



# INTEGRATED LEADERS THRIVE AMID OVERCAPACITY

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**Renewables**

10 February 2026

Elara Securities (India) Private Limited

Source: Google Image



# Renewables

India | Utilities | Thematic Report

10 February 2026

## Integrated Leaders Thrive Amid Overcapacity

India's solar module capacity has surged, sparking overcapacity concerns as production outpaces installation and exports stall. The Central Electricity Authority (CEA) expects solar capacity to expand to 364GW by FY32 from 136GW currently, fuelled by supportive policies and renewable energy (RE) targets. Vertically integrated manufacturers stand out, leveraging backward integration for superior supply chain control. We initiate coverage on four key renewables equipment makers – Waaree Energies (WAAREEN IN), Premier Energies (PREMIERE IN) with **Accumulate** ratings; Vikram Solar (VIKRAMSO IN) and Emmvee Photovoltaic Power (EMMVEE IN) with **Buy** ratings. WAAREEN and PREMIERE have corrected 33% and 40%, respectively, from peaks. Current valuations factor in oversupply and margin risks; however, these firms' integration would drive sustained high growth for the next 2-3 years. VIKRAMSO and EMMVEE trade at 35-40% discount to WAAREEN and PREMIERE.

**Overcapacity risk from supply-demand mismatch in solar module:** India's solar manufacturing ecosystem has scaled rapidly, with module capacity hitting ~144GW (operational) and projected at ~180GW by FY30; cells stood at ~23.4GW (Source: MNRE). Annual solar installations may reach a mere 45-50 GW vs module output of 60-65GW, creating overcapacity situation. US tariffs have curbed exports, flooding the domestic market and adding pressure on smaller and pure-play module producers toward consolidation.

**Tailwinds persists with ambitious RE goals:** India targets 500GW RE capacity by CY30. Within a total power mix of 514GW, RE contributes 49% (Source: Central Electricity Authority). Solar leads at 136GW, registering a CAGR of 39% during FY14-26 YTD vs wind's 8% during the same period. Momentum builds via policy support, increased adoption of solar-plus-battery projects, and government initiatives, pushing solar capacity to 364GW by FY32.

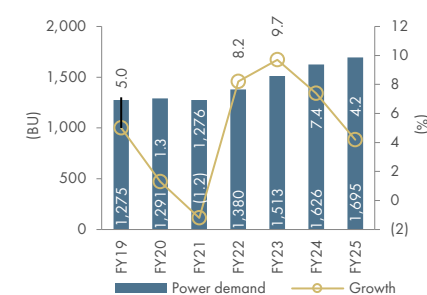
**Vertically integrated leaders gain supply chain edge:** Oversupply in module outstrips near-term demand, pivoting India's solar module industry, from rapid capacity addition to backward integration and manufacturing maturity, as upstream segments, such as cells, wafers, ingots, and polysilicon, remain relatively underdeveloped. The ALMM List-II (cells from June 2026) and mandates for domestic cells will spike demand for local cells. Manufacturers that build and stabilize largescale cell capacity ahead of peers, potentially before FY28 – such as under coverage companies like WAAREEN, PREMIERE, VIKRAMSO, and EMMVEE -- hold a significant advantage. All four companies are pursuing aggressive capacity expansion and backward integration during FY25-28E, boasting strong orderbooks and differentiated growth drivers in India's solar manufacturing vanguard.

Total installed capacity to scale up to 900GW by FY32E with solar constituting 40.5% of the mix

Installed Capacity(GW)	FY26 YTD	FY32
Coal+Lignite	226	259.6
Gas	20.1	24.8
Nuclear	8.8	19.7
Hydro	50.9	62.2
<b>Solar</b>	<b>135.8</b>	<b>364.6</b>
Wind	54.5	121.9
Other RE	16.7	20.9
PSP	4.5	26.7
<b>Total</b>	<b>513.0</b>	<b>900.0</b>

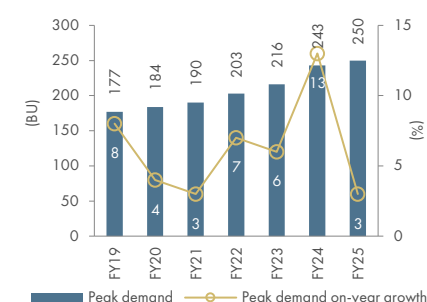
Source: Central Electricity Authority, National Electricity Plan, Elara Securities Research

Power demand CAGR of 5% YoY during FY19-25



Source: Central Electricity Authority, Elara Securities Research

Peak demand outperforms base demand, rising at a CAGR of 6% YoY during FY19-25



Source: Central Electricity Authority, Elara Securities Research

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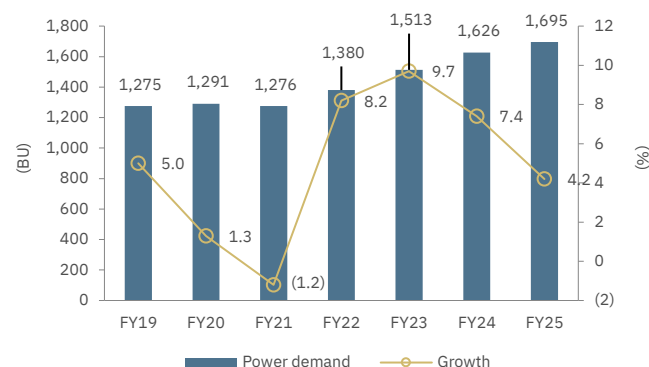
## Story in charts

**Exhibit 1: Total installed capacity to scale up to 900GW by FY32 with solar constituting 40.5% of the mix**

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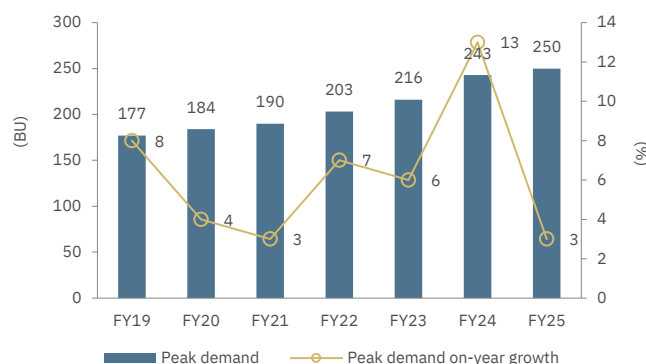
Source: Central Electricity Authority, National Electricity Plan, Elara Securities Research

**Exhibit 2: Power demand CAGR of 5% YoY during FY19-25**



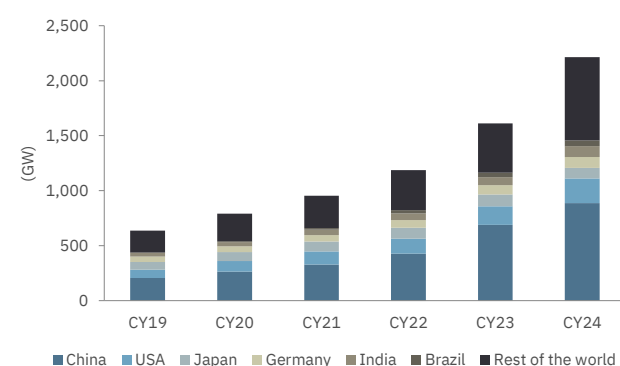
Source: Central Electricity Authority, Elara Securities Research

**Exhibit 3: Peak demand outperforms base demand, increasing at a CAGR of 6% YoY during FY19-25**



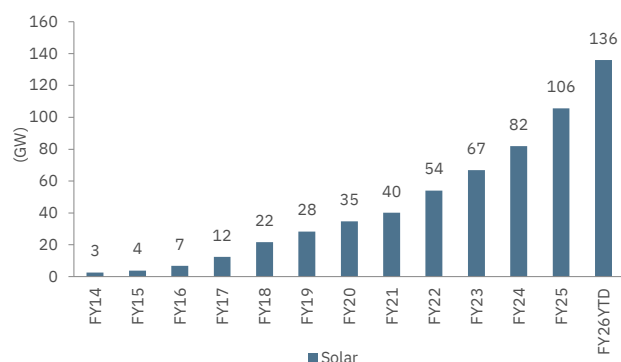
Source: Central Electricity Authority, Elara Securities Research

**Exhibit 4: India -- the fourth-largest solar base in the world**



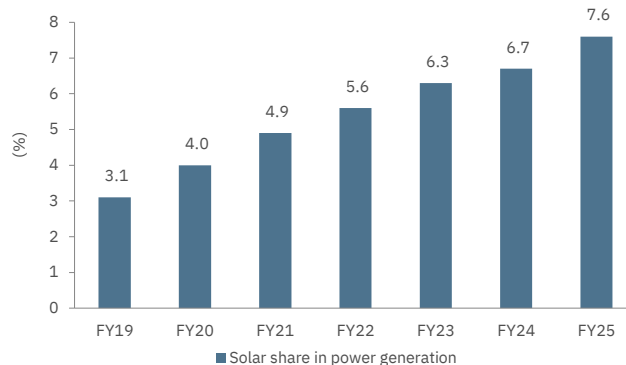
Source: Emmvee Photovoltaic DRHP, Elara Securities Research

**Exhibit 5: Solar energy CAGR of 39% in the past decade**



Source: Central Electricity Authority, Elara Securities Research

**Exhibit 6: Share of solar in overall generation on a rising trend**



Source: Central Electricity Authority, Elara Securities Research



## Exhibit 7: Peer valuation

Company	Ticker	Rating	Mcap	CMP	TP	Upside	P/E				EV/EBITDA				ROE			
			(USD mn)	(INR)	(INR)	(%)	FY25	FY26E	FY27E	FY28E	FY25	FY26E	FY27E	FY28E	FY25	FY26E	FY27E	FY28E
NTPC	NTPC IN	Buy	39,042	365	444	22	14.8	14.7	14.3	13.7	11.8	11.3	11.1	10.9	13.4	12.0	11.2	10.5
Power Grid Corporation	PWGR IN	Buy	30,031	293	339	16	17.5	17.4	15.2	14.8	9.9	9.9	9.1	9.3	17.3	16.5	18.0	17.5
Coal India	COAL IN	Accumulate	29,419	433	432	0	7.6	10.6	10.4	10.3	5.6	8.4	7.9	7.5	38.5	24.2	22.8	21.6
Adani Energy Solutions	ADANIENS IN	Buy	13,484	1,018	1,169	15	58.3	47.1	35.8	35.9	16.0	15.9	14.3	13.4	11.4	10.7	12.6	11.3
Tata Power	TPWR IN	Buy	12,897	366	504	38	23.9	21.0	19.1	18.0	11.6	11.2	10.9	10.8	12.1	12.3	12.2	11.6
Waaree Energies	WAAREEEN IN	Accumulate	9,796	3,088	3,309	7	45.9	28.5	18.1	17.8	30.8	16.5	11.4	12.0	28.1	27.9	32.3	24.8
JSW Energy	JSW IN	Buy	9,121	473	581	23	41.6	43.5	30.9	21.7	22.5	14.9	13.1	10.9	7.9	6.3	8.4	11.0
NHPC	NHPC IN	Buy	8,800	79	97	23	25.9	24.8	19.7	18.4	25.3	24.1	17.9	17.5	8.2	8.3	10.1	10.4
NTPC Green Energy	NTPCGREE IN	Accumulate	8,095	87	96	10	153.1	145.6	39.7	30.6	46.9	41.0	19.3	14.6	3.8	2.6	9.0	10.3
Torrent Power	TPW IN	Reduce	7,942	1,429	1,313	-8	30.6	26.2	28.8	22.3	15.3	13.4	12.1	11.0	15.3	14.4	12.0	14.3
Premier Energies	PREMIERE IN	Accumulate	3,975	796	886	11	38.3	30.8	20.5	18.5	21.2	19.3	12.8	10.8	53.8	34.2	36.1	28.9
NLC India	NLC IN	Buy	3,919	256	320	25	17.6	18.7	12.9	12.9	12.9	9.1	7.9	7.3	9.8	8.3	11.0	10.1
SJVN	SJVN IN	Buy	3,132	72	131	82	34.7	24.9	13.0	12.6	23.4	21.6	12.9	12.4	5.8	7.8	13.9	13.0
CESC	CESC IN	Buy	2,250	154	228	48	15.0	12.9	12.7	11.1	12.8	9.7	9.6	8.3	11.1	12.2	11.5	12.3
Emmvee Photovoltaic Power	EMMVEE IN	Buy	1,546	202	320	58	3.0	14.1	9.5	6.8	21.8	8.6	7.1	5.3	68.7	46.1	32.6	32.8
ACME Solar Holdings	ACMESOLA IN	Buy	1,481	222	317	43	49.3	27.0	18.3	10.1	18.6	14.3	15.7	7.6	7.7	10.4	13.6	20.7
Indian Energy Exchange	IEX IN	Accumulate	1,189	121	145	20	25.1	21.9	21.2	25.4	18.6	15.7	14.8	16.8	40.7	37.6	30.6	21.4
Vikram Solar	VIKRAMSO IN	Buy	831	208	323	55	47.1	20.3	14.6	7.8	12.3	8.5	7.5	5.3	16.6	16.9	15.1	23.3
PTC India	PTCIN IN	Buy	590	181	210	16	16.0	13.8	13.3	12.8	6.2	7.5	7.4	7.3	7.5	8.1	8.2	8.4
	Ticker	Rating		CMP (USD)	TP	Upside	FY25	FY26E	FY27E	FY28E	FY25	FY26E	FY27E	FY28E	FY25	FY26E	FY27E	FY28E
Longi	601012 CH Equity	NR	20,979	18	-	-	61.1	28.8	18.4		96.8	16.1	10.6	8.4	(7.4)	4.4	8.1	12.0
Jinko	688223 CH Equity	NR	12,427	8	-	-	98.7	28.4	10.9		26.5	11.5	8.5	5.6	(16.2)	1.2	9.5	23.7
Trina	688599 CH Equity	NR	7,147	21	-	-	56.6	14.4	7.2		45.4	12.1	7.5	5.5	(22.3)	6.0	12.6	
JA Solar	002459 CH Equity	NR	6,044	12	-	-	126.8	22.9	8.7		46.4	11.1	7.9	5.6	(18.2)	3.7	10.2	27.9
First Solar	FSLR US Equity	NR	23,471	219	-	-	15.3	9.7	7.5	6.5	10.2	7.0	5.6	5.0	17.7	22.2	22.9	22.1

Note: pricing as on 6 February 2026; Source: Company, Elara Securities Estimate

## Consolidation in solar module as overcapacity builds

- ▶ Overcapacity risk amid supply-demand mismatch in solar modules
- ▶ Tailwinds to continue
- ▶ Vertically integrated firms better placed on greater control over supply chain

### Overcapacity risk amid supply-demand mismatch in solar modules

#### Supply push sparks solar manufacturing growth

India's solar manufacturing sector has witnessed rapid expansion in recent years, driven by strong supply-side policy support and rising domestic demand. As on December 2025, the country's solar module manufacturing is at 144GW, placing India as the third-largest producer globally, behind China and Vietnam (Source: MNRE). Leading companies in India's solar module space include WAAREEN, VIKRAMSO, PREMIERE, Goldi Solar, First Solar, EMMVEE, Rayzon Solar, and RenewSys India. Since FY17, India's solar module manufacturing capacity has expanded, from 4.2GW to 144GW by FY26YTD, at a CAGR of 38% (Source: MNRE).

#### Last decade has witnessed robust expansion in module capacity

India's solar module manufacturing has seen robust growth recently, and it is transitioning from simply supplying to the domestic market to aiming to become globally competitive. Module capacity nearly doubled from ~38GW in March 2024 to ~144GW by December 2025 while cell capacity tripled during the same period (Source: MNRE). Module manufacturing capacity in India is set to exceed ~180GW by CY30 while wafer (ingot & wafer) and cell capacity is set to expand – wafer capacity could reach ~45GW, underpinning deeper upstream integration. This wave of growth is being driven by a favourable policy environment – including the production-linked incentive (PLI) scheme, domestic content mandates and import duties on cells & modules – along with rising domestic pipeline demand and a push for value chain self-reliance. As module and upstream capacity scale, India's manufacturers are closing the price and supply chain gaps with global firms, enabling them to compete in the exports markets. At the same time, evolving buyer preferences – such as demand for low-carbon footprints, better ESG credentials, and supply chain traceability – position them well to target markets in the EU, the Middle East, and the African Union (AU), provided they accelerate technology upgrades and supply chain transparency.

#### Overcapacity threat looms as India's solar module industry enters a consolidation phase

India's solar module manufacturing sector currently faces a growing overcapacity risk, which could strain margin and trigger consolidation – particularly hurting smaller, less integrated firms. Module production capacity is set to climb to ~150GW by CY27 even as annual solar installations remain limited to 45-50GW, implying a significant supply-demand mismatch. Meanwhile global oversupply, falling module & cell prices, and trade-related headwinds (for e.g., tariffs abroad) are weakening exports prospects, pushing excess modules toward the domestic market. In this environment, only firms with deep vertical integration (from wafers and ingots to cells and modules), access to newer technologies, and scale are likely to sustain profitability – weaker, assembly-only companies may be forced to exit or merge.

#### Exhibit 8: With supply racing ahead of demand, backward integration becomes key to margin defense

Segment / FY	FY24	FY25	FY26	FY27	FY28
Module (GW)	63	82	120	150	165
Cell (GW)	13	23	40	80	90
Wafer & Ingot (GW)		2	10	20	30
Annual Demand(GW)	45	45	45	45	45

Source: Emmvee Photovoltaic DRHP, Elara Securities Research

## US tariffs deepen India's solar module oversupply and trigger market pressure

US tariffs on India's solar module exports – including a 50% imports duty – have severely dented exports prospects, causing hundreds of megawatts worth of modules to be redirected into India. This has exacerbated an existing oversupply in the domestic market, adding to module inventory glut and triggering price drops of 10-15% in recent quarters. As a result, several smaller or assembly-only manufacturers are under margin pressure. Larger and vertically-integrated firms – those controlling everything from ingots and wafers to cells and modules – are better positioned to survive by leveraging scale, cost efficiency, and supply chain control, while the broader industry braces for consolidation and reorientation toward domestic demand.

## China's solar giants buckle under overcapacity – stark warning for India

China's solar-module industry offers a cautionary tale for India: huge overcapacity can quickly erode profitability even of the world's largest, most technologically advanced manufacturers. In China, aggressive capacity additions led to a sharp fall in module prices, pushing major companies into deep losses – JinkoSolar reported losses of CNY 2.6bn in H1CY25, Trina Solar at CNY 2.9bn, JA Solar at CNY 2.6bn, Longi at CNY 2.6bn, and Tongwei at ~CNY 5.0bn (Source: Reuters). These numbers underline how surplus production, declining prices, and increased price competition can wipe out margin industry-wide. A similar threat looms over India: with domestic module capacity set to reach ~150GW by CY27 vs annual installations of a mere 45–50GW, and with US tariffs redirecting exports volume back into the country. India risks slipping into the same cycle of oversupply, falling prices, and industry-wide margin compression. Just as in China, only technologically advanced, vertically integrated manufacturers may withstand pressure while smaller- or assembly-only firms face consolidation or an exit.

## Exhibit 9: Losses mount for China's companies on massive overcapacity

(CNY million)	Revenue								EBITDA								PAT							
	CY19	CY20	CY21	CY22	CY23	CY24	CY25E	CY26E	CY19	CY20	CY21	CY22	CY23	CY24	CY25E	CY26E	CY19	CY20	CY21	CY22	CY23	CY24	CY25E	CY26E
First Solar	3,063	2,711	2,923	2,619	3,319	4,206	5,095	6,142	66	569	864	257	1,177	1,832	2,153	3,134	(115)	398	469	(44)	831	1,292	1,567	2,400
Jinko	29,490	33,660	40,570	82,676	118,682	92,471	71,149	85,487	–	3,389	3,951	5,868	17,008	8,250	4,879	10,081	1,381	1,042	1,141	2,939	7,441	99	(4,432)	1,652
Trina	23,322	29,418	44,480	85,052	113,411	80,282	71,065	85,443	1,945	2,729	3,301	5,919	9,304	2,391	2,345	7,826	641	1,229	1,804	3,681	5,527	(3,443)	(4,569)	1,785
JA Solar	21,156	25,847	41,302	72,989	81,556	70,121	54,656	63,627	3,776	4,043	5,195	8,168	11,470	1,695	1,509	6,623	1,252	1,507	2,039	5,534	7,040	(4,656)	(4,343)	516

Source: Bloomberg, Elara Securities Research

## Tailwinds to continue

### India on track to cross 900GW of installed capacity by FY32, with RE making up nearly 56%

As on FY26 YTD, India's total installed power generation capacity stands at 500GW. With ongoing developments and planned expansions, the country is set to add another 400GW by FY32, bringing total capacity to ~900GW (Source: CEA). Solar energy is set to drive this growth, contributing around 60% of new capacity, with installations projected to rise from 136GW in FY26 to roughly 365GW by FY32. Currently, thermal power accounts for 45% of total capacity while renewables—including large hydro—make up 41%, with solar contributing ~25%. However, as solar deployment accelerates, the energy mix is poised for a major transformation, with solar share likely to nearly double to 41% by FY32, while coal share could fall to ~29%.



**Exhibit 10: Total installed capacity to scale up to 900GW by FY32 with solar constituting 40.5% of mix**

Installed capacity (GW)	FY26 YTD	FY32
Coal+Lignite	226.0	259.6
Gas	20.1	24.8
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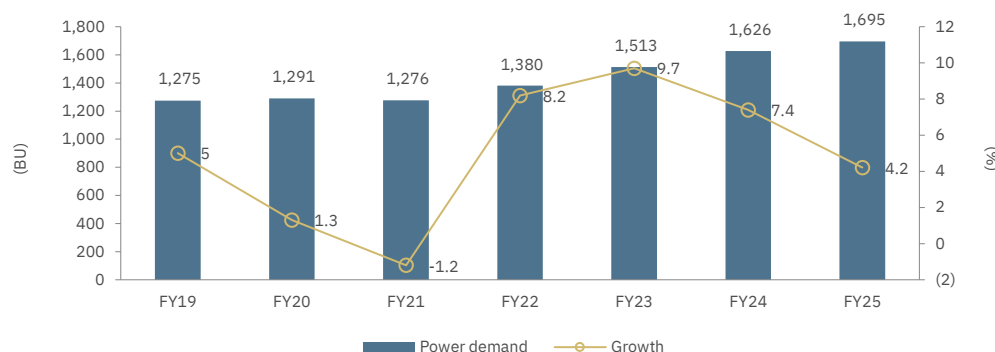
**Government's power generation expansion plans**

Thermal capacity additions in India will primarily come from coal- and lignite-based projects. According to the 20th Electric Power Survey, the country's peak electricity demand is set to reach 295GW by FY28 and 366GW by FY32. To meet this growing demand, the government has outlined plans to add 88GW of thermal capacity by FY32, of which 35GW is already under construction.

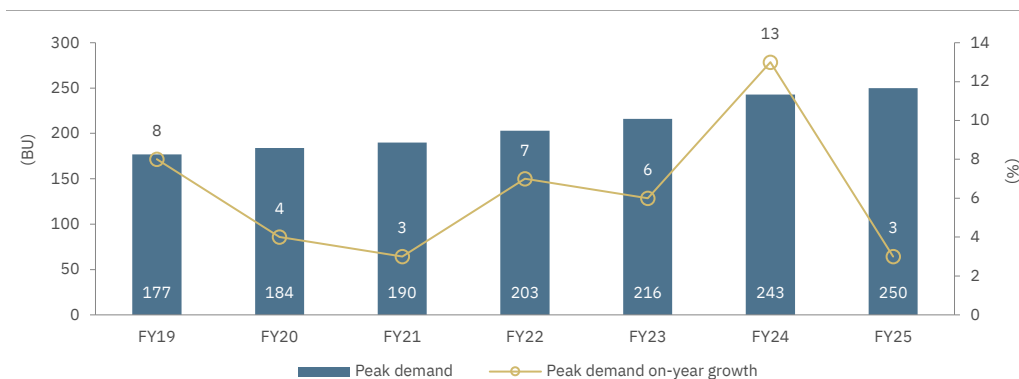
The government is focused on expanding nuclear power generation, targeting an increase from the current 8.78GW to 22.5GW by FY32. Currently, 23 nuclear reactors are operational across India, while 10 new ones with a combined capacity of 8GW are under construction in Gujarat, Rajasthan, Tamil Nadu, Haryana, Karnataka, and Madhya Pradesh. Additionally, pre-project activities have commenced for another 10 reactors, scheduled for commissioning by FY32.

On the renewables front, India aims to achieve 500GW of clean energy capacity by FY32, with solar set to contribute 365GW (Source: CEA). Recent government announcements indicate that annual solar capacity additions could double in the next 2-3 years. The Ministry of New and Renewable Energy (MNRE) has launched an initiative to conduct annual auctions for 50GW of renewable capacity, with 80% allocated to solar projects. To address intermittency of renewable power, the government is promoting round-the-clock (RTC) renewable supply through tenders involving battery storage systems and pumped storage projects.

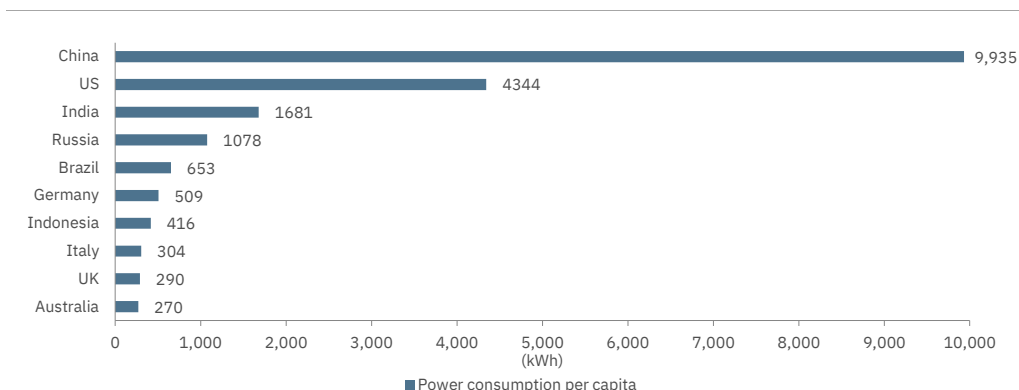
While the wind sector had stagnated for the past 7-8 years – averaging a mere 1.5GW of annual additions – the government has recently implemented several measures to revive the segment. These include separate renewable purchase obligation (RPO) carve-outs for wind, reforms in the auction framework, and the introduction of 10GW of exclusive annual tenders dedicated toward wind projects. These initiatives are likely to drive around 20GW of new wind capacity additions by FY28.

**Exhibit 11: Power demand CAGR at 5% YoY during FY19-25**


Source: Central Electricity Authority, Elara Securities Research

**Exhibit 12: Peak demand outperforms base demand, rising at a CAGR of 6% YoY during FY19-25**

Source: Central Electricity Authority, Elara Securities Research

**Exhibit 13: India ranks third in overall power consumption; low per capita consumption highlights potential**

Source: World bank, Elara Securities Research

**Solar power leads the pack with India's lowest tariffs**

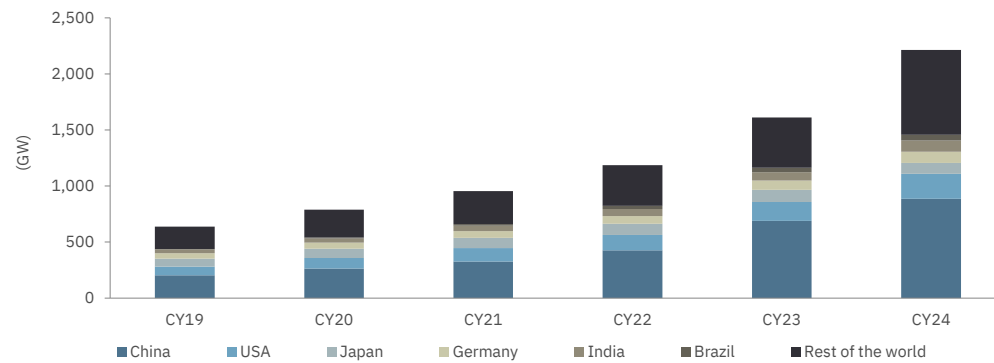
Average cost of supply (ACS) represents the mean expense incurred in delivering electricity to consumers. ACS has consistently risen from INR 3.6 per kWh in FY10 to INR 7.1 per kWh in FY25 (Source: Ministry of Power). In contrast, average solar tariff has followed a reverse trajectory – declining steadily with growing adoption since FY10 and stabilizing at INR 2.4–2.6 per kWh in the past five years. Compared to all generation sources, solar power currently boasts tariffs lower than many thermal plants, underscoring its long-term sustainability and economic viability in India's evolving energy landscape.

**Solar powerhouse: India holds 748GWp of sun-driven potential**

India has huge solar energy potential, receiving 5,000tn kWh of solar radiation annually, with most regions getting 4–7 kWh per square meter per day. This abundance allows for both large-scale and decentralized solar PV deployment to meet electricity, heating, and cooling demands across urban and rural areas. As a clean and locally available resource, solar energy also strengthens India's energy security amid global geopolitical uncertainty. The adoption of solar power has been transformative—millions of rural households currently use solar solutions for essential needs, such as lighting and cooking while solar has become the country's fastest-growing power generation technology.

According to the National Institute of Solar Energy (NISE), India's theoretical solar potential is ~748GWp, assuming a mere 3% of wasteland is utilized, with Rajasthan, Jammu & Kashmir, Maharashtra, Madhya Pradesh, and Andhra Pradesh contributing ~56% of this potential. As on December 2025, India has tapped ~18% of estimated capacity, with ~136GW of installed solar power. Rajasthan, Gujarat, Karnataka, Tamil Nadu, and Maharashtra collectively account for ~70% of this capacity, while Punjab (45.1%), Tamil Nadu (41.7%), and Karnataka (38.1%) show the highest potential utilization, highlighting India's progress toward sustainable and self-reliant energy growth.

**Exhibit 14: India with the fourth-largest solar base in the world**



Source: Emmvee Photovoltaic DRHP, Elara Securities Research

**Exhibit 15: India holds 748GW of solar potential**



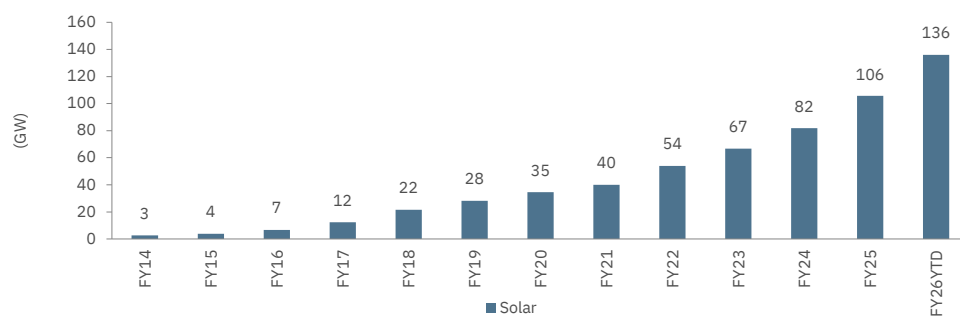
Note: Map not to scale; Source: Emmvee Photovoltaic DRHP, Elara Securities Research

**India's solar power soars – 30x growth in just a decade**

India's strong dedication to solar energy is evident in its strong capacity growth, which has surged more than 30x, from 3.7GW in FY15 to ~136GW as on FY26 YTD. This swift shift toward solar power has yielded both environmental and economic benefits, promoting cleaner energy while stimulating growth. Backed by consistent policy support and ongoing capacity expansion, India remains well positioned to achieve ~364GW of solar installations by FY32.

