

5. PM Surya Ghar Yojana

A report on the performance of PM Surya Ghar Yojana has been jointly published by the Institute for Energy Economics and Financial Analysis (IEEFA) and JMK Research & Analytics.

PM Surya Ghar – Muft Bijli Yojana (PMSGY/PMSGMBY)

1. Scheme Overview

Launch Year – 2024

Objective – Facilitate free electricity to households by promoting residential rooftop solar panel installations, increasing renewable energy adoption, and empowering communities for energy self-reliance.

Key Target –

1. **By October 2025** – 40 lakh households
2. **By March 2027** – 1 crore households

2. Subsidy and Financial Support

Subsidy Provision – Up to 40% of installation cost, making solar energy more affordable and accessible to households.

Total Allocated Funds – ₹65,700 crore for rooftop solar subsidies.

Funds Released – Only 14.1% of the allocated funds released till July 2025.

Major Highlights and Current Status

A. Target Achievement – Despite a four-fold increase in applications between 2024 and 2025, only 13.1% of the FY2027 target (1 crore households) has been achieved. This indicates that achieving the 1 crore rooftop solar target by FY2027 remains a considerable challenge.

B. Contribution to Total Capacity – As of July 2025, 4.9 GW of installations under the scheme accounted for approximately 44.5% of India's total residential rooftop solar capacity.

C. Leading States

Gujarat – Highest installed capacity (1,491 MW)

Other Leading States – Maharashtra, Uttar Pradesh, Kerala, Rajasthan

Concerns and Challenges

A. Procedural and Administrative Delays

Approval Process – Slow, taking 45–120 days, causing delays in project execution.

B. Domestic Content Restriction (DCR)

Incentives are available only for solar systems fully manufactured in India.

Higher Costs – Domestic DCR components cost ₹12/watt more than imported alternatives, reducing cost-effectiveness.

Supply Constraints – Fragmented domestic production leads to delivery delays of up to two months.

C. Consumer Behaviour

Many households prefer non-DCR systems due to –

- i. Faster installation
- ii. Lower upfront costs
- iii. Avoiding delays in subsidy disbursement

Recommendations for Effective Implementation

A. Domestic Supply vs. Exports

Policy Recommendation – Prioritise domestic module supply for PMSGY instead of exports.

Cost Mitigation – Address anti-dumping-related cost pressures to improve affordability and timely rollout.

B. State-Level Targets – Experts recommend clear, time-bound rooftop solar capacity targets at the state level. Purpose – Ensure coherent national vision and effective policy execution across regions.

Model Solar Village Initiative

A. Objective – Empower village communities to achieve energy self-reliance. Promote solar adoption at

the village level.

B. Funding Allocation

Total Allocation – ₹800 crore

Per Village Support – ₹1 crore per selected Model Solar Village

C. Eligibility Criteria

Population Threshold – Revenue villages with population >5,000 (or >2,000 in special category states)

Must demonstrate community readiness for solar adoption

D. Achievement – As of March 2025, 10 lakh homes in Model Solar Villages are now solar-powered, marking a historic milestone.

Summary

PM Surya Ghar – Muft Bijli Yojana is a key initiative under India's renewable energy and residential solar strategy.

Strengths – Large-scale subsidies, focus on energy self-reliance, promotion of domestic manufacturing, community empowerment via Model Solar Villages.

Challenges – Slow approval process, higher domestic costs due to DCR, supply constraints, and consumer preference for non-DCR systems.

Way Forward – Prioritising domestic supply, mitigating costs, setting state-level targets, and leveraging digital monitoring can accelerate achievement of rooftop solar targets, supporting India's net-zero and renewable energy goals.

Source – <https://www.thehindu.com/sci-tech/energy-and-environment/achieving-centres-rooftop-solar-installation-targets-on-time-a-challenge-report/article70159816.ece>

