

China's Dual Control of Energy Consumption and Energy Intensity

General Background

China's current dual control policy was initiated in 2006 (China's 11th five-year plan) and has been updated on an every-five-year basis. The policy employed in 2016 set targets for both total energy consumption and energy intensity. The targets limited annual energy consumption to 5 billion metric tons of standard coal equivalent in 2020, and reduced energy intensity by 15% in 2020 from the 2015 level. In 2020, the consumption cap was met, but China's energy intensity only reduced by 13.2% in the 2016-20 period, falling behind the target.¹

In March 2021, the National Development and Reform Commission of China (NDRC) released the outline of its 14th five-year plan, which proposed to further reduce China's energy intensity by 13.5% by the end of 2025. The cap for total energy consumption has not yet been specified and is expected in the detailed five-year plan for the energy sector to be launched soon.

On August 17, NDRC issued a notice that gave "red alerts" to 10 provinces that failed to meet either the energy consumption or intensity targets. The provinces - Guangdong, Jiangsu, Yunnan, Fujian, Shaanxi, Guangxi, Ningxia, Qinghai, Xinjiang and Hubei - were required to take corrective actions including cutting power supplies, especially to energy-intensive industries.

¹ **Energy Intensity** is measured by the quantity of energy required per unit output or activity, so that using less energy to produce a product reduces the intensity.

CHINA H1-21 NDRC'S DUAL CONTROL SCORECARD FOR PROVINCES

Province	Energy Intensity Alert	Energy Consumption Alert
Qinghai	●	●
Ningxia	●	●
Guangxi	●	●
Guangdong	●	●
Fujian	●	●
Xinjiang	●	●
Yunnan	●	●
Shaanxi	●	●
Jiangsu	●	●
Zhejiang	●	●
Henan	●	●
Gansu	●	●
Sichuan	●	●
Anhui	●	●
Guizhou	●	●
Shanxi	●	●
Heilongjiang	●	●
Liaoning	●	●
Jiangxi	●	●
Shanghai	●	●
Chongqing	●	●
Beijing	●	●
Tianjin	●	●
Hunan	●	●
Shandong	●	●
Jilin	●	●
Hainan	●	●
Hubei	●	●
Hebei	●	●
Inner Mongolia	●	●

● Exceeded target
● Borderline achievement
● Met target

Source: National Development and Reform Commission (August)

Central Policy

On September 16, the NDRC issued measures titled "The improvement plan of China's dual control system on energy consumption and energy intensity" that added to the pressure.

Under the September update, the approval and supervision of projects with an annual energy consumption above 50,000 metric ton of standard coal equivalent was tightened, and financial support to unqualified energy-intensive projects was halted.

The September plan also required authorities to tighten supervision and financing of "two high" projects -- involving both high energy consumption and high emissions -- that usually refer to coal-fired power projects and heavy industries like petrochemicals, chemicals, steel, non-ferrous metals and building materials that collectively account for more than 70% of China's CO₂ emissions.

Local Impact

The following “Purple Provinces” have implemented strict revisions including Guangdong, a major paint province, Jiangsu, a major chemical province, and Yunnan, a major phosphorous chemical province, covering a total of 10,000 chemical companies.

Provinces	Impact
Qinghai	The power limit warning is issued, and the range of power limit continues to expand. Some industries are required to reduce production capacity by more than 30%.
Ningxia	Lots of high energy consumption enterprises stop production for 1~4 months. Some industries are required to reduce production capacity by more than 30-60%. Many industries implement staggered production methods.
Guangxi	High energy consumption industries are limited in production by 20-60%.
Guangdong	Power limit started from Sep 16. Some steel smelters cease production in whole Sep.
Fujian	The stainless-steel industry was notified of a power outage and production halt.
Xinjiang	Major industries are subject to heavy production cuts.
Yunnan	Yellow phosphorus suffers a 90% reduction in production from Sep to Dec. Production of Fertilizer and basic chemical raw materials are reduced by 50-90%. Industrial silicon industry cuts production by 90% from Sep to Dec. Cement industry cuts production by more than 80%.
Shaanxi	Most of the high consumption projects are limited to 50% production. The operating rate of the caustic soda industry drops by 20%.
Jiangsu	A large number of textile companies ceased production from Sep to Oct 1st. The overall cement production will be restricted by 30%-50% (4-7 million tons).

Other “Red provinces” have also launched their own energy control policy.

Price increase of Chemical Products

The dual control of energy consumption has had a significant impact on the supply of raw materials. Accordingly, the prices of some related raw materials have risen sharply, and the growth rates of some products are as follows:

Product	1-Sep RMB/t	31-Oct RMB/t	Price Increase	Increase Rate
Yellow Phosphorus	29,000	46,667	17,667	61%
Silicon	26,000	41,375	15,375	59%
Caustic soda	2,530	6,000	3,470	137%
Epichlorohydrin	14,700	21,500	6,800	46%
Cyclohexanone	10,883	12,400	1,517	14%
Liquid caustic soda	846	2000	1,154	136%
Methanol	2,503	4,600	2,097	84%
Liquid chlorine	1,375	2,408	1,033	75%
Pure benzene	7,700	7,924	224	3%
Isopropanol	7,260	8,500	1,240	17%

Ethyl acetate	7,975	9,500	1,525	19%
Formaldehyde	1,289	2,080	791	61%

Short-term & Long-term Outlook

The recent round of dual-control-induced power and production rationing is expected to be gradually lifted during the fourth quarter. The Chinese manufacturing sector activity is expected to decline next year with the moderation of export demand, while the services sector will continue to rebound to reshuffle some of the energy use toward less energy-intensive ends. This will make it directionally easier for provinces to meet their dual-control targets next year, reducing their likelihood of having to resort to last-minute control measures.

However, the dual-control policy will be one of the primary long-term tools that the Chinese government will use to meet its energy and climate targets.

What is Aceto doing in response?

1. Our priority is assurance of supply to our customers. Our vast network of China based resources is monitoring the situation daily so that we can communicate immediately to customers who could be at risk of supply disruption. We are leveraging our long-term relationships where-ever possible to ensure that we maintain priority as they allocate supply. This is true for materials that we supply directly to customers as well as raw materials used in the production of our own products.
2. We're always looking for multiple source solutions for our customers globally. We're leveraging those other solutions where-ever possible.
3. Reduced supply from China does have an impact on global product price even where there are options in other areas of the world. Sometimes we have no choice but to raise our prices accordingly. We're happy to work with our customers to adjust accordingly as prices moderate.