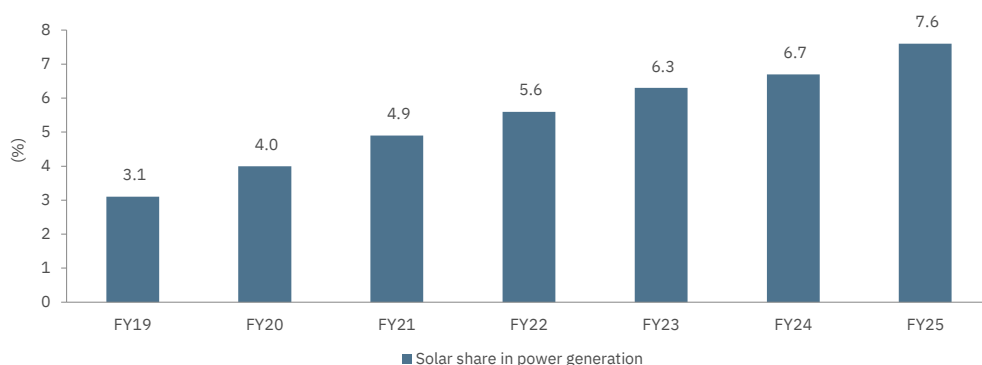


**Exhibit 16: Solar energy CAGR at 39% in the past decade**



Source: Central Electricity Authority, Elara Securities Research

**Exhibit 17: Share of solar in overall generation on a rising trend**



Source: Central Electricity Authority, Elara Securities Research

## Policy push energizes India's solar growth

### Solar parks

India plans to scale up solar energy by planning to develop 51 solar parks, each with a minimum capacity of 500MW, totalling 37.7GW by FY26 (Source: MNRE). These parks would serve as vital infrastructure for large-scale renewable power generation, fostering private sector participation and building a robust ecosystem for solar growth, which, in turn, enhances energy affordability and accessibility. As on October 2025, solar parks with a combined capacity of 14.9GW has already been commissioned under this initiative.

### PM Surya Ghar Muft Bijli Yojana

With an allocation of ~INR 750bn, the PM Surya Ghar Muft Bijli Yojana scheme aims to provide capital subsidies for rooftop solar installations, allowing nearly 10mn households to receive up to 300 units of free electricity each month. By encouraging households to generate their own solar power, the program helps reduce electricity cost, decreases dependence on traditional energy sources, and fosters a transition toward cleaner, more sustainable energy use.

The program mandates the exclusive use of Domestic Content Requirement(DCR)-compliant solar modules and provides financial support as follows:

- ▶ INR 30,000 per kW for systems up to 2 kW
- ▶ INR 18,000 per kW for additional capacity up to 3 kW
- ▶ Maximum subsidy of INR 78,000 for systems larger than 3 kW

### PM-KUSUM Scheme

The Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyan (PM-KUSUM) scheme aims to replace diesel use in agriculture, enhance energy, and water security for farmers, bolstering farmers' income, and offset environmental pollution. With a target to add 34.8GW of solar capacity by March

26 and total Central financial support of INR 344bn, the scheme is structured around three components:

- ▶ **Component A:** Development of 10,000MW of decentralized ground- or stilt-mounted solar power plants on barren, fallow, or cultivable land, implemented by individual farmers, cooperatives, panchayats, or private developers.
- ▶ **Component B:** Deployment of 1.4mn standalone solar water pumps in off-grid areas, ensuring reliable irrigation access.
- ▶ **Component C:** Solarization of 3.5mn Grid-connected agriculture pumps through both individual pump- and feeder-level solarization models.

#### **CPSU scheme**

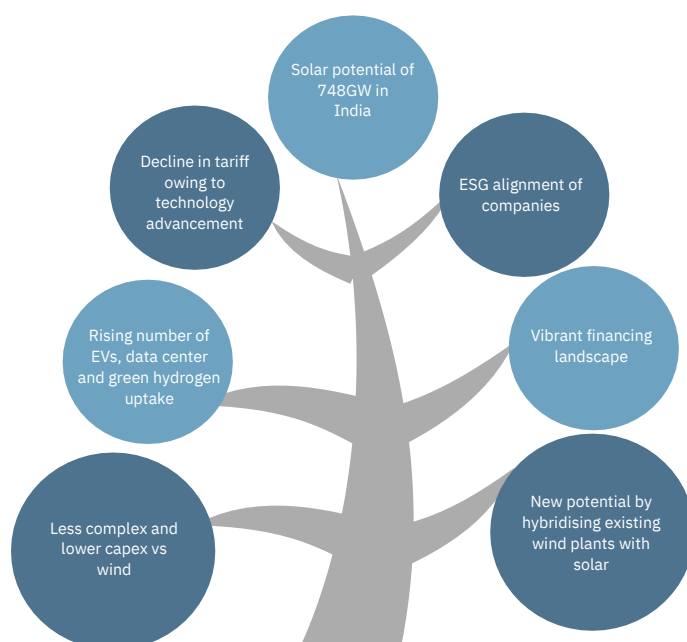
Phase II – the CPSU Scheme Phase-II – referred to as the Government Producer Scheme, is a flagship initiative by India's government aimed at strengthening domestic solar power generation and ensuring energy security.

#### **Key highlights of the scheme**

- ▶ **Financial support:** Provision of viability gap funding (VGF) of up to INR 7mn per MW to encourage participation and offset cost-related challenges for project developers.
- ▶ **Capacity target:** Originally designed to establish 12,000MW of Grid-connected solar capacity through eligible government entities. Although the original commissioning deadline has elapsed, the scheme remains active for unallocated projects.
- ▶ **Implementation:** Executed through a competitive bidding process managed by the Solar Energy Corporation of India (SECI), which evaluates and awards projects to qualified entities based on predefined selection parameters.

Together with other government programs, such as PM-KUSUM and PM Surya Ghar Muft Bijli Yojana, the CPSU scheme underscores India's policy thrust on domestic manufacturing and mandates the use of DCR-compliant solar modules, reinforcing self-reliance in the solar energy ecosystem.

#### **Exhibit 18: Conducive policy environment driving solar installations**



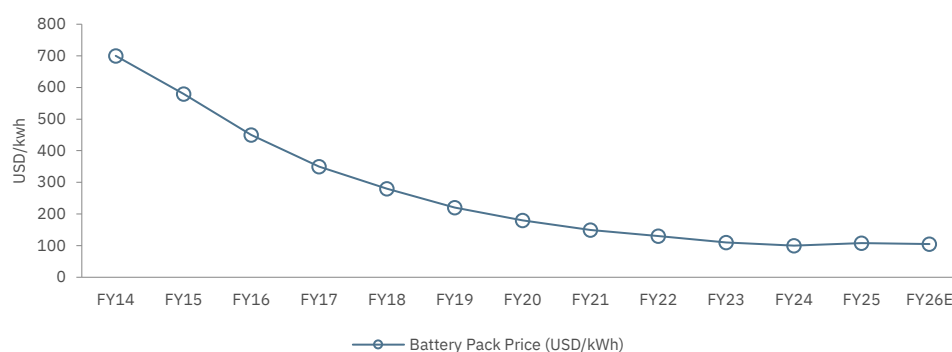
Source: Emmvee Photovoltaic DRHP, Elara Securities Research

## Annual tendering of 50GW

India's renewable energy push has accelerated significantly with the MNRE's landmark initiative to conduct 50GW of annual competitive bids – a strategic policy designed to expand solar power capacity. By establishing a steady and transparent project pipeline, this framework bolsters investor confidence, drives competitive pricing, and ensures consistent capacity growth. Around 80% of the target is earmarked for solar projects, underscoring the government's focus on clean energy expansion, energy security, and job creation. Complementing this effort, India's FDI policy permits up to 100% foreign direct investment (FDI) in renewable energy generation and distribution under the automatic route, allowing foreign investors to invest without prior government approval and simplifying project participation.

**Solar with BESS driving adoption:** Rising peak electricity demand in India has significantly bolstered the popularity of solar and battery storage tenders. With peak loads reaching record levels in recent years, utilities and discoms are increasingly seeking flexible and reliable solutions to manage supply during high demand periods. Solar projects, coupled with battery energy storage systems (BESS), offer a cost-effective way to meet these peaks. Over 31GW of firm and dispatchable tenders have been floated during FY23-26 YTD. Standalone battery tenders of 8.6GW were floated in FY25 and tenders for 9.7GW were floated in FY26 YTD

## Exhibit 19: Falling battery prices driving higher uptake of solar-plus storage tenders



Source: Emmvee Photovoltaic DRHP, Elara Securities Research

## Renewable purchase obligation (RPO) trajectory

The RPO trajectory, set through FY30, forms a key policy pillar for promoting renewable energy adoption in India. It mandates a steady increase in renewable energy consumption targets for States and imposes penalties for non-compliance. By ensuring long-term policy visibility and a stable market environment, the RPO framework encourages continued investment in solar and other renewable projects. This assured demand for green power drives domestic capacity growth, fosters energy diversification, and helps reduce reliance on imported fossil fuels—bringing India closer to achieving energy independence.

## Waiver of Inter-State Transmission System (ISTS) charges

In March 2023, the Central Electricity Regulatory Commission (CERC) amended the CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, granting a waiver of ISTS charges for renewable energy and pumped hydro projects that commence commercial operations by June 30, 2025. The exemption also covers solar, wind, and other qualifying renewable projects commissioned within this timeframe, effectively reducing transmission expenses and accelerating the rollout of renewable energy capacity across the country.

## Late payment surcharge

The Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 were implemented to tackle the problem of delayed payments by distribution companies (DISCOMS) to power generators and transmission utilities. These rules establish a timeline for settling outstanding dues, enhancing transparency and accountability in billing and payments. By improving cashflow predictability and minimizing payment disputes, the framework fosters a more stable and investor-friendly



ecosystem—ensuring timely payments to solar power producers and stimulating further investment in the renewable energy sector.

**Exhibit 20: Demand- and supply-side stimulants driving installations in the sector**

Demand-side support	Supply-side support
<ul style="list-style-type: none"> <li>▶ RPO are required to be met by obligated entities as a % of total consumption. Total RPO requirement was set at 43% in FY30 and 'other RE' under which solar is accounted, at 34%.</li> <li>▶ Green Open Access Rules to enable open access for 100kW and above load. The provisions aim to simplify project setup, reduce development time and cost, and increase investor confidence, ultimately promoting green energy adoption.</li> <li>▶ PM Surya Ghar scheme launched in February 2024, with a proposed outlay of INR 750bn, aiming to install rooftop solar at 10mn households. The scheme has seen significant traction, with 1.0mn households already connected.</li> <li>▶ Central subsidised schemes – 12GW installation target under the CPSU scheme. PM KUSUM initiated to solarize agricultural pumps.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Dedicated solar parks to accommodate &gt;40GW power in 10+ states.</li> <li>▶ Storage mandate – New solar allocations from FY26 will follow 10% of capacity and 2-hour storage mandate, as per the new CEA guideline.</li> <li>▶ Supporting infrastructure – Augmentation of transmission infrastructure under schemes such as Green Energy Corridor to cater to rising transmission demand from new RE capacity.</li> <li>▶ Standard allocation framework – Standard reverse allocation framework for procuring RE power at the most competitive prices.</li> </ul>

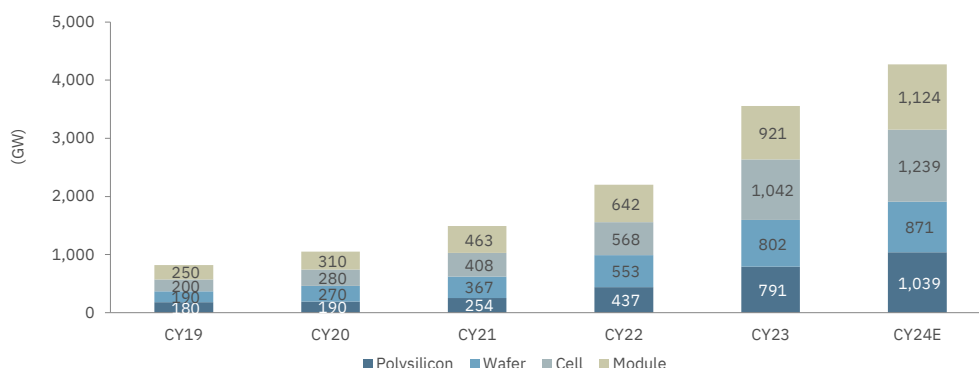
Source: Emmvee Photovoltaic DRHP, Elara Securities Research

**Bright prospects ahead: India's solar module industry set to capitalize on surging demand**

**Review of global solar module manufacturing**

Global solar module manufacturing capacity has witnessed a sharp expansion, increasing from about 250GW in 2019 to 1,124GW in CY24. However, this growth has outpaced global demand, with CY24 demand for solar modules estimated at only around half of total production capacity. Likewise, the output of upstream components has surged significantly in the past five years, with strong acceleration since CY23, notably in the polysilicon segment.

**Exhibit 21: PV manufacturing capacity estimated to have crossed 800GW across value chain in CY24**



Source: Emmvee Photovoltaic DRHP, Elara Securities Research

**Geographical concentration across value chain**

China holds a dominant position in the global solar photovoltaic (PV) industry, with most of the world's PV manufacturing capacity—encompassing modules and key upstream components, such as polysilicon, ingots, wafers, and cells, largely concentrated within its borders. Although alternative supply sources exist, the global PV value chain remains heavily reliant on China. The country's share of global polysilicon production capacity nearly tripled by CY23, cementing its leadership, with ~80% of global cell and module manufacturing located there. This dominance has been underpinned by

strong government support and targeted policy incentives, enabling China to build a robust competitive edge and establish global dependence on its supply chain.

India, through measures such as the Approved List of Models and Manufacturers (ALMM) and PLI schemes, is working to emulate this success by developing a self-sufficient and competitive domestic solar manufacturing ecosystem. While China continues to lead in wafer production, Southeast Asian countries, such as Vietnam, Malaysia, and Thailand, have become prominent manufacturing bases for cells and modules, due to China's firms setting up operations to circumvent US trade barriers. However, the US Department of Commerce recently levied steep anti-dumping and countervailing duties on solar PV imports from these ASEAN nations—in the range of ~250% in Malaysia to more than 3,500% in Cambodia. If upheld by the International Trade Commission, these tariffs could severely affect exports to the U.S., which currently relies on these countries for 79% of its modules and 57% of cell imports. Meanwhile, China faces heavy import tariffs under US trade measures, with cumulative rates reaching ~60%.

## China dominates global trade in PV

In CY24, global demand for solar modules rose sharply, driven by a decline in prices resulting from oversupply, which also led to a surge in imports worldwide. The US emerged as the largest importer of solar modules and cells, accounting for ~31% and ~36% of global imports, respectively. China maintained its leadership as the top supplier, contributing ~60% of total module and 45% of cell exports globally. Meanwhile, Southeast Asian countries—particularly Malaysia and Thailand—significantly expanded manufacturing capacity, strengthening their role in the global solar supply chain. India also witnessed robust growth in solar module exports, reaching ~USD 1.5bn in 2024 and increasing its global market share to 3.0%, up from a mere 0.5% in 2019. This progress was underpinned by stronger domestic manufacturing and assembly capabilities, supported by initiatives such as the Basic Customs Duty (BCD) and the Approved List of Models and Manufacturers (ALMM) policy. Overall, global PV manufacturing capacity continues to expand rapidly, led by technological advancements and sustained R&D investments that have sharply reduced cost and enhanced efficiency.

## Exhibit 22: PV manufacturing encompasses five critical processes

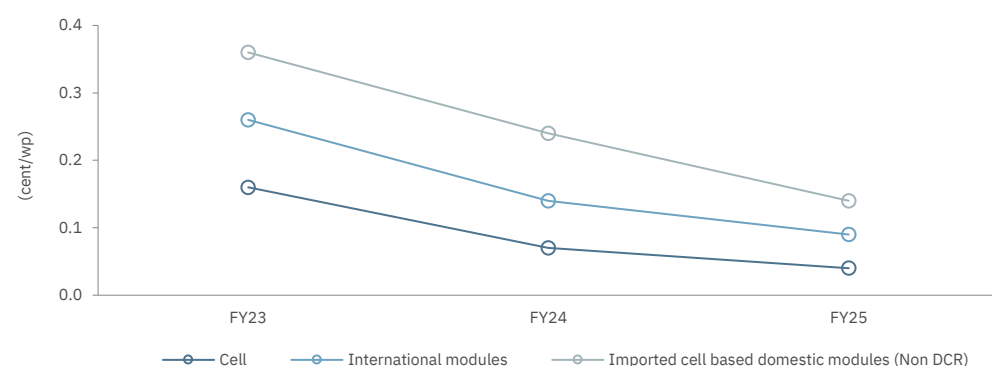


Source: Emmvee Photovoltaic DRHP, Elara Securities Research

### Solar module and cell price trends in India

Polysilicon, a critical input in solar PV manufacturing, significantly influences overall cost of solar modules. Historically, declining polysilicon prices helped drive down global module cost. However, after July 2020, prices soared—from USD 6.8/kg to USD 43/kg by November 2021, marking a six-fold increase. This surge was primarily caused by an energy crisis in key manufacturing regions like China, where coal shortages and supply chain bottlenecks led to power outages in energy-intensive industries, including solar production. Consequently, global module prices experienced a temporary uptick. In contrast, by the latter part of FY24, polysilicon prices underwent a sharp correction due to material oversupply, particularly in the upstream segments, pushing module prices down to around USD 0.23/Wp. India mirrored this global trend, with domestic module prices falling from USD 0.30/Wp to USD 0.23/Wp, reflecting its reliance on imported solar cells. Despite this decline, India's modules remain 45–50% costlier than China's because of a 27.5% import duty on cells and higher manufacturing cost. Although the price gap is gradually narrowing, India's modules still trade at a slight premium. Meanwhile, wafer prices have dropped sharply as output has exceeded demand amid rapid technological shifts. The resulting oversupply has led to an intense price competition, with wafer manufacturers selling below cost and considering production cuts to rebalance the market. While such adjustments could stabilize prices, current trends indicate further softening—especially for p-type wafers, with n-type wafer prices also expected to decline.

### Exhibit 23: Cell and module prices decline sharply due to a cascading impact of oversupply in the upstream segments



Source: Emmvee Photovoltaic DRHP, Elara Securities Research

### Solar cell and module manufacturing encompasses five critical processes

The solar PV module manufacturing value chain comprises five critical stages that transform raw materials like polysilicon into fully assembled solar panels capable of generating electricity. This process is complex and globally interconnected, with each step influencing the final product's cost, performance, and environmental footprint.

A solar module is made up of numerous photovoltaic (PV) cells arranged within a protective frame that allows it to capture sunlight and produce direct current (DC) electricity. Solar cells form the core component, while other materials such as the backsheet, encapsulant, and glass play equally essential roles in ensuring durability and efficiency.

- ▶ **Backsheet:** The backsheet acts as the outermost protective layer of a solar module, providing structural integrity, electrical insulation, and resistance to environmental factors such as moisture, UV rays, and temperature variations. It also reflects light back into the cells to improve energy output and bonds with the encapsulant to securely hold the cell assembly in place throughout the module's lifespan.
- ▶ **Encapsulant:** The encapsulant binds solar cells to the glass and backsheet, ensuring light transmission, mechanical stability, and insulation between cells. It enables maximum photon penetration for energy conversion while preventing short circuits by sustaining proper spacing. Since encapsulants can contract under high heat during lamination, minimizing shrinkage is essential to prevent misalignment. A high-quality encapsulant maintains adhesion and stability even under prolonged exposure to heat and UV radiation.



- ▶ **Glass and other materials:** The front glass in solar modules serves multiple functions – transmitting maximum sunlight, minimizing reflection, and providing structural protection. As the first interface for sunlight, it must efficiently transmit light while withstanding external stresses. Usually, untreated glass reflects 4–10% of light, but anti-reflective coatings can reduce this to ~1%, enhancing efficiency. Tempered solar-grade glass is used to provide durability against environmental and mechanical stress. In addition to glass and solar cells, other critical components in module production include the aluminium frame, junction box, ribbons, encapsulant, and backsheet – all contributing to the module's long-term performance and reliability.

## **Solar module assembly – not a complex but a highly automated process**

A solar module is created by interconnecting individual solar cells in a series-parallel configuration, then enclosing them within protective layers of glass, encapsulant, and backsheet to safeguard against environmental stress. A junction box is integrated into the design to facilitate efficient transmission of electrical output. The assembly process involves precise selection and alignment of solar cells, with robotic systems ensuring careful handling of delicate materials. Automation enhances accuracy, reduces waste, and limits manual errors, while rigorous testing ensures uniform quality and dependable performance. Besides solar cells, the assembly incorporates key materials such as ethylene vinyl acetate (EVA), solar glass, backsheets, metal frames, connectors, busbars, cables, and junction boxes. Companies like Premier Energies operate fully automated production lines, enabling higher consistency and superior quality control by minimizing human intervention.

## **PLI Scheme: accelerating domestic manufacturing of high-efficiency solar PV modules**

India has launched the production linked incentive (PLI) Scheme under the National Programme on High Efficiency Solar PV Modules to establish large-scale domestic manufacturing capacity. With a total outlay of INR 240bn, the scheme provides financial incentives to selected manufacturers for producing and selling high-efficiency solar PV modules. It is applicable for five years from the actual or scheduled commissioning date, whichever comes first.

### **The key objectives of the scheme:**

- ▶ Develop large-scale manufacturing capacity for high-efficiency solar modules in India.
- ▶ Encourage adoption of advanced technologies that enhance module performance, while remaining technology-agnostic.
- ▶ Promote integrated manufacturing facilities to ensure superior quality and cost competitiveness.
- ▶ Build a robust domestic ecosystem for sourcing raw materials.
- ▶ Drive employment generation and strengthen technological self-reliance.

## **Domestic content requirement (DCR) – driving India's solar self-reliance**

The domestic content requirement (DCR) is an important policy measure introduced by India to promote local manufacturing by mandating that a specified share of solar components—such as modules and cells—used in government-supported solar projects be procured from domestic producers. The mandated local content share is being phased up, increasing from 40% to 45% for projects commencing in CY25, 50% in CY26, and 55% thereafter. The rule primarily covers Grid-connected projects, rooftop solar systems on government premises, and off-grid applications, although some exemptions still apply. In August 2023, the Ministry eased these requirements for projects allocated on or before June 20, 2023. Additionally, to improve oversight and ensure adherence, the government intends to set up a centralized database of domestically manufactured solar modules to track imports and enforce compliance with sourcing norms.

### **Benefits of DCR for India's solar industry**

- ▶ **Assured market demand:** DCR guarantees a steady demand for domestically produced solar cells and modules, encouraging manufacturers to expand capacity and adopt advanced technologies.
- ▶ **Reduce import dependence:** By limiting competitiveness of cheaper imported modules, the policy provides a level-playing field for India's manufacturers, helping them scale up and improve efficiency.

- ▶ **Boost to R&D and innovation:** The policy promotes investment in research and technology development, enhancing product quality and positioning India as a global contender in solar manufacturing.

#### **ALMM: ensuring quality and reliability in solar deployment**

The Approved List of Models and Manufacturers (ALMM) is a regulatory mechanism established to identify and certify reliable solar PV module and cell manufacturers authorized for use in solar projects across India. Its primary objective is to uphold stringent standards of quality, efficiency, and durability by ensuring developers and investors source modules exclusively from MNRE-approved manufacturers. By recognizing credible domestic producers and verified products, the ALMM framework bolsters investor confidence and supports broader adoption of high-performance solar technologies nationwide. Implemented on April 1, 2024, the ALMM currently features only domestic manufacturers, as no foreign suppliers have yet been included in the Ministry of New and Renewable Energy's approved list.

#### **Bolstering domestic solar manufacturing through import duties and basic customs duty (BCD)**

India imposes import duties on solar cells and modules to safeguard and promote its domestic manufacturing sector. These duties apply uniformly, regardless of the source country, making locally produced solar equipment more appealing to Indian developers.

##### **Basic customs duty**

A key component of this policy, BCD is levied on customs value of imported goods—set at 40% for solar modules and 25% for solar cells. This measure has raised cost of imported products, thereby encouraging a shift in demand toward domestic alternatives.

#### **BCD drives India's solar manufacturing ecosystem**

- ▶ **Enhancing cost competitiveness:** By increasing price of imported components, BCD improves the relative affordability of domestic products, bolstering their attractiveness to developers and stimulating local production.
- ▶ **Encouraging investment:** With imports becoming more expensive, establishing domestic manufacturing units has become profitable. This has drawn fresh investments into the sector, expanded production capacity, and generated employment opportunities.

#### **China-plus-one strategy**

The strategy encourages businesses to diversify operations from China. India is one of the potential destinations for solar manufacturing due to its low labour cost as well as favourable political and regulatory environment for manufacturing. The expanding manufacturing base has enabled domestic manufacturers to tap the exports potential with 97% exports focused on the US alone.

#### **Vertically integrated firms better placed on greater control over supply chain**

##### **Backward integration into cells is critical**

Backward integration into solar cell manufacturing has become a crucial strategy to optimize production cost, minimize reliance on imports, enhance quality control, improve margin, and ensure traceability—particularly important for exports and compliance with India's local sourcing policies. Although India's solar module manufacturing capacity has rapidly expanded to 82GW as on FY25, domestic solar cell capacity remains limited, with only 25–30% integration (at full utilization). This imbalance has led to sizeable imports worth INR 390bn during FY23-25, primarily from China, to sustain surge in module manufacturing. In contrast, China's vertically integrated producers operate with far lower cost—cell prices averaging around USD 0.04/Wp in FY25—compared to India's non-integrated firms, which face higher input cost and inefficiency, due to their dependence on imported wafers.

For domestic solar cell makers, raw materials account for 80–85% of total operating cost, with wafers forming the largest imported component, thereby exposing them to forex risks and potential margin pressures. Since upstream input, such as polysilicon ingots and wafers, are scarcely available domestically, imports remain essential. However, the lack of integration leaves manufacturers vulnerable to global price swings and limits their ability to fine-tune processes between cell and

module stages, reducing module efficiency. Integrated operations, although capital-intensive, provide scale benefits, greater technological control, and competitive entry barriers. With increasing cell and module manufacturing capacities, India is set to gradually reduce its import dependence by FY30.

## Key raw materials and components used in solar cell manufacturing

A solar cell, also known as a photovoltaic (PV) cell, is an electronic device that directly converts light energy into electrical energy through the photovoltaic effect, a physical and chemical process. It is a type of photoelectric cell, meaning its electrical properties—such as current, voltage, or resistance—change when exposed to light. Individual solar cells serve as the fundamental building blocks of photovoltaic modules.

### Main raw materials and components used in manufacturing solar cells include:

- ▶ **Silicon wafers:** These are core materials of solar cells, sliced from silicon ingots derived from high-purity silicon. The performance and efficiency of solar cells depend on purity and quality of the silicon used.
- ▶ **Silver paste:** Applied to the front side of the cell using a screen-printing process, silver paste forms the electrical contacts that collect and conducts current generated by the silicon wafer.
- ▶ **Aluminium paste:** Used on the back side of the cell, this paste is fired in a furnace to create a back surface field, which reflects electrons back into the silicon. This process enhances overall efficiency of the solar cell.
- ▶ **Gases and chemicals:** Various chemicals and gases are employed throughout cell production. Phosphorus oxychloride is used for n-type doping while boron is used for p-type doping. Additionally, cleaning, and etching agents, such as hydrofluoric acid, to remove unwanted oxide layers, and other solvents are used for surface cleaning during manufacturing.

### India's solar cell capacity of 23.4GW is set to soar

India, with its well-established module manufacturing base, is gearing up to significantly expand its solar cell production capacity, which currently stands at ~23.4GW (Source: MNRE). This limited capacity has made the country dependent on imports of solar cells, the core component responsible for converting sunlight into electricity. Although domestic production cost has declined, China continues to dominate global cell manufacturing due to its massive scale and mature supply chain. In India, only a few companies currently produce solar cells, with Mundra Solar, Premier Energies, and Tata Power Solar being the key firms. However, the landscape is evolving rapidly. More than 15 companies are in the process of establishing integrated solar manufacturing facilities—including cell production—either under the PLI scheme or independently. Most new plants are set to become operational by FY27, potentially bolstering India's solar cell manufacturing capacity to more than 60GW

### Complex utility management in high-precision solar cell manufacturing

Solar cell manufacturing is the most intricate and technologically demanding stage in the solar module value chain. It involves chemical and gas-based steps—such as texturing, diffusion, selective emitter laser processing, polishing, and oxidation annealing—to transform raw silicon wafers into efficient electricity-generating solar cells. The process requires precise control and extensive utility management to ensure safety, efficiency, and high yields.

### Key complexities in utility management for solar cell manufacturing

#### Acid and alkaline exhaust systems

Various production steps use chemicals, such as potassium hydroxide, hydrochloric acid, hydrogen peroxide, and hydrofluoric acid, which release acidic and alkaline fumes. These emissions must be captured and treated through scrubber systems to neutralize harmful gases and comply with environmental regulations.

### Waste gas management

Processes, such as diffusion, annealing, generate waste gases—including nitrogen, silane, ammonia, nitrous oxide, methane, hydrogen, phosphine, boron trichloride, and oxygen. These gases must be processed in thermal scrubbers, which decompose hazardous compounds and release only non-toxic air while safely capturing residual materials.

### Demineralized (DI) water management

A 1 W solar cell production line consumes 1mn liters of water daily, necessitating a robust water treatment and recycling system. This includes effluent treatment, reverse osmosis recovery, and the generation of ultra-pure water with stringent quality parameters (18 MΩ-cm resistivity, <10 ppb total organic carbon, and <10 CFU/mL bacterial count).

### Safe gas and chemical handling

Manufacturing uses ultra-high purity (99.999%) gases, such as silane, ammonia, nitrous oxide, hydrogen, oxygen, methane, phosphine, boron trichloride, and nitrogen, along with hazardous chemicals, such as HCl, KOH, H<sub>2</sub>O<sub>2</sub>, and HF. Ensuring safe storage, distribution, and disposal of these substances is critical. Facilities must employ scrubbers, effluent treatment plants, and rigorous safety protocols to offset operational risks.

### Power management

Operating a 1 W cell line demands 10MW of power. Even a brief power disruption can ruin an entire batch under process, causing significant downtime and losses. Therefore, plants are equipped with 100% backup systems, including diesel generators units for critical equipment, to sustain operations.

### Process cooling water systems

Precise temperature control in thermal and metallization tools is vital. These systems require customized process cooling water with specific flow rates and pressures. Designing and maintaining such systems—with redundant pumps to ensure uninterrupted supply—adds further complexity.

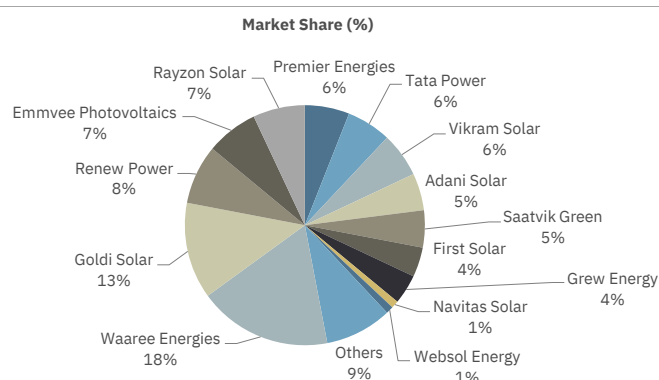
### 24/7 utility operations

For optimal production and high efficiency, round-the-clock utility availability is essential. The performance of utilities directly affects cell yield and efficiency; hence, critical systems are designed with redundancy and reliability to guarantee 100% uptime of the manufacturing line.

