit	Typical Value	Notes
Maximum government subsidy (CFA)	₹78,000	For 3 kW system
Average subsidy received (March 2025)	₹77,800	PIB data
Estimated monthly bill savings (3 kW)	₹1,500-2,880/month	At ₹5-8/unit tariff
Payback period (net of subsidy)	2-4 years	Consumer's net investment
System lifetime ROI	6-12x	Over 25-year system life
Free electricity benefit	Up to 300 units/month	Zero bill possible
Households with zero bills now	7,71,580	As of Dec 2025 [3]

Top 10 State Installation Rankings (as of December 31, 2025)

The following states have led residential rooftop solar installations under PM Surya Ghar. Gujarat, Maharashtra, and Uttar Pradesh together account for nearly 60% of all national installations. [3]

#	State/UT	Installations	HH Benefited	CFA Released (₹ Cr)	Share %
1	Gujarat	5,15,052	7,41,819	3,845.60	24.7%
2	Maharashtra	3,91,887	6,34,782	2,787.59	18.8%
3	Uttar Pradesh	3,26,386	3,29,847	2,234.63	15.7%
4	Kerala	1,77,392	1,82,071	1,275.36	8.5%
5	Rajasthan	1,19,006	1,22,027	823.12	5.7%
6	Andhra Pradesh	84,618	87,479	562.14	4.1%
7	Madhya Pradesh	83,665	87,001	601.00	4.0%
8	Assam	71,898	72,604	494.28	3.4%
9	Uttarakhand	58,562	58,724	413.50	2.8%
10	Tamil Nadu	51,227	59,517	353.34	2.5%

Progress Against Targets

With 30 lakh installations as of February 2026, the scheme has reached 30% of its 1 crore target with 13 months remaining. At the current pace of approximately 70,000-80,000 installations/month, achieving the full target would require an additional 12+ years — making a 5x acceleration essential. [1][3]



CRITICAL GAP: Acceleration Urgently Needed

To meet the 1 Crore target by March 2027, India needs to install 3.7-4 Lakh systems per month — 5x the current pace.
Current pace: ~75,000-80,000 installations/month (as of Q4 2025-Q1 2026)
Required pace: 3.7-4,00,000 installations/month from February 2026
Remaining target: ~70 lakh installations in 13 months
Without structural reforms to DISCOM processes, portal performance, and loan access, this target will not be achieved.

Strategic Recommendations Summary

Nine strategic interventions have been identified to accelerate the scheme's performance (detailed in Section 11):

1. Standardize DISCOM processes nationally using Gujarat and Kerala as benchmarks; mandate TFR auto-approval for all <10 kW systems. [11][12]
2. Fix portal performance — dedicate engineering resources to the National Rooftop Portal; target 99.5%+ uptime with monthly SLA reporting.
3. Resolve loan access barriers — establish a standardized SOP across all PSBs; create a loan grievance hotline; address CIBIL/documentation issues.
4. Align state free electricity programs with solar adoption — create combined benefit models where solar households retain partial free electricity.
5. Accelerate DCR module supply — fast-track ALMM certification for new cell manufacturers; provide bridge financing for DCR module working capital.
6. Scale up consumer awareness campaigns with regional-language content; use India Post and gram panchayats as last-mile delivery channels.
7. Implement district-level escalation matrix to route DISCOM-related delays above field level automatically. [12]
8. Create a real-time national dashboard showing state/district-level progress, updated weekly, accessible publicly.
9. Implement Installer Performance Scoring & Lead Allocation — performance-based lead distribution for empaneled vendors, creating market-driven quality improvement.



Section 1: Scheme Overview

1.1 Launch Details

Parameter	Details
Scheme Name	PM Surya Ghar: Muft Bijli Yojana (PMSG:MBY)
Original Announcement	January 22, 2024 — Announced by PM Modi as 'PM Suryodaya Yojana'
Scheme Launch (Renamed)	February 13, 2024
Cabinet Approval	February 29, 2024
Administrative Order	Order No. 318/17/2024-Grid Connected Rooftop, March 16, 2024
Implementation Period	Till March 31, 2027 (FY 2026-27)
Total Budget	₹75,021 crore
Official Portal	https://pmsuryaghar.gov.in
Helpline	15555 (multilingual, 12 Indian languages)

Sources: PIB Press Releases [1][2], MNRE Official Guidelines [8], IBEF [9]

1.2 Objectives

The 8 key objectives of PM Surya Ghar are presented below with their current implementation status: [8]

#	Objective	Description	Status
1	Target	1 Crore Installations 1 crore rooftop solar systems in residential sector by FY 2026-27	30% complete 30 lakh achieved (30%)
2	Power	Free Electricity Provide up to 300 units/month free electricity to 1 crore households	30% complete 30 lakh HH active
3	Energy	Clean Energy Generate 1,000 billion units of renewable electricity over 25 years	In progress ~25 BUs/year at current scale
4	Eco	CO2 Reduction Reduce 720 million tonnes CO2 equivalent over 25 years	In progress ~3.5 MT/year estimate
5	Capacity	30 GW Solar Install 30 GW of solar rooftop capacity by FY 2026-27	17% complete ~5 GW added (17%)
6	Ecosystem	Enabling Ecosystem Develop vendor network, regulatory support, supply chain, O&M	Partial Ecosystem growing
7	Jobs	Employment Create approximately 17 lakh direct jobs	Early stage 43,000+ under PLI
8	NDC	Climate Commitments Support 500 GW RE by 2030, 50% from renewables, Net Zero 2070	On track Progressing



Section 2: Budget & Subsidy Structure

2.1 Total Budget Breakdown

₹75,021 crore is approximately \$9 billion USD — making PM Surya Ghar one of the largest residential solar programs in the world. To put this in perspective: it is larger than the GDP of several small nations and represents a decisive commitment to transforming India's energy landscape at the household level. Of this total, 87.6% (₹65,700 crore) goes directly to consumer subsidies as Central Financial Assistance (CFA) — meaning the vast majority of the budget benefits households directly, not bureaucracy or infrastructure. The remaining 12.4% funds ecosystem development: DISCOM incentives, model solar villages, local body support, capacity building, and awareness campaigns. [8][13]

