

Solar - China

Capacity exit could drive a recovery in solar module prices in 2H24E

Industry Overview

Key takeaways from solar expert call

We hosted Ms Wang Shujuan, Founder at Zhihui Solar, to discuss her outlook for the solar supply chain in 2024. While she thinks the current loss-making prices could last for longer, she thinks it may recover toward RMB1/W in 2H24 as more capacity exit and demand recovers. She thinks the industry consolidation may end with a major manufacturer exiting the market, with long-term margin recovering to c.RMB15c/W.

Demand: Expects still modest growth in China

Wang believes global solar module demand could reach 537GW in 2024, +18% from 458GW in 2023. Her bottom-up work suggests Chinese demand could still grow modestly at 5% YoY in 2024 as she sees utility-scale projects can maintain at 100GW+ while distributed segment can see more growth in new regions to offset any grid-constrained slowdown. She sees the demand for N-type solar modules has risen visibly, accounting for 60-80% of recent tenders. She believes the demand for P-type will not exceed 200GW in 2024, with only small P-type eligible for an upgrade to TOPCon.

Supply: N-type capacity will likely rise to ~800GW in 24E

In 2023 Wang estimated China's polysilicon and wafer production at c.640GW, module production at c.440GW (globally c.600GW) compared to broad module demand of almost 600GW assuming some inventories. The current weak demand situation results in a large divergence in utilization, with tier-1 hovering at 70-80% while the smaller ones at 40-50% or temporarily shutting down the facilities. N-type module is seeing higher demand and hence utilization in general. She expects module supply to continue to rise in 2024 with N-type production capacity up to c.800GW from almost 500GW by end-23.

Industry trends: A recovery could come in 2H24

Current module prices in China at RMB85-90c/W are largely loss making on gross profits, and hence Wang believes this price is not sustainable. More old capacity withdrawal, new expansion pause and better demand could drive module price to improve toward RMB1/W in 2H24. She expects smaller manufacturers will exit the market, along with potentially a tier-1/2 manufacturer. She believes the top manufacturers have a cost advantage of around RMB3c/W vs other peers to better ride the storm. Longer term, she believes industry margin could recover to about RMB15c/W.

Other: Not good economics for HJT/BC yet

Wang thinks Heterojunction (HJT) and Back-Contact (BC) are still relatively small in local tender contracts. Current HJT premium over TOPCon is about RMB8-15c/W so she does not think the value is there yet considering higher costs. On polysilicon, she expects prices may fall toward RMB50k/t after Chinese New Year, below industry total cost, before settling at RMB50-60k/t in the medium term.

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