### Solar cell industry concentrated, while module remains fragmented

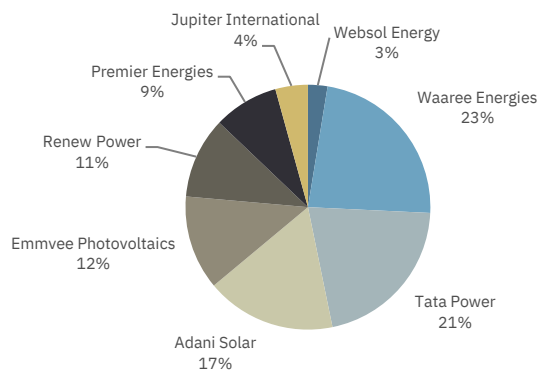
Market concentration is another crucial factor shaping India's solar PV industry. Approximately 54% of the module manufacturing capacities is controlled by the Top 5 firms while concentration for cells is 85%.

### Exhibit 24: Module sector fragmented



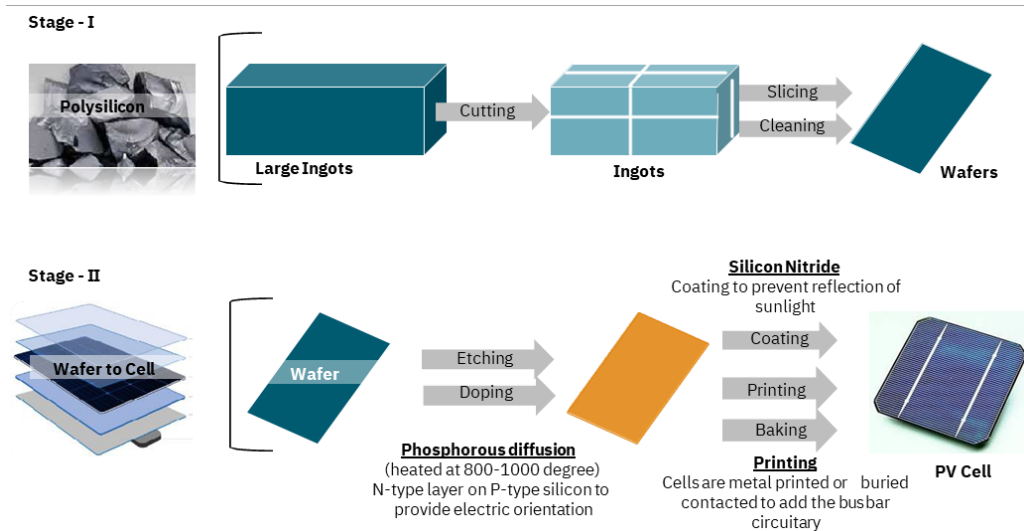
Note: Source: Emmvee Photovoltaic DRHP Elara Securities Research

**Exhibit 25: Limited firms in cell manufacturing**



Source: Emmvee Photovoltaic DRHP, Elara Securities Research

**Exhibit 26: Cell and module prices decline sharply due to a cascading impact of oversupply in the upstream segments**



Source: Emmvee Photovoltaic DRHP, Elara Securities Research



# Waaree Energies

India | Utilities | Initiating Coverage



10 February 2026

## Scale Shields Solar Giant

Waaree Energies (WAAREEN IN), India's solar module leader, has a 14.1% domestic market share in FY25. The company thrives on growing domestic and global demand, supported by rapid capacity expansion, backward integration, BESS, inverter & green hydrogen diversification, and green energy acquisitions. Overcapacity may cap margin gains at ~19–20%. The stock has corrected 20% in the past six months, with current valuation reflecting overcapacity concerns and margin compression. We initiate on WAAREEN with an **Accumulate** rating and a TP of INR 3,309.

**PV manufacturing pioneer:** WAAREEN is one of India's largest solar module maker, with an installed capacity of 23GW (modules) and 5.4GW (cells). The company plans to scale up module and cell capacity to 28GW and 15.4GW, respectively, by FY27, while backward integrating into 10.0GW of wafer-ingot manufacturing and diversifying into battery energy storage systems (BESS), inverters, and green hydrogen, led by favorable policies, such as ALMM and DCR. With a INR 150bn expansion plan, a record 25GW orderbook worth ~INR 600bn as on FY26YTD, and a growing mix of high-margin DCR modules, the company is positioned to deliver strong financial performance, in our view.

**Orderbook fuels visibility:** Backed by a consolidated orderbook of ~25GW, the company enjoys significant revenue visibility, with ~41% of orders from overseas and the rest domestic. The US remains WAAREEN's largest exports market, driven by utility-scale projects with longer execution cycles, while domestic projects offer quicker turnaround. The EU push adds diversification, ensuring capacity utilization and volume growth.

**Path to full integration by FY27:** WAAREEN is on track to transform into one of India's most integrated solar producers by FY27, led by capacity expansion of 28GW of modules, 15.4GW of cells, and 10.0GW of wafers & ingots. The rollout of ALMM-II and likely shift to a 90–100% DCR-based domestic market will spike local cell demand, prompting accelerated ramp-ups ahead of schedule.

**Initiate with Accumulate and a TP of INR 3,309:** We expect a revenue CAGR of 40% and an EBITDA CAGR of 39% during FY25-28E. We initiate WAAREEN with an **Accumulate** rating and a TP of INR 3,309 on 14x FY28E EV/EBITDA. The stock has corrected 20% in the past six months. Current valuation factors in oversupply concerns and margin pressure. Backward integration sustains the next 2-3 years' outperformance. Key risks include: 1) increased domestic competition may squeeze pricing & margin, and 2) US dependence heightens sensitivity to policy, tariffs, and geopolitical shifts.

Rating: [Accumulate](#)

Target Price: [INR 3,309](#)

Upside: [7%](#)

CMP: [INR 3,088](#)

As on 06 February 2026

### Key data

Bloomberg	WAAREEN IN
Reuters Code	WAAN.NS
Shares outstanding (mn)	288
Market cap (INR bn/USD mn)	888/9,796
EV (INR bn/USD mn)	839/9,259
ADTV 3M (INR mn/USD mn)	4,104/45
52 week high/low	3,865/1,809
Free float (%)	33

Note: as on 06 February 2026; Source: Bloomberg

### Price chart



Source: Bloomberg

	Q4 FY25	Q1 FY26	Q2 FY26	Q3 FY26
Shareholding (%)				
Promoter	64.3	64.3	64.2	64.2
% Pledge	0.0	0.0	0.0	0.0
FII	0.7	2.7	6.4	6.9
DII	2.5	2.9	2.8	2.9
Others	32.5	30.2	26.6	26.0

Source: BSE

Price performance (%)	3M	6M	12M
Nifty	0.8	5.5	9.1
Waaree Energies	(5.8)	0.9	34.3
NSE Mid-cap	0.1	5.3	9.9
NSE Small-cap	(6.8)	(4.1)	(1.1)

Source: Bloomberg

### Key financials

YE March (INRm)	FY24	FY25	FY26E	FY27E	FY28E
Revenue (INR mn)	113,976	144,445	232,378	342,420	393,943
YoY (%)	68.8	26.7	60.9	47.4	15.0
EBITDA (INR mn)	15,744	27,216	49,252	73,233	73,681
EBITDA margin (%)	13.8	18.8	21.2	21.4	18.7
Adj PAT (INR mn)	9,330	19,322	31,241	49,152	49,930
YoY (%)	79.1	107.1	61.7	57.3	1.6
Fully DEPS (INR)	35.5	67.3	108.7	171.1	173.8
RoE (%)	31.0	28.1	28.0	32.4	24.8
RoCE (%)	39.3	30.9	29.9	32.0	22.4
P/E (x)	87.0	45.9	28.4	18.0	17.8
EV/EBITDA (x)	53.6	31.0	16.6	11.5	12.1

Note: Pricing as on 06 February 2026; Source: Company, Elara Securities Estimate

### Rupesh Sankhe

Utilities

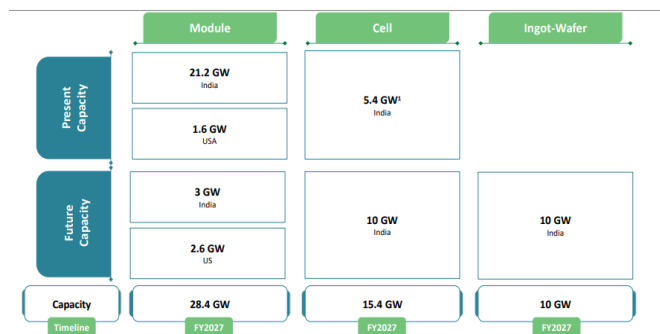
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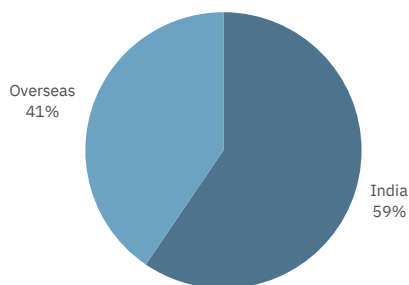
## Story in charts

**Exhibit 1: Planned expansion to cater to growing demand**



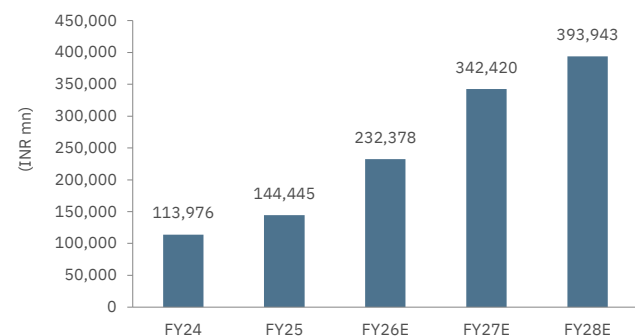
Note: 1Commercial operation initiated from March 29, 2025, 2Includes recent acquisition of module manufacturing assets of Meyer Burger in US; Source: Company, Elara Securities Research

**Exhibit 3: Orderbook at 25GW worth INR 600bn as on FY26YTD**



Source: Company, Elara Securities Research

**Exhibit 5: Revenue CAGR of 40% during FY25-28E**



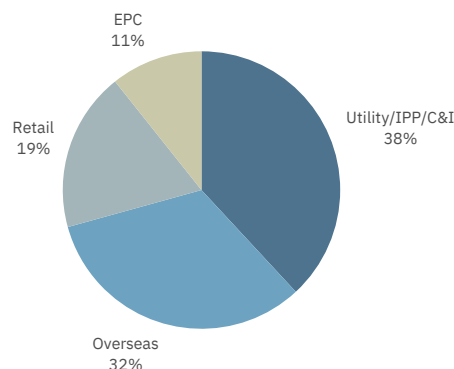
Source: Company, Elara Securities Estimate

**Exhibit 2: Strategic investments powering a diversified green energy portfolio**

	Battery Energy Storage System	Inverters	Green Hydrogen Electrolyser	Renewable Power Infrastructure
	Lithium-ion Storage Cell and Energy Storage System	Renewable Power Projects and Bidding Pipeline	Awarded PLI* for Electrolyser Manufacturing Facility	Renewable Power Generation Infrastructure
Investment	Up to INR100.0bn	Up to INR1.8bn	Up to INR 6.7bn	Discussions ongoing with EGPIPL Committed Outlay of INR 22.5bn + approved
Key Updates	Plant capacity: 20 GWh • Phase-I 3.5GWh by FY27; Remaining by FY28	Plant capacity: 4 GW per annum • Phase-I of 3GW by FY26; remaining by FY27	Plant capacity: 1GW • Operational by FY27	PPA signed/Bid Won – 413MW
Current Status	On track; Factory under construction at Rola (Valsad), Gujarat	On track; Factory under construction at Sarodhi (Valsad), Gujarat	On track; Factory under construction at Dungri (Valsad), Gujarat	Secured connectivity of ~6.1GW

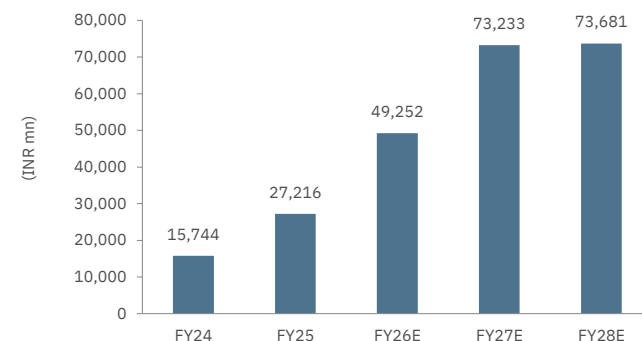
Source: Company, Elara Securities Research

**Exhibit 4: Utility scale projects constitutes 38.1% of the revenue mix**



Source: Company, Elara Securities Research

**Exhibit 6: EBITDA CAGR of 39% during FY25-28E**



Source: Company, Elara Securities Estimate

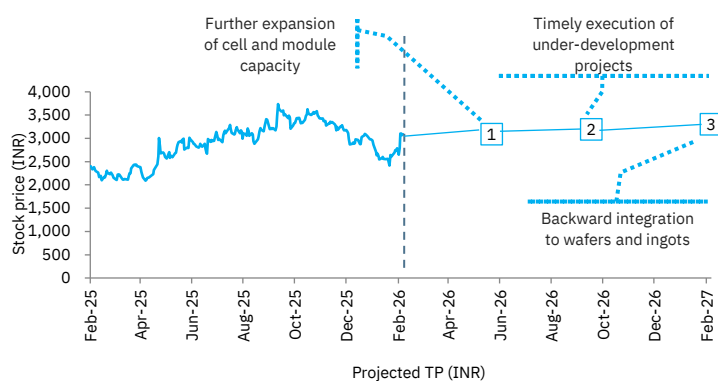
## Investment Rationale

WAAREEEN is set for significant capacity expansion across modules, cells, and wafers by FY27, positioning it as a fully integrated manufacturer. This is combined with supportive policies like the ALMM and DCR.

A sizeable 25GW worth INR 600bn orderbook as on FY26YTD offers strong visibility. While exports exposure brings uncertainty, US manufacturing provides a buffer. Backward integration and entry into the high-margin DCR segment support healthy margin even amid pricing pressure.

Expansion into allied segments, such as BESS, green hydrogen, and inverters, broadens revenue streams and enhances customer wallet share. With strong internal cashflow and capital availability, WAAREEEN is well-positioned to self-fund future expansion and unlock additional value beyond FY28.

## Valuation Triggers



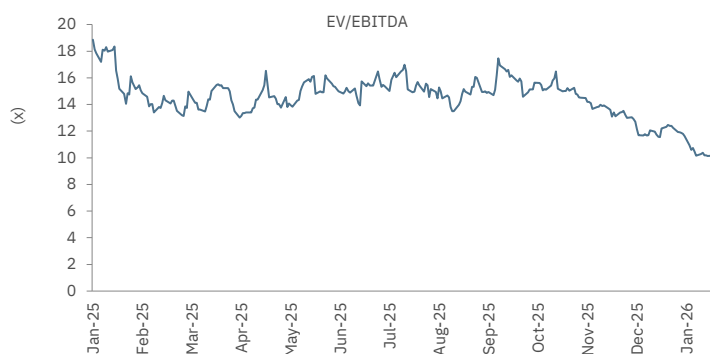
### Valuation triggers

- ▶ Further expansion of cell and module capacity
- ▶ Timely execution of under-development projects
- ▶ Backward integration to wafers and ingots

### Our assumptions

- ▶ No delay in project execution
- ▶ Sustain market share
- ▶ Realization to sustain at similar levels

### One-year forward EV/EBITDA of 9.6x



Source: Bloomberg, Company, Elara Securities Research

### Key risks (downside/upside)

- ▶ Execution risk
- ▶ Risk of margin compression from rising competition
- ▶ Impact on exports from US tariffs

### Valuation

(INR mn)	FY28E
EBITDA	73,681
EV/EBITDA (x)	14
EV	1038895
Debt	88,190
Mcap	9,50,706
Shares (mn)	287
TP (INR)	3,309

Note: pricing as on 06 February 2026; Source: Elara Securities Estimate

### Industry trends and macro factors

- ▶ Implementation of ALMM II and ALMM III
- ▶ Implementation of DCR
- ▶ Rapid growth in India's solar capacity additions

### Market position and competitive landscape

- ▶ Top company in the solar PV module market
- ▶ Competitive edge from backward integration
- ▶ Highly competitive industry landscape

## Financials (YE March)

<b>Income Statement (INRm)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Total Revenue	113,976	144,445	232,378	342,420	393,943
Gross Profit	30,411	61,813	99,922	154,089	177,274
EBITDA	15,744	27,216	49,252	73,233	73,681
EBIT	12,976	23,192	39,568	62,475	61,499
Interest expense	1,399	1,521	3,235	5,500	8,713
Other income	2,352	4,016	7,668	8,560	13,788
Exceptional/ Extra-ordinary items	3,413	(40)	-	-	-
PBT	17,342	25,646	44,002	65,536	66,574
Tax	4,598	6,365	12,760	16,384	16,643
Minority interest/Associates income	-	-	-	-	-
Reported PAT	12,744	19,281	31,241	49,152	49,930
<b>Balance Sheet (INRm)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Shareholders' Equity	40,878	94,792	126,033	175,185	225,116
Minority Interest	607	1,161	1,161	1,161	1,161
Trade Payables	14,752	22,549	26,343	37,059	42,494
Provisions & Other Current Liabilities	37,332	56,160	56,160	56,160	56,160
Total Borrowings	3,173	9,395	31,711	54,999	91,717
Other long term liabilities	16,395	13,418	13,418	13,418	13,418
<b>Total liabilities &amp; equity</b>	<b>113,137</b>	<b>197,474</b>	<b>254,826</b>	<b>337,982</b>	<b>430,065</b>
Net Fixed Assets	24,906	54,691	118,411	186,059	274,752
Goodwill	63	63	63	67	70
Intangible assets	2,940	4,442	4,442	4,664	4,897
Business Investments / other NC assets	5,097	6,709	6,709	7,045	7,397
Cash, Bank Balances & treasury investments	38,503	78,125	58,766	55,332	46,932
Inventories	25,855	26,921	32,660	41,278	47,489
Sundry Debtors	9,714	11,848	19,100	28,144	32,379
Other Current Assets	6,058	14,674	14,674	15,394	16,149
<b>Total Assets</b>	<b>113,137</b>	<b>197,474</b>	<b>254,826</b>	<b>337,982</b>	<b>430,065</b>
<b>Cash Flow Statement (INRm)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
<b>Cashflow from Operations</b>	<b>23,050</b>	<b>31,582</b>	<b>34,964</b>	<b>57,183</b>	<b>64,470</b>
Capital expenditure	(13,423)	(32,741)	(73,405)	(78,405)	(100,875)
Acquisitions / divestitures	-	-	-	-	-
Other Business cashflow	(19,979)	(35,343)	-	-	-
<b>Free Cash Flow</b>	<b>(10,352)</b>	<b>(36,502)</b>	<b>(38,441)</b>	<b>(21,222)</b>	<b>(36,405)</b>
Cashflow from Financing	31,181	76,123	19,082	17,788	28,005
Net Change in Cash / treasury investments	20,828	39,622	(19,359)	(3,434)	(8,400)
<b>Key assumptions &amp; Ratios</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Dividend per share (INR)	-	-	-	-	-
Book value per share (INR)	155.5	330.0	438.7	609.8	783.6
RoCE (Pre-tax) (%)	39.3	30.9	29.9	32.0	22.4
ROIC (Pre-tax) (%)	263.9	139.0	62.1	45.2	27.5
ROE (%)	31.0	28.1	28.0	32.4	24.8
Asset Turnover (x)	5.7	3.6	2.7	2.2	1.7
Net Debt to Equity (x)	(0.9)	(0.7)	(0.2)	0.0	0.2
Net Debt to EBITDA (x)	(2.2)	(2.5)	(0.5)	0.0	0.6
Interest cover (x) (EBITDA/ int exp)	11.3	17.9	15.2	13.3	8.5
Total Working capital days (WC/rev)	112.8	149.3	82.7	59.6	43.9
<b>Valuation</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
P/E (x)	87.0	45.9	28.4	18.0	17.8
P/Sales (x)	7.8	6.1	3.8	2.6	2.3
EV/ EBITDA (x)	53.6	31.0	16.6	11.5	12.1
EV/ OCF (x)	36.4	26.6	24.0	14.7	13.0
Price to BV (x)	19.9	9.4	7.0	5.1	3.9

Note: Pricing as on 06 February 2026; Source: Company, Elara Securities Estimate

## At the Helm of Solar Manufacturing Growth

- ▶ India's PV manufacturing trailblazer
- ▶ Growth visibility backed by robust orderbook
- ▶ Set to evolve into an integrated solar manufacturing leader

### India's PV manufacturing trailblazer

#### India's largest solar manufacturer

WAAREEEN has evolved into India's largest solar module and cell manufacturer, commanding the country's highest installed module capacity of ~23GW across five plants in Gujarat (Chikhli, Surat, Tumb, Nandigram) and Noida, along with an additional 1.6GW facility in the US. The company manufactures a diverse range of modules—multicrystalline, monocrystalline, and TopCon—including advanced bifacial, framed & unframed, and BIPV variants. Its solar module business contributes ~89% of total revenue, complemented by engineering, procurement, and construction (EPC) services managed through its subsidiary, Waaree Renewable Technologies (WRTL). Expanding beyond solar manufacturing, WAAREEEN is venturing into the green hydrogen space, having secured a 90,000 MTPA project from the SECI, marking a significant step in its integrated clean energy strategy.

#### Accelerating cell expansion with a shift toward 100% TopCon technology

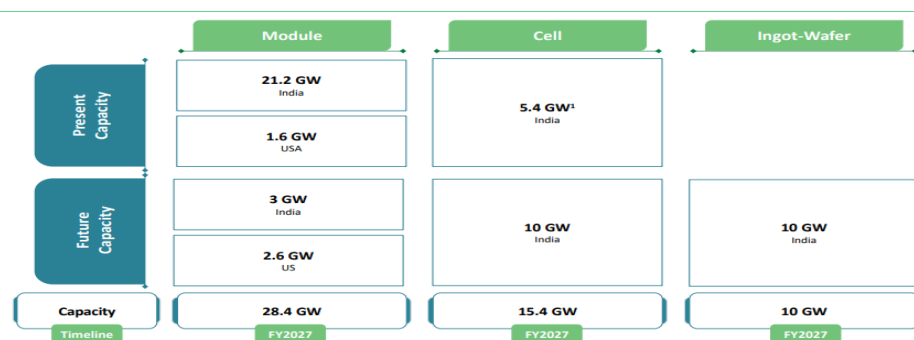
As on December 2025, WAAREEEN operated 5.4GW of solar cell manufacturing capacity at its Chikhli facility. Under its integrated PLI-linked expansion, the company plans to add another 6.0GW of capacity by FY27, along with an additional 4.0GW of non-PLI capacity, taking total cell capacity to an estimated 15.4GW by FY27. Currently, about 26% (1.4GW) of its existing capacity uses Mono PERC technology, while the rest is based on advanced TopCon cells. In the next few years, it aims to transition to TopCon-based production, supported by new installations and upgrade to existing lines. This strategic shift aligns with global trends, as TopCon is likely to remain the leading solar cell technology through CY30, positioning it to sustain technological and cost competitiveness.

#### Accelerating path to full solar manufacturing integration and capacity scale-up

The company currently has no wafer manufacturing capability; however, under its integrated PLI expansion plan, it is setting up 6.0GW of wafer capacity that should enable in-house production by FY27. It is adding a further 4.0GW of wafer capacity under its non-PLI expansion. We expect total wafer capacity to reach 10.0GW by FY27E. With this significant scale-up, WAAREEEN is set to become a deeply integrated firm with projected capacity of 28GW in modules, 15.4GW in cells, and 10.0GW in wafers by FY27. This high level of integration should offer meaningful cost & scale advantages and position the company among the few domestic firms with local wafer production. Moreover, with ALMM-II likely to push the market toward a 90–100% DCR environment, most domestic module sales would need India-made cells. As a result, we expect it to further increase cell capacity to ensure adequate in-house supply for its module lines. While we see the next phase of cell expansion occurring after FY28, a faster ramp-up in DCR-driven orders could prompt WEL to accelerate a portion of this capacity addition.



**Exhibit 7: Planned expansion to cater to growing demand**



Note: <sup>1</sup>Commercial operation initiated from March 29, 2025, <sup>2</sup>Includes recent acquisition of module manufacturing assets of Meyer Burger in US; Source: Company, Elara Securities Research

**Exhibit 8: Strategic investments powering a diversified green energy portfolio**

	Battery energy storage system	Inverters	Green hydrogen electrolyser	Renewable power infrastructure	
	Lithium-ion Storage Cell and Energy Storage System	Renewable Power Projects and Bidding Pipeline	Awarded PLI* for Electrolyser Manufacturing Facility	Renewable Power Generation	Renewable Power Infrastructure
<b>Investment</b>	Up to INR 100.0bn	Up to INR 1.8bn	Up to INR 6.8bn	Discussions ongoing with EGPIPL	Committed Outlay of INR 22.5bn approved
<b>Key Updates</b>	Plant capacity: 20GWh • Phase-I 3.5GWh by FY27; Remaining by FY28	Plant capacity: 4GW per annum • Phase-I of 3 GW by FY26; remaining by FY27	Plant capacity: 1GW • Operational by FY27	PPA signed/Bid Won – 413MW	
<b>Current Status</b>	On track; Factory under construction at Rola (Valsad), Gujarat	On track; Factory under construction at Sarodhi (Valsad), Gujarat	On track; Factory under construction at Dungri (Valsad), Gujarat	Secured connectivity of ~6.1 GW	

Source: Company, Elara Securities Research

### Focus on technology upgrade to manufacture high quality modules

WAAREEN plans to keep upgrading technology across its manufacturing facilities, phasing out multicrystalline module production, in line with market shifts toward advanced products, and expanding output of higher-efficiency Mono PERC and emerging technologies, such as TopCon. The Chikhli module plant is equipped for the latest large-format silicon wafers (G1, M6, M10 & M12), and production includes bifacial Mono PERC, TopCon modules, and semiflexible solar panels for domestic and international markets. Alongside technology upgrade, the company continues to modernize its facilities, aiming to lower operating cost, improve capacity utilization, and enhance overall plant performance through advanced equipment and updated manufacturing methods. Emphasis on automation, modernization, and preventive maintenance is intended to extend asset life, boost efficiency, and limit future capital expenditure. Ongoing evaluation of cutting-edge technologies supports the company's goal of maintaining its competitive edge.

### Integrated, Technology-Flexible Manufacturing Footprint with Advanced Module Capabilities

The company operates four manufacturing facilities in Gujarat—Surat, Tumb, Nandigram, and Chikhli—which are equipped with infrastructure for raw material storage, PV module production, finished goods warehousing, and comprehensive quality control systems. The production lines across these plants are capable of manufacturing both multicrystalline and monocrystalline modules. The Surat, Tumb, and Nandigram units handle the full range of module production, while the newly commissioned Chikhli facility is designed to produce advanced PV modules using high-efficiency, large-format silicon wafers (G1, M6, M10, M12). Power for these facilities is sourced from the State electricity grid with backup systems in place, and water requirements are fulfilled through municipal supply, industrial estate sources, and tankers.

### **Diversified, Future-Ready Module Portfolio with Strategic Shift Toward High-Efficiency Technologies**

WAAREEN manufactures solar PV modules using multicrystalline, monocrystalline, and advanced technologies such as TOPCon, which improves efficiency by reducing energy losses. Its product portfolio includes multicrystalline modules, monocrystalline modules, and TOPCon modules, along with flexible variants such as bifacial Mono PERC (framed and unframed) and building-integrated photovoltaic (BIPV) modules, all marketed under the *Waaree* brand. Product differentiation is based on technology type, cell size, and performance range.

PV modules—assemblies of solar cells that convert sunlight into direct current power—are produced across three main technologies. Multicrystalline modules use several silicon crystals within a single cell, while monocrystalline modules use a single silicon crystal, enabling higher efficiency, better aesthetics, and longer life. Some products incorporate Mono PERC, which adds a rear passivation layer to reflect more light back into the cell. TOPCon modules introduce a thin tunnel oxide layer that lowers recombination losses, resulting in higher conversion efficiency and improved cell performance.

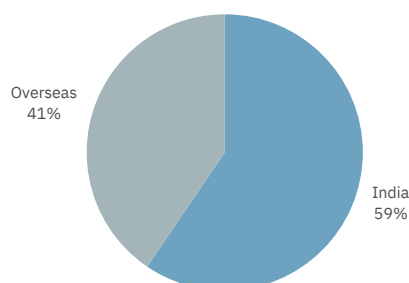
Although multicrystalline and monocrystalline modules currently dominate the product mix, production is set to shift increasingly toward monocrystalline and TOPCon modules, with plans to fully upgrade to TOPCon technology over time. The portfolio includes monofacial modules—made using multicrystalline or Mono PERC cells—which capture light from one side and offer cost-effective performance in lower-reflectivity regions. The company produces Mono PERC-based BIPV modules designed to replace conventional building materials in roofs, facades, and skylights, supporting green building design by providing natural lighting, noise reduction, and better thermal control.

### **Growth visibility backed by robust orderbook**

#### **Extensive domestic and global clients supported by a sizeable order backlog**

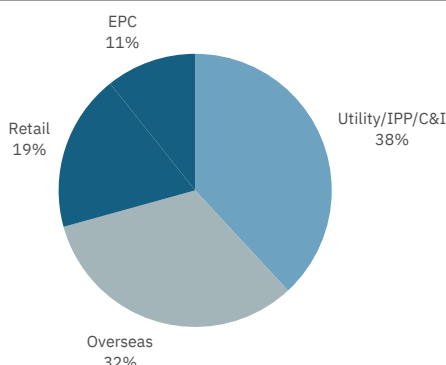
The company's strong market position enables competitive pricing and supports a broad, diversified customer base across India and global markets. Revenue have grown rapidly, rising from INR 19.5bn in FY21 to INR 144.4bn in FY25, along with expanding domestic and international customer relationships. Exports sales has increased significantly, while a 1.6GW US module facility – expandable to 5.0GW by FY27 – is being set up to strengthen global supply chains. High quality, certified manufacturing units, NABL-accredited labs, and inclusion in the ALMM list enhance credibility and access to government projects. Although top customers contribute a rising share of revenue, WAAREEN continues diversifying its customer mix as capacity scales up. It benefits from strong revenue visibility and reduced dependence on individual clients, supporting long-term business stability and growth.

#### **Exhibit 9: Orderbook at 25GW worth INR 600bn as on FY26YTD**



Source: Company, Elara Securities Research

**Exhibit 10: Utility scale projects constitutes 38.1% of the revenue mix**



Source: Company, Elara Securities Research

### Focus on sustaining leadership position in commercial & industrial, and residential verticals

WAAREEN is among India's largest retail solar firms, supported by a nationwide franchisee network focused on rooftop and MSME segments. Although the government's rooftop solar target of 40GW—initially set for FY22 and extended to FY26—has lagged, with about 22.4GW installed by October 2025, rooftop additions are set to accelerate to 19.0–21.5GW during FY26–28. Despite recent slowdowns due to module shortages and higher prices from import duties, rooftop solar continues to attract strong interest because of declining cost and supportive State policies, such as net metering and tariff exemptions.

The company maintains a deep retail presence across India and views network expansion as key to strengthening market penetration in rooftop and MSME segments. Its franchise arrangements go beyond simple distribution, with partners functioning as full-service providers across commercial, industrial, and residential categories.

