

GCL Technology (3800 HK)

NDR takeaways: On-track capacity growth & cost reduction

We hosted a NDR for GCL last week. Key takeaways: (1) The construction of major production bases for FBR-based granular silicon have been on good tracks; (2) Unit cost of polysilicon will continue to decline with higher contribution of granular of which the unit consumption of electricity is much lower; (3) GCL's stake in GNE (451 HK) will reduce from 44.44% to 7.44% following the distribution of GNE shares to shareholders in specie, which will reduce GCL's financial burden and better facilitate the potential A-share listing. We expect all these will help GCL withstand the impact of a potential decline in polysilicon price in 2023E.

Capacity and production:

- Xuzhou production base (100% interest):** The new granular capacity of 30kt commenced in Jun and is expected to reach full utilization in 3Q. The current capacity of granular is 60kt and GCL targets to achieve production volume of 45kt in 2022E. GCL plans to upgrade the existing rod silicon capacity (45kt) to granular (40kt) in 2023E. After the upgrade, the total granular capacity in Xuzhou will reach 100kt.
- Leshan base (57.76%):** Granular capacity of 100kt commenced operation in late Jul. GCL targets to achieve 30kt of production in 2022E.
- Baotou base (57.54%):** Planned capacity of 100kt (phase 1) is under construction. After completing the stream recycling system, the capacity will start operation in late Oct. Production volume is expected to be ~5kt in 2022E. GCL expects full capacity utilization in 1H23E.
- Hohhot project (60%):** The planned capacity is 100kt and the project construction started in late Aug and is expected to complete in 4Q23E. GCL believes that the progress could be faster than previous projects given the rich experience and the availability of manpower.
- Capacity and output target in 2022E.** By end-2022E, the consolidated / attributable granular capacity is expected to reach 260kt / 175kt. Consolidated / attributable granular production in 2022E is expected to reach 75kt / 60kt, while the consolidated / attributable output of rod silicon is expected to be 105kt / 76kt.

Cost and margin:

- Unit cost and margin in 1H22.** GCL achieved unit gross margin of ~RMB155/kg of granular silicon, higher than rod silicon of RMB109/kg in 1H22. We estimate the unit cost of granular in 1H22 was close to ~RMB44/kg. For granular silicon, GCL reduced the comprehensive electricity consumption to 13.6 in 1H22, down from 14.8 in 2021. Such level is much lower than the 55-60 required by rod silicon.
- Further cost reduction on higher contribution of granular capacity located in lower power cost regions.** In Leshan, tariff is RMB0.3/kWh, much lower than the ~RMB0.65/kWh in Xuzhou. In Baotou, tariff is even lower at RMB0.26/kWh. GCL believes that even if the tariff in Inner Mongolia increases to RMB0.45/kWh, GCL is still able to maintain the cost advantage as the cost structure of granular silicon is less sensitive to electricity cost.

NOT RATED

Current Price

HK\$2.76

China Solar Power

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Stock Data

Mkt Cap (HK\$ mn)	74,819
Avg 3 mths t/o (HK\$ mn)	838
52w High/Low (HK\$)	3.99/1.98
Total Issued Shares (mn)	27,109

Source: Bloomberg

Shareholding Structure

Zhu Gongshan	23.5%
Others	76.5%

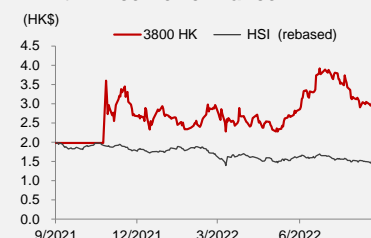
Source: HKEx

Share Performance

	Absolute	Relative
1-mth	-11.5%	-10.1%
3-mth	-1.8%	6.5%
6-mth	-7.1%	7.3%

Source: Bloomberg

12-mth Price Performance



Source: Bloomberg

Auditor: Crowe

Perovskite technology:

- GCL has established 100MW of solar cells with perovskite technology. Currently, the conversion efficiency (module) is on track to improve from 14% to 16%, and is expected to reach 18% in 2023E. However, it is still far below that of PERC, TOPCon and HJT. At laboratory stage, the conversion efficiency is yet to exceed 26% (vs a max 31.3% in theory). At present, GCL has yet to decide which types of perovskite technologies for development, including the raw materials and the structure of cells. The Company believes that it will take years to see real impact in the market.

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