Component	Amount (₹ Crore)	% of Total
Central Financial Assistance (CFA) to Residential Consumers	65,700	87.6%
Incentives for DISCOMs	4,950	6.6%
Model Solar Villages (1 per district)	800	1.1%
Incentives for Local Bodies (PRIs/ULBs)	1,000	1.3%
Payment Security Mechanism	100	0.1%
Innovative Projects	500	0.7%
Capacity Building (1% of CFA)	657	0.9%
Awareness & Outreach (1% of CFA)	657	0.9%
Service Charges (1% of CFA)	657	0.9%
TOTAL	75,021	100%

Sources: MNRE Draft Guidelines [13], IIT Kanpur Mirror [8]

2.2 Annual Budget Allocation History

Financial Year	Budget Estimate	Revised Estimate	Actual Expenditure
FY 2024-25	₹6,250 crore	₹11,100 crore	₹7,818 crore
FY 2025-26	₹20,000 crore	₹17,000 crore	(ongoing)
FY 2026-27	₹22,000 crore	—	(not yet)

Sources: CNBCTV18 Budget 2026 [14], Moneycontrol [15]



2.3 Central Financial Assistance (CFA) Structure

For General States:

System Capacity	CFA Rate	Total Subsidy
First 2 kWp (or part thereof)	₹30,000 per kWp	Up to ₹60,000
Additional 1 kWp (2-3 kWp)	₹18,000 per kWp	Up to ₹18,000
Beyond 3 kWp	No additional CFA	Maximum ₹78,000

Maximum CFA = ₹78,000 per household (for 3 kWp and above). This translates to roughly 60% subsidy on the first 2 kW and 40% subsidy on the next 1 kW. [8]

For Special Category States (NE States, J&K, Ladakh, Himachal, Uttarakhand, A&N, Lakshadweep):

System Capacity	CFA Rate	Total Subsidy
First 2 kWp	₹33,000 per kWp	Up to ₹66,000
Additional 1 kWp (2-3 kWp)	₹19,800 per kWp	Up to ₹19,800
Beyond 3 kWp	No additional CFA	Maximum ₹85,800

State Additional Subsidies (On Top of Central CFA):

Several states offer additional subsidies on top of the Central Financial Assistance, significantly improving the economics for consumers in those states. [16][17]

State	Additional State Subsidy	Details
Delhi	₹10,000 per consumer	Delhi Solar Energy Policy 2023, amended July 2025
Uttar Pradesh	₹15,000/kW (max ₹30,000)	Via UPNEDA, on top of central CFA
Maharashtra	₹25,000-₹60,000 top-up	Based on system size, up to 3 kW
Gujarat	Additional state disbursement	₹2,362 Cr disbursed to ~3L beneficiaries
Haryana	CFA + state aid	For Antyodaya families and Model Solar Villages



2.4 Loan Facilities

Collateral-free loans are available through 12+ public sector banks via the Jan Samarth Portal. Key terms as of December 2025: [18]

Loan Parameter	Details
Interest Rate (up to ₹2 lakh)	5.75% per annum (Repo Rate + 50 bps)
Interest Rate (₹2-6 lakh)	7.90% per annum (SBI rate)
Maximum Loan Amount	₹2 lakh (up to 3 kW); ₹6 lakh (up to 10 kW)
Loan Tenure	Up to 10 years (including 6-month moratorium)
Processing Fee	None
Loans Sanctioned (Dec 2025)	8,30,617 applications; ₹10,907 crore
PSB Rejection Rate (Aug 2025)	38.03% — flagged 'alarmingly high' by Parliament



Section 3: Progress Chronology & State Rankings

3.1 Key Milestones Timeline

The scheme has progressed rapidly from launch to 30 lakh installations in approximately 24 months. Key milestones are presented below in chronological order. [1][3][19][20]

- **Jan 22, 2024 | ANNOUNCEMENT**
PM Modi announces 'PM Suryodaya Yojana' at Ayodhya Ram Temple consecration
- **Feb 13, 2024 | LAUNCH**
Scheme officially launched as 'PM Surya Ghar: Muft Bijli Yojana'; applications begin
- **Feb 29, 2024 | CABINET APPROVAL**
Cabinet formally approves scheme with ₹75,021 crore outlay
- **Mar 16, 2024 | ADMINISTRATIVE ORDER**
Administrative Order No. 318/17/2024 issued; scheme formally operationalized
- **Jun 2024 | DISBURSEMENTS BEGIN**
Model Code of Conduct ends; CFA disbursements commence
- **Jul 2024 | GUIDELINES ISSUED**
MNRE issues operational guidelines; skilling guidelines issued
- **Nov 2024 | SCALE-UP**
₹3,100+ crore disbursed to 4+ lakh consumers; subsidy processing: 15 days
- **Dec 3, 2024 | 1.45 CR REGISTRATIONS**
1.45 crore registrations milestone; 26.38 lakh applications; 6.34 lakh installations
- **Dec 31, 2024 | RESCO/ULA MODEL**
MNRE issues guidelines for RESCO and Utility-Led Aggregation models
- **Jan 27, 2025 | 8.46 LAKH**
8,46,000 installations milestone reached
- **Mar 10, 2025 | 10 LAKH MILESTONE**
1 million installations crossed; 3.10 GW capacity; ₹4,770 crore CFA
- **Mar 2025 | GOV BUILDING TARGETS**
Chandigarh and Daman & Diu achieve 100% government building solar targets
- **Jul 2025 | ~13 LAKH**
~13 lakh installations (13% of target); 4.9 GW capacity; guidelines updated
- **Sept 2025 | ₹10,907 CR LOANS**
5.79 lakh loans worth ₹10,907 crore sanctioned via Jan Samarth Portal
- **Dec 3, 2025 | 23.96 LAKH HH**
23,96,497 households; 53,54,099 total applications on portal
- **Dec 9, 2025 | 19.45 LAKH SYSTEMS**
19,45,758 RTS; ₹13,926 crore CFA; 8,30,617 loans sanctioned
- **Dec 31, 2025 | 26.14 LAKH HH**
20,85,514 RTS systems; 26,14,446 households; ₹14,771.82 crore CFA disbursed
- **Feb 1, 2026 | FY27 BUDGET**
Union Budget 2026 allocates ₹22,000 crore (up from ₹20,000 crore in FY26)
- **Feb 23-24, 2026 | 30 LAKH MILESTONE**
30 lakh (3 million) installations milestone - announced by Minister Pralhad Joshi; lauded by PM Modi



