

MARKET RESEARCH REPORT

**Solar Energy Provider Expansion into
Commercial Rooftop Installations**

Indian Market - Complete Research Package

February 2026

1. EXECUTIVE INSIGHT SUMMARY

India's commercial and industrial (C&I) rooftop solar segment shows accelerated growth driven by rising grid tariffs, corporate sustainability mandates, and supportive policies. As of 2024, total rooftop capacity stands at **13.7 - 16.5 GW**, with C&I contributing **60-75%**. Market value ranges from **₹197- 446 billion**, and the sector is projected to grow at **18-28% CAGR** through 2030.

The segment delivers compelling economics: **LCOE of ₹2-3/kWh**, customer payback periods of **3-4 years**, and a large untapped MSME opportunity (~15 GW). Competitive intensity remains moderate due to a fragmented long tail, allowing space for a differentiated, high-quality EPC entrant.

This research evaluates market attractiveness, customer segments, competitive structure, economics, and regulatory readiness to support a market entry decision.

2. MARKET SIZE & GROWTH OUTLOOK

2.1 Current Market Snapshot (2024-2025)

- Installed rooftop capacity: **13.7-16.5 GW**
- New installations in 2024: **3.2-4.9 GW** (86-193% YoY growth)
- C&I share: **60-75%** of total rooftop capacity
- Market value: **₹197- 446 billion**

Key market growth drivers:

- Time-of-Day tariffs making peak grid power expensive
- Falling module and balance-of-system costs
- Strong demand from commercial real estate and manufacturing clusters

2.2 Growth Forecast (2025-2030)

- Expected CAGR: **18-28%**
 - 2030 projected rooftop capacity: **41-166 GW**
 - Major drivers: improved financing, digital O&M, rapid C&I adoption
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3. TAM-SAM-SOM ASSESSMENT

3.1 Total Addressable Market (TAM)

- C&I rooftop area across major cities: **8-12 billion sq ft**
- Solar-suitable area (70% feasibility): **~150-200 GW potential**
- Market value at ₹40,000/kW: **₹600,000-800,000 crore**

3.2 Serviceable Available Market (SAM)

- Target building types: offices, IT parks, manufacturing, warehouses, malls, hospitals, schools
- High-readiness cities with favorable DISCOM support
- SAM capacity: **40-60 GW**
- SAM value: **₹160,000-240,000 crore**

3.3 Serviceable Obtainable Market (SOM)

Year 1: 20 MW → ₹80 crore

Year 2: 50 MW → ₹200 crore

Year 3: 100 MW → ₹400 crore

4. CUSTOMER SEGMENTATION (C&I SEGMENT)

Tier 1: Priority Segments

Large Manufacturing (500 kW-5 MW)

- Pain points: high tariffs (₹7-9/kWh), reliability concerns
- Decision makers: CFO, Plant Manager
- Payback: **3-4 years**

Warehousing / Logistics (300 kW-1 MW)

- Pain points: large roof area, daytime operations
- Decision maker: Operations Director
- Payback: **2-3 years**

Tier 2: Secondary Segments

IT Parks / Offices (200 kW-2 MW)

- Pain points: ESG compliance, AC-driven loads
- Decision maker: Facilities + Sustainability
- Payback: **3-5 years**

Retail / Malls (500 kW-2 MW)

- Pain points: HVAC load, brand visibility
- Decision maker: Mall GM, Sustainability Head
- Payback: **3-4 years**

Tier 3: High Potential but Challenging

MSMEs (50-300 kW)

- Pain points: financing constraints, low awareness
 - Decision maker: Owner/Director
 - Payback: **3-5 years**
 - Opportunity: **~15 GW untapped**, requires innovative lending models
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5. COMPETITIVE LANDSCAPE

5.1 Market Structure

- Top 5 players hold **~30%** share
- Top 10 players: **44-50%** share
- Remaining **50%+**: fragmented regional EPCs

Pricing pressure exists in CAPEX segment; differentiation possible via quality, financing, and faster execution.

5.2 Key Competitors

1. **Tata Power Solar:** 26-27% share; strong brand + financing
2. **Roofsol Energy:** 4-7%; focused on industrial customers
3. **Mahindra Solarize:** Manufacturing relationships
4. **Gentari (Amplus Solar):** RESCO model; 1.9 GW portfolio

5. Local EPCs - Price competitive, Quality inconsistent

5.3 Competitive Insight

Whitespace exists for a **mid-scale, high-quality EPC** positioned between premium corporate players and low-cost local installers.

6. PRICING & UNIT ECONOMICS

6.1 Installation Cost Benchmark (2024-25)

- Commercial: ₹35,000-50,000/kW
- Industrial: ₹35,000-40,000/kW

6.2 500 kW Reference Project

- Total cost: ₹2 crore
 - Annual generation: 730,000 units
 - Customer savings (@₹8/kWh): ₹58.4 lakh/year
 - Solar LCOE: ₹2-3/kWh
 - Customer payback: 3-4 years
 - Gross margin: 15-20%
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7. POLICY & REGULATORY ENVIRONMENT

Key favorable policies:

Net Metering allowed in **25+ states**

Accelerated Depreciation: **40%** for C&I customers

Green Open Access Rules 2022 (>1 MW consumers)

PM Surya Ghar Yojana (residential) increases solar awareness

Best states for commercial rooftop growth:

- Gujarat: fastest DISCOM approvals (<45 days)
- Maharashtra: highest rooftop share (~27%)
- Karnataka: strong industrial base

- Delhi NCR: high tariffs + streamlined process
- Andhra Pradesh/Telangana: favorable net metering

Challenges:

- Delays in net metering in TN, UP
 - Quality inconsistency from local EPCs
 - MSME financing bottlenecks
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8. KEY INSIGHTS FOR MARKET ENTRY

- Strong fundamentals support long-term C&I growth (18-28% CAGR).
- Immediate credibility can be built through large manufacturing and warehouse clients.
- MSMEs unlock major scalability but require financing innovation.
- Market fragmentation creates room for a differentiated EPC.
- Economics are attractive even without subsidies due to high grid tariffs.
- Policy environment remains broadly supportive with clear national intent toward solar expansion.