Significant investments are made in training, customer support, installation, maintenance, and post-sales services. The company plans to expand into additional cities, towns, and rural markets, with strategic focus on high-potential States like Delhi, Gujarat, Maharashtra, Andhra Pradesh, Telangana, Karnataka, and Tamil Nadu—regions characterized by strong industrial demand, higher tariffs, supportive regulations, and favourable solar resources. To further reinforce its market position, it is building a network of trained local electricians and contractors to support rooftop installation and servicing. Its widespread, localized footprint is likely to remain a strong competitive advantage and a barrier to new entrants, including China's suppliers, in the rooftop and MSME segments.

### Capex drive to bolster integration and cost efficiency

The company has outlined one of the most aggressive and diversified capex programs in India's solar manufacturing sector, with cumulative investments of ~INR 250bn planned during FY26–28 across modules, cells, ingot-wafers, BESS, inverters, electrolyzers, and transformers, to be funded through a calibrated mix of internal accruals and incremental debt. A large share of the outlay targets high value, structurally accretive segments, including BESS worth ~INR 100bn for ~20GWh), solar cells worth ~INR 71bn for 10GW, and ingot-wafer manufacturing worth ~INR 34bn for 10GW, materially strengthening backward integration and long-term cost competitiveness. The company plans a INR 1.6–2.0bn investment in FY28 to upgrade cell technology from mono PERC to TOPCon, enabling efficiency gains and alignment with global technology trends at limited incremental capital intensity.

## Evolve into integrated solar manufacturing leader

### Implements strategic backward integration to enhance operations and increase profitability

WAAREEN's backward integration strategy is aimed at improving operational efficiency and maintain grid reliability and enable continued power supply. Leveraging regulatory support and declining battery cost, the company is developing a 3.5GWh BESS facility near Chikhli, likely to be operational by FY27, and recently has announced an expansion of the project to 20GWh. It has committed ~INR 100bn toward BESS.

**Inverter manufacturing:** The company is setting up a 3GW inverter manufacturing facility scheduled for commissioning in FY26, strengthening its integrated presence across the solar value chain. It has recently increased planned capacity to 4.0GW and approved an additional investment of INR 0.5bn in its wholly owned subsidiary, Waaree Power. It plans a investment of INR 0.5bn toward inverter manufacturing.

**Hydrogen electrolyzers:** WAAREEN is entering the green hydrogen space with a 1GW electrolyzer manufacturing facility, planned for commissioning in FY27, supporting India's broader energy transition goals. It has planned an investment of INR 1.3bn toward this vertical.

**Technology transition:** The company is shifting its module production toward TOPCon technology, which is set to lead the photovoltaic market by FY27, as Mono PERC volume tapers off. Heterojunction (HJT) modules are set to see broader adoption post-CY27. Despite requiring ~15–20% higher capital investment, TOPCon is rapidly becoming the preferred global technology standard.

### Acquisitions strengthening presence across value chain

**United Solar Holding:** WAAREEN's USD 30mn strategic investment in United Solar Holding ensures long-term access to high-purity polysilicon (~100,000mn tonne capacity), significantly enhancing its upstream integration. The Oman-based, non-China, traceable supply chain offset raw material risks for WAAREEN's growing US and global manufacturing operations, reduces input volatility, and supports structurally more resilient margins over the medium term.

**Meyer Burger:** HIFY26 acquisition of Meyer Burger's US module manufacturing assets for USD 18.5mn significantly bolsters WAAREEN's exports capabilities by establishing an immediate manufacturing presence in the US, one of the fastest-growing solar markets targeting 60GW annual additions between 2025–2030. The facility adds 1 GW of advanced HJT capacity, allowing WAAREEN to serve the premium, high-efficiency segment while leveraging favorable US policy support, including domestic-content incentives. This local presence enhances access to utility-scale and corporate customers, reduces trade and tariff exposure, supports high-margin exports, and diversifies earnings, strengthening WAAREEN's strategic footprint in the US solar value chain.

**Enel Green Power India:** The January 2025 acquisition of Enel Green represents a strategic move in WAAREEN's transformation into an integrated renewable energy platform. By acquiring 100% equity for up to ~INR 7.9bn, the company adds ~640MW AC (760MW DC) of operational solar and wind assets, thereby scaling up its IPP portfolio and diversifying revenue streams beyond manufacturing. The deal enhances execution capabilities in wind and utility-scale projects, strengthens downstream integration, improves earnings stability, and supports structurally resilient medium-term returns.

**Kamath Transformers:** This acquisition enhances WAAREEN's downstream integration into grid and power-evacuation infrastructure, addressing a key bottleneck in largescale renewables deployment. With May 2025 acquisition of Kamath Transformers for ~INR 2.9bn, the company gains in-house transformer manufacturing capabilities, strengthening execution control, lowering reliance on external suppliers, and improving cost & timeline predictability across its IPP, EPC, and utility-scale projects.

**Kotsons:** WAAREEN's acquisition of a 64% stake in Kotsons in October 2025 for ~INR 1.9bn marks its strategic entry into transformer manufacturing, a key segment of the renewables energy value chain. Kotsons brings in-house capabilities in grid and power infrastructure, enhancing control over project execution, reducing reliance on third-party suppliers, and offset cost & timeline risks across WAAREEN's growing IPP and EPC operations. The deal strengthens downstream integration, accelerates the scale-up of renewable capacity, and improves margin resilience, supporting its evolution into a comprehensive, end-to-end energy solutions provider.

**Racemosa Energy (India):** WAAREEN's acquisition of a 76% stake in Racemosa Energy for ~INR 0.5bn enhances its downstream power infrastructure capabilities by entering the smart meter segment. This strategic move complements its core solar manufacturing business, enabling broader participation in grid-connected, distributed, and storage-driven applications as India's smart metering rollout expands.



## Valuation and Recommendation

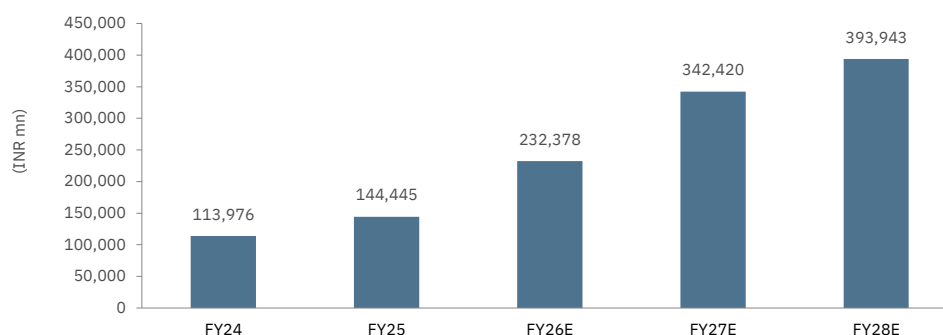
- ▶ Revenue CAGR of 40% during FY25-28E
- ▶ EBITDA CAGR 39% during FY25-28E
- ▶ Initiate with **Accumulate** and a TP of INR 3,309, implying 7% upside

### Revenue CAGR of 40% during FY25-28E

#### Capacity expansion to drive top line

The company currently operates 22.5GW of module capacity, including 21.2GW in India and 1.6GW in the US, along with 5.4GW of cell manufacturing capacity as on FY26YTD. It aims to expand module capacity to 28.4GW, supported by a 3GW PLI-backed pipeline and an additional 2.5GW in the US by FY27. Cell capacity is likely to increase to 15.4GW, driven by 6.0GW under the PLI scheme and a further 4.0GW of new additions. The company has unveiled plans for 10.0GW of ingot-wafer capacity, comprising 6.0GW under PLI and 4.0GW in India. These expansions are set to significantly bolster growth, with a revenue CAGR of 40% during FY25-28E, increasing from INR 144bn to INR 393bn.

#### Exhibit 11: Revenue CAGR of 40% during FY25-28E

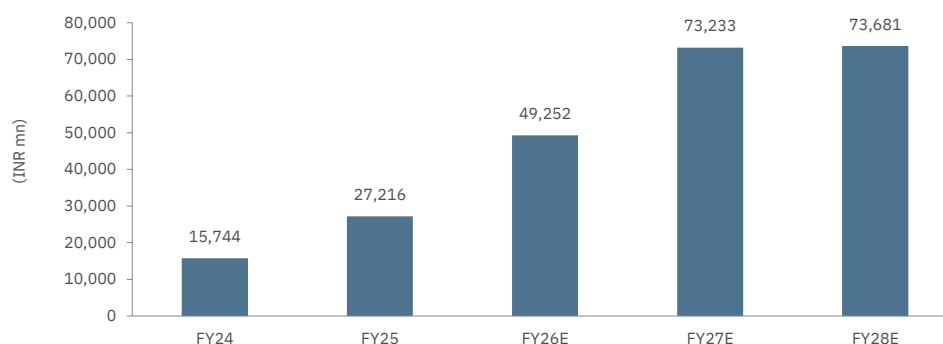


Source: Company, Elara Securities Estimate

### EBITDA CAGR of 39% during FY25-28E

EBITDA is likely to rise to INR 74bn by FY28E, supported by its growing asset base. We expect PAT to increase to INR 49.9bn by FY28E. We expect EPS to expand to INR 173.8 in FY28E from INR 67.1 in FY25.

#### Exhibit 12: EBITDA CAGR of 39% during FY25-28E



Source: Company, Elara Securities Estimate

### Initiate with Accumulate and a TP of INR 3,309, implying 7% upside

We expect a revenue CAGR of 40% and an EBITDA CAGR of 39% during FY25-28E. We initiate coverage of WAAREEEN with an **Accumulate** rating and a TP of INR 3,309 based on 14x FY28E EV/EBITDA to factor in robust growth prospects and domestic industry tailwinds. Key downside risks are: 1) increased competition from large domestic firms may put pressure on pricing and margin, and 2) heavy US market reliance heightens sensitivity to policy, tariffs, and geopolitical shifts

#### Exhibit 13: Valuation

(INR mn)	FY28E
EBITDA	73,681
EV/EBITDA (x)	14
EV	1038895
Debt	88,190
Mcap	9,50,706
Shares (mn)	287
TP (INR)	3,309

Note: pricing as on 06 February 2026; Source: Elara Securities Estimate

#### Key risks to our call

- ▶ Growing competition from large domestic manufacturers could squeeze pricing power and compress margin.
- ▶ Heavy dependence on the US market makes the company vulnerable to policy changes, tariff actions, and geopolitical developments.
- ▶ Profitability and market position may weaken if plans for upstream integration, such as cells and ingot & wafer manufacturing, do not scale as we had expected.
- ▶ The company's rapid expansion into capital-intensive cell and ingot & wafer facilities heightens execution and ramp-up risks, which could affect project timelines, costs, and near- to medium-term financial performance.

## Company Background

Waaree Energies (WAAREEN IN) was founded in 1990. It is India's largest manufacturer of solar PV modules with the largest aggregate installed capacity of 18.7GW. The company has commissioned a 5.4GW cell manufacturing facility in Gujarat. It commenced operations in CY07 focusing on solar PV module manufacturing with an aim to provide quality, cost-effective sustainable energy solutions across markets, and aids in reducing carbon footprints, paving the way for sustainable energy, thereby improving quality of life. The company has five solar module manufacturing facilities in India, with an international presence.

### Board of directors

#### Hitesh Chimanlal Doshi, Chairman and Managing Director

Hitesh Chimanlal Doshi has been associated with the company since 1999 and is currently responsible for, inter alia, overseeing financial performance, investments and other business ventures, providing strategic advice to the Board, developing & executing business strategies and establishing policies and legal guidelines. He has more than 22 years of experience in the engineering industry.

#### Hitesh Pranjivan Mehta, Whole-time Director

Hitesh Pranjivan Mehta has been associated with the company since April 1, 2011, as the director in the Waaree Group. He is currently responsible for, inter alia, leading the company's short & long-term strategy and setting strategic goals. He has 23 years of experience in the field of engineering, solar & oil industries, and was previously associated with Waaree Instruments as Director.

#### Viren Chimanlal Doshi, Whole-time Director

Viren Chimanlal Doshi has been associated with the company since November 26, 2007, and it is currently responsible for overseeing the engineering, procurement and construction of the solar projects of the company, its subsidiaries & other companies within the Group. He has 15 years of experience in the engineering industry.

#### Dr Amit Ashok Paithankar, Whole-time Director and CEO

Dr Amit Ashok Paithankar is an industry veteran with 25 years of experience in Engineering, R&D, Manufacturing, IT, and General Management. He has worked across diverse geographical locations, including India, the Asia-Pacific, the EU, and the US. Commencing his career in design engineering and manufacturing at Crompton Greaves, he subsequently transitioned into R&D with ABB. Prior to joining WAAREEN, he held several key positions at Emerson over a 20-year tenure, overseeing sales & general management in India, and later the Asia-Pacific, handling P&L ranging from USD 200mn-1bn. He was instrumental in setting up R&D and manufacturing centers in India and steered global technology & shared service centers toward the end of his tenure. He has a Doctorate in Technology, Electrical Engineering from the University of Mumbai, and MBA from the London School of Business and Finance.

#### Richa Manoj Goyal, Independent Director

Richa Manoj Goyal has been associated with the company since CY21. She is certified trademarks agent and she is currently managing partner of the law firm, Richa Goyal and Associates. She holds a Bachelor's degree in Commerce from HA Commerce College and a Bachelor's degree in Law from Gujarat University and is a practicing Company Secretary.

#### Rajender Mohan Malla, Independent Director

Rajender Mohan Malla has been associated with the company since CY19. He previously has held the position of Director in various companies, such as SIDBI Venture Capital, IDBI Capital Markets and Securities, and IDBI Asset Management.

#### Mahesh Ramchand Chhabria, Non-Executive - Independent Director Independent Director

Shri Mahesh Chhabria holds a Bachelor of Commerce degree from the University of Mumbai and is an Associate Member of the Institute of Chartered Accountants of India. He was the Managing Director at Kirloskar Industries Limited from July 2017 till March 31, 2025. He was also Non-Executive Non-Independent Director in Kirloskar Pneumatic Company Limited, Kirloskar Ferrous Industries Limited and Kirloskar Oil Engines Limited, Arka Fincap Ltd & Arka Financial Holdings Ltd. In his career spanning over three decades, Shri Mahesh Chhabria has undertaken several leadership roles across private equity and investment banking firms. His belief in emerging India growth story and corporate India's global aspiration led him to join Actis, a long standing leading private equity fund as a Partner for Industrial and Healthcare investments. He had a long stint of 13 years at Enam, one of the leading investment banks in India, where he held multiple roles and in the last five years there, he was the co-head of Investment Banking division.

Coverage History



Date	Rating	Target Price (INR)	Closing Price (INR)
06-Feb -2026	Accumulate	3,309	3,088

Guide to Research Rating

BUY (B)	Absolute Return >+20%
ACCUMULATE (A)	Absolute Return +5% to +20%
REDUCE (R)	Absolute Return -5% to +5%
SELL (S)	Absolute Return < -5%

# Premier Energies

India | Utilities | Initiating Coverage



10 February 2026

## Future-ready solar powerhouse

Premier Energies (PREMIERE IN) is a leading integrated solar manufacturer in India, spanning cells, modules, inverters, and transformers. It has ramped up module and cell production, embraced TOPCon technology, and is expanding into battery energy storage systems (BESS) and aluminium-frame production. A reliable domestic and international supplier, it faces margin risk from rising competition. The stock has corrected 33% in the past from its peak, and current valuations bake in overcapacity concerns and margin compression. We initiate with an **Accumulate** rating with a TP of INR 886.

**On track for full integration by FY28:** Among India's largest solar equipment manufacturers, PREMIERE is primed to lead by FY28. This transition would be driven by: 1) scaling up its cell capacity from 3.2GW to 11.1GW & module capacity from 5.1GW to 10.6GW, and 2) adding 10GW each of ingot & wafer capacity. Strong process efficiency and backward integration secure its edge in the high realization domestic content requirement (DCR) segment through FY28, anchoring its competitive differentiation.

**Module capacity to triple by FY26:** The company's manufacturing operations spans three Telangana-based subsidiaries – Premier Energies Photovoltaic (PEPPL), Premier Energies International (PEIPL) and Premier Energies Global Environment (PEGEPL). As on June 2025, these subsidiaries had capacity of 1.4GW (PEPPL), 1.6GW (PEIPL) and 2.1GW (PEGEPL). A 6GW capacity expansion is underway, likely to be completed by March 2026. This new TOPCon module manufacturing line will be set up under PEGEPL.

**Cell capacity to surge to 10GW by FY28:** PREMIERE was among the first firms to make solar cells in India: its subsidiary PEPPL hit 0.5GW capacity by FY22. As on June 2025, total installed solar cell capacity increased to 3.2GW, distributed across PEPPL (0.8GW), PEIPL (1.3GW), and PEGEPL (1.2GW). The company is executing a significant expansion plan. About 1.2 GW of new cell capacity was commissioned in June 2025, while an additional 4.8GW is set to come online by FY27 and another 2.2 GW by FY28. By end-FY28, total cell manufacturing capacity is likely to reach 10.0GW.

**Initiate with Accumulate and a TP of INR 886:** We expect a revenue CAGR of 35% and an EBITDA CAGR of 27% during FY25-28E. We initiate coverage of PREMIERE with an **Accumulate** rating and a TP of INR 886 based on 12x FY28E EV/EBITDA. The stock has corrected 33% in the past from its peak of INR 1,177. Current valuation factors in oversupply concerns as well as margin pressure. Backward integration fuels 2-3 years of robust expansion. Key risks include: 1) increased competition from large domestic companies may erode pricing & margin, and 2) heavy US market reliance exposes it to policy, tariffs, and geopolitical uncertainty.

Rating: [Accumulate](#)  
Target Price: [INR 886](#)  
Upside: [11%](#)  
CMP: [INR 796](#)  
As on 6 February 2026

### Key data

Bloomberg	PREMIERE IN
Reuters Code	PEME.NS
Shares outstanding (mn)	453
Market cap (INR bn/USD mn)	360/3,975
EV (INR bn/USD mn)	356/3,928
ADTV 3M (INR mn/USD mn)	1,569/17
52 week high/low	1,164/660
Free float (%)	26

Note: as on 6 February 2026; Source: Bloomberg

### Price chart



Source: Bloomberg

	Q4 FY25	Q1 FY26	Q2 FY26	Q3 FY26
Shareholding (%)				
Promoter	64.3	64.3	63.9	63.9
% Pledge	0.0	0.0	0.0	0.0
FII	3.0	4.4	4.3	4.5
DII	8.7	13.1	13.4	12.8
Others	24.0	18.3	18.4	18.8

Source: BSE

Price performance (%)	3M	6M	12M
Nifty	0.8	5.5	9.1
Premier Energies	(22.7)	(19.2)	(23.2)
NSE Mid-cap	0.1	5.3	9.9
NSE Small-cap	(6.8)	(4.1)	(1.1)

Source: Bloomberg

### Key financials

YE March (INR mn)	FY24	FY25	FY26E	FY27E	FY28E
Revenue (INR mn)	31,438	65,187	79,310	126,628	161,526
YoY (%)	120.1	107.4	21.7	59.7	27.6
EBITDA (INR mn)	4,778	17,809	20,889	31,976	36,445
EBITDA margin (%)	15.2	27.3	26.3	25.3	22.6
Adj PAT (INR mn)	2,314	9,371	11,714	17,628	19,524
YoY (%)	1,834.9	305.1	25.0	50.5	10.8
Fully DEPS (INR)	8.8	20.8	26.0	39.1	43.3
RoE (%)	42.7	53.8	34.4	36.2	29.0
RoCE (%)	30.1	48.5	30.5	28.6	23.2
P/E (x)	90.6	38.3	30.6	20.3	18.4
EV/EBITDA (x)	74.5	19.5	18.0	12.0	9.0

Note: Pricing as on 6 February 2026; Source: Company, Elara Securities Estimate

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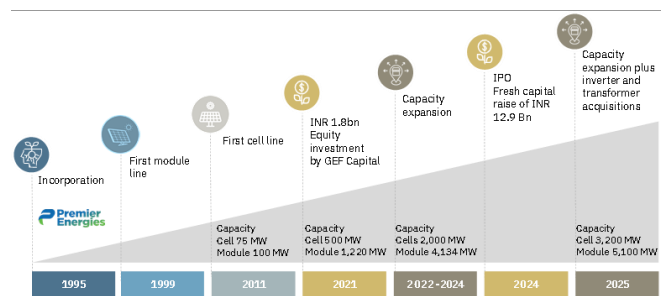
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## Story in charts

**Exhibit 1: Rapid expansion over the years**



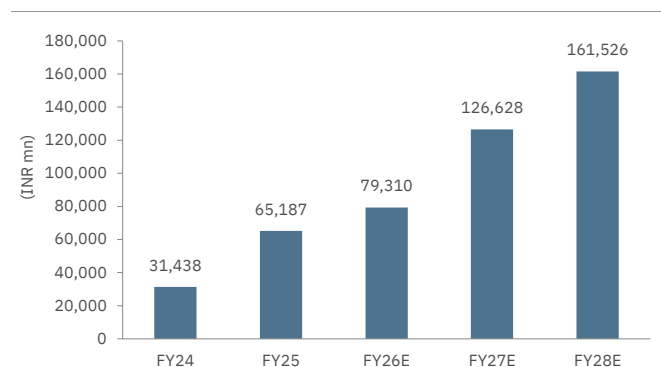
Source: Company, Elara Securities Research

**Exhibit 3: Cell capacity to expand significantly during FY25-28**

Installed capacity (GW)	Location	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
PEL (Unit 1)	Telangana							
PEPPL (Unit 2)	Telangana	0.5	0.8	0.8	0.8	1.2	1.2	1.2
PEIPL (Unit 3)	Telangana			1.3	1.3	1.3	1.3	1.3
PEIPL (Unit 4)	Telangana							
PEGEPL (Unit 5)	Telangana					1.2	8.2	8.2
<b>Total domestic cell capacity</b>		<b>0.5</b>	<b>0.8</b>	<b>2.1</b>	<b>2.1</b>	<b>3.3</b>	<b>8.1</b>	<b>10.1</b>

Source: Company, Elara Securities Estimate

**Exhibit 5: Revenue CAGR of 35% during FY25-28E**



Source: Company, Elara Securities Estimate

**Exhibit 2: Module capacity to double by FY28E**

Installed capacity in fiscal years (GW)	Location	FY22	FY23	FY24	FY25	FY26E	FY27E	FY28E
PEL (Unit 1)	Telangana	0.5	0.5	0.3				
PEPPL (Unit 2)	Telangana	0.8	0.9	1.4	1.4	1.8	1.8	1.8
PEIPL (Unit 3)	Telangana							
PEIPL (Unit 4)	Telangana			1.6	1.6	1.6	1.6	1.6
PEGEPL (Unit 5)	Telangana			0.1	1.1	2.1	7.7	7.7
<b>Total domestic module capacity</b>		<b>1.3</b>	<b>1.4</b>	<b>3.4</b>	<b>4.1</b>	<b>5.1</b>	<b>10.7</b>	<b>10.7</b>

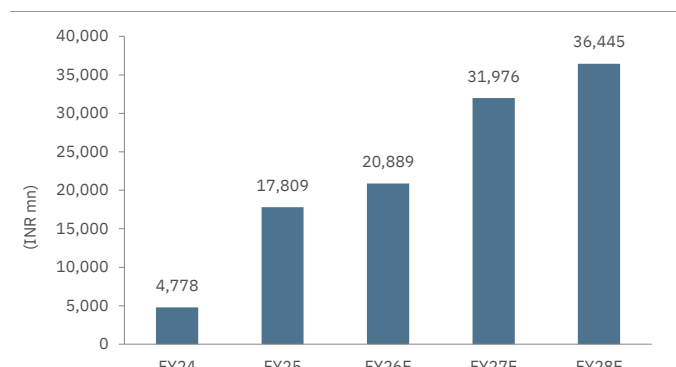
Source: Company, Elara Securities Estimate

**Exhibit 4: Module capacity stands at 5.1GW**

Manufacturing Unit	Subsidiary	Product	Annual Installed Capacity	Date of Commissioning	IREDA Appraised Project Cost (INR mn)	Actual Capital Expenditure (INR mn)
Unit II	PEPPL	Cell	500	FY22	2,250	4,119
Unit II	PEPPL	Cell	250	FY23	1,420	
Unit II	PEPPL	Module	1,400	FY22	1,258	1,276
Unit III	PEIPL	Cell	1,250	FY24	4,996	4,482
Unit IV	PEIPL	Module	1,600	FY24	2,005	2,019
Unit V	PEGEPL	Module	100	FY24		38
Unit II	PEPPL	Cell	1,000	FY25	6,694	
Unit V	PEGEPL	Module	2,034	FY25	1,750	1,077

Source: Company, Elara Securities Research

**Exhibit 6: EBITDA CAGR of 27% during FY25-28E**



Source: Company, Elara Securities Estimate

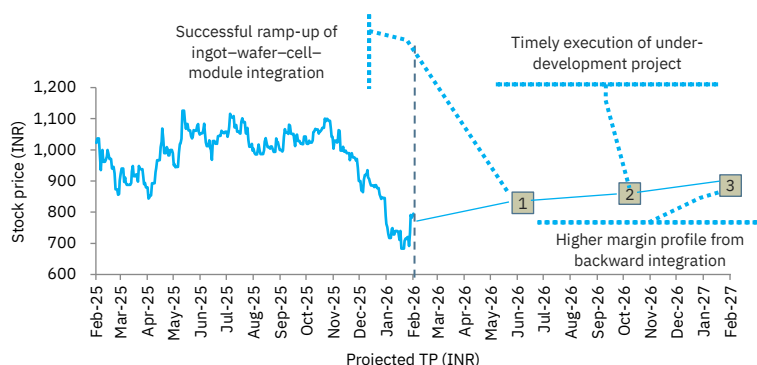
## Investment Rationale

PREMIERE is rapidly transitioning into a fully integrated solar manufacturer with planned expansion across ingots, wafers, cells, and modules. By FY28E, it aims to operate 10GW each of ingot, wafer, and cell capacity, along with 11GW of modules—significantly strengthening cost competitiveness and supply-chain control.

As one of India's early cell manufacturers (since FY22), the company has already scaled up cell capacity to 3GW across several facilities. Its operational experience gives it an edge over new entrants, which usually face longer efficiency ramp-up periods, ensuring higher yield, and better profitability.

Module manufacturing capacity is set to nearly triple, aided by a 6GW TOPCon expansion, due by March 2026. With total existing module capacity of 5.1GW and strong presence across high-efficiency technologies, PREMIERE is well positioned to cater to rising domestic DCR and global demand.

## Valuation Triggers



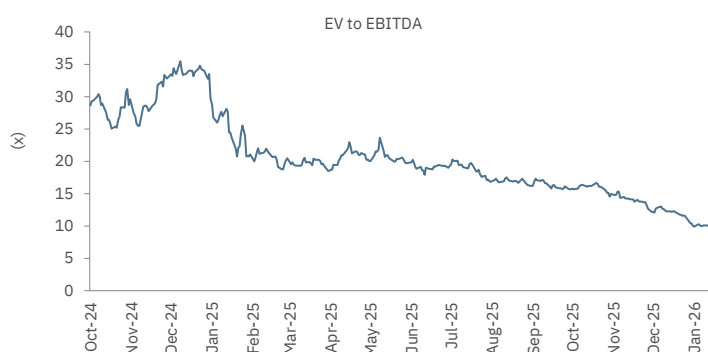
### Valuation triggers

- ▶ Successful ramp-up of ingot-wafer-cell-module integration
- ▶ Timely execution of under-development project
- ▶ Higher margin profile from backward integration

### Our assumptions

- ▶ No delay in project execution
- ▶ Sustain market share
- ▶ Realization to remain at similar levels

### One-year forward EV/EBITDA of 9.9x



Source: Bloomberg, Company, Elara Securities Research

### Key risks (downside/upside)

- ▶ Execution risk
- ▶ Risk of margin compression from rising competition
- ▶ Impact on exports to the US from tariffs

### Valuation

(INR mn)	FY28E
EBITDA	36,445
EV/EBITDA	12.0
EV	437,335
Debt	37,945
Mcap	399,391
Shares (mn)	451
TP(INR)	886

Note: pricing as on 6 February 2026; Source: Elara Securities Estimate

### Industry trends and macro factors

- ▶ Implementation of ALMM II and ALMM III
- ▶ Implementation of DCR
- ▶ Rapid growth in India's solar capacity addition

### Market position and competitive landscape

- ▶ Strong position among India's top module manufacturers
- ▶ Competitive edge from backward integration
- ▶ Highly competitive industry landscape

## Financials (YE March)

<b>Income Statement (INR mn)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Total Revenue	31,438	65,187	79,310	126,628	161,526
Gross Profit	9,158	30,823	31,743	54,987	66,959
EBITDA	4,778	17,809	20,889	31,976	36,445
EBIT	3,817	12,834	16,222	25,347	28,245
Interest expense	1,212	1,774	1,729	3,037	3,478
Other income	275	1,333	1,119	1,186	1,257
Exceptional/ Extra-ordinary items	-	-	-	-	-
PBT	2,880	12,393	15,612	23,496	26,025
Tax	580	3,028	3,905	5,876	6,508
Minority interest/Associates income	13	7	7	7	7
Reported PAT	2,314	9,371	11,714	17,628	19,524
Adjusted PAT	2,314	9,371	11,714	17,628	19,524
<b>Balance Sheet (INR mn)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Shareholders' Equity	6,469	28,221	39,935	57,563	77,087
Minority Interest	130	-	-	-	-
Trade Payables	9,746	9,647	11,902	17,838	23,491
Provisions & Other Current Liabilities	9,098	18,071	18,071	18,409	18,409
Total Borrowings	8,799	9,354	28,934	50,734	58,084
Other long term liabilities	1,300	3,121	3,121	3,121	3,121
<b>Total liabilities &amp; equity</b>	<b>35,541</b>	<b>68,414</b>	<b>101,963</b>	<b>147,665</b>	<b>180,192</b>
Net Fixed Assets	12,084	11,547	54,480	91,451	113,252
Goodwill	0	0	0	0	0
Intangible assets	88	600	600	600	600
Business Investments / other NC assets	1,551	3,938	3,938	3,938	3,938
Cash, Bank Balances & treasury investments	4,027	28,380	16,578	12,913	13,695
Inventories	10,093	13,256	16,079	25,673	32,748
Sundry Debtors	6,090	8,009	7,605	10,408	13,276
Other Current Assets	1,609	2,683	2,683	2,683	2,683
<b>Total Assets</b>	<b>35,541</b>	<b>68,414</b>	<b>101,963</b>	<b>147,665</b>	<b>180,192</b>
<b>Cash Flow Statement (INR mn)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
<b>Cashflow from Operations</b>	<b>902</b>	<b>13,480</b>	<b>17,947</b>	<b>21,172</b>	<b>26,910</b>
Capital expenditure	(4,514)	(6,202)	(47,600)	(43,600)	(30,000)
Acquisitions / divestitures	47	(17,901)	-	-	-
Other Business cashflow	-	-	-	-	-
<b>Free Cash Flow</b>	<b>(3,565)</b>	<b>(10,622)</b>	<b>(29,653)</b>	<b>(22,428)</b>	<b>(3,090)</b>
Cashflow from Financing	5,139	34,976	17,851	18,763	3,872
Net Change in Cash / treasury investments	1,575	24,353	(11,802)	(3,665)	782
<b>Key assumptions &amp; Ratios</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Book value per share (INR)	24.6	62.6	88.6	127.7	171.0
RoCE (Pre-tax) (%)	30.1	48.5	30.5	28.6	23.2
ROIC (Pre-tax) (%)	40.5	124.8	52.8	34.3	26.0
ROE (%)	42.7	53.8	34.4	36.2	29.0
Asset Turnover (x)	2.9	5.5	2.4	1.7	1.6
Net Debt to Equity (x)	0.7	(0.7)	0.3	0.7	0.6
Net Debt to EBITDA (x)	1.0	(1.1)	0.6	1.2	1.2
Interest cover (x) (EBITDA/ int exp)	3.9	10.0	12.1	10.5	10.5
Total Working capital days (WC/rev)	47.5	185.9	65.5	54.7	51.9
<b>Valuation</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
P/E (x)	90.6	38.3	30.6	20.3	18.4
P/Sales (x)	11.5	5.5	4.5	2.8	2.2
EV/ EBITDA (x)	74.5	19.5	18.0	12.0	9.0
EV/ OCF (x)	395.0	26.4	19.8	16.8	13.2
Price to BV (x)	32.4	12.7	9.0	6.2	4.7

Note: Pricing as on 6 February 2026; Source: Company, Elara Securities Estimate

## Future-ready solar powerhouse

- ▶ Poised to become a fully integrated solar leader by FY28
- ▶ Module manufacturing capacity set to almost triple
- ▶ Rapid scale-up in cell manufacturing capacity

### Poised to become fully integrated solar leader by FY28

#### One of India's leading solar manufacturer with expanding capacity base

The company is recognized as India's one of the leading manufacturers of solar cells and modules, and the second-largest solar cell producer in the country. It operates with total annual installed capacity of 3.2GW for solar cells and 5.1GW for solar modules as on 31 Dec, 2025

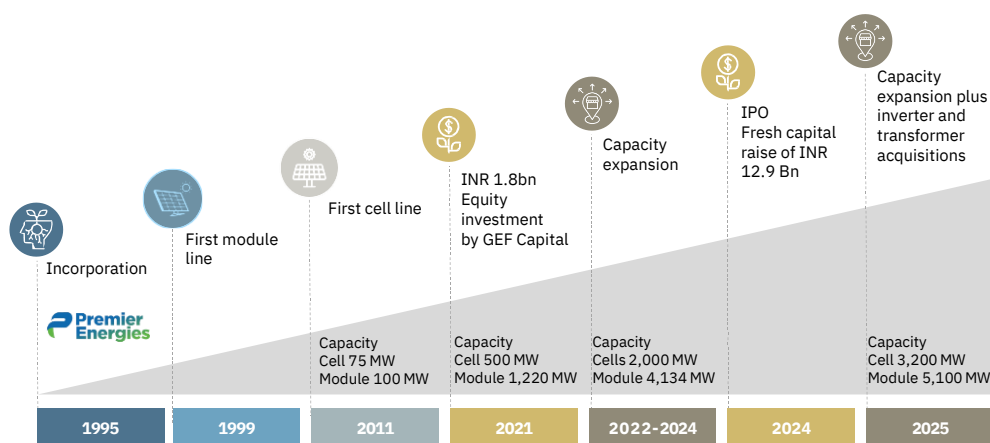
For the past 25 years, the company has steadily expanded its manufacturing capabilities, as reflected in growth of its annual installed capacity. This long track record underscores its strong presence in the solar module manufacturing industry. The company manufactures solar cells and modules across five facilities on company-owned land at Hyderabad, Telangana. These plants are equipped with automated industrial-grade machinery. Units I, IV and V are dedicated to solar module production; Unit II produces cells and modules while Unit III focuses exclusively on solar cells.