Date	Milestone	Details
Jan 22, 2024	ANNOUNCEMENT	PM Modi announces 'PM Suryodaya Yojana' at Ayodhya Ram Temple consecration
Feb 13, 2024	LAUNCH	Scheme officially launched as 'PM Surya Ghar: Muft Bijli Yojana'; applications begin
Feb 29, 2024	CABINET APPROVAL	Cabinet formally approves scheme with ₹75,021 crore outlay
Mar 16, 2024	ADMINISTRATIVE ORDER	Administrative Order No. 318/17/2024 issued; scheme formally operationalized
Jun 2024	DISBURSEMENTS BEGIN	Model Code of Conduct ends; CFA disbursements commence
Jul 2024	GUIDELINES ISSUED	MNRE issues operational guidelines; skilling guidelines issued
Nov 2024	SCALE-UP	₹3,100+ crore disbursed to 4+ lakh consumers; subsidy processing: 15 days
Dec 3, 2024	1.45 CR REGISTRATIONS	1.45 crore registrations milestone; 26.38 lakh applications; 6.34 lakh installations
Dec 31, 2024	RESCO/ULA MODEL	MNRE issues guidelines for RESCO and Utility-Led Aggregation models
Jan 27, 2025	8.46 LAKH	8,46,000 installations milestone reached
Mar 10, 2025	10 LAKH MILESTONE	1 million installations crossed; 3.10 GW capacity; ₹4,770 crore CFA
Mar 2025	GOV BUILDING TARGETS	Chandigarh and Daman & Diu achieve 100% government building solar targets
Jul 2025	~13 LAKH	~13 lakh installations (13% of target); 4.9 GW capacity; guidelines updated
Sept 2025	₹10,907 CR LOANS	5.79 lakh loans worth ₹10,907 crore sanctioned via Jan Samarth Portal
Dec 3, 2025	23.96 LAKH HH	23,96,497 households; 53,54,099 total applications on portal
Dec 9, 2025	19.45 LAKH SYSTEMS	19,45,758 RTS; ₹13,926 crore CFA; 8,30,617 loans sanctioned
Dec 31, 2025	26.14 LAKH HH	20,85,514 RTS systems; 26,14,446 households; ₹14,771.82 crore CFA disbursed
Feb 1, 2026	FY27 BUDGET	Union Budget 2026 allocates ₹22,000 crore (up from ₹20,000 crore in FY26)
Feb 23-24, 2026	30 LAKH MILESTONE	30 lakh (3 million) installations milestone - announced by Minister Pralhad Joshi; lauded by PM Modi



3.2 Target vs. Actual Achievement

Milestone Target	Target Date	Actual Achievement	Timing	Status
10 lakh installations	Mar 2025	10.09 lakh (March 10, 2025)	On time	[MET] On Time
20 lakh installations	Oct 2025	~20 lakh (December 2025)	~2 months late	[DELAYED] 2 months
40 lakh installations	Mar 2026	~30 lakh (Feb 24, 2026)	Likely to be missed	[AT RISK] 25% gap
1 crore installations	Mar 2027	30 lakh as of Feb 2026	Needs 5-6x acceleration	[AT RISK] Critical

Sources: PIB Parliament Reply [3], PIB March 2025 [19], Down to Earth Oct 2025 [20], Hindu BusinessLine [1]

3.3 State-Wise Installation Rankings (December 31, 2025)

State-wise data sourced from PIB Parliament Reply (February 3, 2026). [3]

Rank	State/UT	Installations	HH Benefitted	CFA (₹ Cr)	
1	Gujarat	5,15,052	7,41,819	3,845.60	
2	Maharashtra	3,91,887	6,34,782	2,787.59	
3	Uttar Pradesh	3,26,386	3,29,847	2,234.63	
4	Kerala	1,77,392	1,82,071	1,275.36	
5	Rajasthan	1,19,006	1,22,027	823.12	
6	Andhra Pradesh	84,618	87,479	562.14	
7	Madhya Pradesh	83,665	87,001	601.00	
8	Assam	71,898	72,604	494.28	
9	Uttarakhand	58,562	58,724	413.50	
10	Tamil Nadu	51,227	59,517	353.34	
11	Haryana	48,149	54,437	327.71	
12	Odisha	27,614	27,962	171.57	
13	Telangana	25,272	36,052	178.38	
14	Chhattisgarh	21,365	22,786	111.50	
15	Jammu & Kashmir	18,497	18,505	130.08	
16	Karnataka	15,082	23,900	112.85	
17	Bihar	14,276	14,924	101.69	
18	Punjab	10,777	10,887	76.29	
19	Himachal Pradesh	6,022	6,023	45.42	
20	NCT of Delhi	5,427	9,309	38.48	
ALL	TOTAL (all 36)	20,85,514	26,14,446	14,771.82	100%



Section 4: Consumer Experience & Challenges

Despite the scheme's impressive scale, the consumer experience has been uneven. While 7,71,580 households now receive zero electricity bills, a significant proportion of beneficiaries have faced delays, technical issues, and quality problems. [21][22]

4.1 Installation Process Timeline: Official vs. Reality

Stage	Official Mandate	Real-World Experience	Key Delay Driver
Technical Feasibility (DISCOM)	7-15 days	15-45 days	DISCOM backlogs
Installation	5-10 days	10-30 days	DCR module shortages
DISCOM Inspection & Net Meter	7-15 days	30-90 days	Inspection backlogs, portal glitches
Subsidy (after commissioning)	15-30 days	30-90 days	DISCOM portal upload delays
TOTAL	~30-60 days	45-180 days (4-6 months)	Multiple compounding factors

