SECTOR UPDATE

Renewable Energy – China

Solar Energy Equipment: Prolonged Industry Consolidation, Moderation Of Global Installation Growth And Rising Protectionism Challenge Survivability

Weekly spot prices remained stable ahead of the Chinese New Year holidays amid muted transactions. China achieved a record year for solar installations, reaching 277.17 GW (+27.8%). Global solar installations should see a milder growth starting in 2025, with rising protectionism further dampening the export outlook. The effectiveness of the industry's self-discipline measures remains uncertain and industry consolidation could be a prolonged process. Maintain MARKET WEIGHT.

WHAT'S NEW

- **Attempts to raise polysilicon price quotations facing resistance.** Market transactions remain muted as the Chinese New Year approaches, with minimal order execution and stable polysilicon prices. Manufacturers are attempting to raise quotations, but downstream acceptance remains low, resulting in stagnant spot prices. Polysilicon chunk prices range between Rmb37.00-42.50 per kg, while domestic granular silicon prices stand at Rmb36-38 per kg. Polysilicon production output has declined compared with Dec 24, given the upcoming Chinese New Year holiday and low temperatures in northern regions; thus, we do not expect a significant fluctuation in the next two months. Price movement will still depend on the pace of inventory digestion as the first quarter tends to be a low demand season.

- **Rebound of wafer and battery cell prices due to temporary supply-demand mismatch.** Wafer and battery cell prices have recently seen a slight rebound amid tighter supply-demand dynamics. Manufacturers have scaled down production ahead of the Chinese New Year, while some downstream manufacturers are replenishing inventories, creating short-term demand spikes. However, in the module segment, which bears much of the supply chain pressure, prices have shown signs of decline. This suggests that the recent upstream price recovery may not be sustainable. Additionally, if companies increase utilisation rates in response to market changes, there is a possibility of a price reversal and decline after the holiday period.

- **Upside and sustainability of upstream price recovery to depend on post-holiday module price movements.** The solar module market has remained steady, with most orders deferred to post-holiday delivery and pricing holding stable for both distributed and centralised projects. It is worth noting that the majority of domestic manufacturers are adhering to China Photovoltaic Industry Association (CPIA)-guided floor prices, with delivery prices ranging from Rmb0.68-0.70 per watt.

MARKET WEIGHT

(Maintained)

SECTOR PICKS

Company	Rec	Target Price (Rmb)	Share Price (Rmb)
Longi Green Energy	HOLD	16.40	14.53

Source: UOB Kay Hian

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PEER COMPARISON

Company	Ticker	Rec	Price @ 23 Jan 25 (lcy)	Target Price (lcy)	Upside/ (Downside) to TP (%)	Market Cap (USD m)	PE 2025F (x)	PE 2026F (x)	P/B 2025F (x)	P/B 2026F (x)	EV/EBITDA 2025F (x)	EV/EBITDA 2026F (x)	ROE (%)
Polysilicon													
Tongwei	600438 CH	NR	19.80	NR	NR	14,145.2	43.5	16.0	1.7	1.6	12.3	7.6	3.1
Xinjiang Daqo	688303 CH	NR	20.78	NR	NR	7,494.5	31.3	18.9	1.1	1.0	15.4	9.1	4.2
GCL Tech	3800 HK	NR	1.18	NR	NR	4,789.5	32.5	8.6	0.7	0.6	8.6	5.2	1.8
Xinte Energy	1799 HK	NR	7.20	NR	NR	1,656.4	5.5	4.3	0.3	0.3	10.3	6.1	1.3
Wafer / Battery Cell / Module													
Longi	601012 CH	HOLD	14.53	16.40	12.87	19,625.6	44.6	16.7	1.7	1.5	14.7	8.1	4.1
TCL Zhonghuan	002129 CH	NR	8.39	NR	NR	6,351.7	167.8	13.7	1.0	1.0	12.7	8.8	0.9
Aiko Solar	600732 CH	NR	9.92	NR	NR	3,052.3	23.4	9.0	2.5	1.8	7.7	-	8.6
Jinko Solar	688223 CH	NR	6.15	NR	NR	11,063.5	17.8	13.4	1.7	1.6	7.5	5.8	8.5
JA Solar	002459 CH	NR	12.3	NR	NR	6,871.7	18.0	7.8	1.2	1.1	7.5	5.0	6.3
Trina Solar	688599 CH	NR	17.23	NR	NR	6,387.2	19.9	9.2	1.2	1.1	9.7	6.6	7.2

