



C O R P O R A T E F I N A N C E
I N T E R N A T I O N A L

Indian Solar Energy Market- An Overview- June 2024

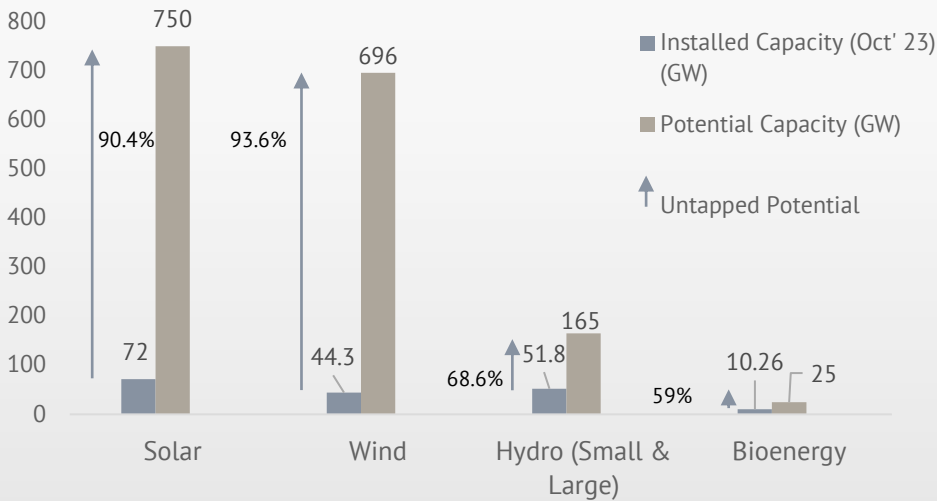


India has embarked on a transformative journey towards renewable energy, with a particular focus on solar power. As one of the fastest-growing economies globally, India faces significant energy demands. To address these while tackling environmental concerns, the country has placed renewable energy at the forefront of its agenda. In 2023, India held the third position globally in solar power generation, making a significant 5.9% contribution to the sector's global growth.

Country	Solar Generation (TWh)	Renewables Capacity (MW)	Solar Capacity (MW)	Solar Capacity as % of Total Capacity
China	584	1,504,641	609,920	40.54%
USA	238	404,292	139,205	34.43%
India	113	178,960	73,109	40.85%
Brazil	109	194,085	37,449	19.30%
Germany	62	172,362	81,709	47.41%
Japan	52	149,145	87,068	58.38%

India's renewable power capacity is set to double from 2022 to 2027, with solar PV accounting for three-quarters of the growth, considering the target of achieving net zero by 2050.

Renewable Energy- Untapped Potential



Key Policy and Regulatory Reforms aiding the Renewable Energy potential in India

- 100 % Foreign Direct Investment is permitted under the Automatic Route
- Product Linked Incentive Scheme (PLI) for Solar Module Manufacturers along with an Approved List of Module Manufacturers (ALMM) has been published by the Government of India to aid to the growth of Solar Module Manufacturing
- Declaration of trajectory for Renewable Purchase Obligations (RPOs) for Electricity Distribution Companies
- Planned investments of USD 30 Bn allocated towards the Energy Sector between FY 2020 to FY 2025

Sources: CRISIL Research, InvestIndia

About CFI

Corporate Finance International (CFI) is a global group of middle-market investment banks and corporate finance advisory boutiques specializing in cross-border acquisitions, divestitures, capital raising, and related services all over the world.



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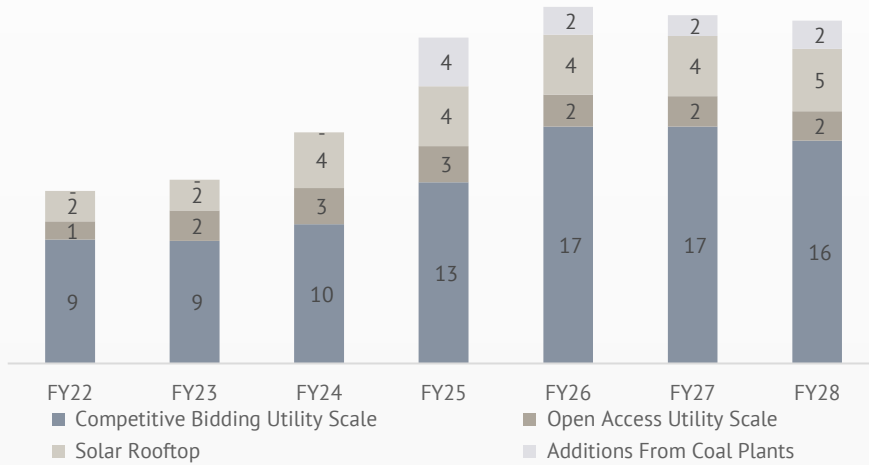
- Ranked 7th in India terms of number of deals for 2022 - Thomson Reuters mid market League Table
- Ranked 7th in Japan by a total number of deals for the past eight years from 2011 to 2022 in a Bloomberg's M&A financial advisor ranking.
- Ranked 16th in Europe terms of number of deals for 2022 - Thomson Reuters mid market League Table

