

Metals and Mining - China

Polysilicon expert call: RMB60-70k/t price in '24 with 1.5mnt new capacity

Industry Overview

Polysilicon price to range at RMB60-70k/t in '24

We hosted Mr. Lv, deputy director of the expert committee at Silicon Industry of China Nonferrous Metals Industry Association, to discuss 2024 China polysilicon market outlook. Overall, Mr. Lv estimates that polysilicon price to range at RMB60-70k/t in '24 with seasonality over months, with P type polysilicon at around RMB60-65k/t and N type polysilicon between RMB65-70k/t. Per Mr. Lv, price fluctuation in '23 was driven by supply that price was at RMB200k/t when monthly polysilicon production at 104-110kt in Feb. and Mar.23 vs. price dropped to RMB62k/t when supply at 166kt/month given that polysilicon makers intentionally reduce inventory in 4Q23. According to the expert, polysilicon supply and demand was in balance in '23 with 1.5mnt supply which can fulfill 600GW wafer manufacturing vs. real wafer production 590GW in '23. For '24, even if producing in full capacity which may lead to oversupply in the market, Mr. Lv believes polysilicon price will not drop below key players' cash cost level of RMB40-50k/t, as once price approaches such level, given that the 4 key players' production alone cannot fulfill the entire industry demand, so the marginal cost should be higher..

1.5mnt new capacity in '24 dominated by big players

Looking forward, Mr. Lv expects that polysilicon demand at 1.5-1.7mnt while capacity to reach 3.69mnt by end of '24 with 1.5mnt new capacity added vs. 1.1mnt new capacity in '23. Half of new capacity to be initiated by new players and the other half to be contributed by existing players. By companies, Tongwei will continue lead polysilicon market with 940kt capacity by end of '24, followed by GCL and Hoshine both with 400kt capacity, Daqo at 320kt and Xlnte at 300kt. Considering averagely 1-year construction period, most new capacity scheduled in '24 was initiated in early '23 when polysilicon price peaked. According to Mr. Lv, capacity after '24 is difficult to estimate but low-level polysilicon price is squeezing small players out of the market and potentially 10% of capacity will exit the market in '24. It is unlikely to see brand new players entering the industry from '24 onwards, while the existing players will make more careful decision on capacity expansion after '24. Meanwhile, the vertically integration of polysilicon players to upstream silicon metal will still go on to raise self-sufficiency.

Siemens process still dominate polysilicon market

Mr. Lv stated that production of granular polysilicon from FBR process was 260kt in '23 with 17% m/s vs. 1,270kt traditional polysilicon from Siemen process with 83% m/s. Granular polysilicon capacity is estimated to hike 50% from 400kt in '23 to 600kt in '24, while Siemens process polysilicon capacity will increase from 1,970kt in '23 to 2,900kt in '24, and thus, M/S of granular polysilicon will keep being minor in near future due to capacity cap. Though both traditional and granular polysilicon is in high purity and granular polysilicon even has price advantage, it's rare for downstream wafer producers to use high proportion granular polysilicon on account of production procedure control.

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