Sources: Mongabay India [22], IEEFA [11], Mercom India [23]

4.2 Documented Consumer Complaints

Bank Loan Rejections (Critical Severity)

As of August 2025, PSBs rejected **305,667 applications** out of 803,515 received — a **38.03% rejection rate**. [24][25]

Common rejection reasons, numbered correctly:

1. Low CIBIL score (minimum 680 required) — applicants with adverse credit history disqualified
2. Incomplete or incorrect documentation
3. Home ownership ambiguity — unclear property title, land in name of deceased relatives
4. Name mismatches between electricity department records and Aadhaar cards — common in rural areas
5. Some banks demanding collateral even for loans below ₹2 lakh (violating scheme guidelines)

Subsidy Application Rejection Reasons

Applications are rejected for the following reasons:

1. Installing before portal approval — the #1 cause of rejection; consumers install first then apply
2. Unregistered/unapproved vendor used for installation
3. System size mismatch — solar capacity exceeds sanctioned load allowance
4. Non-compliant components — uncertified panels, inverters not on approved list
5. Wrong or mismatched documents — name, address, consumer number discrepancies



Inflated Bills After Installation (High Severity)

Consumer	Location	System	Expected	Actual Bill
Ramesh Singh	Janipur, Gorakhpur	3 kW	₹700-800/month	₹12,269 for 3 months
Brijesh Modanwal	Khajani, Gorakhpur	5 kW	Minimal	₹22,295 for 3 months

Root cause: Net meters not configured after installation; surplus electricity adjustment done only at financial year-end rather than monthly. [22]

Free Electricity Disincentive - State vs. Central Policy Conflict

A counterintuitive problem: state-level free electricity programs reduce solar adoption in those states:

State	Free Units	Impact on Solar Adoption
Punjab	300 units/month	Solar adoption effectively deterred; consumers lose free units if they switch to solar
Delhi	200 units/month	Many assume electricity is free; solar seen as unnecessary investment
Karnataka	200 units/month	Consumers enrolling in PM Surya Ghar lose state free electricity eligibility
Tamil Nadu	100 units/month	Disincentivizes rural adoption
Jharkhand	200 units/month	Jharkhand has one of lowest installation ratios at just 1.15%

Source: Mercom India [26]

4.3 Consumer Success Stories

As of December 2025, 7,71,580 households have received zero electricity bills — a powerful validation of the scheme's potential. [3]

- Prasanna Kumar Sahu (Betanati, Mayurbhanj, Odisha): 1 kW system installed; zero billing for two months consecutively. [27]
- Sabita Paley (Ghatgaon, Keonjhar, Odisha): 3 kW system; bill reduced from ₹1,200-1,500/month to ₹150-200/month — an 87-90% reduction. [27]
- Modhera Village, Gujarat: India's first solar-powered village; every home has rooftop solar with battery storage; residents enjoy 24x7 power and zero bills. [28]
- Gujarat leads with 3,62,000+ consumers with zero electricity bills — 47% of all zero-bill households nationally. [21]



Section 5: DISCOM Perspective

DISCOMs (Distribution Companies) are simultaneously the scheme's most critical enabler and its most significant bottleneck. The national installation-to-application conversion ratio of 22.7% is primarily driven by DISCOM-related delays. [11][29][30]

5.1 Revenue Impact on DISCOMs

India's electricity pricing is built on a progressive, slab-based tariff structure where high-consumption consumers cross-subsidize lower-paying agricultural and low-income consumers. When high-consumption households go solar, their grid purchases drop sharply, eliminating the cross-subsidy they were providing to lower-income consumers. [29]

Key financial metrics: DISCOM sector losses stood at ₹25,553 crore in FY2024 (improved from ₹61,059 crore in FY2023). Outstanding generator dues: ₹5.81 trillion as of June 2025. Average DISCOM revenue covers only ~85% of the average cost of supply. [30]

5.2 DISCOM Performance Scorecard

State	DISCOM Posture	Conversion Ratio	Key Notes
Gujarat	Highly Cooperative	>65%	Model state; fully digitalized; 30% of India's RTS
Kerala	DISCOM-Led Model	>65%	KSEB owns/finances systems; World Bank recognition
Maharashtra	Mixed (MSEDCL resistant)	Moderate	MERC had to force MSEDCL compliance; Vidarbha leads
Uttar Pradesh	Improving	Moderate	Varanasi model shows 15x growth; PUVVNL TFR exemptions
Rajasthan	Historically Resistant	~1.75% (mid-2024)	Highest solar radiation; REAR complaints; AEN non-compliance
Delhi	Cooperative	High	Most consumer-friendly net metering (full retail rate)
Karnataka	Progressive for Open Access	Moderate	But net metering cap reduced to 10 kW

Sources: IEEFA/JMK Oct 2025 [11], Mercom India [23], RMI [31]



5.3 Root Causes of DISCOM Delays

The following root causes have been documented for DISCOM approval delays: [11][30][31]

1. Field staff non-compliance — AE offices not following central/state circulars on timelines; training gaps. In Rajasthan, the 80-day to 18-day net metering timeline reform was uniformly ignored at field level.
2. Portal glitches — National Portal for Rooftop Solar (NPRS) plagued by technical issues; data entries cannot be corrected post-submission in many cases.
3. Meter shortage — Physical shortage of bi-directional meters caused by supply chain constraints. Some states require consumers to purchase and test meters independently.
4. Load extension bottlenecks — ~70% of consumers need load extensions; DISCOM procedures were designed for traditional connections, not solar.
5. Sequential inspection dependency — Subsidy can only be released after DISCOM inspection, creating a sequential bottleneck at DISCOM inspection capacity.