Market Growth & Segmentation



Among renewable sources, solar energy stands out as a pivotal component of India's energy transition strategy. The country's solar sector has experienced exponential growth, driven by favorable policies, technological advancements, and increasing investment. India's abundant sunlight makes it particularly conducive to solar power generation.

Projected Capacity Additions Y-o-Y (GW)



Key Growth drivers:

- Declining Module Prices
- Infrastructure support from the Government
- Low-Cost financing
- Fiscal and Regulatory incentives
- High traction in new business models such as RTC, peak power and hybrid projects

Total Solar Market

FY19-23 FY24E FY25-29P

40-45 10-12 125-130

FY18 FY24E FY29P

22 74-78 200-205

Industry Segmentation

Capacity Additions (GW)
Installed Capacity (GW)

Growth in Utility Scale and Solar Rooftop will be induced through rising tariffs, low capex/MW additions of corporate customers and Government incentives for solar module manufacturers.

Rooftop Solar

FY19-23 FY24E FY25-29P

7.6 2-2.5 19-21

FY18 FY24E FY29P

1.5 10-12 30-34

Open Access Utility Scale (C&I Platform)

FY19-23 FY24E FY25-29P

2-2.2 8-12 20-24

FY18 FY24E FY29P

3-4 3-3.2 10-12

Competitive Bidding Utility Scale

FY19-23 FY24E FY25-29P

17 5-6 32-35

FY18 FY24E FY29P

19 52-54 144-148

Key Players

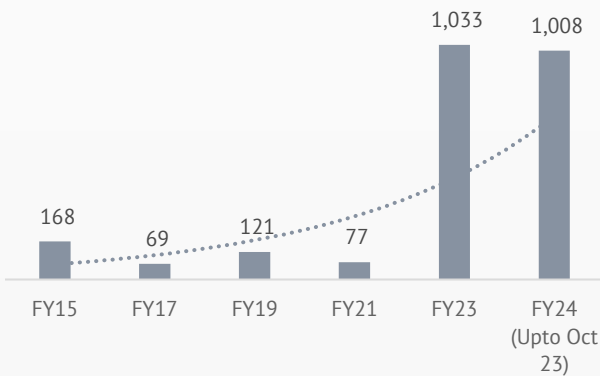
Company	Revenue (USD Mn)	EBITDA (USD Mn)	EBITDA Margins %	Existing Capacity (MW)	Capacity under Development (MW)
Tata Power Renewable Energy Limited	1,219	383	31%	4,168	6,724
Adani Green Energy Limited	1,107	871	79%	7,668	10,806
ReNew Energy Global Plc	974	816	84%	2,240	5,782

Sources: CRISIL Research, InvestIndia

Solar Module Manufacturing

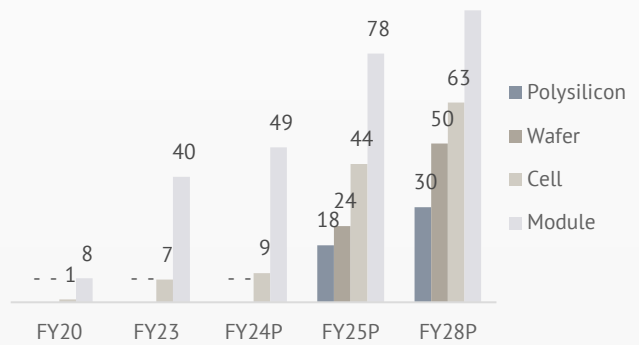
- Module Manufacturing capacity to grow 2.1 times by FY29 aided by PLI Scheme and Backward integration through production of Polysilicon, Wafers and Cells.
- China plus one to benefit Indian Solar Module Manufacturers due to rising demand from the US, EU, Africa and the Middle East.
- Indian Solar module exporters have seen a significant surge attributed primarily to the restrictions imposed by certain countries on Chinese Imports, thereby creating a supply gap and a notable opportunity for Indian players.