PREMIERE ranks among India's largest solar PV module manufacturers, with total domestic installed capacity of 5.1GW as on Dec 2025. Its manufacturing operations are spread across three unlisted subsidiaries: Premier Energies Photovoltaic (PEPPL), Premier Energies International (PEIPL), and Premier Energies Global Environment (PEGEPL).

As on June 2025, these subsidiaries had module capacity of 1.4GW (PEPPL), 1.6GW (PEIPL), and 2.1GW (PEGEPL). All production facilities are in Telangana. The company is undertaking a 6.0GW expansion, likely to be completed by March 2026, as per guidance. This new capacity—focused on TOPCon module manufacturing—will be added under PEGEPL.

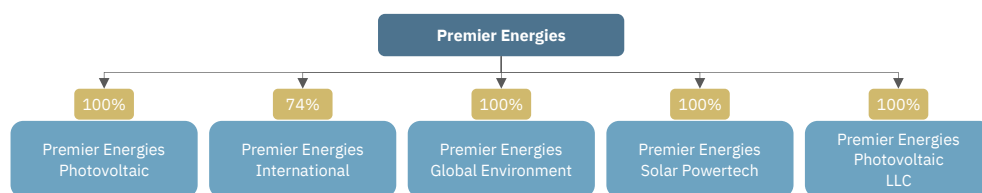
PREMIERE entered India's solar cell manufacturing sector early, beginning with its subsidiary PEPPL, which had an installed capacity of 0.5GW in FY22. As on June 2025, its total cell manufacturing capacity has increased to 3.0GW, distributed as 0.8GW under PEPPL, 1.3GW under PEIPL, and 1.2GW under PEGEPL. The company is executing a significant expansion plan: 1.2GW added in June 2025, another 4.8GW is set to come online by FY27, and an additional 1.6–2.0GW by FY28. This implies total installed cell manufacturing capacity could reach about 10GW by the end of FY28.

#### Exhibit 7: Rapid expansion over the years



Source: Company, Elara Securities Research

### Exhibit 8: Company structure



Source: Company, Elara Securities Research

### Exhibit 9: Module capacity to double by FY28, as per guidance

Installed capacity in fiscal years (GW)	Location	FY22	FY23	FY24	FY25	FY26	FY27	FY28
PEL (Unit 1)	Telangana	0.5	0.5	0.3				
PEPPL (Unit 2)	Telangana	0.8	0.9	1.4	1.4	1.8	1.8	1.8
PEIPL (Unit 3)	Telangana							
PEIPL (Unit 4)	Telangana			1.6	1.6	1.6	1.6	1.6
PEGEPL (Unit 5)	Telangana			0.1	1.1	2.1	7.7	7.7
<b>Total domestic module capacity</b>		<b>1.3</b>	<b>1.4</b>	<b>3.4</b>	<b>4.1</b>	<b>5.1</b>	<b>10.7</b>	<b>10.7</b>

Source: Company, Elara Securities Research

### Exhibit 10: Cell capacity to expand significantly during FY25-28

Installed capacity (GW)	Location	FY22	FY23	FY24	FY25	FY26	FY27	FY28
PEL (Unit 1)	Telangana							
PEPPL (Unit 2)	Telangana	0.5	0.8	0.8	0.8	1.2	1.2	1.2
PEIPL (Unit 3)	Telangana			1.3	1.3	1.3	1.3	1.3
PEIPL (Unit 4)	Telangana							
PEGEPL (Unit 5)	Telangana					1.2	8.2	8.2
<b>Total domestic cell capacity</b>		<b>0.5</b>	<b>0.8</b>	<b>2.1</b>	<b>2.1</b>	<b>3.3</b>	<b>8.1</b>	<b>10.1</b>

Source: Company, Elara Securities Research

### Strong positioning in DCR market, driven by integrated operations

The company's backward integration and fully integrated operations have enabled it to participate in the domestic content requirement (DCR) market, which mandates both solar cells and modules be manufactured in India. Government programs, such as the PM-KUSUM Scheme and the CPSU Scheme, have increased demand for DCR-compliant modules in the domestic market. Likewise, the newly launched Grid Connected Solar Rooftop Programme, which aims to provide free electricity to 10mn households through subsidized rooftop solar installations, requires exclusive use of DCR solar modules. These initiatives create a structured environment, supporting the adoption of domestically produced solar equipment.

Management believes it is well protected from new competition in the integrated solar cell and module manufacturing segment, due to significant entry barriers. These include significant capital investment requirements, the need for specialized technical know-how, and long setup timelines—around 15–18 months to establish a production line, and 6–9 months to operationalize & stabilize it. These challenges, combined with the company's long-standing presence and scale, gives it a competitive edge over newer entrants, particularly for government-driven programs and tenders.

Additionally, the company's integrated operations enhance its ability to serve international markets such as the US, where traceability of components is critical. Since it manufactures key components—especially solar cells—within India, overseas customers gain confidence in supply chain transparency, which is vital in jurisdictions with stringent sourcing and origin requirements.

### Legacy of two decades and expanding module manufacturing capacity

PREMIERE began manufacturing solar modules in 1999 and has since expanded capacity to 5.1 GW as on Dec, 2025. This growth includes the commissioning of a 1,600-MW TOPCon-enabled module line at Unit IV in December 2023. Except for Unit I, all module lines are automated, which helps minimize human error and ensures consistent product quality. With more than two decades of presence in the solar module industry, the company has built strong brand recognition and credibility. These achievements have strengthened its position as a trusted supplier to major IPP, such as Continuum and First Energy, as well as other EPC firms. It serves as an OEM manufacturer for several well-known consumer brands, including Panasonic, Luminous, and Axitec. Collaboration with international partners has enhanced its exposure to global best practices, particularly in high-quality manufacturing.

### Exhibit 11: Capital investments toward capacity expansion

Manufacturing Unit	Subsidiary	Product	Annual installed capacity	Date of commissioning	IREDA appraised project cost (INR mn)	Actual capital expenditure (INR mn)
Unit II	PEPPL	Cell	500	FY22	2,250	4,119
Unit II	PEPPL	Cell	250	FY23	1,420	
Unit II	PEPPL	Module	1,400	FY22	1,258	1,276
Unit III	PEIPL	Cell	1,250	FY24	4,996	4,482
Unit IV	PEIPL	Module	1,600	FY24	2,005	2,019
Unit V	PEGEPL	Module	100	FY24		38
Unit II	PEPPL	Cell	1,000	FY25	6,694	
Unit V	PEGEPL	Module	2,034	FY25	1,750	1,077

Source: Company, Elara Securities Research

### Module manufacturing capacity is set to almost triple

#### Strengthening integration and expanding global solar manufacturing footprint

The company operates across multiple stages of the solar value chain, including manufacturing of solar cells and modules, EPC solutions, O&M services, and independent power production. It was among the early domestic solar companies to adopt backward integration by combining cell production with module manufacturing. The company is advancing this integration strategy by expanding upstream into ingot and wafer production—critical inputs for solar cell manufacturing—to strengthen supply chain resilience, lower cost, and improve overall production efficiency. Once established, these ingots and wafers will be used for captive solar cell manufacturing as well as offered to external customers.

### Rapid scale-up in cell manufacturing capacity

#### Advancing cell technology with deep technical expertise

The company fully shifted from manufacturing polycrystalline solar cells to monocrystalline PERC cells in CY22, driven by higher efficiency offered by PERC technology. It plans to move toward TOPCon solar cell production, which provides even better efficiency—24.5% to 25.2% compared to 23.2% to 23.7% for PERC cells. The company views its ability to adapt to evolving technologies—transitioning from polycrystalline to monocrystalline and now to TOPCon—as a key competitive strength.

Solar cell manufacturing is a highly technical and complex part of the solar value chain, requiring several chemical and gas-based steps and detailed processes, such as texturing, diffusion, selective emitter laser treatment, polishing, and oxidation annealing. While India's solar module capacity has grown significantly—from 7.6GW in FY20 to an estimated 100GW in FY26 YTD—solar cell capacity has lagged to reach 27GW. This gap is due to the high capital cost, specialized expertise, and long setup & stabilization timelines involved in cell production.



PREMIERE has built sizeable technical know-how and experience in solar cell manufacturing, recognizing the steep learning curve and time needed not only to set up new lines but also to stabilize and optimize them for high efficiency & yield. This deep expertise enables it to shorten stabilization timelines for new production lines, providing an advantage over newer entrants.

Positioned to benefit from opportunities in the expanding solar cell market, the company is upgrading to TOPCon technology, supported by its existing manufacturing infrastructure

#### **Expanding customer base and robust orderbook**

The company's large annual installed capacity and strong market position enable it to competitively price its products and serve a wide, diversified customer base across domestic and international markets. It had customers across 23 States and Union Territories. Key domestic clients include Continuum, Shakti Pumps, First Energy, Hartek, Amplus KN One Power, SolarSquare, Rotomag Motors & Controls, and Madhav, while its international customer base includes entities, such as Arka Energy Inc. (US). Maintaining long-term, stable customer relationships remains a strategic priority for the company. As on September 2025, it had an orderbook of INR 132,496mn (9.1GW). PREMIERE is rolling out a ~INR 120bn capex program during FY26–28 to scale up module capacity to ~11.1GW, cell capacity to ~10.2GW, and set up a 5GW ingot–wafer facility, alongside investments in BESS and aluminum frames.

#### **Entry in the transformers business with acquisition of Transcon**

The company has forayed into transformer manufacturing and sales by acquiring a 51% stake in Transcon for INR 5bn. Transcon currently operates a capacity of 2.5GVA and is in the process of expanding this to ~6.8GVA by January 2026, supported by a capex outlay of INR 400mn. Further, 4.25 GVA capacity estimated by Feb, 26 and 10 GVA by July, 2026. Current order book stands at INR 1,900 Mn as on Dec, 25. 50% of the consideration for acquisition of Transcon has been paid on 23, Dec 25 and balance expected to be settled by Feb, 2026. It offers a comprehensive portfolio across transformers. In addition, Transcon has formed a JV with existing management team in a 72:28 partnership to scale up operations under Neotrafo. This JV plans to establish 10.0GVA of capacity by April 2026 with an investment of INR 2bn and will cater to a wider spectrum of MV, IDT, HV, and EHV transformers.

#### **Entry into inverters business with acquisition of KSolare Energy**

PREMIERE has forayed into solar inverter manufacturing by buying a 51% stake in KSolare Energy for INR 867mn. KSolare currently has an installed capacity of 1 Mn Inverter Capacity (3GW per annum). KSolare manufactures solar inverters and offers an integrated suite of smart energy solutions.

#### **Foray into BESS enhances integration**

The company is entering the BESS segment, which is structurally distinct from its cell and module businesses. In the initial phase, the BESS entry will be assembly-led, involving the import of battery cells, their integration into battery packs, and finally the development of containerized energy storage solutions. EBITDA and PAT margin in this segment are likely to be lower than those of cell & module manufacturing and may be broadly in line with module assembly margin.

PREMIERE has articulated a two-phase BESS expansion strategy with a total capex of ~INR 6bn, including INR 3bn in Phase I (targeted for completion by June 2026) and an additional INR 3bn over the following nine months. This investment forms a key pillar of capex plan through FY28. Phase I entails setting up a 6GWh BESS line, scheduled for commissioning by June 2026, with a phased ramp-up leading to an effective capacity of ~4GWh. Management expects ~50% utilization in the first full year, translating into ~2 GWh of production by FY28.

## Valuation and Recommendation

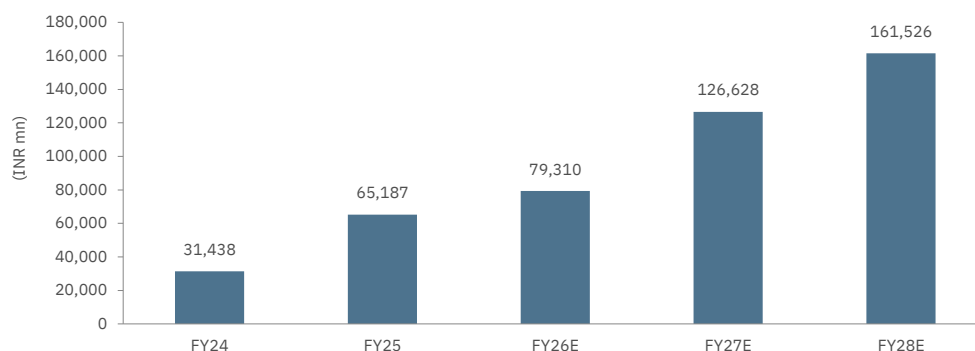
- ▶ Revenue CAGR of 35% during FY25-28E
- ▶ EBITDA CAGR 27% during FY25-28E
- ▶ Initiate with **Accumulate** and a TP of INR 886, implying 11% upside

### Revenue CAGR of 35% during FY25-28E

#### Capacity expansion to drive top line

The company currently operates 5.1GW of module capacity, along with 3.2GW of cell manufacturing capacity. It aims to expand module capacity to 10.7GW and increase cell capacity to 10.0GW. It has unveiled plans for 5.0GW of ingot-wafer capacity. These expansions are set to significantly bolster growth, with a revenue CAGR of 35% during FY25-28E, increasing from INR 65bn to INR 161bn.

#### Exhibit 12: Revenue CAGR of 35% during FY25-28E

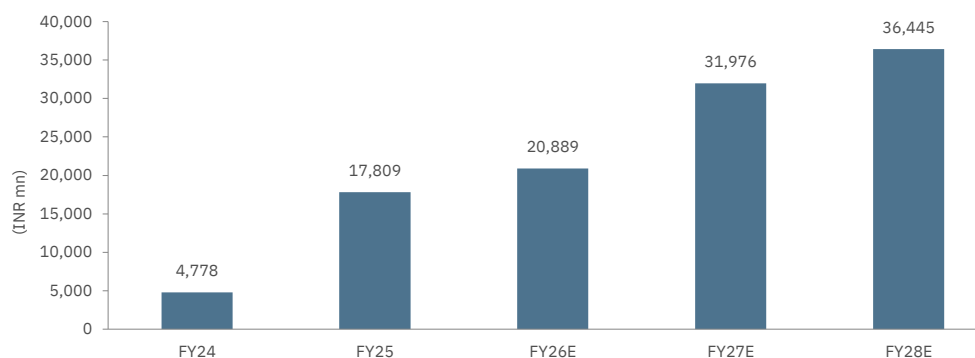


Source: Company, Elara Securities Estimate

### EBITDA CAGR of 27% during FY25-28E

We expect EBITDA to rise to INR 36bn by FY28E, supported by its growing asset base. We expect PAT to increase to INR 19bn by FY28E. EPS is likely to double INR 43 in FY28E from INR 20.8 in FY25.

#### Exhibit 13: EBITDA CAGR of 27% during FY25-28E



Source: Company, Elara Securities Estimate

### Initiate with Accumulate and a TP of INR 886, implying 11% upside

We expect a revenue CAGR of 35% and an EBITDA CAGR of 27% during FY25-28E. We initiate coverage of PREMIERE with a **Buy** rating and a TP of INR 886 based on 12x FY28E EV/EBITDA to factor in robust growth prospects and domestic industry tailwinds. Key downside risks are: 1) increased competition from large domestic firms may put pressure on pricing and margin, and 2) heavy US market reliance heightens sensitivity to policy, tariffs, and geopolitical shifts.

#### Exhibit 14: Valuation

(INR mn)	FY28E
EBITDA	36,445
EV/EBITDA (x)	12
EV	437,335
Debt	37,945
Mcap	399,391
Shares (mn)	451
TP (INR)	886

Note: pricing as on 6 February 2026; Source: Elara Securities Estimate

#### Key risks to our call

- ▶ Growing competition from large domestic manufacturers could squeeze pricing power and compress margin.
- ▶ Profitability and market position may weaken if plans for upstream integration—such as cells and ingot & wafer manufacturing—do not scale up as we had expected.
- ▶ The company's rapid expansion into capital-intensive cell and ingot & wafer facilities heightens execution and ramp-up risks, which could affect project timelines, costs, and near- to medium-term financial performance.

## Company Background

Established in 1995, Premier Energies (PREMIERE IN) is an integrated solar cell and solar module manufacturing company. Backed by GEF Capital, a Washington DC-based Private Equity investor, it is at the forefront of innovative technology, crafting photovoltaic products and solutions.

PREMIERE's innovative manufacturing units are spread across three locations in Telangana, totalling an aggregate land area of more than 44.91 acres. The company boasts an annual production capacity of 3.2GW for solar cells and 5.1GW for solar modules. Additionally, another Topcon cell line and module line, covering a combined land area of 75 acres, are currently under development. These new facilities are projected to have a cell and module facility.

### Board of directors

#### **Surender Pal Singh Saluja, Chairman**

Surender Pal Singh Saluja is Chairman and Whole-Time Director and one of the Promoters of the company. He has been with the company since its incorporation. He is responsible for providing strategic advice to the Board and developing & executing business strategies. He has a Bachelor's degree in Engineering (Mechanical) from Karnatak University, Dharwad, Karnataka. He was awarded the National Award for Outstanding Entrepreneurship in Micro and Small Enterprises by the Ministry of Micro, Small and Medium Enterprises, Government of India in CY07.

#### **Chiranjeev Singh Saluja, Managing Director**

Chiranjeev Singh Saluja is Managing Director and one of the Promoters of the company. He has been with the company since 1997. He is responsible for overall operations and short & long-term strategy and setting strategic goals. He has completed his higher secondary education from the Hyderabad Public School and St. Mary's Junior College, Hyderabad. He was honored with a professional doctorate in global leadership and management by the European International University, Paris, France. He is a member of the Federation of Indian Chambers of Commerce and Industry and a director of the All India Solar Industries Association.

#### **Revathi Rohini Buragadda, Executive Director**

Revathi Rohini Buragadda is an Executive Director of the company. She has been with the company since June 17, 2019. She is responsible for overseeing indirect taxation, relations with governmental agencies, and general insurance for the company & its subsidiaries. She holds a Bachelor's degree of Science (Agriculture) from Andhra Pradesh Agricultural University. She has previously served as a Deputy Commissioner of Commercial Taxes with the State Government of Andhra Pradesh.

#### **Sudhir Moola, Whole-time Director and Chief Strategy Officer**

Sudhir Moola is Chief Strategy Officer of the company. He has been associated with PREMIERE's subsidiary, PSPPL since April 1, 2018. He is responsible for strategic and capital expansion plans across the company and the subsidiaries. He holds a Bachelor's degree in Technology (Electronics And Communication Engineering) from Jawaharlal Nehru Technological University, Hyderabad, a Master's degree in Science (Electrical Engineering) from Colorado State University, US, and has completed Post Graduate Programme in Management from the Indian School of Business, Hyderabad. Prior to joining PSPPL, he was associated with Price Waterhouse Coopers, US.

#### **Nand Kishore Khandelwal, Group Chief Financial Officer**

Nand Kishore Khandelwal is the Group Chief Financial Officer of the company. He is responsible for finance function, strategic planning and information technology. He has been with the company since September 1, 2023. He is an associate member of the Institute of Chartered Accountants of India. He was previously associated with Param Industries, Dukes Products (India), Alumeco India Extrusion, and Pitti Engineering.

#### **Uday Pilani Sudhir, Non-Executive Independent Director**

Uday Sudhir Pilani is an Independent Director of Company. He has been associated with the Company since March 18, 2020. He holds a bachelor's degree in commerce from Osmania University, Hyderabad. He has previously served as a director on the board of its Subsidiary PSPPL.

#### **Raghunathan Kannan, Non-Executive Independent Director**

Raghunathan Kannan is an Independent Director of our Company. He has been associated with the Company since March 12, 2024. He is a fellow of the Institute of Chartered Accountants of India. He is a chartered accountant with K Vijayaraghavan & Associates LLP, Chartered Accountants, where he has been handling acquisition/divestiture transaction consulting, risk evaluation, mergers and acquisitions, audits and supply chain evaluations. He is currently serving as a director on the board of Trust AMC Trustee Private Limited.

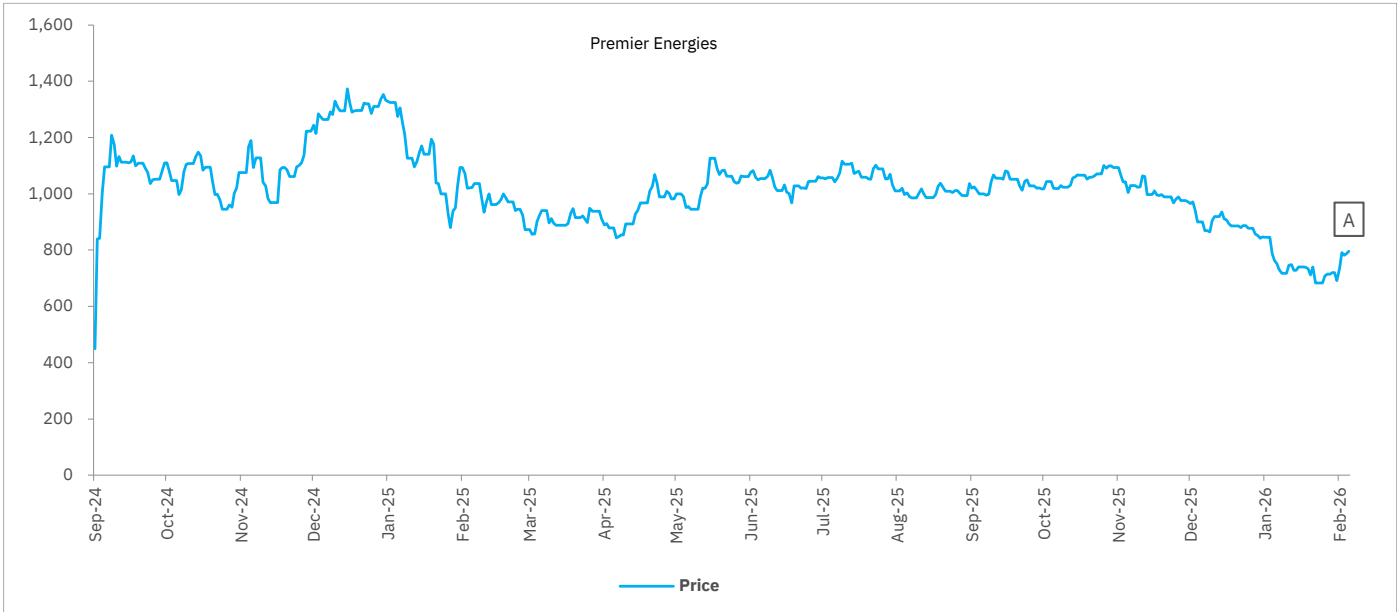
**Priyanka Gulati, Independent Director**

Priyanka Gulati is an Independent Director of the Company. She has been associated with the Company since March 12, 2024. She is an associate of the Institute of the Chartered Accountants of India. She was awarded the Outstanding Woman Entrepreneur of the Year at the third FLO Women Awards of Uttar Pradesh, 2017-2018 by FICCI. She is currently a partner at Grant Thornton Bharat LLP. She is also one of the co-founders of Manthan Management Solutions Private Limited and has served as a manager in Accenture Services Private Limited.

**Nishith Hasmukh Mehta, Non-Executive Independent Director**

Nishith Mehta is a Non-Executive Independent Director of the Company. He works closely with clients in banking, NBFCs, fintech, asset management, and securities sectors, advising on complex regulatory, compliance, and operational risk matters. His practice integrates global best practices, drawing from regulatory standards in the US, UK, and Asia, tailored to the needs of Indian and regional markets. Prior to joining Trilegal in August 2025, Nishith spent over 15 years at Bank of America Merrill Lynch, where he was Co-Head of Asia Pacific Compliance and Operational Risk. He led the Compliance and Operational Risk function for India, Japan, and South Asia (Singapore, Indonesia, Malaysia, Thailand, and the Philippines), covering a broad spectrum of businesses, products and asset classes within Global Banking and Markets. Nishith also served as the Country Head of Compliance and Operational Risk and Chief Compliance Officer for all regulated entities in India. Over a career spanning 25 years, Nishith has held senior compliance roles at HSBC, Kotak Mahindra group (a JV with Goldman Sachs), and Edelweiss group. He has served on multiple regional and global governance forums, including the APAC Executive Committee of Bank of America.

### Coverage History



Date	Rating	Target Price (INR)	Closing Price (INR)
06-Feb-2026	Accumulate	886	796

### Guide to Research Rating

<b>BUY (B)</b>	Absolute Return >+20%
<b>ACCUMULATE (A)</b>	Absolute Return +5% to +20%
<b>REDUCE (R)</b>	Absolute Return -5% to +5%
<b>SELL (S)</b>	Absolute Return < -5%



## Notes

# Emmvee Photovoltaic Power

India | Utilities | Initiating Coverage



10 February 2026

## Undervalued player

Emmvee Photovoltaic Power (EMMVEE IN), a top integrated solar PV module and cell maker in India, ranks among the largest by capacity. An early adopter of high-efficiency TOPCon technology, it serves B2G and B2B customers, tapping the domestic content requirement (DCR) market via its ALMM-enlisted modules. Trading at a 34-40% discount to Waaree Energies (WAAREEN IN) and Premier Energies (PREMIERE IN), we initiate on EMMVEE with a Buy rating and a TP of INR 320.

**Second-largest, pure-play, integrated manufacturer:** The company is the country's second-largest, pure-play, integrated solar PV module and cell manufacturer, with 10.3GW of module capacity and ~2.94GW of cell capacity as on December 2026. Its end-to-end integrated production model—from cells to modules—delivers supply chain control, cost efficiency, quality assurance & traceability, and insulation from global price swings. This scale erects strong entry barriers for newcomers, offering tech agility across Mono PERC & TOPCon. The ALMM List I eligibility positions EMMVEE for government-backed demand, DCR access, and sectoral opportunities for sustained growth.

**Robust orderbook signals demand strength:** A growing orderbook underscores demand visibility and reinforces a company's competitive positioning in the domestic solar manufacturing landscape. As on December, 25, orderbook stood at ~9.3GW, diversified across independent power producers (IPP), commercial & industrial (C&I) firms, and engineering, procurement & construction (EPC) contractors. TOPCon manufacturing capabilities have enabled participation in high-value public sector tenders, including 795.4MW DCR-compliant module order for NTPC Renewable Energy's Khavda project.

**First-mover in advanced TOPCon technology:** EMMVEE has built a strong technological advantage by being one of the earliest domestic manufacturers to adopt high-efficiency TOPCon solar cell technology. Its ~2.9GW cell facility at Dobbaspet, Bengaluru, is among India's largest TOPCon plants in the country. Investments ahead of peers yielded expertise in complex processes, such as tunnel oxide formation, polysilicon deposition, and high-temperature annealing, bolstering efficiency and long-term performance, ahead of rivals.

**Initiate with Buy and a TP of INR 320:** We expect a revenue CAGR of 77% and an EBITDA CAGR of 64% during FY25-28E. We initiate on EMMVEE with a **Buy** rating and a TP of INR 320 based on 8x FY28E EV/EBITDA after factoring in robust growth prospects and tailwinds. It is trading at a 34% discount to peers, PREMIERE and WAAREEN. Key risks include: 1) increased competition from large domestic firms could squeeze pricing & margin, and 2) heavy US market reliance amplifies sensitivity to policy, tariff, and geopolitical vulnerabilities.