5.4 Positive Models: DISCOMs That Got It Right

Kerala's KSEB — The Benchmark

KSEB has pioneered a globally recognized model: three business models ranging from full KSEB ownership (consumer rents roof, gets 10% power free) to consumer ownership with KSEB financial partnership. Results: capacity grew from 188 MW (2020) to 946.9 MW (October 2024); 22% of daytime demand from rooftop solar; World Bank and MNRE recognition. [32]

Gujarat DISCOMs — Scalable Digitalization

Gujarat's four DISCOMs (UGVCL, DGVCL, PGVCL, MGVL) digitalized the entire rooftop solar adoption process end-to-end, actively expanded vendor ecosystems, and ran consumer awareness campaigns. The result: >65% conversion ratio and 5,15,052 installations as of December 2025 — 25% of the national total. [33]

Varanasi (UP) — Replicable District-Level Blueprint

The Varanasi model achieved 15x growth in installations in under a year through: auto-approval of TFR for systems <10 kW, auto load enhancement at no cost, manufacturer test certificates accepted instead of DISCOM testing, weekly control room monitoring, and SLBC engagement for simplified loan documentation. [34]



Section 6: Atmanirbhar Bharat — Domestic Manufacturing

PM Surya Ghar's Domestic Content Requirement (DCR) mandate is a key pillar of India's solar manufacturing push. All subsidy-eligible installations must use ALMM-listed (domestically manufactured) modules, creating sustained demand for Indian manufacturers. [35][36]

6.1 Manufacturing Capacity (as of early 2026)

Segment	Capacity	Key Milestone	Status
Solar Modules	~144 GW/year (ALMM)	Grew from 2.3 GW in 2014 — 6,161% increase	Overcapacity vs 40 GW demand
Solar Cells	~24-30 GW/year	Tripled from 9 GW to 25 GW in FY2025	Supply gap vs 54 GW needed
Ingots / Wafers	~2-5 GW	First facility: Adani, 2 GW, Apr 2024	Critical gap — 90% imported
Polysilicon	~0 GW (commercial)	No commercial production as of 2025	100% import reliance — critical

Sources: PV Magazine India [35], MNRE/New Indian Express [36], TERI Report [37]



Section 7: Company Performance

India's rooftop solar market has seen unprecedented growth following PM Surya Ghar. Total rooftop solar capacity stood at 13.70 GW at end-2024, with 5.8 GW added in the first nine months of 2025 alone. [41]

7.1 Waaree Energies — India's Largest Module Maker

Listed on BSE/NSE in October 2024, Waaree is India's largest solar PV module manufacturer with ~22.3 GW nameplate capacity as of December 2025. [38][42]

Metric	FY22	FY23	FY24	FY25
Revenue (₹ Cr)	2,946	6,860	11,633	14,846
PAT (₹ Cr)	80	500	1,274	1,928
PAT Margin	2.8%	7.4%	11.2%	13.3%
EBITDA (₹ Cr)	—	—	1,810	3,123
EBITDA Margin	—	—	16.8%	~21%

5-Year Revenue CAGR: 65.4% | 5-Year PAT CAGR: 155%. Balance sheet: Net cash ₹8,037 Cr. [42]

7.2 Tata Power — #1 Rooftop Solar Company (10 Consecutive Years)

Tata Power (BSE: TATAPOWER) operates rooftop solar through TPREL. As of FY25: 150,000+ rooftop installations, 3 GW total rooftop capacity across 700+ cities. Revenue scaled from 1,000 units/month (March 2024) to 20,000 units/month (June 2025). [43]

Metric	FY24	FY25	Q1 FY26
Revenue (₹ Cr)	61,449	64,502	18,035
PAT (₹ Cr)	4,280	4,775	1,262
EBITDA (₹ Cr)	14,152	14,469	3,565

FY25 revenue: Record ₹64,500 Cr (+6.6% YoY). Target: Solarize 30 lakh households. [43]

7.3 Premier Energies — Highest EBITDA Margin

India's 2nd-largest integrated solar cell and module manufacturer. IPO: September 2024 at ₹450/share (74x oversubscribed). FY25 revenue ~₹6,518 Cr (+107% YoY). EBITDA margin ~27% — highest among pure-play module makers. [39][44]

7.4 Vikram Solar — Growing Pure-Play

Listed August 26, 2025 (IPO: ₹332/share). FY25 revenue ₹3,423 Cr (+36% YoY); module sales 1.6 GW (+87% YoY). 17+ years experience; Tier-1 BloombergNEF since 2014. Current capacity: 4.5 GW, expanding to 20.5 GW by FY27. [40][45]

7.5 Adani Green Energy — India's Largest RE Company



FY25 revenue: ₹12,705 Cr (+20.8%); PAT: ₹2,001 Cr. Operational RE capacity: 16.68 GW (October 2025). EBITDA surpassed USD 1 Billion in FY25. Khavda project: World's largest renewable energy plant — 4.1 GW operational. [46]

7.6 SolarSquare Energy — Leading D2C Rooftop Installer (Private)

Note: Private Company — Financials Not Publicly Audited

Parameter	Details
Company Type	Private (not publicly listed)
Founded & Headquarters	Mumbai; D2C full-stack residential solar installer
Revenue FY22	~₹81 crore
Revenue FY23	~₹107 crore
Revenue FY24	~₹170 crore (projected to double in FY25)
Total Funding	\$59.5 million total
Latest Round	\$40 million Series B (December 2024, led by Lightspeed Venture Partners)
Significance	India's largest solar venture capital round as of December 2024
Homes Served	20,000+ homes; 200+ housing societies
Employees	~800 employees; expanding from 20 to 50 cities
Unique Model	Guarantees solar returns; compensates if systems underperform
Model Description	D2C full-stack: designs, sells, installs, and maintains solar systems
UPNEDA Rating	A++ vendor in Uttar Pradesh (one of only 6 nationwide)

SolarSquare's guaranteed performance model addresses one of the most significant consumer pain points — uncertainty about system output — and is positioning the company as a premium quality installer in the fragmented vendor ecosystem. [47]



Section 8: Misses, Challenges & Critical Analysis

8.1 Gap Analysis

ACCELERATION REQUIRED: Gap Analysis Summary

CRITICAL: To meet the 1 Crore target by March 2027, India needs to install 3.7-4 Lakh systems per month — 5x the current pace.

