

# COMMERCIAL AND INDUSTRIAL SOLAR MARKET IN INDIA

Key Trends, Regulatory Landscape and Demand Projections  
for Open Access-based and Captive Projects

- ❖ Report (PDF)
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# Table of Contents (Draft)

Commercial and industrial (C&I) consumers in India currently pay substantially high grid tariffs to discoms. The situation is such that across the country, irrespective of geography, C&I grid tariffs remain substantially higher than the levelled cost of onsite rooftop solar and offsite open access solar (captive or third-party). In order to reduce their operating expenses, a number of C&I consumers have, therefore, started procuring solar power either through third-party PPAs or by setting up solar captive capacities. Already, the C&I segment has the largest market share in rooftop solar deployment today and is also becoming increasingly active in the captive and third-party solar PPA segments. The report will provide the size and growth trends of solar power capacity in the C&I space, key growth drivers, emerging business models and, the cost & tariff trends.

While the primary driver is the attractive solar economics for this segment, favourable state policies, including concessions or exemptions from open access charges and attractive models such as group captive models have also encouraged many C&I consumers to procure solar power. A key focus area of the report will be state-wise analysis of C&I uptake across 12 key states which not only have a very high solar power potential but also have been active in promoting solar power uptake through relevant policies and regulations.

Finally, the section on Key Projects and Market Players will highlight the solar projects already set up and planned by key commercial and industrial users, as well as detailed profiles of select developers focused on setting up solar plants for this segment in India.

## 1. Executive Summary

### SECTION I: MARKET OVERVIEW

## 2. Size and Growth

- ❖ Annual growth trend
- ❖ Current market size (MW)
  - Open access/ Third-party solar
  - Captive solar
- ❖ State-wise Installed C&I capacity in rooftop space
- ❖ Key growth drivers
- ❖ State-wise potential (MW)
- ❖ Key risks and challenges

## 3. Key Trends and Demand Drivers

- ❖ Drivers and roadblocks
  - State-wise open access charges
  - Solar policy targets in focus states
  - State-wise retail tariffs
  - Discom health across key states
  - State-wise APPC trends
  - RPO trajectory
  - Power demand outlook
- ❖ State-wise solar open access score
- ❖ State-wise captive solar power score

## 4. Cost Structures, Tariff Trends and Project Returns

- ❖ Cost economics of open access-based projects
- ❖ Cost economics of captive solar project
- ❖ Annual HT industrial tariff trends
- ❖ Annual commercial tariff trends
- ❖ Solar tariff trends across states
- ❖ Return analysis

## 5. Industry Structure and Business Models

- ❖ Power sale options
- ❖ Current business models
  - Capex
  - Opex
- ❖ Emerging business models
  - Aggregator
  - Solar as a Service

## 6. Projections for C&I Solar Market (2019-20 to 2024-25)

- ❖ Policy and regulatory outlook
- ❖ Potential challenges

- ❖ Expected future trajectory of industrial and commercial tariffs (2019-20 to 2024-25)
- ❖ Power demand/supply projections in MUs (2019-20 to 2024-25)
- ❖ Banking provision in MUs (2019-20 to 2024-25)
- ❖ State-wise addressable solar potential in the C&I segment (2019-20 to 2024-25)
- ❖ State-wise projected solar capacity in the C&I segment (2019-20 to 2024-25)
  - High growth-scenario
  - Medium growth-scenario
  - Low growth-scenario

### SECTION II: STATE FOCUS

## 7. State Profiles

*(This chapter will feature detailed information and analysis of the C&I solar segment in 12 states. These are Andhra Pradesh, Chhattisgarh, Haryana, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Telangana, Uttarakhand and Uttar Pradesh)*

- ❖ Key features of the the state's power sector
  - Power capacity mix (% and MW)
  - Generation mix (% and MUs)
- ❖ Capacity trends in solar C&I segment
  - Growth in captive solar capacity (% and MW)
  - Growth in C&I rooftop solar capacity (% and MW)
  - List of third-party solar open access projects
- ❖ Tariff trends
  - Discom-wise HT industrial tariffs (2018-19)
  - Discom-wise commercial tariffs (2018-19)
  - Comparison with solar tariffs
- ❖ Cost economics and ROI
  - Project capex and opex
  - Payback period
  - State-wise RoI - Grid-power vs. captive solar
- ❖ Policy and regulatory scenario
  - Open access charges for solar projects
  - Group captive regulations for solar projects

- Key features of rooftop policies and regulations
- Net/gross metering regulations
- Likely impact of the policy and regulatory scenario on segment growth
- ❖ Outlook and projections
  - Existing industrial clusters
  - Upcoming industrial clusters
  - Projected size of the solar C&I segment (2019-20 to 2024-25)

### SECTION III: KEY PROJECTS AND MARKET PLAYERS

## 8. Current Projects and Planned Solar Capacity in the C&I Segment

*(This will have information including project size, location, developer, EPC provider, business model, project cost, etc.)*

- ❖ Commercial segment
  - Airports
  - Mass Transit Systems
  - Ports
  - Indian Railways
  - Others (Walmart, Infosys, Amazon, Flipkart, IBM, etc.)
- ❖ Industrial consumers (This will include players like Indian Oil Corporation Limited, ONGC, HPCL, ACC Cement and the GMR Group)
  - Key operational projects
  - Upcoming projects

## 9. Key Developer Profiles

*(This will have information about 8-10 developers' current C&I project portfolio in both rooftop and ground-mounted segments, key consumers in the C&I space, key partnerships, future plans, etc.)*

- ❖ Amplus Solar
- ❖ Cleantech Solar
- ❖ CleanMax Solar
- ❖ Fourth Partner Energy
- ❖ Gensol Engineering
- ❖ Hero Future Energies
- ❖ Rays Power
- ❖ ReNew Power
- ❖ Sterling & Wilson
- ❖ Etc.

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