Rating: **Buy**

Target Price: **INR 320**

Upside: **58%**

CMP: **INR 202**

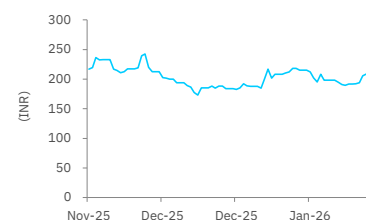
As on 6 February 2026

### Key data

Bloomberg	EMMVEE IN
Reuters Code	EMMV.NS
Shares outstanding (mn)	692
Market cap (INR bn/USD mn)	140/1,546
EV (INR bn/USD mn)	158/1,739
ADTV 3M (INR mn/USD mn)	0/0
52 week high/low	248/172
Free float (%)	11

Note: as on 6 February 2026; Source: Bloomberg

### Price chart



Source: Bloomberg

Shareholding (%)	Q2 FY26	Q3 FY26
Promoter	80.0	80.0
% Pledge	0.0	0.0
FII	6.2	4.0
DII	10.8	12.6
Others	3.0	3.4

Source: BSE

Price performance (%)	3M	6M	12M
Nifty	0.8	5.5	9.1
Emmvee Photovoltaic Power	0.0	0.0	0.0
NSE Mid-cap	0.1	5.3	9.9
NSE Small-cap	(6.8)	(4.1)	(1.1)

Source: Bloomberg

## Key financials

YE March (INR mn)	FY24	FY25	FY26E	FY27E	FY28E
Revenue (INR mn)	9,519	23,356	50,201	86,530	129,399
YoY (%)	61.8	352.0	79.1	42.7	52.2
EBITDA (INR mn)	1,204	7,219	17,281	23,019	31,886
EBITDA margin (%)	12.7	30.9	34.4	26.6	24.6
Adj PAT (INR mn)	289	3,690	9,963	14,725	20,625
YoY (%)	222.1	1,176.9	170.0	47.8	40.1
Fully DEPS (INR)	-	68.4	14.4	21.3	29.8
RoE (%)	18.7	68.7	46.1	32.6	32.8
RoCE (%)	6.9	27.6	45.1	36.5	32.4
P/E (x)	37.8	3.0	14.1	9.5	6.8
EV/EBITDA (x)	133	22	8.7	7.2	5.4

Note: Pricing as on 6 February 2026; Source: Company, Elara Securities Estimate

### Rupesh Sankhe

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## Story in charts

**Exhibit 1: Wide product portfolio and commitment to maintaining high standards of quality and reliability**

	Cells	Modules			
Technology	TOPCon	100% TOPCon		0% Mono PERC	
Formats		Mono-facial formats	Bifacial formats	Mono-facial formats	Bifacial formats
Configurations	N-Type TOPCon Solar Cell • 16 busbars with 12 pads and ultra-fine grid fingers of 36- micron width	144, 132, 120 and 108 half cut cell n-type TOPCon monofacial glass to black / white back sheet modules • Power output ranging from 560 Wp to 580 Wp • 16 busbar cells	144, 132, 120 and 108 half cut cell n-type TOPCon bifacial glass to transparent back sheet module /glass to glass module • Power output ranging from 560 Wp to 580 Wp/605 Wp • 16 busbar cells	144, 132, 120 and 108 half cut cell Mono PERC monofacial black on black modules, using Mono PERC solar cells / TOPCon solar cells • Power output ranging from 385 Wp/395 Wp to 540 Wp/550 Wp • 10 busbar cells	144, 132, 120 and 108 half cut cell Mono PERC bifacial transparent back sheet/glass to glass modules • Power output ranging from 390 Wp to 550 Wp • 10 busbar cells
Efficiency Parameters	High conversion efficiency, (front efficiency of 25.00%+ and a bifacial rate of 80.00% (+/- 5% range)	Conversion efficiency of 22.45%, with potential of up to 23.50%	Conversion efficiency of 23.42%, with potential of up to 24.00%	Conversion efficiency up to 21.29%	Conversion efficiency of 21.29%

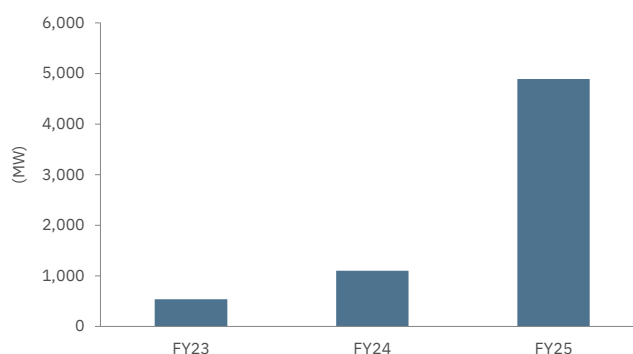
Source: Company, Elara Securities Research

**Exhibit 2: Operational capacity for modules stands at 10.3GW**

Unit	Year of commissioning	Area	Annual installed production capacity (GW)	Products manufactured	Technology
Unit 2	2023	118,700	0.87	Modules	TOPCon
Unit 3	2024	435,604	2.21 / 2.94	Modules / Cells	TOPCon
Unit 4	2025		2.21	Modules	TOPCon
Unit 5	2025		2.5	Modules	TOPCon
Unit 6	2025	423,313	2.5	Modules	TOPCon
<b>Total</b>		<b>977,617</b>	<b>10.3</b>		

Source: Company, Elara Securities Research

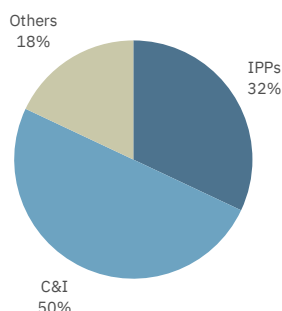
**Exhibit 3: Orderbook increases sizably**



Source: Company, Elara Securities Research

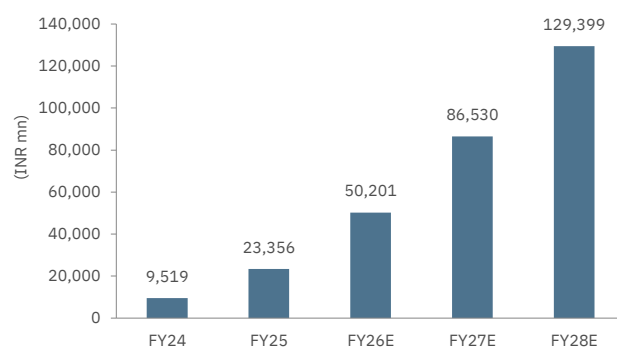
**Exhibit 4: C&I consumers constitute 50% of the overall order book**

Split of orde book for solar PV modules



Note: FY26YTD: Source: Company, Elara Securities Research

**Exhibit 5: Revenue CAGR of 77% during FY25-28E**



Source: Company, Elara Securities Estimate

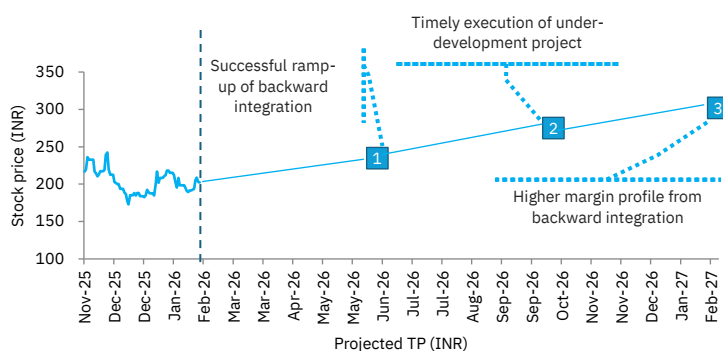
## Investment Rationale

With 10.3GW of module capacity and ~2.9GW of cell capacity, EMMVEE benefits from full upstream-downstream integration, ensuring cost competitiveness, quality control, and reduced reliance on volatile global supply chains.

Orderbook rising from ~4.9GW as on March 2025) to ~9.3GW as on December, 25, including high-value DCR and public-sector allocations like the 795.4-MW NTPC RE order, underpins strong multi-year demand visibility.

First-mover advantage in high-efficiency TOPCon cells (~2.9GW capacity) provides tech differentiation, enabling participation in premium DCR, utility scale, and public-sector tenders.

## Valuation Triggers



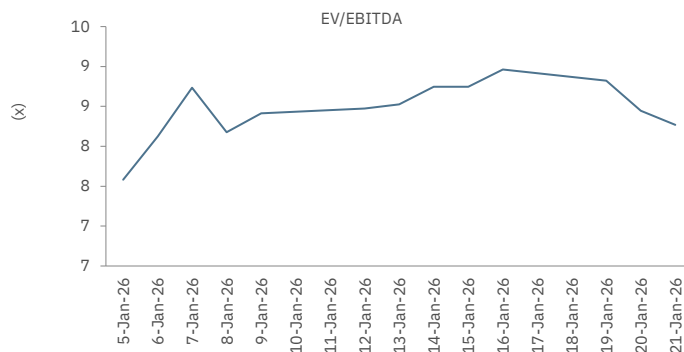
### Valuation triggers

- ▶ Successful ramp-up of backward integration
- ▶ Timely execution of under-development project
- ▶ Higher margin profile from backward integration

### Our assumptions

- ▶ No delay in project execution
- ▶ Sustain market share
- ▶ Realization to remain at the same level

### One-year forward EV/EBITDA of 8.2x



Source: Bloomberg, Company, Elara Securities Research

### Key risks (downside/upside)

- ▶ Execution risk
- ▶ Risk of margin compression from rising competition
- ▶ Impact of tariffs on exports to the US

### Valuation overview

(INR mn)	FY28E
EBITDA	31,886
EV/EBITDA (x)	8
EV	255,088
Debt	33,221
Mcap	221,867
Shares (mn)	692
TP (INR)	320

Note: pricing as on 6 February 2026; Source: Elara Securities Estimate

### Industry trends and macro factors

- ▶ Implementation of ALMM II and ALMM III
- ▶ Implementation of DCR
- ▶ Rapid growth in India's solar capacity additions

### Market position and competitive landscape

- ▶ Strong position among India's top module manufacturers
- ▶ Competitive edge from backward integration
- ▶ Increased competitive industry landscape

## Financials (YE March)

<b>Income Statement (INR mn)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Total Revenue	9,519	23,356	50,201	86,530	129,399
Gross Profit	1,809	8,176	14,643	20,899	31,810
EBITDA	1,204	7,219	17,281	23,019	31,886
EBIT	786	5,660	14,431	20,324	28,893
Interest expense	335	1,079	1,749	1,816	3,076
Other income	25	247	602	1,125	1,682
Exceptional/ Extra-ordinary items	-	-	-	-	-
PBT	476	4,828	13,284	19,633	27,500
Tax	187	1,138	3,321	4,908	6,875
Minority interest/Associates income	-	-	-	-	-
Reported PAT	289	3,690	9,963	14,725	20,625
<b>Balance Sheet (INR mn)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Shareholders' Equity	1,688	5,368	37,840	52,565	73,190
Minority Interest	-	-	-	-	-
Trade Payables	1,582	3,503	5,274	9,394	13,772
Provisions & Other Current Liabilities	2,785	7,387	7,387	7,387	7,387
Total Borrowings	14,413	19,497	1,242	19,613	33,221
Other long term liabilities	1,432	3,385	3,385	3,385	3,385
<b>Total liabilities &amp; equity</b>	<b>21,900</b>	<b>39,139</b>	<b>55,128</b>	<b>92,344</b>	<b>130,954</b>
Net Fixed Assets	9,243	19,375	18,624	40,230	55,237
Goodwill	-	-	-	-	-
Intangible assets	122	1,220	1,220	1,220	1,220
Business Investments / other NC assets	2,628	1,694	1,694	1,694	1,694
Cash, Bank Balances & treasury investments	5,206	5,809	13,468	15,641	23,388
Inventories	3,062	7,584	13,754	23,707	35,452
Sundry Debtors	961	1,903	4,814	8,297	12,408
Other Current Assets	678	1,554	1,554	1,554	1,554
<b>Total Assets</b>	<b>21,900</b>	<b>39,139</b>	<b>55,128</b>	<b>92,344</b>	<b>130,954</b>
<b>Cash Flow Statement (INR mn)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
<b>Cashflow from Operations</b>	<b>2,345</b>	<b>6,138</b>	<b>7,253</b>	<b>9,918</b>	<b>15,216</b>
Capital expenditure	(6,733)	(9,883)	(2,100)	(24,300)	(18,000)
Acquisitions / divestitures	-	-	-	-	-
Other Business cashflow	(3,268)	26	-	-	-
<b>Free Cash Flow</b>	<b>(7,656)</b>	<b>(3,719)</b>	<b>5,153</b>	<b>(14,382)</b>	<b>(2,784)</b>
Cashflow from Financing	12,248	4,323	2,505	16,555	10,532
Net Change in Cash / treasury investments	4,592	604	7,658	2,173	7,748
<b>Key assumptions &amp; Ratios</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Book value per share (INR)	-	99.5	54.7	75.9	105.7
RoCE (Pre-tax) (%)	6.9	27.6	45.1	36.5	32.4
ROIC (Pre-tax) (%)	9.3	37.8	64.6	49.5	41.4
ROE (%)	18.7	68.7	46.1	32.6	32.8
Asset Turnover (x)	1.4	1.6	2.6	2.9	2.7
Net Debt to Equity (x)	5.5	2.5	(0.3)	0.1	0.1
Net Debt to EBITDA (x)	7.6	1.9	(0.7)	0.2	0.3
Interest cover (x) (EBITDA/ int exp)	3.6	6.7	9.9	12.7	10.4
Total Working capital days (WC/rev)	257.6	132.3	207.7	173.1	174.6
<b>Valuation</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
P/E (x)	37.8	3.0	14.1	9.5	6.8
P/Sales (x)	14.7	6.0	2.8	1.6	1.1
EV/ EBITDA (x)	133	22	8.7	7.2	5.4
EV/ OCF (x)	67.3	25.7	21.7	15.9	10.4
Price to BV (x)	-	2.0	3.7	2.7	1.9

Note: Pricing as on 6 February 2026; Source: Company, Elara Securities Estimate

## Undervalued player

- ▶ Second-largest, pure-play, integrated solar PV module and cell manufacturer in India
- ▶ Robust orderbook underscoring strong demand visibility
- ▶ First-mover advantage in advanced TOPCon technology

### Second-largest, pure-play, integrated solar PV module and cell manufacturer

#### Integrated manufacturing capabilities strengthening competitive positioning

EMMVEE ranks as India's second-largest, pure-play, integrated solar PV module and cell manufacturer by production capacity, supported by 10.3GW of module capacity and ~2.9GW of cell capacity as on Dec 31, 2025. Its end-to-end integrated manufacturing framework—from solar cell production to module assembly—enhances supply chain control, reduces reliance on external vendors, optimizes manufacturing cost, and improves overall production efficiency. Integration improves traceability, a key requirement for customers with stringent quality and compliance expectations.

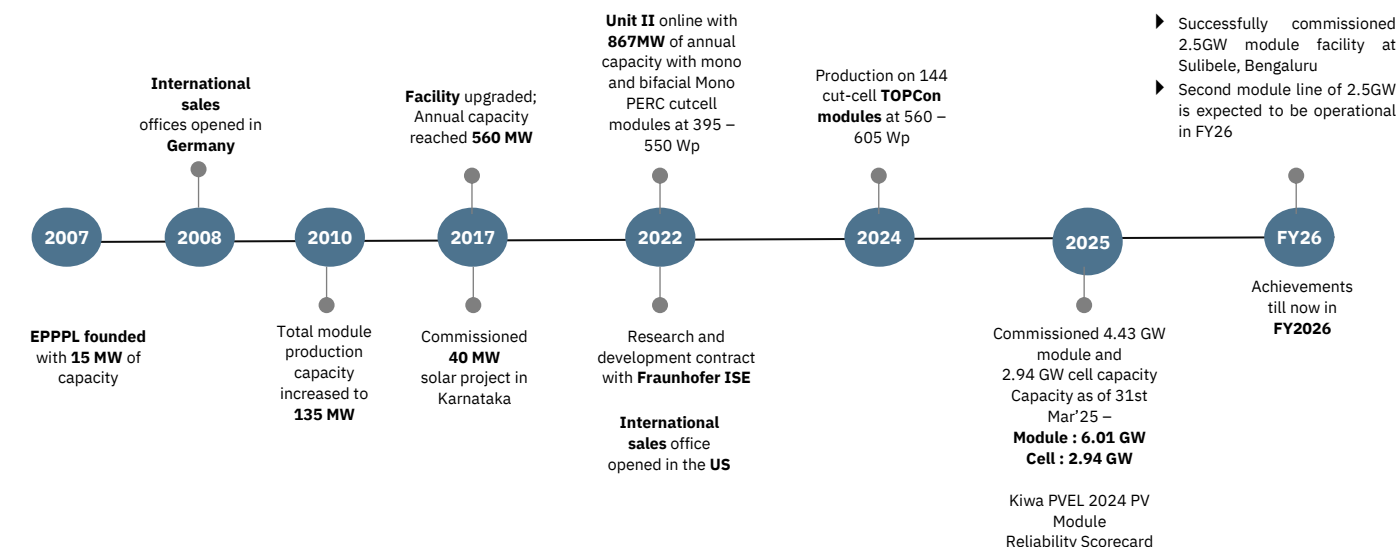
Integrated solar PV manufacturing provides structural advantages, such as higher efficiency, lower logistics cost, economies of scale, optimized production flow, better quality assurance, and stronger supply chain security. Non-integrated manufacturers remain more vulnerable to global price volatility, reduced cost-control levers during technology transitions, and potential yield losses due to externally sourced cells. Integrated setups further create meaningful entry barriers through scale benefits, specialized expertise, and greater value chain control.

The company has developed significant experience with Mono PERC and TOPCon technologies, both of which offer long product lifespans of 25–30 years. Mono PERC delivers higher efficiency and lower light-induced degradation than multi-crystalline modules while TOPCon technology provides superior passivation quality and long-term stability, resulting in lower degradation rates.

As a fully integrated domestic manufacturer, EMMVEE is well-positioned to participate in India's DCR market, which mandates the use of domestically produced cells and modules for government-backed schemes. Its inclusion in ALMM List I enables supply to government Grid-connected and scheme-based projects, while strong domestic cell manufacturing capabilities support potential eligibility for ALMM List II once released. Overall, its integrated operations, advanced technology adoption, and established industry expertise provide a strong foundation to leverage evolving market dynamics, supporting sustained competitiveness and long-term growth.



## Exhibit 6: Company history and evolution



Source: Company, Elara Securities Research

## Exhibit 7: Wide product portfolio and commitment to maintaining high standards of quality and reliability

	Cells	Modules			
Technology	TOPCon	100% TOPCon		0% Mono PERC	
Formats		Mono-facial formats	Bifacial formats	Mono-facial formats	Bifacial formats
Configurations	N-Type TOPCon Solar Cell • 16 busbars with 12 pads and ultra-fine grid fingers of 36-micron width	144, 132, 120 and 108 half cut cell n-type TOPCon monofacial glass to black / white back sheet modules • Power output ranging from 560 Wp to 580 Wp • 16 busbar cells	144, 132, 120 and 108 half cut cell n-type TOPCon bifacial glass to transparent back sheet module /glass to glass module • Power output ranging from 560 Wp to 580 Wp/605 Wp • 16 busbar cells	144, 132, 120 and 108 half cut cell Mono PERC monofacial black on black modules, using Mono PERC solar cells / TOPCon solar cells • Power output ranging from 385 Wp/395 Wp to 540 Wp/550 Wp • 10 busbar cells	144, 132, 120 and 108 half cut cell Mono PERC bifacial transparent back sheet/glass to glass modules • Power output ranging from 390 Wp to 550 Wp • 10 busbar cells
Efficiency Parameters	High conversion efficiency, (front efficiency of 25.00%+ and a bifacial rate of 80.00% (+/- 5% range)	Conversion efficiency of 22.45%, with potential of up to 23.50%	Conversion efficiency of 23.42%, with potential of up to 24.00%	Conversion efficiency up to 21.29%	Conversion efficiency of 21.29%

Source: Company, Elara Securities Research

### Scaling up capacity to strengthen market competitiveness

The company ranks among India's largest solar PV module manufacturers, supported by a module production capacity of 10.3 GW as on Dec 31, 2025. With inclusion in the ALMM and a 5.1% share of ALMM-enlisted module manufacturing capacity, it has strengthened its presence in the domestic policy-driven market. Commercial module production began in CY07 at the Bengaluru facility, and capacity has expanded rapidly in recent years through the addition of several new module and cell lines. Between FY23 and FY25, module manufacturing capacity increased four-fold, aided by the commissioning of units III and IV, adding 4.43 GW of module capacity and ~2.9GW of cell capacity. The scaling of production has translated into strong financial growth, with revenue from operations increasing at a CAGR of more than 94% during FY23-25. Planned capacity expansion to 16.3GW by the first half of FY28 positions the company to address large-scale project demand and capitalize on growth opportunities.

EMMVEE manufactures a diverse range of solar PV modules, including TOPCon and Mono PERC technologies in both bifacial & monofacial formats, and has delivered more than ~2.0GW of high-efficiency modules to domestic and international customers in the past three fiscals. Its modules carry a product warranty of up to 12 years and a linear performance warranty of up to 30 years. Warranty claims remain exceptionally low, representing less than 0.008% of revenue across the last three fiscals,

with a claim rate of a mere 0.0002% in FY25, underscoring product reliability and manufacturing quality.

## Exhibit 8: Module capacity stands at 10.3GW and cell capacity stands at 2.94GW

Unit	Year of commissioning	Area	Annual installed production capacity (GW)	Products manufactured	Technology
Unit 2	2023	118,700	0.87	Modules	TOPCon
Unit 3	2024	435,604	2.21 / 2.94	Modules / Cells	TOPCon
Unit 4	2025		2.21	Modules	TOPCon
Unit 5	2025	423,313	2.5	Modules	TOPCon
Unit 6	2025		2.5	Modules	TOPCon
<b>Total</b>		<b>977,617</b>			

Source: Company, Elara Securities Research

## TOPCon expertise emerges as a core strategic differentiator

The company is among the earliest adopters of high-efficiency TOPCon solar cell technology in India and remains one of the few manufacturers leveraging this advanced platform at scale. Its 2.9GW solar cell facility at Dobbaspet, Bengaluru, is one of the country's largest TOPCon manufacturing units, providing a meaningful first-mover advantage, and supporting a strong competitive position. Early deployment of TOPCon in CY24 demonstrates its capability to integrate advanced manufacturing processes that enhance module efficiency, reliability, and long-term performance.

TOPCon technology is rapidly emerging as the preferred choice for domestic solar developers and is set to become the dominant technology in the medium to long term. Its manufacturing process involves complex steps—including formation of a tunnel oxide layer, deposition of doped polysilicon, high-temperature annealing, and precision patterning, which results in cells with efficiency of up to 26%, lower degradation, and robust performance in high-temperature environments. This performance translates into higher energy yield and reduced project cost for customers, reinforcing market adoption. Future technology pathways, such as TOPCon tandem and back-contact variants, are set to further strengthen efficiency potential.

The company's proficiency in TOPCon implementation is supported by a technical collaboration with Germany-based Fraunhofer ISE (global research institution), which enabled rapid establishment of ~2.9GW production line in just 21 months. The partnership provided access to advanced manufacturing know-how, guidance on equipment selection, training of technical personnel, and process optimization support, enabling rapid stabilization of production operations and shortening the technology learning curve.

Building on this foundation, it is expanding its TOPCon footprint through an additional 6.0GW of solar cell and module capacity planned at ITIR Phase II at Bengaluru, targeted for commissioning in H1FY28. Having already established and stabilized a large-scale TOPCon line, the company is positioned to execute future expansion more efficiently. This early-mover position and accumulated expertise provides a strategic edge in capturing economic and performance benefits of TOPCon technology, including higher module efficiency, improved product competitiveness, and margin enhancement.

## Driving efficiency through advanced technologies and R&D investment

EMMVEE plans to continue strengthening its technological edge by investing in focused R&D efforts aimed at enhancing manufacturing processes and product performance. With a dedicated six-member R&D team, the company follows a structured approach to innovation, rigorously assessing new materials and technologies and conducting thorough testing to ensure efficiency gains and product reliability. Current initiatives include improving TOPCon solar cell efficiency through advanced methods such as laser-based contact optimisation and refined screen designs. The company also relies on sophisticated tools, including photoluminescence imaging systems, high-resolution optical microscopes, and sheet-resistance and dimensional scanning equipment, to analyse the company's ingots, wafers, cells, and mini-modules with precision.

The company intends to deepen its collaboration with Fraunhofer ISE to explore next-generation cell architectures, such as Tandem TOPCon and TOPCon back-contact designs. While the near-term focus remains on proven TOPCon technology, the company anticipates the next major wave of PV cell investments will centre around tandem and back-contact technologies. Tandem solar cells, particularly those incorporating promising materials like Perovskite, are likely to achieve efficiency of up to 40%, potentially bolstering performance of n-type TOPCon cells by ~25%. This forward-looking R&D strategy is aimed at positioning it at the forefront of future efficiency breakthroughs in solar cell manufacturing.

## Product portfolio

### Solar Cells

Solar cells are manufactured using TOPCon technology, which enhances module quality, efficiency, and overall performance. These cells, produced in a Class 6 clean-room facility equipped with advanced quality-testing tools, undergo high-precision AAA Class IV testing to evaluate electrical characteristics. N-Type TOPCon cells offer front-side efficiency above 25%, a bifaciality of 80% (±5%), and an efficiency accuracy within 0.10%. The design—featuring 16 busbars, 12 pads, and ultra-fine 36-micron grid fingers—maximizes sunlight absorption and supports strong energy output even in low-light conditions, delivering relative conversion efficiency above 97.00%. These cells also feature low cell-to-module loss and a favorable temperature coefficient of  $-0.30\%$  per  $^{\circ}\text{C}$ , allowing high performance across diverse climates. They exhibit strong resistance to potential-induced and light-induced degradation and undergo electroluminescence and automated optical inspections prior to use. Continued design optimization is carried out by adjusting busbar and gridline parameters to further enhance performance.

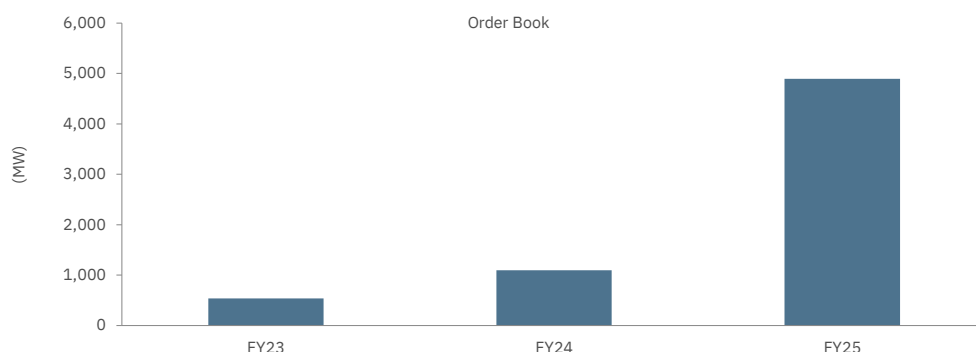
### Solar PV modules

The solar PV module portfolio includes both bifacial and mono-facial TOPCon modules, as well as bifacial and mono-facial Mono PERC modules. The bifacial TOPCon modules offer a conversion efficiency of ~23.4%, with the potential to reach up to 24.0% and are engineered for durability in harsh weather and high-temperature environments. These modules incorporate 16-busbar cells and heat-strengthened solar glass to enhance robustness and reduce internal resistance. Their strong bifaciality and effective low-irradiation performance enable up to 30% additional power generation from reflected light, supported by a transparent backsheet that improves light capture and overall efficiency. Key features include high resistance to degradation, with an annual degradation rate of 0.40%, and the ability to continue generating electricity even when partially shaded. A 12-year product warranty and a 30-year linear performance warranty are offered on these modules.

## Robust orderbook underscoring strong demand visibility

### Expansion of solar cell and module manufacturing capacity

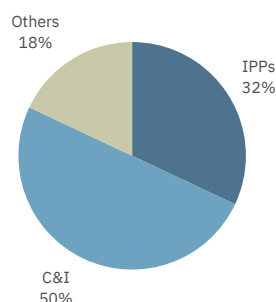
The company is actively scaling up its solar PV manufacturing capabilities to meet rising customer demand. It has commissioned a 2.5 GW solar module manufacturing line on 20 Dec 2025 located at Sulibele, Hoskote Taluk, Bengaluru, Karnataka (Unit VI). In addition, the company plans to establish a new manufacturing unit in ITIR Phase-II, Bengaluru, with a combined 6.0GW capacity for solar cells and modules, likely to be commissioned in H1FY28. The Karnataka state high-level clearance committee has already approved the project and allocated 100 acres of land for its development, payment of which is completed for land allotment in December, 25. Upon completion, these initiatives will expand the company's module manufacturing capacity to 16.3GW and solar cell capacity to ~8.9GW based on TOPCon technology. This expansion aligns with the company's strategy to strengthen its integrated manufacturing capabilities and retain a strong competitive position among India's leading solar industry firms. The company has further received an order for 4.5 GW for supply of TOP Con crystalline silicon photovoltaic cells from a domestic customer the execution of which spans from December 2025 to 2030.

**Exhibit 9: Orderbook increases sizably**


Source: Company, Elara Securities Research

**Exhibit 10: C&I consumers constitute 50% of the total order book**

Split of orde book for solar PV modules



Source: Company, Elara Securities Research

### Strengthening backward integration and broadening the supplier ecosystem

Alongside planned addition of 6.0GW of solar cell manufacturing capacity, the company aims to deepen its backward integration by setting up facilities for wafers and other essential components used in solar PV module production. This strategy aligns with recent government policies promoting domestic manufacturing and offset the impact of import duties on raw materials. Raw materials account for 80–85% of operating cost for domestic solar cell manufacturers, with imported wafers being the largest cost driver and a key source of foreign exchange risk. To address this, the company plans to establish a wafer manufacturing facility in India and is assessing opportunities to produce critical ancillary components, such as aluminium frames, copper ribbons, junction boxes, and silicone sealants. These initiatives would enhance control over the value chain, improve quality traceability, reduce supply chain vulnerabilities, and increase cost efficiency by capturing a greater portion of the bill of materials.

In parallel, the company intends to diversify its supplier base to strengthen procurement resilience. In FY25, FY24, and FY23, it sourced raw materials from 84, 50, and 66 domestic suppliers, respectively, reflecting a conscious shift toward reducing dependence on a limited group of vendors. Expanding partnerships with local suppliers will further decrease reliance on imports, particularly from China, Vietnam, Thailand & Malaysia, and support stable production to meet rising demand from both domestic and international customers.

### Expanding market reach across diverse customer segments in India

The company operated through a distribution network of six distributors covering nine States & two Union Territories, and it plans to broaden this network to make its solar PV modules accessible to a wider customer base across India. It aims to strengthen its presence in the small to medium C&I segment through participation in the DCR market and by actively targeting major Government of India (GOI) initiatives that support domestic solar adoption. With strong integrated manufacturing

capabilities and eligibility for DCR-driven opportunities, EMMVEE is well positioned to benefit from large government programs, such as the PM Surya Ghar Yojana—focused on providing 300 free electricity units per household and installing rooftop solar in 10mn homes—and the expanded CPSU scheme, which has grown from 1GW to 12GW and is set to add 5–6GW of domestic solar installations by FY28. Additionally, schemes like PM-KUSUM, which promote decentralized renewable plants on barren land and solar-powered agricultural pumps, offer further DCR-aligned opportunities.

To capture this demand, key account managers are engaging with major firms across these segments, while the tendering team closely tracks and evaluates upcoming opportunities to support competitive techno-commercial bids. Supported by a 17-member sales team and established manufacturing capacity, the company is well equipped to participate in high-value government tenders. It plans to undertake awareness campaigns to promote benefits of solar energy and enhance brand visibility among potential customers.

### **International market expansion strategy**

EMMVEE aims to expand sales in high-potential international markets and has already supplied solar PV modules to customers in 17 countries. It is particularly focused on growing its presence in the US, leveraging its established export track record and its status as an approved supplier to major utility-scale developers. With India's solar module production set to exceed domestic demand between FY26 and FY30, exports opportunities are set to rise, even as the share of exports moderates to 25–32% due to increasing local consumption. Sanctions on imports from China's Xinjiang region and potential anti-dumping duties on Southeast Asian suppliers further enhance India's competitive advantage. Meanwhile, although the US has more than 50GW of module assembly capacity as on February 2025, it continues to face a gap in cell manufacturing, creating scope for India to export-integrated components.