Current pace (Q4 2025 - Q1 2026): ~75,000-80,000 installations/month

Remaining target (as of Feb 26, 2026): ~70 lakh installations in 13 months

Required pace: 5.4-5.7 lakh/month — historically unprecedented

Realistic revised forecast: 35-40 lakh total installations by March 2027 (35-40% of target)

8.2 Key Challenges (IEEFA/JMK Research, October 2025)

The following challenges have been documented by independent research organizations:

1. Low conversion rate: Only 22.7% of applications converted to installations nationally. Gujarat and Kerala exceed 65%; Andhra Pradesh as low as 2.9%. [11]
2. Approval delays and vendor shortages: Many states continue to face DISCOM approval delays of 45-120 days, far exceeding the mandated 30-day window. [11][29]
3. DCR (Domestic Content Requirement) constraint: DCR-compliant modules cost 30-40% more; only ~25-30 GW domestic cell capacity vs. 100+ GW module capacity — a supply bottleneck. [35]
4. Financing access: Bank loans have cumbersome paperwork; PSBs rejected 38% of applications. NBFCs and fintechs charge 10-14% vs. 5.75-7.9% from public banks. [24][25]
5. Digital platform glitches: Technical errors, data mismatches, delayed grievance redressal — described by vendors as a 'tech nightmare'. [21][48]
6. Geographic concentration: Top 5 states account for ~73% of installations; large states like West Bengal (1,131 installations), Bihar (14,276) remain severely underpenetrated. [3]

8.3 Karnataka - Case Study in Underperformance

Karnataka recorded only 15,082 installations as of December 31, 2025 despite being one of India's most developed states — well below its potential. Root causes: [3][11]

1. Gruha Jyothi free electricity scheme (200 units/month) removes economic incentive for solar adoption - consumers enrolling in PM Surya Ghar lose state scheme eligibility
2. Net metering cap restricted to 10 kW - limiting commercial and larger residential systems
3. Cross-subsidy surcharge (CSS) proposed by Karnataka's DISCOMs - creating uncertainty for installers
4. Despite having solar-progressive regulations for open access, the residential rooftop process remains slower than Gujarat/Kerala



8.4 Vendor Quality and Ghost Vendors

A significant proportion of registered vendors are inactive. From UPNEDA's vendor rating data (December 2024) in Uttar Pradesh: [49]

- Out of 1,737 registered UP vendors: only 6 achieved A++ rating (>500 installations)
- 470 vendors (27% of registered) had zero installations — classified as 'ghost vendors'
- UPNEDA issued show-cause notices to inactive vendors threatening license cancellation
- Substandard equipment: Some vendors install systems producing only 5-6 units/day vs. promised 13 units/day (54-62% shortfall)



Section 9: Strategic Recommendations

Based on our analysis of the scheme's performance, consumer data, DISCOM perspectives, and international best practices, GRX10 Research proposes 9 strategic interventions to accelerate PM Surya Ghar performance.

1

Standardize DISCOM Processes Nationally

Use Gujarat and Kerala as benchmarks. Mandate TFR auto-approval for all systems <10 kW — operationalize the existing Electricity Rules provision nationwide. Create a 30-day hard deadline for every DISCOM process stage, with automatic escalation to state electricity regulators for violations.

Impact: HIGH | Timeline: 6 months | Refs: [11][29][30]

2

Fix Portal Performance

Dedicate a dedicated engineering team to the National Rooftop Portal. Target 99.5%+ uptime with monthly SLA reporting published publicly. Integrate Jan Samarth (loan) portal directly with the NPRS to eliminate data re-entry. Create a real-time national dashboard showing state/district-level progress.

Impact: HIGH | Timeline: 3 months | Refs: [21][48]

3

Resolve Loan Access Barriers

Establish a standardized SOP across all PSBs with identical documentation requirements. Create a toll-free loan grievance hotline. Address CIBIL score barriers by creating a solar loan-specific credit assessment model. Prohibit collateral demands for loans below ₹2 lakh as mandated by scheme guidelines.

Impact: CRITICAL | Timeline: 3 months | Refs: [24][25]

4

Align State Free Electricity Programs

Negotiate with states offering free electricity (Punjab 300 units, Delhi 200 units, Karnataka 200 units) to create a 'solar bonus' model where PM Surya Ghar households retain partial state benefits. This removes the key economic disincentive without eliminating state welfare programs.

Impact: HIGH | Timeline: 12 months | Refs: [26]

5

Accelerate DCR Module Supply

Fast-track ALMM certification for new cell manufacturers. Provide bridge financing (interest subvention) for working capital in DCR module manufacturing. Create a strategic DCR module reserve (buffer stock of 2-3 months) to prevent supply disruptions during peak demand.

Impact: HIGH | Timeline: 6 months | Refs: [35][36]

6

Scale Consumer Awareness with Last-Mile Delivery

Launch regional-language solar awareness campaigns using India Post network (1.6 lakh post offices) and gram panchayats as last-mile delivery channels. Partner with mobile telecom companies for SMS/IVR campaigns in Hindi and regional languages. Target rural households in UP, Bihar, West Bengal, and Jharkhand.

Impact: MEDIUM | Timeline: 3 months | Refs: [3]



7

Implement District-Level Escalation Matrix

Create an automatic escalation mechanism that routes DISCOM delays above field level after 48 hours of inaction. Assign district-wise solar installation targets with weekly reporting to the District Magistrate. Publish district scorecards publicly to create accountability.

Impact: HIGH | Timeline: 4 months | Refs: [11][12]

8

Real-Time National Performance Dashboard

Create a publicly accessible, real-time dashboard showing: state/district-level installation progress, conversion rates, average processing times, subsidy disbursement rates, and active vendor counts. Updated weekly from DISCOM data feeds. This enables journalists, researchers, and citizens to hold officials accountable.

Impact: MEDIUM | Timeline: 4 months | Refs: [1][3]

9

Installer Performance Scoring & Lead Allocation

Implement a performance-based lead distribution system for empaneled installers on the National Portal. Score installers on: installation quality, completion time, consumer satisfaction ratings, complaint resolution rate, and DCR compliance. Better-performing installers receive proportionally more leads from the national portal. Poor performers receive fewer leads and face de-empanelment after sustained non-performance. This creates market-driven quality improvement and eliminates ghost vendors — similar to how ride-sharing apps allocate rides based on driver ratings.