Source: Bloomberg, UOB Kay Hian

- **Another record-high annual solar installation of 277.17GW (+27.8% yoy) in China.** According to the National Energy Administration (NEA), China's annual solar installations reached a new record of 277.17GW (+27.8% yoy) in 2024, with solar remaining the fastest-growing segment since 2021. By the end of 2024, solar's cumulative installed capacity had reached 886.7GW (+45.2% yoy), accounting for 26.5% of the country's total power generating capacity. Furthermore, the combined cumulative installed capacity of solar and wind reached 1,407.3GW (+33.8% yoy), surpassing the target of 1,200GW a full six years ahead of schedule.

- **Era of high-paced installation growth has ended; 2025 to be a year of rationalisation.** Global solar installations are expected to reach a range of 570GW to 600GW, reflecting approximately 30% yoy growth. After years of exponential growth, partly driven by the sharp decline in solar module prices, global solar installation is anticipated to moderate further in 2025. The market generally expects global installation growth to slow to single-digit yoy growth, due to: a) policy support gradually coming to fruition; b) waning incentives given constrained fiscal budget; c) grid constraints; and d) gradual rationalisation of solar module prices after months of losses.

- **Influence of CPIA and effectiveness of industry self-discipline measures in question.** In early-Dec-24, leading Chinese photovoltaic manufacturers signed a self-discipline pledge, committing to production quotas and adherence to the price floor recommended by the CPIA， which was later revised to Rmb0.69 per watt in Nov 24. This initiative, coordinated by the CPIA, raised industry-wide expectations of curbing vicious competition and restoring order to the sector.

- **Influence of CPIA and effectiveness of industry self-discipline measures in question.** In early-Dec-24, leading Chinese photovoltaic manufacturers signed a self-discipline pledge, committing to production quotas and adherence to the price floor recommended by the CPIA， which was later revised to Rmb0.69 per watt in Nov 24. This initiative, coordinated by the CPIA, raised industry-wide expectations of curbing vicious competition and restoring order to the sector. However, the recent move by a subsidiary of China Energy Investment Group, a state-owned energy company, to set a maximum bidding limit of Rmb0.6313 per watt, which is significantly below CPIA's recommended price floor, highlights the challenges of regulating the fragmented solar industry. This development reinforces concerns about the limited effectiveness of relying solely on industry associations without legal authority to enforce compliance. It also underscores how the fragmented nature of the industry, with a high proportion of small-scale players, makes coordination and self-discipline extremely challenging.

- **Shifting export markets; contracting demand from Europe offset by a rapidly-growing Middle East market.** According to the China General Administration of Customs, solar module export value in 2024 totalled US$27,990.1m (-29.2% yoy), primarily due to a decline in solar module ASP despite volume growth. Export value to Europe saw a sharp decline to US$11,378.7m (-42.7% yoy), driven by high inventory levels, weak economic performance, and low power generation returns. Nevertheless, Europe remained the largest export destination for Chinese solar modules in 2024, accounting for 40.7% of total exports (-9.4 ppt yoy). The gap was filled by Asia, particularly Middle Eastern countries, with their contribution ratio surging to 37.4% (+9.9 ppt yoy). Notably, Pakistan and Saudi Arabia recorded import values of US$1,978.9m (+43.7% yoy) and US$1,893.1m (+41.8% yoy), respectively.