The company's advanced TOPCon capabilities and backward-integrated operations position it well to benefit from rising US demand and meet regulatory requirements. It currently operates through a contract team in the US to expand customer onboarding, and it has secured financing partnerships and has been included on several rooftop solar vendor lists. Collaborations with distributors of electrical and thermal solar products further support market entry. More broadly, it plans to target distributed generation and residential customers, build strategic partnerships with local distributors, and deploy sales teams across priority markets. It has already set up sales offices in Germany and the US.

### **First-mover advantage in advanced TOPCon technology**

EMMVEE has built a strong technological advantage by being one of the earliest domestic companies to adopt high-efficiency TOPCon solar cell technology. Its 2.9GW manufacturing facility at Dobbaspet, Bengaluru, is among the country's largest TOPCon plants.

By investing early in 2024, the company secured a first-mover edge and developed expertise in complex TOPCon processes—including tunnel oxide formation, polysilicon deposition, and high-temperature annealing—that improve cell efficiency and long-term performance.

TOPCon cells deliver efficiency of up to 26%, better thermal stability, and lower degradation, making them well-suited to India's climatic conditions and increasingly favored by solar developers. Its collaboration with Fraunhofer ISE in CY22 further accelerated its technological ramp-up, enabling commissioning of the Dobbaspet facility in just 21 months and providing access to advanced process knowledge and training that supported quick production stabilization.

## Valuation and Recommendation

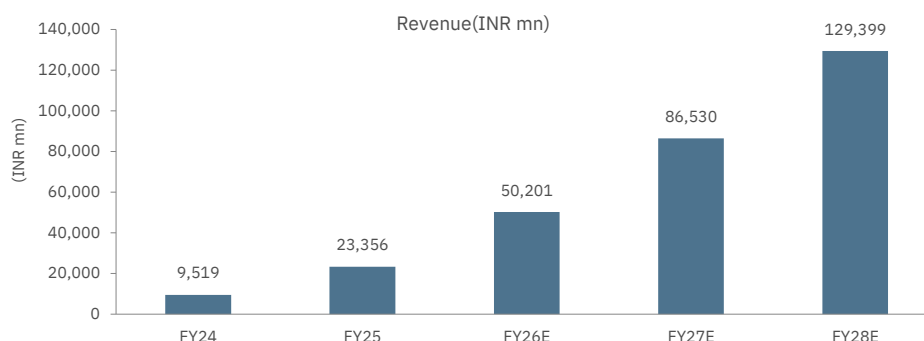
- ▶ Revenue CAGR of 77% during FY25-28E
- ▶ EBITDA CAGR 64% during FY25-28E
- ▶ Initiate with **Buy** and a TP of INR 320, implying 58% upside

### Revenue CAGR of 77% during FY25-28E

#### Capacity expansion to drive top line

The company currently operates 6.0GW of module capacity, along with 2.9GW of cell manufacturing capacity. It aims to expand module capacity to 16.3GW. Cell capacity is set to increase to 8.9GW. These expansions are likely to significantly enhance growth, with a revenue CAGR of 77% during FY25-28E, increasing from INR 23bn to INR 129bn.

#### Exhibit 11: Revenue CAGR of 77% during FY25-28E

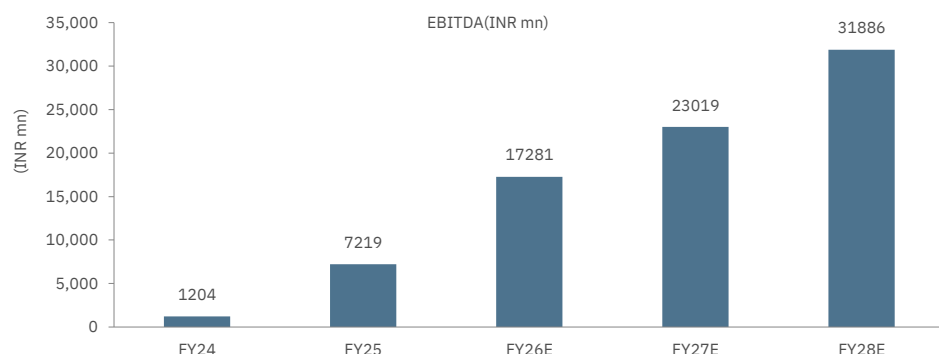


Source: Company, Elara Securities Estimate

### EBITDA CAGR of 64% during FY25-28E

EBITDA is set to rise to INR 32bn by FY28E, supported by its growing asset base. We expect PAT to increase to INR 21bn by FY28E.

#### Exhibit 12: EBITDA CAGR of 64% during FY25-28E



Source: Company, Elara Securities Estimate

### Initiate with Buy and a TP of INR 320, implying 58% upside

We expect a revenue CAGR of 77% and an EBITDA CAGR of 64% during FY25-28E. We initiate coverage of EMMVEE with a **Buy** rating and a TP of INR 320 based on 8x FY28E EV/EBITDA after factoring in robust growth prospects and domestic industry tailwinds. Key downside risks are: 1) increased competition from large domestic firms may put pressure on pricing and margin, and 2) heavy US market reliance heightens sensitivity to policy, tariff, and geopolitical shifts.



## Exhibit 13: Valuation

(INR mn)	FY28E
EBITDA	31,886
EV/EBITDA (x)	8
EV	255,088
Debt	33,221
Mcap	221,867
Shares (mn)	692
TP (INR)	320

Note: pricing as on 6 February 2026; Source: Elara Securities Estimate

## Key risks to our call

- ▶ Growing competition from large domestic manufacturers could squeeze pricing power and compress margin
- ▶ Heavy dependence on the US market makes the company vulnerable to policy changes, tariff actions, and geopolitical developments
- ▶ Profitability and market position may weaken if plans for upstream integration—such as cells and ingot & wafer manufacturing—do not scale as we had expected
- ▶ The company's rapid expansion into capital-intensive cell and ingot & wafer facilities heightens execution and ramp-up risks, which could affect project timelines, cost, and near- to medium-term financial performance

## Company Background

Emmvee Photovoltaic Power (EMMVEE IN) is a solar solutions provider built on the vision of advancing green energy for practical and sustainable use. Its solar products combine advanced technology with smart innovation to support modern and high-end living. Since its inception in 1992, the company has consistently driven innovation in solar photovoltaic modules. With a strong focus on quality, timely execution, customized solutions, and engineering excellence, EMMVEE has established a premium positioning in the PV module segment and stands out in the solar solutions market.

### Board of directors

#### **DV Manjunatha, MD & Founder**

Emmvee Solar was established in 1992 under the leadership of entrepreneur and visionary DV Manjunatha, who guided the company's evolution into one of India's leading solar energy players, driven by a strong commitment to expanding the adoption of solar power across homes and institutions. In addition, his strength in forging strong relationships with industry stakeholders has helped the company develop a diversified global supplier network, while reinforcing its reputation as a reliable, transparent, and customer-focused organization.

#### **Suhas Donthi Manjunatha, Whole-Time Director, President & CEO**

Suhas Donthi Manjunatha serves as President, CEO, and Whole-Time Director of the Emmvee Group. He leads the company's global operations, strategic direction, and business development, playing a key role in driving EMMVEE's growth in the renewable energy sector. With a strong foundation in engineering and business from Drexel University, he is recognized as a dynamic leader committed to scaling up to manufacturing capacity and strengthening its market presence, both in India and internationally.

#### **Shubha Manjunatha Donthi, Promoter and Non-Executive Director**

Shubha Manjunatha Donthi is one of the Promoters and a Non-Executive Director. She is a qualified Bachelor's degree holder in Arts from VVN Degree College, Bengaluru. She has been in the solar industry since 1996 and has 29 years of experience in the renewable energy sector. She oversees the administrative functions.

#### **Ram Kumar Tiwari, Non-Executive Independent Director**

Ram Kumar Tiwari is one of the Non-Executive Independent Directors. He holds a degree of Master's degree of Science in Engineering from the Indian Institute of Science, Bengaluru, and a degree in Bachelor's degree of Engineering in Electronics from Maulana Azad National Institute of Technology, Bhopal. He has more than 45 years of experience in the electrical and energy sector. Prior to joining the company, he held senior positions at Bharat Heavy Electricals (BHEL) and has served as a consultant to Solar Energy Corporation of India and Power Grid Corporation of India.

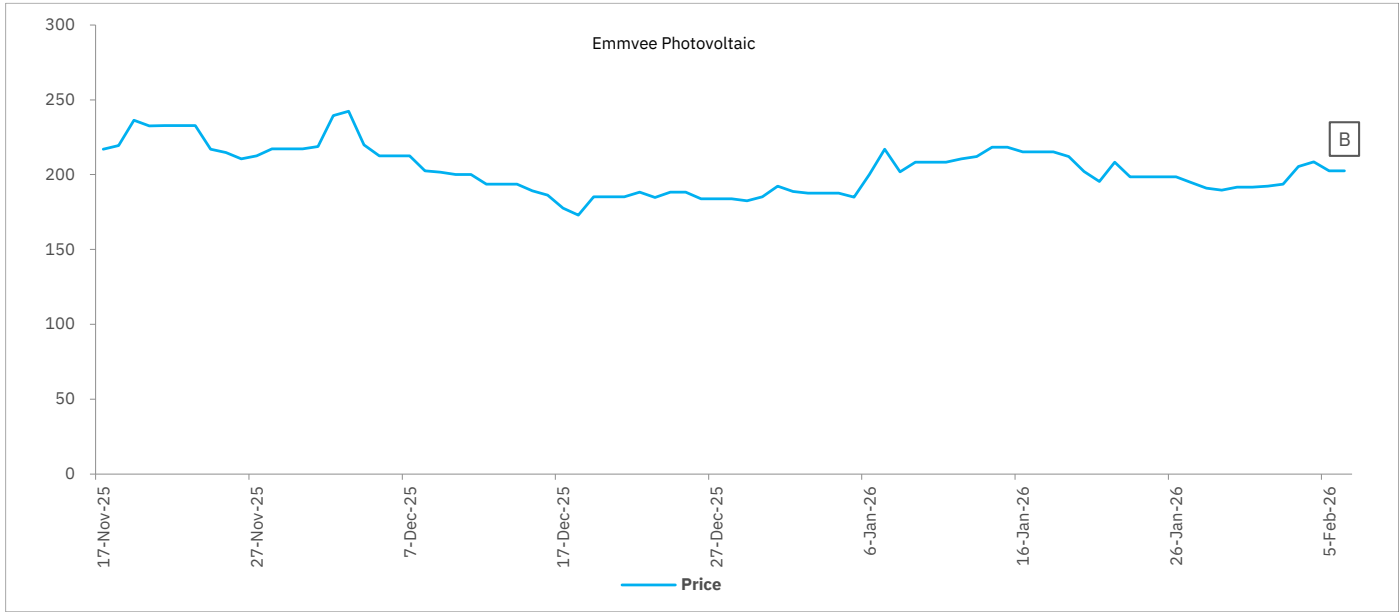
#### **Sambasivarao Chandramouleswara Sharada, Non-Executive Independent Director**

Sambasivarao Chandramouleswara Sharada is one of the Non-Executive Independent Director. She holds a Bachelor's of Commerce degree from Osmania University, Hyderabad, a Bachelor's of Law degree from Bangalore University, Karnataka. She is a qualified Company Secretary and holds a Master's degree in Environmental, Social and Governance from American Council of Training and Development, US. She has more than 30 years of professional experience. Prior to joining the Company, she was the Company Secretary at Buhler India, and in 2006 set up her own firm S C Sharada & Associates, Company Secretaries. She is serving on the boards of several companies such as Malabar Gems and Jewellery Manufacturing, Malabar Gold and Diamonds, Mimecast India, and Raichur Power Corporation.

#### **Santosh Kumar Mohanty, Non-Executive Independent Director**

Mr. Santosh Kumar Mohanty holds a Bachelor of Arts Degree in Political Science from Utkal University and Bachelor of Law (LLB) from Mumbai University. He holds a master's degree in international studies from Jawaharlal Nehru University and a PG Diploma in securities Laws from Mumbai University. He started his career with National Bank for Agriculture and Rural Development (NABARD) in 1985 and joined the Indian Revenue Service (IRS) in 1991. He joined IRS as Assistant Commissioner of Income tax in September 1991 and became the commissioner of Income tax in November 2012 and held the position till May 2013. In May 2013, he joined Forward Markets Commission (FMC) on deputation and served there as a Director till September 2015.

Coverage History



Date	Rating	Target Price (INR)	Closing Price (INR)
06-Feb-2026	Buy	320	202

Guide to Research Rating

BUY (B)	Absolute Return >+20%
ACCUMULATE (A)	Absolute Return +5% to +20%
REDUCE (R)	Absolute Return -5% to +5%
SELL (S)	Absolute Return < -5%

# Vikram Solar

India | Utilities | Initiating Coverage

**ElaraCapital**

10 February 2026

## Attractively priced

Vikram Solar (VIKRAMSO IN), a leading company in India's solar equipment manufacturing sector, is primed for domestic growth via government incentives. Key drivers include: 1) module capacity doubling from 4.5GW to 17.5GW, and 2) expansion of cell capacity to 12.0GW for backward integration. It trades at a 34-40% discount to Waaree Energies (WAAREEEN IN) and Premier Energies (PREMIERE IN). We initiate coverage of VIKRAMSO with a **Buy** rating and a TP of INR 323.

**Proven leader with steady expansion:** The company is one of the largest domestic solar PV module producers, supported by an aggregate installed capacity of 9.5GW as on December'25. A 21 year track record powers steady expansion across three key facilities – Falta SEZ, Kolkata (3.2GW), Oragadam, Chennai (1.3GW), and Vallum, Tamil Nadu (5.0GW). This geographic diversification drives scale efficiency. Consistent capacity buildup positions it well to meet rising demand in the domestic solar value chain.

**Backward integration via largescale cell expansion:** VIKRAMSO's upcoming investments emphasize on backward integration, with a decisive push into solar cell making to secure upstream control and enhance cost competitiveness. The company plans to add 6.0GW module and 12.0GW cell capacity by FY27. This signals a strategic shift toward controlling critical upstream processes, curbs dependence on external suppliers, cuts cost, and bolsters competitiveness at home and abroad.

**Diversified revenue with strong product capability and global footprint:** The company operates across domestic modules, exports, EPC and O&M services to diversify revenue and strengthen margin. An advanced portfolio -- high-efficiency PERC, N-Type, and HJT solar modules (395–735Wp, 20.23%–23.66% efficiency) -- with robust testing and long-term warranty. It has a strong presence across 22 States and 2 Union Territories, with distributors rising from 41 to 105 and dealers from 64 to 435. Clients include NTPC, NLC India, GIPCL, Adani Green, ACME Solar, AMPIN, Azure Power, and JSW Energy. Globally, it supplies modules to 39 countries via offices in the US and China, with ~8.7GW shipped to date, including ~3.4GW in the past three fiscals.

**Initiate with Buy and a TP of INR 323:** We expect a revenue CAGR of 53% and an EBITDA CAGR of 62% during FY25-28E. We initiate on VIKRAMSO with a **Buy** rating and a TP of INR 323, based on 8x FY28E EV/EBITDA to factor in robust growth prospects and tailwinds. It trades at a 34-40% discount to Waaree Energies (WAAREEEN IN) and Premier Energies (PREMIERE IN). Key risks include: 1) increased competition from large domestic firms may put pressure on pricing & margin, and 2) heavy US market reliance heightens sensitivity to policy, tariffs, and geopolitical shifts.

## Key financials

YE March (INR mn)	FY24	FY25	FY26E	FY27E	FY28E
Revenue (INR mn)	25,110	34,235	44,743	76,682	121,495
YoY (%)	82.2	4.4	39.9	58.6	61.3
EBITDA (INR mn)	3,986	4,920	7,480	11,743	20,840
EBITDA margin (%)	15.9	14.4	16.7	15.3	17.2
Adj PAT (INR mn)	914	1,398	3,730	4,806	7,576
YoY (%)	530.5	(53.1)	166.8	28.8	57.6
Fully DEPS (INR)	3.5	4.4	10.3	13.3	20.9
RoE (%)	22.5	16.6	16.9	14.1	18.8
RoCE (%)	22.1	24.6	17.9	14.4	17.3
P/E (x)	58.9	47.1	20.2	15.7	9.9
EV/EBITDA (x)	15.7	12.8	8.8	7.4	4.4

Note: Pricing as on 06 February 2026; Source: Company, Elara Securities Estimate

Rating: **Buy**

Target Price: **INR 323**

Upside: **55%**

CMP: **INR 208**

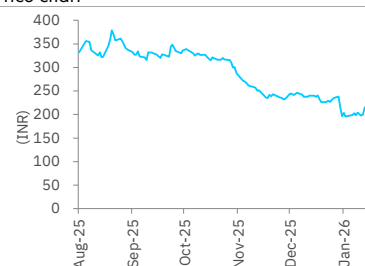
As on 06 February 2026

### Key data

Bloomberg	VIKRAMSO IN
Reuters Code	VIKO.NS
Shares outstanding (mn)	362
Market cap (INR bn/USD mn)	75/831
EV (INR bn/USD mn)	60/665
ADTV 3M (INR mn/USD mn)	352/4
52 week high/low	408/188
Free float (%)	15

Note: as on 06 February 2026; Source: Bloomberg

### Price chart



Source: Bloomberg

Shareholding (%)	Q3 FY26
Promoter	63.0
% Pledge	48.2
FII	1.8
DII	4.7
Others	30.5

Source: BSE

Price performance (%)	3M	6M	12M
Nifty	0.8	5.5	9.1
Vikram Solar	(35.2)	0.0	0.0
NSE Mid-cap	0.1	5.3	9.9
NSE Small-cap	(6.8)	(4.1)	(1.1)

Source: Bloomberg

### Rupesh Sankhe

Utilities

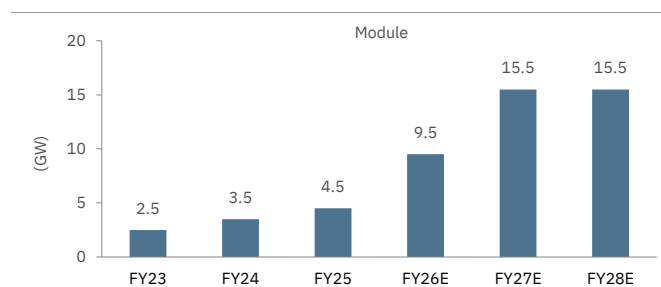
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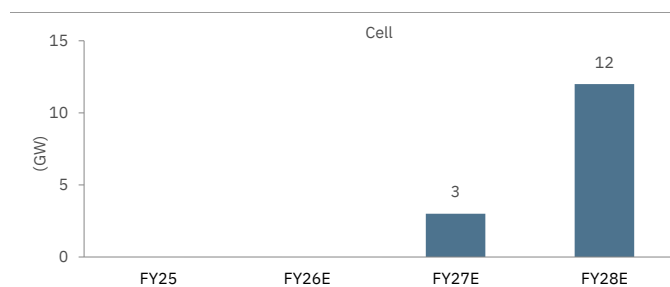
## Story in charts

**Exhibit 1: Module capacity to more than triple**



Source: Company, Elara Securities Estimate

**Exhibit 2: Cell capacity to reach 12.0GW by FY28E**



Source: Company, Elara Securities Estimate

**Exhibit 3: Significant expansion planned in module and cell**

	FY25	FY26E	FY27E
<b>Solar PV Module (GW)</b>			
Falta SEZ, Kolkata (West Bengal)	3.2		
Oragadam, Chennai (Tamil Nadu)	1.3		
Upcoming facility at Vallam, Tamil Nadu		5	
Upcoming facility at Gangaikondan, Tamil Nadu			6
Upcoming facility in US			
<b>Total</b>	<b>4.5</b>	<b>9.5</b>	<b>15.5</b>
<b>Solar Cell (GW)</b>			
Upcoming facility at Gangaikondan, Tamil Nadu			3
Upcoming facility at Gangaikondan, Tamil Nadu			9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>12</b>
<b>BESS (GWh)</b>			
Manufacturing plant at Oragadam, Chennai (Tamil Nadu)			5
<b>Total</b>			<b>5</b>

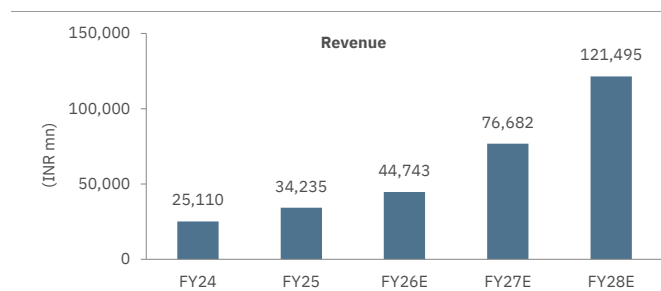
Source: Company, Elara Securities Estimate

**Exhibit 4: Product offerings**

Product	Technology	Wattage (Wp) and half cut cells	Maximum efficiency (%)	Product description
SURYAVA	HJT (Bifacial)	710-735 (G12, 132 cells)	23.7	Module with latest HJT having high efficiency and excellent low light performance.
HYPER SOL	N-Type (Bifacial)	690-715 (G12, 132 cells) 610-635 (G12R, 132 cells) 605-630 (M10, 156 cells) 580-605 (M10, 144 cells) 460-485 (M10, 120 cells) 415-440 (M10, 108 cells)	23.5	Module with latest N-Type technology having high efficiency and excellent low-light performance; ideally suited for commercial, residential, industrial and utility-scale projects
PARADEA	Mono-PERC (Bifacial)	655-680 (G12, 132 cells) 590-615 (G12, 120 cells) 585-610 (M10, 156 cells) 540-565 (M10, 144 cells) 395-420 (M10, 108 cells)	22.0	Maximized bifaciality gain fit for highly-reflective surface; preferred for utility-scale projects in the US, the EU, the MEA and India.
PREXOS	Mono-PERC (Bifacial)	655-680 (G12, 132 cells) 590-615 (G12, 120 cells) 540-565 (M10, 144 cells) 395-420 (M10, 108 cells)	21.9	For rooftop projects with roofing materials, such as asphalt shingle, metal and clay tiles; best suited for residential and small commercial applications.
SOMERA	Mono-PERC (Monofacial)	655-680 (G12, 132 cells) 590-615 (G12, 120 cells) 540-565 (M10, 144 cells) 490-515 (M10, 132 cells) 395-420 (M10, 108 cells)	21.9	Economical product with good low-light response; best suited for projects with land constraints in the developing markets.

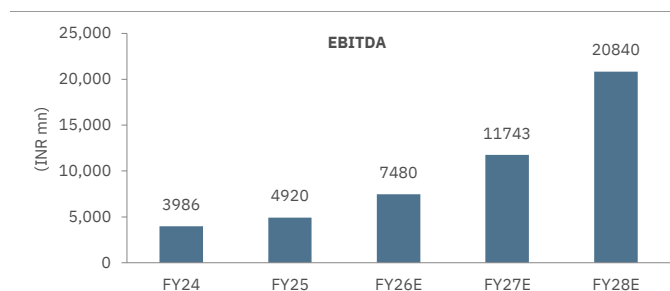
Source: Company, Elara Securities Research

**Exhibit 5: Revenue CAGR of 53% during FY25-28E**



Source: Company, Elara Securities Estimate

**Exhibit 6: EBITDA CAGR of 62% during FY25-28E**



Source: Company, Elara Securities Estimate

## Investment Rationale

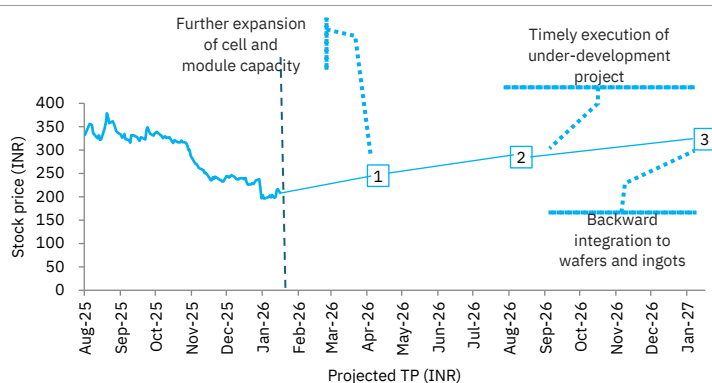
A well-established firm with 9.5GW of installed module capacity as on December'25 across three strategically located plants, demonstrating consistent expansion and proven execution capability.

Planned addition of 6.0GW module and 12.0GW cell capacity by FY27 enhances upstream control, reduces reliance on external suppliers, and positions VIKRAMSO competitively in domestic and global markets.

Multi-vertical operations spanning domestic key accounts, global exports, and EPC & O&M services offset risk, support margin expansion, and enhance business resilience.

High-efficiency PERC, N-Type and HJT modules with strong warranty-backed reliability. This coupled with a presence across 19 States in India and exports to 39 countries underpin sustained demand from marquee domestic and international clients.

## Valuation Triggers



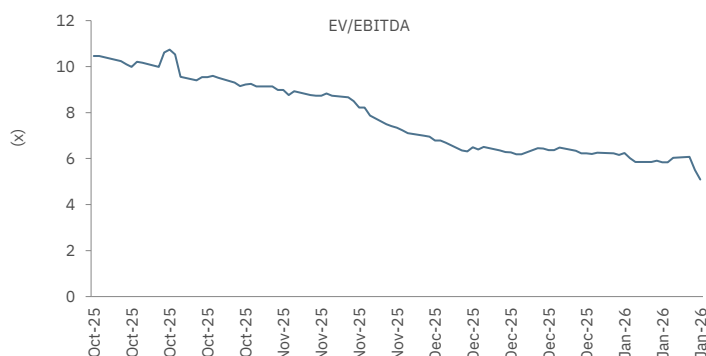
### Valuation triggers

- ▶ Further expansion of cell and module capacity
- ▶ Timely execution of under-development project
- ▶ Backward integration to wafers and ingots

### Our assumptions

- ▶ No delay in project execution
- ▶ Sustain market share
- ▶ Realization to sustain at similar levels

### One-year forward EV/EBITDA of 5.08x



Source: Bloomberg, Company, Elara Securities Research

### Key risks (downside/upside)

- ▶ Execution risk
- ▶ Risk of margin compression from rising competition
- ▶ Impact on exports from US tariffs

### Valuation

(INR mn)	FY28
EBITDA	20,840
EV/EBITDA (x)	8
EV	166,718
Debt	49,716
Mcap	117,002
Shares (mn)	362
TP (INR)	323

Note: pricing as on 06 February 2026; Source: Elara Securities Estimate

### Industry trends and macro factors

- ▶ Implementation of ALMM II and ALMM III
- ▶ Implementation of DCR

### Market position and competitive landscape

- ▶ Established domestic firm with strong credentials
- ▶ Diversified business model with 10.6GW orderbook
- ▶ Facing a competitive market and need for upstream integration

## Financials (YE March)

<b>Income Statement (INR mn)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Total Revenue	25,110	34,235	44,743	76,682	121,495
Gross Profit	8,321	8,689	12,152	19,271	31,092
EBITDA	3,986	4,920	7,480	11,743	20,840
EBIT	2,606	3,360	6,004	8,743	14,245
Interest expense	1,546	1,547	1,634	2,773	4,474
Other income	130	361	604	613	607
Exceptional/ Extra-ordinary items	(116)	-	-	-	-
PBT	1,073	2,174	4,974	6,584	10,378
Tax	276	775	1,243	1,778	2,802
Minority interest/Associates income	-	-	-	-	-
Reported PAT	797	1,398	3,730	4,806	7,576
<b>Balance Sheet (INR mn)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Shareholders' Equity	4,454	12,420	31,602	36,408	43,984
Minority Interest	-	-	-	-	-
Trade Payables	6,472	8,283	9,702	11,704	13,024
Provisions & Other Current Liabilities	1,654	4,159	4,159	4,159	4,159
Total Borrowings	8,083	2,307	20,878	32,352	52,202
Other long term liabilities	5,191	1,153	1,153	1,153	1,153
<b>Total liabilities &amp; equity</b>	<b>25,855</b>	<b>28,322</b>	<b>67,495</b>	<b>85,776</b>	<b>114,522</b>
Net Fixed Assets	4,772	5,509	27,869	50,181	75,094
Goodwill	-	-	-	-	-
Intangible assets	561	661	661	661	661
Business Investments / other NC assets	740	543	543	543	543
Cash, Bank Balances & treasury investments	1,157	1,890	17,501	4,984	1,792
Inventories	3,933	4,286	5,516	9,454	13,314
Sundry Debtors	11,853	12,286	12,258	16,807	19,972
Other Current Assets	2,839	3,146	3,146	3,146	3,146
<b>Total Assets</b>	<b>25,855</b>	<b>28,322</b>	<b>67,495</b>	<b>85,776</b>	<b>114,522</b>
<b>Cash Flow Statement (INR mn)</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
<b>Cashflow from Operations</b>	<b>1,520</b>	<b>2,987</b>	<b>7,057</b>	<b>4,095</b>	<b>12,941</b>
Capital expenditure	(716)	(1,333)	(23,835)	(25,313)	(31,508)
Acquisitions / divestitures	-	-	-	-	-
Other Business cashflow	79	(356)	-	-	-
<b>Free Cash Flow</b>	<b>883</b>	<b>1,298</b>	<b>(16,778)</b>	<b>(21,218)</b>	<b>(18,567)</b>
Cashflow from Financing	(768)	(566)	32,390	8,701	15,375
Net Change in Cash / treasury investments	115	732	15,612	(12,517)	(3,191)
<b>Key assumptions &amp; Ratios</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
Dividend per share (INR)	-	-	-	-	-
Book value per share (INR)	17.2	39.2	87.4	100.7	121.6
RoCE (Pre-tax) (%)	22.1	24.6	17.9	14.4	17.3
ROIC (Pre-tax) (%)	24.4	27.7	25.1	17.7	18.0
ROE (%)	22.5	16.6	16.9	14.1	18.8
Asset Turnover (x)	4.7	6.7	2.7	2.0	1.9
Net Debt to Equity (x)	1.6	0.0	0.1	0.8	1.1
Net Debt to EBITDA (x)	1.7	0.1	0.5	2.3	2.4
Interest cover (x) (EBITDA/ int exp)	2.6	3.2	4.6	4.2	4.7
Total Working capital days (WC/rev)	185.6	112.8	227.0	111.4	77.5
<b>Valuation</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26E</b>	<b>FY27E</b>	<b>FY28E</b>
P/E (x)	58.9	47.1	20.2	15.7	9.9
P/Sales (x)	3.0	2.2	1.7	1.0	0.6
EV/ EBITDA (x)	15.7	12.8	8.8	7.4	4.4
EV/ OCF (x)	39.6	20.2	8.5	14.7	4.7
Price to BV (x)	12.1	5.3	2.4	2.1	1.7

Note: Pricing as on 06 February 2026; Source: Company, Elara Securities Estimate



## Attractively priced

- ▶ Established domestic leader with consistent capacity expansion
- ▶ Deepening backward integration through large-scale solar cell expansion
- ▶ Well-diversified solar business with strong product capability and expanding global reach

### Established domestic leader with consistent capacity expansion

#### Proven scale and execution in India's solar manufacturing landscape

The company is among India's largest domestic solar PV module manufacturers, supported by an operational capacity of 9.5GW across three facilities at Falta SEZ, Kolkata, Oragadam, Chennai, and Vallam, Tamil Nadu. Its steady capacity expansion since inception reflects a sustained operating track record and the ability to scale manufacturing efficiently. For the past 20 years, the company has demonstrated strong execution capabilities, driven by integrated cross-functional teams and a rapid ramp-up approach that enables timely delivery of GW-scale capacity additions and operational optimization across cost, yield, and throughput. Backward integration into cell manufacturing is set to enhance cost control, improve operational resilience, and strengthen competitiveness. Despite industry challenges, such as evolving technology trends and supply chain volatility, the company's scale, longstanding operational experience, and established domestic & global supply chain relationships position it favorably compared to newer entrants.