Impact: HIGH | Timeline: 6 months | Refs: [49][50]



Sources Register

All data points in this report are referenced by number [n]. The complete source list is provided below. [Sources are ordered as they first appear in the document.]

#	Source Name	Data Used For	URL
1	Hindu BusinessLine — Feb 2026	PM Surya Ghar scheme crosses 30 lakh installations	https://www.thehindubusinessline.com/economy/pm-surya-ghar-scheme-crosses-30-lakh-rooftop-solar-installations/article70669519.ece
2	PIB — Dec 2024 (PRID 2081250)	Scheme milestones, 6.3 lakh installations	https://www.pib.gov.in/PressReleaseFramePage.aspx?PRID=2081250
3	PIB Parliament Reply (Feb 3, 2026)	State-wise data Dec 31, 2025; 26.14 lakh households	https://www.pib.gov.in/PressReleaseDetailm.aspx?PRID=2222476
4	PIB Rajya Sabha Reply (Dec 9, 2025)	8,30,617 loans; detailed state data Dec 9	https://www.pib.gov.in/PressReleasePage.aspx?PRID=2204466
5	SolarQuarter — Dec 2025	53,54,099 applications on portal	https://solarquarter.com/2025/12/09/indias-rooftop-solar-push-gains-momentum-pm-surya-ghar-scheme-reaches-23-96-lakh-installations/
6	Deccan Herald — Feb 2026	30 lakh milestone; ₹20,000 crore/year savings	https://www.deccanherald.com/india/30-lakh-households-getting-rooftop-solar-power-under-pm-surya-ghar-scheme-modi-govt-celebrates-milestone-3909060
7	CNBCTV18 — Budget 2026	FY27 budget allocation ₹22,000 crore	https://www.cnbctv18.com/budget/union-budget-2026-fm-nirmala-sitharaman-allocates-rs-22000-crore-to-pm-surya-ghar-muft-bijli-yojana-19837038.htm
8	MNRE Official Guidelines PDF (July 2025)	CFA structure, eligibility, scheme rules	https://cdnbbsr.s3waas.gov.in/s3716e1b8c6cd17b771da77391355749f3/uploads/2025/07/202507081690964295.pdf
9	BlueKraft — Cost-Benefit Analysis, June 2025	Consumer ROI analysis; scheme economics	https://www.bluekraft.in/pm-surya-ghar-more-than-a-climate-scheme/
10	Kondaas — Government Solar Subsidy Guide 2026	Consumer payback period; installation process	https://kondaas.com/how-to-apply-government-solar-subsidy-solar-systems/
11	IEEFA/JMK Research — Oct 2025	22.7% conversion ratio; state analysis; DISCOM barriers	https://ieefa.org/resources/advancing-residential-rooftop-solar-adoption-india-under-pm-surya-ghar-yojana
12	RMI — Varanasi Solar Brief (Feb 2025)	Varanasi model; district-level escalation blueprint	https://rmi.org/wp-content/uploads/dlm_uploads/2025/02/Varanasi-solar-brief_web.pdf
13	MNRE Draft Guidelines (IIT Kanpur)	Budget breakdown; component allocation	https://cer.iitk.ac.in/odf_assets/upload_files/blog/MNRE_Draft_Guidelines_for_implementation_PM_Surya_Ghar_Muft_Bijli_Yojana_for_component_to_CFA_to_Residential_Sector_2024.pdf
14	CNBCTV18 — Budget 2025	FY25 RE allocation; actual expenditure	https://www.cnbctv18.com/budget/budget-2025-allocation-for-pm-surya-ghar-muft-bijli-yojana-hiked-to-rs-20000-crore-19550836.htm
15	Moneycontrol — Budget 2026	Budget allocation; renewable energy spending	https://www.moneycontrol.com/budget/union-budget-2026-renewable-energy-allocation-raised-to-rs-32914-7-crore-pm-surya-ghar-gets-rs-22000-crore-article-13795356.html
16	Mongabay India — Rooftop Solar Dreams Turn Sour, Aug 2025	UP state subsidy delays; consumer cases	https://india.mongabay.com/2025/08/rooftop-solar-dreams-turn-sour-for-consumers/