Surge in Solar Module Exports (USD Mn)



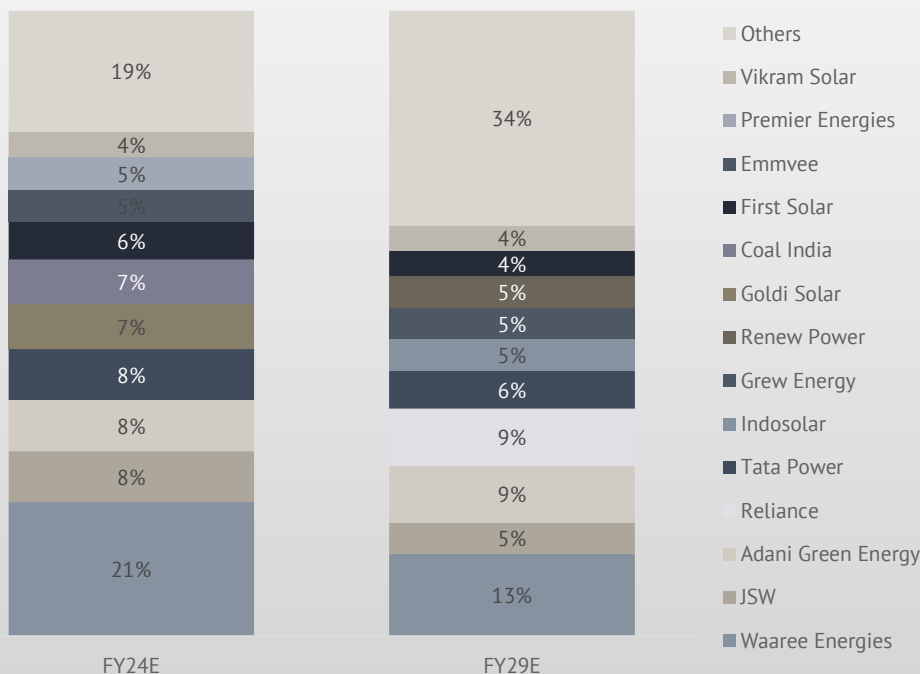
Exponential growth being driven by the reduction of Chinese imports by the USA

Estimated Solar Module and Cell Manufacturing Capacities (GW)



- Solar PV Manufacturing capacity to reach 90-95 GW by FY 28
- Full integration from Polysilicon to Modules to account for 30% of capacities.
- Investment of USD 19 Bn required to achieve the projected growth

Market Fragmentation (FY24E v FY29E)



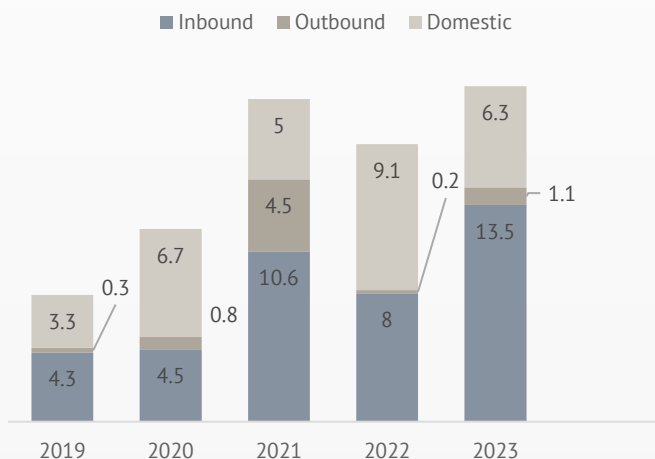
- PLI to encourage players to set up capacity making the market more fragmented
- Only 10% of the domestic demand to be import reliant by FY29
- 50-60 GW Manufacturing capabilities to be driven by the PLI Scheme.
- Existing Government incentives in the form of PLI, ALMM, increase in Customs Duty and safeguard duty on imports shall lead to high production growth and increased market fragmentation.

