

# China's Yunnan province cuts aluminum output amid drought, power crunch

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**The Baihetan Dam, bordering the Yunnan and Sichuan provinces in China, became the world's largest hydropower project by single-unit capacity when it came online in June 2021. The Yunnan government has ordered aluminum producers to curtail production as the province heads into a dry season following an unseasonable drought.**

*Source: TPG/Getty Images AsiaPac via Getty Images*

Aluminum smelters in China's southwestern province of Yunnan face months-long production cuts amid an unseasonable drought in the hydropower hub.

The Chinese aluminum industry has gradually shifted production from China's northern regions, which rely heavily on thermal power, to its hydropower-rich southwest, buoyed by the central government's policies to decarbonize energy-intensive sectors.

China has 46 million tonnes of aluminum capacity, accounting for 57% of the world's output, and provinces with considerable exposure to hydropower produce almost 10 Mt of annual aluminum capacity, or 12% of global supply, Bernstein analysts Bob Brackett and Angus Poland wrote in a Sept. 6 note. The Yunnan province, which sourced 79.1% of its industrial electricity from hydropower in 2021, accounts for nearly 13% of the country's aluminum production capacity.

However, heat waves and droughts have triggered a power crunch since July and forced the Yunnan government to ration power. Heading into a dry season, local authorities ordered aluminum smelters, including top producers Yunnan Aluminium Co. Ltd. and Henan Shenhua Coal & Power Co.Ltd., to slash production by 10% before Sept. 14, the two companies said in Shenzhen Stock Exchange filings. On Sept. 15, some smelters in Yunnan were asked to cut capacity by 20%-30%, which would lower the province's production capacity by 1 Mt to 1.5 Mt, according to Shanghai Metals Market.

In the worst-case scenario, the curtailment will last until the end of the dry season, or May 2023, and the Chinese aluminum market may flip from a surplus to a tight balance, according to Nick Li, head of aluminum and downstream industrial chain at AZ China.

### Longer-term risks

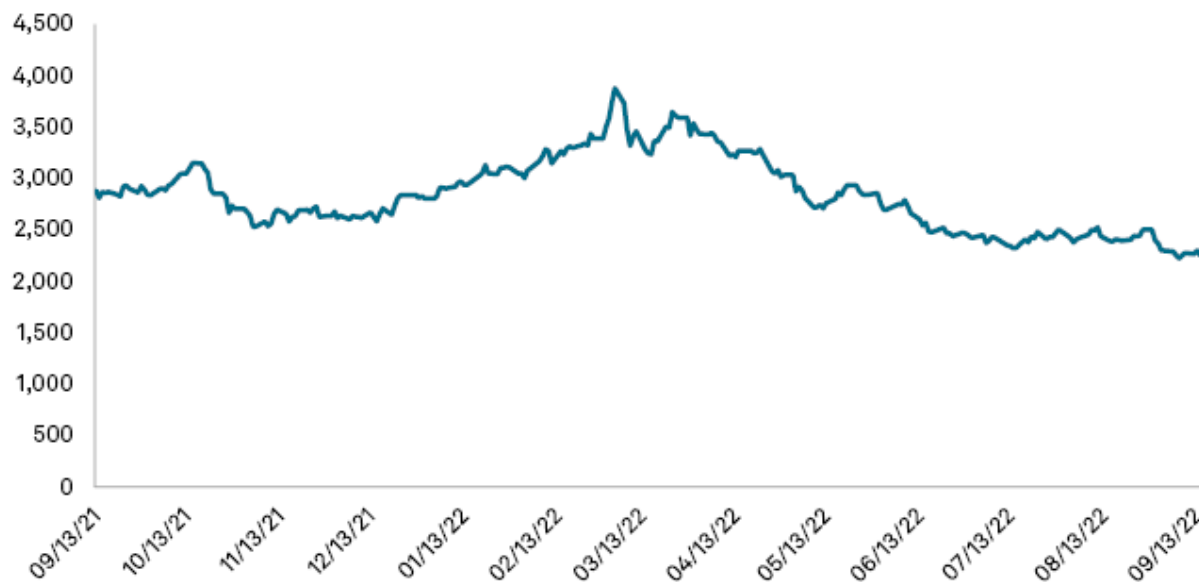
Yunnan has struggled to keep up with rising industrial energy demand, which applies more pressure on longer-term projects.

With aluminum smelters moving production to Yunnan province, industrial electricity consumption rose 13% to 96.2 billion kWh for the first seven months of 2022, with about one-third of demand coming from the aluminum industry, China International Capital Corporation, or CICC, analysts Dong Jixuan and Guo Chaohui wrote in a Sept. 13 note. Meanwhile, Yunnan supplied 102.6 billion kWh of power to other provinces, including manufacturing hub Guangdong province, rising 38% year over year.

The power rationing is expected to slow the construction of new aluminum smelting capacity in the province. That includes two projects that could increase Hong Kong-listed China Hongqiao Group Ltd.'s Yunnan production capacity to 3.93 Mt after 2024, CICC analysts said.

China Hongqiao Group did not immediately respond to S&P Global Commodity Insights' request for comment.

### 1-year aluminum price (\$/tonne)



As of Sept. 16, 2022.

Sources: London Metal Exchange; S&P Global Market Intelligence

## **Supply squeeze, shrinking demand**

China's drought would further constrain global aluminum supplies, as its European counterparts have shut down smelters amid soaring energy prices.

"A Chinese energy crunch on top of a European energy crunch would mean there is very little spare capacity in the world to make up for the supply losses," the Bernstein analysts wrote.

However, demand is shrinking faster than supply, limiting aluminum's upside potential.

"Lower demand, particularly due to weaknesses of the Chinese construction market, will weigh on aluminum prices in the short term," Fitch Ratings said Sept. 15. "Rising energy prices could turn production in many markets loss-making, leading to curtailment and shoring up prices from further decline."

The agency lowered assumptions of aluminum spot prices on the London Metal Exchange to \$2,700/t in 2022 and \$2,500/t in 2023.

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