17	UPNEDA State Subsidy Details	UP state subsidy ₹15,000/kW; UPNEDA programs	https://upneda.org.in/
18	SBI Surya Ghar Loan Page	5.75% interest rate; loan terms	https://sbi.bank.in/web/personal-banking/loans/pm-surya-ghar-loan-for-solar-roof-top
19	PIB — March 2025 (PRID 2111106)	10 lakh milestone; 3.10 GW capacity	https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=2111106
20	Down to Earth — Oct 2025	Slow surge; 13% target; IEEFA analysis	https://www.downtoearth.org.in/energy/slow-surge-in-indias-rooftop-solar-push-just-13-of-pm-surya-ghar-target-met
21	EQ Mag Pro — Dec 2025	26 lakh HH; scheme statistics; grievance data	https://www.eqmagpro.com/over-26-lakh-households-benefited-under-pm-surya-ghar-muft-bijli-yojana-as-of-december-2025-eq-2/
22	Mongabay India — Gaps Persist Commentary, Dec 2025	Process timeline; meter configuration issues	https://india.mongabay.com/2025/12/residential-rooftop-solar-grows-under-pm-surya-ghar-yojana-but-gaps-persist-commentary/
23	Mercom India — Issues Plague Scheme, Jun 2024	DISCOM delays; approval timeline documentation	https://mercomindia.com/issues-plague-pm-surya-ghar-yojana
24	Outlook Business — PSBs Rejecting Loans, Sep 2025	38.03% rejection rate; PSB behavior	https://www.outlookbusiness.com/planet/industry/p-sbs-rooftop-solar-loan-rejections
25	Business Standard — 38% Rejection Rate, Sep 2025	305,667 rejections; parliamentary committee findings	https://www.business-standard.com/industry/news/public-sector-banks-turn-down-nearly-four-in-10-rooftop-solar-applications-125092301054_1.html
26	Mercom India — Free Electricity Disincentive, Mar 2025	State free electricity programs; solar disincentive	https://mercomindia.com/free-electricity-programs-disincentive-for-rooftop-solar-adoption
27	Prabaha TV — Feb 2026	Consumer success stories; Odisha cases	https://prabahatv.com/pm-surya-ghar-yojana-brings-relief-to-consumers-from-electricity-bill-worries/
28	Grinity Intellect — Model Solar Villages	Modhera village; model solar village program	https://grinity.in/2025/07/09/pm-surya-ghar-yojana-model-solar-villages-powering-indias-clean-energy-future/
29	TERI Solar Rooftop DISCOM Perspective (2022)	DISCOM revenue impact; technical concerns	https://www.teriin.org/sites/default/files/2022-01/Solar_rooftop_Perspective%20of_Discoms.pdf
30	IEEFA — DISCOM Losses Report, Oct 2025	DISCOM losses ₹25,553 Cr; ₹5.81 trillion dues	https://www.saurenergy.com/solar-energy-news/discom-losses-drop-to-25553-cr-in-fy24-but-debt-still-at-58-tr-ieefa-10519977
31	RMI — Distributed Solar DISCOMs, May 2024	Counter-narrative; solar benefits for DISCOMs	https://rmi.org/how-distributed-solar-can-reinvigorate-indias-electricity-distribution-companies/
32	KSEB Solar Rooftop Portal Documents	KSEB models; Soura program; business models	https://api.solarrooftop.gov.in/notification/161_notification.pdf
33	Solar Quarter — Feb 2026 (DISCOM Performance)	Gujarat benchmark in DISCOM performance	https://solarquarter.com/2026/02/24/indias-power-sector-surges-past-500-gw-as-gujarat-sets-benchmark-in-discom-performance/
34	RMI Varanasi Brief (Feb 2025)	Varanasi 15x growth; PUVVNL best practices	https://rmi.org/wp-content/uploads/dlm_uploads/2025/02/Varanasi-solar-brief_web.pdf
35	PV Magazine India — 144 GW ALMM, Jan 2026	Solar module capacity; ALMM milestone	https://www.pv-magazine-india.com/2026/01/08/india-surpasses-144-gw-of-solar-module-capacity-under-alm/
36	New Indian Express — Prahlad Joshi, Jan 2026	81 GW capacity added in 2025; manufacturing surge	https://www.newindianexpress.com/business/2026/Jan/06/india-adds-81-gw-solar-module-



			manufacturing-capacity-in-a-single-year-prahlad-joshi
37	TERI Report — Solar PV (Jan 2026)	Supply chain gaps; import dependency analysis	https://teriin.org/sites/default/files/files/Solar-PV-Report-Final-2026.pdf
38	Business Standard — US Tariffs Solar Stocks	Waaree -10.5%; solar stock crash Feb 25	https://www.business-standard.com/markets/news/waaree-to-premier-energies-solar-stocks-slump-up-to-14-on-us-tariffs-126022500204_1.html
39	Moneycontrol — Solar Stocks Crash Feb 2026	Premier Energies -6%; CVD impact	https://www.moneycontrol.com/news/business/stocks/solar-stocks-crash-waaree-energies-premier-energies-shares-fall-10-after-us-imposes-tariffs-on-imports-from-india-13842150.html
40	Solar Now — US 126% Duty Impact Feb 2026	Vikram Solar -5.66%; CVD details	https://now.solar/2026/02/25/waaree-premier-energies-scorched-as-us-slaps-126-solar-import-duty-on-india-business-news-hindustan-times/
41	ResearchAndMarkets — India Solar Rooftop Market	13.70 GW total rooftop end-2024; market size	https://finance.yahoo.com/news/india-solar-rooftop-market-outlook-130500382.html
42	Equitymaster — Waaree Annual Report FY25	Waaree financials; IPO performance	https://www.equitymaster.com/research-it/annual-results-analysis/WAAR/WAAREE-ENERGIES-LTD-2024-25-Annual-Report-Analysis/14264
43	Mercom India — Tata Power FY25 Results	Record revenue; rooftop solar leadership	https://mercomindia.com/tata-powers-hits-record-revenue-of-%E2%82%B9645-04-billion-in-fy-2025-on-higher-sales
44	IDBI Capital — Premier Energies IPO Note	Premier Energies financials; capacity; margins	https://idbicapital.com/InstitutionReports/Uploads/Premier%20Energies_IPO%20Note_27082024.pdf
45	Chittorgarh — Vikram Solar IPO Note	Vikram Solar capacity; IPO; financials	https://www.chittorgarh.net/reports/ipo_notes/axis-capital-vikram-solar-ipo-note.pdf
46	Adani Green FY25 Press Release	Adani Green FY25 results; capacity	https://www.adanigreenenergy.com/-/media/Project/GreenEnergy/Investor-Downloads/Result-Press-Release-Dynamic/Q4-FY25.pdf
47	UPNEDA Vendor Rating — Dec 2024	SolarSquare A++ rating; vendor ecosystem data	https://www.energetica-india.net/news/upneda-releases-pm-surya-ghar-vendor-rating-list-for-2024-25
48	Saur Energy — Portal Glitches May 2024	National portal technical glitches; vendor pain	https://www.saurenergy.com/solar-energy-news/technical-glitches-in-pm-surya-ghar-portal-delay-rooftop-projects
49	Mercom India — UPNEDA Notices Dec 2025	Ghost vendors; show-cause notices; quality issues	https://mercomindia.com/upneda-issues-notices-to-inactive-rooftop-solar-vendors-under-pm-surya-ghar-program
50	Bluebird Solar — MNRE Vendor Rating System	MNRE vendor rating system draft guidelines	https://bluebirdsolar.com/blogs/all/mnre-introduces-rooftop-solar-vendor-rating-system-for-pm-suryaghar-solar-projects

— End of Sources Register —