Sources: CRISIL Research

M&A Trends

- India accounted for 20% of Asia's Renewable Energy M&A deal value in 2022 and 2023.
- The Energy sector saw a steep rise of 63% in deal value in 2023, being driven by large deals.
- Driven by India's target of clean energy capacity of 500 GW by 2030, the solar energy sector has seen a 30-fold increase in M&A activity from 2014- 2023.
- Past trends and Government push for clean energy likely to drive M&A Activity upwards in 2024-25

Cross Border Deal Value in the Energy Sector (USD Bn)



M&A Activity Drivers

- Heightened M&A activity being driven by **Government push** for renewable energy and **expected consolidation** of smaller players, particularly in solar energy.
- Investment in clean energy up to **USD 15 Bn** expected till 2025.
- Significant increase in inbound activity is being driven by PE firm to increase allocation to green assets accounting for a **63% increase YoY**.
- Solar and Wind energy to be the key focus for M&A activity due to lower cost of production, high energy demands and ambitious capacity additions.
- The increasing awareness of **ESG principles**, along with rising demand for green asset supply chains, to influence M&A deals in the renewable energy sector.

Recent Marquee Deals

Company	Deal Type	Buyer	Investor Type	Deal Size (USD Mn)	Deal Year
Avaada Energy Private Limited	Domestic	Rural Electrification Corporation	Strategic Investor	2,440	2023
Adani Green Energy Limited	Cross Border	Qatar Investment Authority	Private Equity	474	2023
Clean max Enviro Energy Solutions Private Limited	Cross Border	Brookfield Renewables	Private Equity	360	2023
Tata Power Renewable Energy Limited	Cross Border	Green Forest New Energies Bidco Limited	Strategic Investor	260	2023
Amp Energy India	Cross Border	SMBC Japan	Private Equity	250	2023
Juniper Green Energy Limited	Cross Border	AT Capital Group, Vitrol	Private Equity	150	2023

India offers potential investment opportunities worth USD 500 billion, in the clean energy value chain by 2030, as stated by the Indian Ministry of Commerce.

India's renewable energy and solar sectors are pivotal in the country's quest for energy security, economic growth, and environmental sustainability. With ambitious targets and supportive policies, India continues to lead the global renewable energy transition, positioning itself as a key player in the solar energy landscape.

CFI through its global offices brings specialized knowledge, extensive networks, and transactional expertise that are instrumental in driving M&A and fundraising initiatives for companies in renewable energy sector. By partnering with us, renewable energy companies can capitalize on growth opportunities, optimize capital deployment, and navigate complex financial landscapes effectively.

Our Energy Transition team provides best-in-class, cross-border M&A advisory services to family and entrepreneurially owned companies, private equity funds, family offices, venture capitalists, start-ups and publicly traded companies.

Our professionals have global relationships with leading renewable energy companies and financial investors. Thoughtful advice, extensive experience in structuring and negotiating complex transactions, and a sector focus that supports in-depth understanding of trends and developments impacting our clients, has resulted in a track record of long-term relationships with clients seeking extraordinary value.

We hope you find this newsletter informative, and we would encourage you to reach out to our sector specialists (Raj Shroff and Yoann Msika) if you would like to discuss our perspective on current sector trends and M&A opportunities or our relevant sector and transaction experience.

Selected Transactions

TOKYO GAS

has acquired minority shares of

RENOVA

CFI buy-side

INFRONEER
Holdings Inc.

has acquired

JWD
Energy for Tomorrow
JAPAN WIND DEVELOPMENT CO., LTD.

held by

BainCapital

CFI buy-side

TOHO GAS

has sold a minority share to

PHUC SANG MINH
GAS ENGINEERING CO., LTD.

JPS

CFI sell-side

ENVIRONNEMENT
RECYCLING

has been acquired by

Ub
United

CFI sell-side

amag

has acquired

Helion

from

BOUYGUES
ENERGIES & SERVICES

CFI buy-side

SIEMENS Gamesa
RENEWABLE ENERGY

Valuation and Fairness Opinion

CFI valuation

eolos

raised 12M€ growth equity and sold a portion of its shares held by

PRORSUM CAPITAL

InnoEnergy

soriguè

to

nazca

CFI capital raising

URBAN
CANOPEE

has raised funds with

ARaymond

CFI capital raise

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