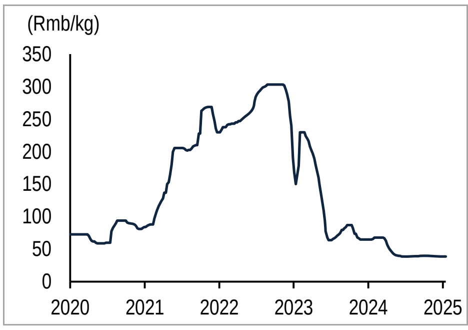
- **Protectionism and supply chain localisation trend threatening export demand.** The outlook for solar module export demand in 2025 is clouded by policy uncertainties surrounding renewable energy incentives, tariffs, and localisation mandates in various countries. Pakistan, the third-largest importer of Chinese solar modules in 2024, may face a significant decline in domestic solar module demand for distributed projects due to potential changes in net-metering tariff policies, raising concerns about the sustainability of its growth momentum. In India, which was the fifth-largest importer of Chinese solar modules in 2024, the latest amendment to the Approved List of Models and Manufacturers (ALMM) in Dec 24 mandates that only India-made solar modules be procured for government projects. Combined with India's rapidly expanding domestic solar module manufacturing capacity, Chinese module exports to the country are expected to decline at an accelerated pace.

ESSENTIALS

- **We maintain MARKET WEIGHT on the renewable energy sector.** China's current solar module production capacity has exceeded 1,200GW, significantly higher than global installation demand, which suggests that capacity utilisation will remain low at 40-50%. The pace of industry consolidation and the elimination of uncompetitive players could be a lengthy process as the excessive capital flowing into the industry has allowed players to engage in a prolonged price war. The worst is over, and we see limited downside ahead. Ending the current vicious price war and rationalising supply chain prices are crucial for driving fundamental change and will serve as key catalysts for re-rating in the future.

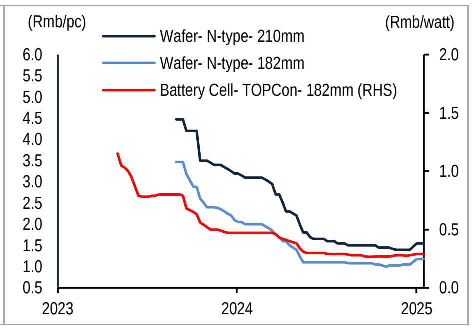
- **Maintain HOLD on Longi Green Energy with a DCF-based target price of Rmb16.40 (WACC: 13%; terminal growth: 3%).** The worst is already behind us, judging from the sequential recovery in earnings, with spot prices unlikely to go any lower. We expect more collaborations and joint efforts among industry players to restore market order and halt the irrational price war, and we are hopeful for more policy interventions to accelerate industry consolidation. Longi has recently issued a profit warning, guiding a 2024 net loss of Rmb8.2b–8.8b, which is slightly weaker than market expectations. However, we anticipate sequentially stronger results in 2025 as the company's differentiation strategy, focusing on technological innovation, gradually materialises. The company aims to achieve 200GW/50GW in high-efficiency Tairay silicon wafer/HPBC 2.0 module annual production capacity, which should demand above-average margins.

POLYSILICON SPOT PRICES



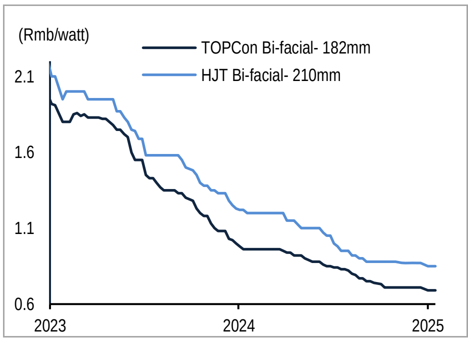
Source: iFinD, UOB Kay Hian

N-TYPE WAFER AND BATTERY CELL SPOT PRICES



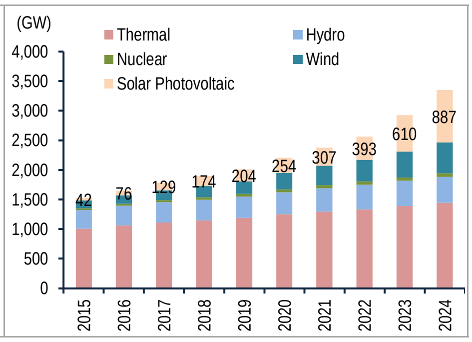
Source: iFinD, UOB Kay Hian

N-TYPE MODULE SPOT PRICES



Source: iFinD, UOB Kay Hian

CHINA POWER GENERATING EQUIPMENT INSTALLED CAPACITY



Source: CEIC, UOB Kay Hian

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