#### Robust technical capabilities and advanced manufacturing systems

VIKRAMSO demonstrates strong technical proficiency in solar PV module manufacturing, supported by high levels of automation and deployment of equipment sourced from technology-leading regions such as Japan, Germany, the US, Switzerland and China. Automation is integrated across production using SAP- and BI-based control systems while digital initiatives span planning, procurement, logistics, payments, and inventory management. Enterprise platforms, such as Ariba, integrated with the core SAP ERP, further enhance operational accuracy and streamline procurement through eAuctions. The company has built expertise in managing complexities of solar module manufacturing, enabling consistent improvement in wattage output, and efficiency across product generations.

#### Expanding domestic reach and strengthening global market presence

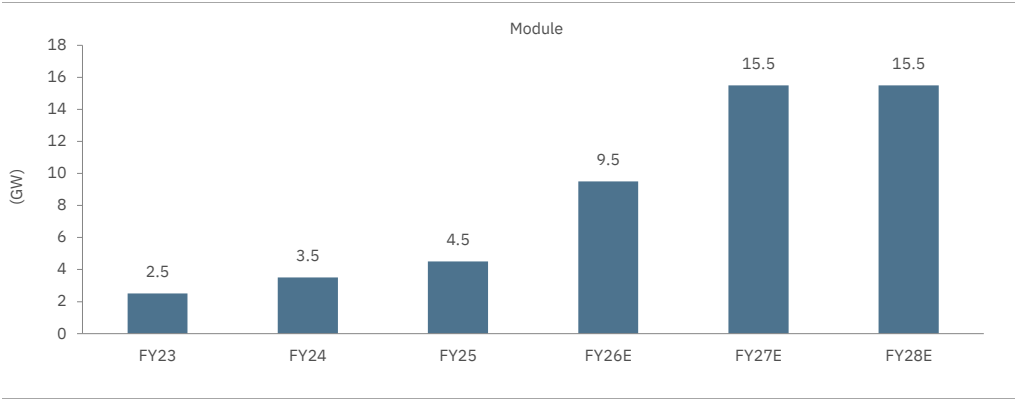
The company sustains a broad domestic footprint across 22 States and two Union Territories through a network of 105 authorized distributors, 435 dealers, and 75 system integrators, supported by a structured hierarchy of cluster heads and territory managers to drive penetration in high-demand regions, such as West, North, and South India. Its manufacturing units, located within 60km of major ports, offer logistical advantages through lower transport cost, faster supply chain turnaround, and improved access to international markets. Global operations are supported by a sales office in the US and a procurement office in China, with exports to 39 countries and cumulative shipments of ~8.7GW since inception, including ~3.4GW for the past three fiscals, highlighting the US as a key growth market. This expanding domestic and global footprint reflects its strengthening competitive position across major solar markets.

#### Strengthening financial resilience and building a scalable, diversified orderbook

VIKRAMSO has demonstrated steady improvement in its financial metrics for the past three fiscals, supported by disciplined risk management practices and robust internal processes. A stringent project-selection framework, supported by comprehensive risk assessments and disciplined bidding, ensures protection of returns, while contractual mechanisms allow partial cost pass-throughs to mitigate price volatility. International orders, which usually have longer execution timelines of 9–18 months, are structured under cost-plus revenue models that provide predictable margin and safeguard against fluctuations in input prices, thereby supporting accurate financial planning. For domestic orders with shorter and clearly defined delivery schedules, fixed-price bids are derisked through back-to-back supply contracts and secured raw material capacities, reducing exposure to

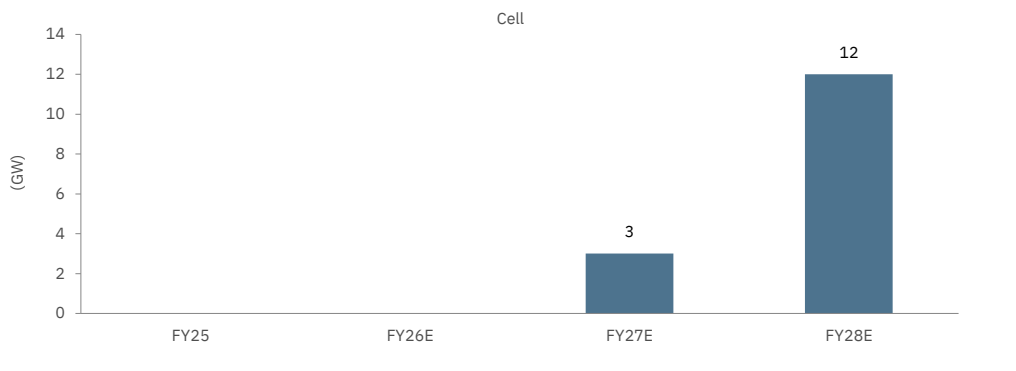
market-driven price shocks. The company’s expanding manufacturing capacity, higher capacity utilization, and transition to higher-wattage products have contributed to a growing and diversified orderbook. Orderbook stood at ~10.6GW as on December’25—more than twice its rated capacity. The scale-up in order volume reflects supportive policy developments, such as ALMM enforcement from April 1, 2024, along with the company’s strengthening technology profile and consistent module performance. This diversified and expanding orderbook enhances revenue visibility and positions it favourably across domestic and international IPP markets.

Exhibit 7: Module capacity to more than triple



Source: Company, Elara Securities Estimate

Exhibit 8: Cell capacity to reach 12GW by FY28



Source: Company, Elara Securities Estimate

Deepening backward integration through large-scale solar cell expansion

Strategic capacity expansion and backward integration to strengthen competitive position

The company is undertaking a multi-phase, strategically sequenced manufacturing expansion aimed at reinforcing its position in the domestic solar PV module market and enhancing competitiveness across global markets. Installed capacity has been steadily upgraded from 1.0GW in FY17 to 9.5GW in FY26.

VIKRAMSO is aggressively scaling up its manufacturing footprint, with plans to expand its solar module capacity from the current 9.5GW to 17.5GW by FY27, backed by its strategy of backward integration into cell production. On the cell-manufacturing front, the company targets 12.0GW of solar cell capacity by FY27, making it one of the largest integrated TOPCon cell production setups in India.

In Phase I of this expansion plan, the company aims to commission 3.0GW of cell capacity and 6.0GW of module capacity in its Tamil Nadu integrated facility. Additionally, at its Falta (West Bengal) site, the company is investing ~INR 4,000mn to add 2.0GW of module capacity, raising Falta’s total to 5.2GW. These capacity additions will be funded through its IPO proceeds, debt & incentives, and are set to significantly strengthen its vertical integration and cost competitiveness. VIKRAMSO is

establishing a 1.0GWh solid-state cell and battery manufacturing facility, which is designed to be expandable up to 7.5GWh.

This scale-up coupled with backward integration into solar cell production is likely to enhance cost competitiveness, improve operating margin, and enable participation in DCR-linked demand stemming from government programs, such as the CPSU scheme and the Grid-Connected Solar Rooftop Programme. The expansion strengthens its ability to address utility-scale and distributed solar markets, enhancing access to a broader, more diversified customer base domestically and internationally.

#### **Exhibit 9: Sizeable expansion planned in module and cell**

	FY25	FY26E	FY27E
<b>Solar PV Module (GW)</b>			
Falta SEZ, Kolkata (West Bengal)	3.2		
Oragadam, Chennai (Tamil Nadu)	1.3		
Upcoming facility at Vallam, Tamil Nadu		5	
Upcoming facility at Gangaikondan, Tamil Nadu			6
Upcoming facility in US			
<b>Total</b>	<b>4.5</b>	<b>9.5</b>	<b>15.5</b>
<b>Solar Cell (GW)</b>			
Upcoming facility at Gangaikondan, Tamil Nadu			3
Upcoming facility at Gangaikondan, Tamil Nadu			9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>12</b>
<b>BESS (GWh)</b>			
Manufacturing plant in Oragadam, Chennai (Tamil Nadu)			5
<b>Total</b>			<b>5</b>

Source: Company, Elara Securities Estimate

#### **Supply chain diversification and localized ecosystem development**

To enhance supply chain reliability, VIKRAMSO is systematically expanding and diversifying its supplier base to offset risks arising from geopolitical tensions, trade restrictions, and concentrated sourcing from specific regions. In response, the company has expanded domestic manufacturing capacities to reduce dependence on imported components and has implemented comprehensive risk-management systems to identify vulnerabilities and establish contingency mechanisms. Potential suppliers for critical components, such as solar cells, solar glass, and aluminium frames, have been identified in Turkey, Laos, Indonesia, and the Philippines, broadening sourcing channels. Additionally, the development of a co-located Vendor Park within the Tamil Nadu integrated facility aims to localize key raw materials production, including aluminium frames, encapsulants, and junction boxes. This Vendor Park model is likely to strengthen supply chain integration, lower logistics and storage cost, enhance inventory & quality control, and foster collaborative innovation with key suppliers.

#### **Business divisions and solar PV module portfolio**

The company operates primarily in solar PV module manufacturing, complemented by EPC and O&M service offerings. Its solar PV module portfolio spans three key technologies: P-type monocrystalline PERC modules, N-type monocrystalline TOPCon modules, and N-type monocrystalline HJT modules, each available in both bifacial (glass-to-glass or glass-to-transparent backsheet) and monofacial (glass-to-white/black backsheet) configurations. Product differentiation is based on technology type, cell dimensions, and module configuration, enabling tailored solutions across customer segments. The latest generation of modules (including those under testing) delivers power outputs between 395Wp and 725Wp, with efficiency in the range of 21.5-23.3%. Larger cell formats (M10 and M12) enhance module power density, and corresponding bifacial glass-to-glass modules are backed by a 30-year linear power warranty. The company's product range is marketed under brands, such as *Suryava*, *Somera*, *Prexos*, *Paradea*, and *Hypersol*. Each product is aligned to specific applications and customer needs. Customer engagement is further supported through targeted marketing and advertizing initiatives designed to enhance product awareness and understanding.

**Design & Engineering:** In-house engineering teams develop optimized project designs aimed at minimizing lifecycle power cost. Sophisticated tools, such as solar PV Case, ETAP, and Civil 3D, are used to generate accurate layouts and electrical designs. Engagement spans concept development, detailed engineering, execution planning, and commissioning oversight, ensuring customized and delivery-focused solutions.

**Procurement:** A diversified supplier network across India and international markets enables efficient sourcing of key EPC components, including inverters, transformers, module mounting structures, and plant monitoring systems. The supply chain function manages complete procurement logistics for turnkey project execution.

**Construction:** An experienced project execution team, with a track record of more than 300 ground-mounted and rooftop installations, leverages automation and standardized processes to accelerate project timelines. Activities encompass design implementation, equipment supply, packaging, forwarding, transportation, storage, erection, and final commissioning. A dedicated project management platform—supported by a mobile application—enables real-time progress tracking from remote sites, improving oversight and coordination.

**Quality assurance:** A structured quality management framework ensures rigorous testing, supplier qualification, and continued performance evaluation. The company has executed several prominent installations, including a ~2.2MW rooftop system in West Bengal—one of East India's largest—and was among the early developers of floating solar projects in India.

#### **Integrated O&M services and data-driven performance optimization**

VIKRAMSO operates a dedicated O&M division that delivers forward-integrated, life-cycle services primarily for EPC projects, offered as bundled value-added solutions through its affiliate, VP Utilities and Services. Service capabilities span ongoing and preventive maintenance, repairs, performance monitoring, equipment upgrade, spare-parts management, and detailed data reporting. The O&M model emphasizes long-term asset performance by ensuring high-quality equipment selection and cost-efficient maintenance practices.

The division is transitioning from reactive to predictive maintenance, enabled by real-time analytics and digital monitoring systems. SCADA-based infrastructure—combining software and hardware—collects, stores, and processes real-time data from operating sites, including solar irradiation patterns, allowing for centralized monitoring and early detection of performance deviations. Predictive tools, such as dust-detection systems, thermal imaging, string combiner and inverter-level monitoring, and tilt-monitoring systems, are applied to assess module cleanliness, thermal anomalies, electrical health, and optimal tilt adjustments. These technologies support minimal downtime, improved plant reliability, and consistent power generation. The robotic cleaning systems further illustrate the technology-driven approach to maintaining operational efficiency across deployed assets.

#### **Manufacturing footprint and planned capacity expansion**

The company operates manufacturing facilities in West Bengal and Tamil Nadu, both equipped with advanced production systems sourced from leading global equipment suppliers. These units support manufacturing excellence across the supply chain, sales, and distribution functions. Their proximity to major ports enhances efficiency of international operations and export logistics. Solar PV modules are produced using technologies from Japan, Germany, the US, and Switzerland. Historical capacity utilisation for these facilities is assessed based on effective installed capacity and actual production for each fiscal year.

## Well-diversified solar biz with strong product capability & expanding global reach

VIKRAMSO follows a multi-pronged sales and distribution approach that supports revenue diversification, margin improvement, and risk reduction. Its key business lines include: 1) domestic solar PV module sales through high volume key accounts and a dedicated distributor network for retail customers, 2) exports to major international clients, and 3) integrated solar solutions encompassing EPC and O&M services.

The company offers a broad solar product portfolio featuring high-efficiency PV modules built on PERC, N-Type, and HJT technologies in both bifacial and monofacial designs. Its latest module range spans 395Wp to 735Wp, with efficiency between 20.2% and 23.7%. All modules undergo stringent stress testing to ensure durability and reliability, allowing the company to provide a 12-year product warranty and a 27–30-year performance warranty consistent with global benchmarks.

### Exhibit 10: Product offerings

Product	Technology	Wattage (Wp) and half cut cells	Maximum efficiency (%)	Product description
SURYAVA	HJT (Bifacial)	710-735 (G12, 132 cells)	23.66	Module with latest HJT having high efficiency and good low-light performance.
HYPERSOL	N-Type (Bifacial)	690-715 (G12, 132 cells) 610-635 (G12R, 132 cells) 605-630 (M10, 156 cells) 580-605 (M10, 144 cells) 460-485 (M10, 120 cells) 415-440 (M10, 108 cells)	23.51	Module with latest N-Type technology having high efficiency and good low-light performance; ideally suited for commercial, residential, industrial and utility-scale projects.
PARADEA	Mono-PERC (Bifacial)	655-680 (G12, 132 cells) 590-615 (G12, 120 cells) 585-610 (M10, 156 cells) 540-565 (M10, 144 cells) 395-420 (M10, 108 cells)	22.01	Maximized bifaciality gain fit for highly-reflective surface; preferred for utility-scale projects in the US, the EU, the MEA and India.
PREXOS	Mono-PERC (Bifacial)	655-680 (G12, 132 cells) 590-615 (G12, 120 cells) 540-565 (M10, 144 cells) 395-420 (M10, 108 cells)	21.89	For rooftop projects with roofing materials, such as asphalt shingle, metal and clay tile; best suited for residential and small commercial applications.
SOMERA	Mono-PERC (Monofacial)	655-680 (G12, 132 cells) 590-615 (G12, 120 cells) 540-565 (M10, 144 cells) 490-515 (M10, 132 cells) 395-420 (M10, 108 cells)	21.94	Economical product with good low-light response; best suited for projects with land constraints in the developing markets.

Source: Company, Elara Securities Research

VIKRAMSO has established a robust nationwide footprint, operating across 22 States and two Union Territories, while significantly scaling its distributor network from 41 in September 2024 to 100 and its dealer base from 64 to 435 by December'25. Its solar PV modules are extensively used by prominent domestic customers, including public-sector entities, such as NTPC, NLC India, and GIPCL, as well as major private IPP, such as Adani Green, ACME Solar, AMPIN, Azure Power, JSW Energy, First Energy, and Rays Power Infra.

The company has strengthened its global footprint by setting up a sales office in the US and a procurement office in China, enabling it to supply solar PV modules to 39 countries as on March 2025. Its key international customers include PureSky Development and Sundog Solar LLC.

### Aggressive capacity expansion and backward integration

VIKRAMSO is rolling out a ~INR 63.8bn capex plan to expand module capacity from 9.5GW in FY25 to 15.5GW by FY27, while building 12.0GW of cell capacity by FY27, with a targeted backward integration level of ~70-75%.

## Valuation and Recommendation

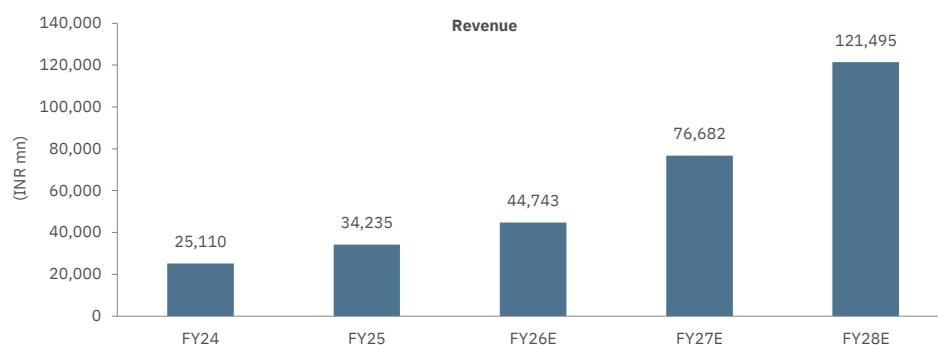
- ▶ Revenue CAGR of 53% during FY25-28E
- ▶ EBITDA CAGR of 62% during FY25-28E
- ▶ Initiate with **Buy** and a TP of INR 323, implying 55% upside

### Revenue CAGR of 53% during FY25-28E

#### Capacity expansion to drive top line

VIKRAMSO currently operates 9.5GW of module capacity. It aims to expand module capacity to 15.5GW by FY27. Cell capacity is set to increase to 12.0GW. These expansions are set to significantly enhance growth, with a revenue CAGR of 53% during FY25-28E, increasing from INR 34bn in FY25 to INR 121bn in FY28E.

**Exhibit 11: Revenue CAGR of 53% during FY25-28E**

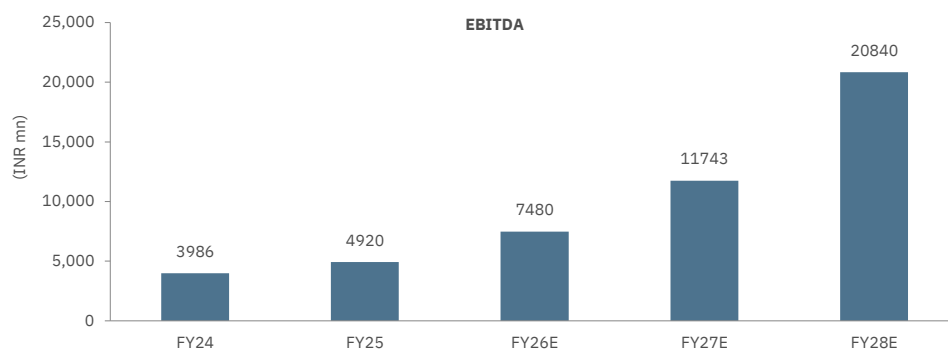


Source: Company, Elara Securities Estimate

### EBITDA CAGR of 62% during FY25-28E

EBITDA is set to rise to INR 20.8bn by FY28E, supported by its growing asset base. We expect PAT to increase to INR 7.5bn by FY28E. EPS is likely to expand to INR 20.9 in FY28E from INR 4.4 in FY25.

**Exhibit 12: EBITDA CAGR of 62% during FY25-28E**



Source: Company, Elara Securities Estimate

**Exhibit 13: Valuation**

(INR mn)	FY28
EBITDA	20,840
EV/EBITDA (x)	8.0
EV	166,718
Debt	49,716
Mcap	117,002
Shares (mn)	362
TP (INR)	323

Note: pricing as on 06 February 2026; Source: Elara Securities Estimate

**Key risks to our call**

- ▶ Growing competition from large domestic manufacturers could squeeze pricing power and compress margin.
- ▶ Heavy dependence on the US market makes the company vulnerable to policy changes, tariff actions, and geopolitical developments.
- ▶ Profitability and market position may weaken if plans for upstream integration—such as cells and ingot & wafer manufacturing—do not scale up as we had expected.
- ▶ The company's rapid expansion into capital-intensive cell and ingot & wafer facilities heightens execution and ramp-up risks, which could affect project timelines, cost, and near- to medium-term financial performance.



## Company Background

Vikram Solar (VIKRAMSO IN) is one of India's largest module manufacturers in terms of operational capacity, with 4.5GW of installed manufacturing capacity for solar PV modules, producing N-Type, HJT bifacial PV modules across factories located at Falta SEZ, Kolkata, West Bengal and at Oragadam, Chennai, Tamil Nadu. Both factories are strategically located with access to ports, rail and roads helping facilitate domestic as well as international operations. Operating in the business of solar PV module technologies for the past 15 years, and it has developed strong engineering capabilities in producing high-efficiency PV modules.

As on June 30, 2025, the company has ~2.9GW enlisted capacity in the Ministry of New & Renewable Energy's Approved List of Module Manufacturers (ALMM). With state-of-art manufacturing equipment from leading equipment suppliers, robust in-house processes, and systems to drive manufacturing and a global supply chain, and sales & distribution network, it is the preferred choice for products and services with "Made in India" brand at a global scale.

### Board of directors

#### Gyanesh Chaudhary, Chairman and Managing Director

A visionary leader in sustainability, Gyanesh Chaudhary incorporated VIKRAMSO in CY05 that has become a major force in India's green energy sector, boasting a 4.5GW annual production capacity, making it one of the country's largest solar module manufacturers. He is a business graduate from Cardiff Business School, University of Wales, Cardiff, the UK, and studied Marketing & International Trade from Boston University. He further completed the OPM (Owner/ President Management Program) from Harvard Business School, the US.

#### Sumit Binani, Independent Director

Sumit Binani is Additional Independent Director of the company. He holds a Bachelor's degree of Commerce from University of Calcutta and a Post Graduate Diploma in Business Management from the Indian Institute of Management, Calcutta. He is an Associate Member of the Institute of Cost and Works Accountants of India, a Fellow of the Institute of Company Secretaries of India and has passed the final examinations held by Institute of Chartered Accountants of India. He is a registered Insolvency Professional with the Insolvency and Bankruptcy Board of India. He has experience in the securities market, operations management & insolvency law, and has worked as an independent professional. He was previously associated with SREI Capital Markets, ICICI Bank, and Dalmia Securities. He was appointed to the Board of Directors with effect from September 27, 2024.

#### K Subramanya, Independent Director

Subramanya Krishnappa is Independent Director of the company. He holds a Bachelor's degree in Engineering (Electronics and Communications) and a Bachelor's degree of Science from the University of Mysore. He has 42 years of experience in the solar and renewable energy industry. He was previously associated with Bharat Heavy Electricals as a Senior Commercial Engineer, and Tata BP Solar (now Tata Power Solar Systems) as Chief Executive Officer. He has previously acted as an advisor for Emami Cement for its solar power business, for the Renewsys division of Positive Packaging Industries for business development, for Greenpeace India Society promoting solar & green energy and Apricum GmbH as a Consultant. He is currently associated with GLG Corporation. He is a Fellow of The Institution of Electronics & Telecommunication Engineering and the World Academy of Productivity Science. He was appointed to the Board of Directors with effect from February 15, 2023.

#### Ratnabali Kakkar, Independent Director

Ratnabali Kakkar is an Independent Director of the company. She holds a Post Graduate Diploma in Management from the Indian Institute of Management, Calcutta. She has 11 years of experience in the wealth management industry. She is Founder and Director of Magellan Wealth Management. She was appointed to the Board of Directors with effect from December 12, 2021.

#### KK Maskara, Whole-Time Director & President - Corporate & Interim CEO

Krishna Kumar Maskara is Whole-time Director and President – Corporate & interim CEO of the company. He holds a diploma and a Post Graduate Diploma in Management from Indira Gandhi National Open University, New Delhi. He is an associate of the Institute of Chartered Accountants of India. Previously, he was associated with Vikram India as a general manager – finance. He has 20 years of experience in the fields of finance and solar industries. He was appointed to the Board of Directors with effect from January 1, 2009. He is responsible for fundraising, taxation, and legal & corporate law-related functions.

**Neha Agrawal, Whole-Time Director and Vice President - Corporate Strategy**

Neha Agrawal is Whole-time Director and Head – Corporate Strategy of the company. She is certified as company Secretary by the Institute of Company Secretaries of India and is an Associate of the Institute of Chartered Accountants of India. Previously, she has worked as a Management Trainee for Idea Cellular and as a Senior Consultant for Ernst & Young LLP. She has 14 years of experience in the field of consultancy and solar industry. She was appointed as a manager – process management in the Company and to our Board of Directors with effect from March 10, 2014, and March 22, 2021, respectively. She is responsible for formulating future corporate strategy, annual operating business plans and functional strategy of the Company.

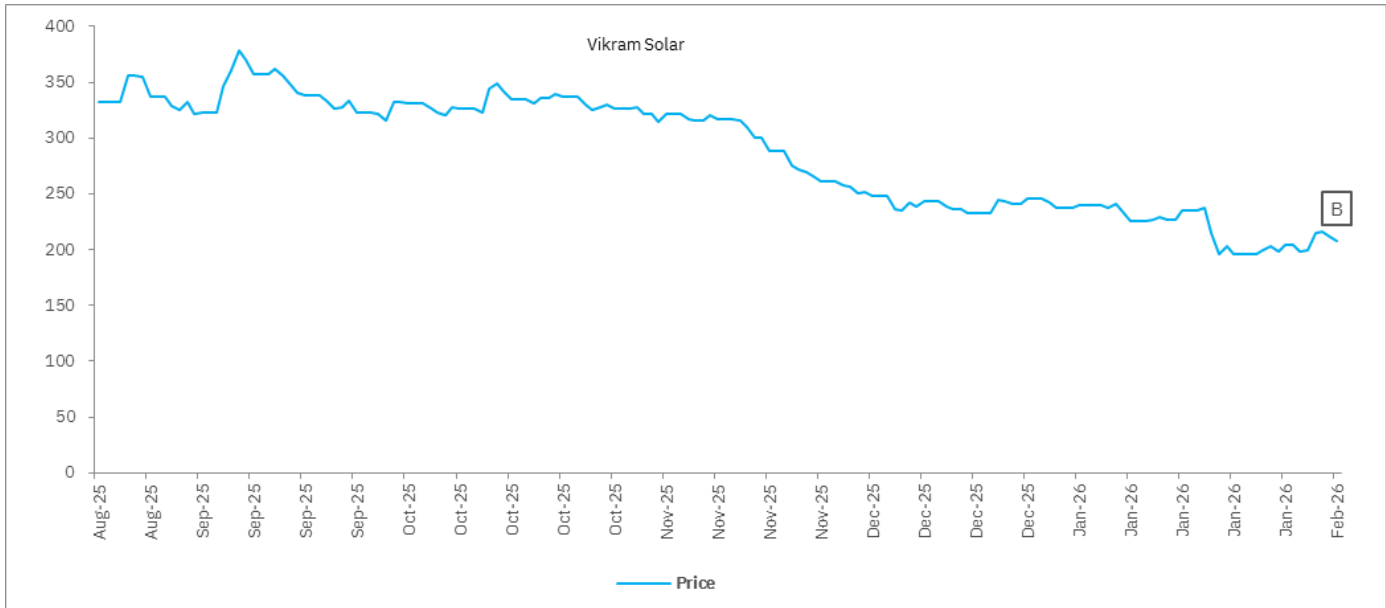
**Mr. Joginder Pal Dua, Non-Executive Independent Director**

Mr. J. P. Dua holds a degree in Law from Meerut University & Masters in Economics from Punjab University. He has served Oriental Bank of Commerce for more than 30 years, lastly as General Manager – Corporate Credit. Mr. Dua has served as Executive Director as well as Chairman & Managing Director of Allahabad Bank for five years. He was appointed to Board for Industrial & Financial Reconstruction (B.I.F.R.) and retired as Chairman in January 2016. He has also served as deputy Chairman of Indian Banks' Association. He was associated with premier Institutes/Organizations viz., National Institute of Bank Management (NIBM), Indian Institute of Banking & Finance (IIBF), Xavier Institute of Management, Bhubaneswar (XIBM), Institute of Banking Personnel Selection (IBPS), Indian Institute of Bank Management (IIBM) in the fields of Education, Banking & Finance as Member of their Governing Boards.

**Mr. Suresh Gopinathan Menon, Non-Executive Independent Director**

Shri Suresh Gopinathan Menon holds a Master of Science degree in Physics from the University of Poona, India and a Master of Technology degree in Computer Science from the Indian Institute of Technology, Madras, India. He has completed the Advanced Management programme from INSEAD, France. He was also in the Advisory Board of Vikram Solar Limited for the past few years. He is also a board member of Tata AIA Life Insurance Company Limited and West Bengal Electronics Industry Development Corporation Limited

Coverage History



Date	Rating	Target Price (INR)	Closing Price (INR)
06-Feb-2026	Buy	323	208

Guide to Research Rating

BUY (B)	Absolute Return >+20%
ACCUMULATE (A)	Absolute Return +5% to +20%
REDUCE (R)	Absolute Return -5% to +5%
SELL (S)	Absolute Return < -5%

## Abbreviation and Acronym

Acronym	Full form
BESS	Battery Energy Storage Systems
EPC	Engineering, Procurement, and Construction
ALMM	Approved List of Models and Manufacturers
DCR	Domestic Content Requirement
PLI	Production Linked Incentive
BIPV	Building-Integrated Photovoltaics
HJT	Heterojunction Technology
IPP	Independent Power Producer
OEM	Original Equipment Manufacturer
BI	Business Intelligence
SCADA	Supervisory Control and Data Acquisition
MSME	Micro, Small, and Medium Enterprises
PERC	Passivated Emitter and Rear Cell
C&I	Commercial and Industrial
ISE	Institute for Solar Energy Systems (Fraunhofer ISE)
ITIR	Information Technology Investment Region
EPE	Ethylene Propylene Elastomer
CPSU	Central Public Sector Undertaking
PM-KUSUM	Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan
SEIA	Solar Energy Industries Association
IDT	Instrument Distribution Transformer
RHP	Red Herring Prospectus
SAP	Systems, Applications, and Products
ERP	Enterprise Resource Planning
GIPCL	Gujarat Industries Power Company Limited
SEZ	Special Economic Zone
IDT	Instrument Transformer

## Appendix

### **Mono PERC**

Mono PERC (Monocrystalline Passivated Emitter and Rear Cell) is an advanced solar cell technology based on monocrystalline silicon that enhances the performance of conventional mono cells by adding a passivation layer on the rear side of the cell, which reduces electron recombination losses and reflects unabsorbed light back into the cell for improved absorption. This design results in higher conversion efficiencies (typically ~20–22%), better performance under low-light conditions, and improved temperature coefficients, making Mono PERC widely adopted due to its favorable balance of efficiency and cost, although its efficiency improvements are now reaching maturity compared with newer technologies such as TOPCon and HJT.

### **Topcon Technology**

TOPCon (Tunnel Oxide Passivated Contact) is an advanced crystalline silicon solar cell technology that improves efficiency by incorporating an ultra-thin tunnel oxide layer and a doped polysilicon layer on the rear side of the cell, which together enable highly effective passivation and selective carrier transport. This structure significantly reduces recombination losses while allowing electrons to tunnel through the oxide layer, resulting in higher efficiencies (typically ~23–25% at cell level), better temperature performance, lower degradation compared to Mono PERC, and a longer technology runway, which is why TOPCon is rapidly gaining adoption as the next mainstream solar cell technology.

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