



# The Bottom Line

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## HEAT WAVE THREATENS MANUFACTURING IN CHINA

### Summary

Searing temperatures have turned China into a furnace this summer, profoundly impacting the world's industrial powerhouse. The heat has enveloped manufacturing hubs across the country, leading to factory shutdowns.

### Background

As more world regions reopened after pandemic-induced lockdowns last summer, the demand on China's electricity-hungry export factories increased. Two-thirds of China's electricity comes from burning coal, the use of which Beijing is trying to curb to address climate change. So as electricity demand rose, it pushed the price of coal to generate that electricity. Since Chinese regulators would not allow utilities to raise their rates to cover the rising cost of coal, the utilities chose to slow their power plants for hours each day. Faced with losing more money with each additional ton of coal they burn, some power plants closed for 'maintenance,' citing safety reasons. Other power plants compensated for increased costs by operating below capacity. This led to power cuts and blackouts which slowed or closed factories across China.

### Current Status

This summer, China is facing its fiercest heat wave in six decades, with temperatures surpassing 104 degrees in dozens of cities. The extreme heat has caused a spike in demand for air conditioning in offices and homes, putting pressure on the power grid. Among the more eye-popping numbers are the overnight lows, which include Chongqing, a city of 32 million, cooling to just 95 degrees Fahrenheit.

Rainfall in the area fell about 45% compared to the average over recent years, based on data from the Ministry of Water Resources. As a result, water levels in the upper stretches of the Yangtze—a crucial source of hydropower, transport, and water for crops—are at the lowest level since records began. Rainfall around the Yangtze River Basin fell about 30% in July and is 60% lower than usual in August, with the river's tributaries "significantly lower" than historical levels, according to the Yangtze River Water Resources Commission, per Reuters. By depleting river water levels, the drought is reducing the amount of electricity produced at hydropower plants.

To keep the lights on, provincial governments have asked factories to cut power. Officials in Sichuan declared the event a "level 1" emergency, the highest possible. At least 50 mobile generators from other provinces have been dispatched to help

stabilize the local power supply, the State Grid Corporation of China said. Analysts said the region is also China's lithium mining hub—a key component of electric car batteries—and the shutdown may push up the raw material cost. Sichuan, one of China's largest provinces with 84 million people, told 19 out of 21 cities in the region to suspend production at all factories from Monday to Saturday. The notice said that the decision was made to ensure enough power is available for residential use. Suspended power supplies are forcing manufacturers such as Toyota and Foxconn to suspend operations.

Chongqing and Chengdu have ordered lights dimmed. In addition, shopping malls and office buildings have turned off illuminated outdoor advertising and suspended the use of elevators. Chengdu office workers have also been urged to set their air conditioners to no less than 80 degrees to reduce energy use.

Shanghai, which partially depends on hydropower from the region, said it would suspend its famous daily light show on the Bund, the waterfront stretch of commercial buildings, for two days.

In the first half of this year, efforts have been made to strengthen the coastal and inland waterway transport infrastructure, and expand investment in construction, said Zheng Qingxiu, deputy head of the ministry's water transport bureau. China has promoted water transportation to enhance the connectivity of the waterway network while improving investment in the sector, according to a representative from the Ministry of Transport. As a result, water transport has undertaken a large amount of cross-regional cargo transportation and about 95 percent of import and export transportation. Especially since the pandemic, water transport has remained smooth and orderly. Low water levels have not impacted this network yet, but another month of heat and drought could change that picture.

### Impact

Shutting down factories for the week in Sichuan could tighten the supply of polysilicon and lithium and push prices higher, Daiwa Capital analysts said in a note to clients.

Several Chinese companies have warned that their production could be affected by the Sichuan power cut. In addition, the sweltering weather is forecast to last for the rest of the month. Analysts said the high temperatures would heap more pressure on the economy.

#### RESOURCES:

[China Supply Chain is Melting in Extreme Heat](#) (Protocol.com)

[China Intensifies Measures to Deal with Heatwave and Power Shortages](#) (FT.com)

[China Heatwave: Sichuan Shuts Factories to Save Power](#) (CNN)

[Investment in Water Transport Expands Capacity](#) (China Daily)