

## Is the energy consumption dual-control the main reason for electricity restrictions in China?

Since September, more than 20 provinces in China have seen power supply restrictions, affecting the electricity consumption of both production companies and residents. Some analysts say this is the follow up measures of the energy consumption and intensity dual-control results, which requires provinces that haven't meet energy intensity reduction targets to shut down energy-intensive and emission-intensive enterprises in order to carry out rectification. Some provinces are indeed under pressure to meet their dual control targets, and specific local governments had restricted electricity last year to tackle the issue. But the energy consumption dual-control is not the main cause of the power supply restriction for this time, and will not impact on people's livelihoods. For instance, the problem has been most pronounced in the northeast, where load shortfalls have been as high as 10-20% during specific short period of time. However, there is very little pressure to complete the energy consumption dual-control targets in the northeast region. The main reasons include: 1) the expansion of production by manufacturers after the epidemic have pulled up electricity demand; 2) soaring coal prices and the inability to transmit increased costs to users has led to a reduction in the motivation of thermal power plants to generate electricity.<sup>10</sup>

**Global commodity price hikes and strong demand for industrial production in China have strongly expanded demand for electricity and coal.** In the aftermath of the epidemic, a large number of global orders for commodity production poured into China. From January to August, 2021, the value of China's exports rose 23.7% year-on-year and 22.8% over the same period in 2019; electricity consumption rose 22.8% year-on-year, setting the largest difference between the growth rate of power generation since 2003. The growth rate of electricity consumption for the whole country is expected to reach 12% this year, double that of 2019. In the first half of this year, total national coal consumption rose 10.7% year-on-year. In contrast, raw coal production grew by only 6.4% year-on-year and port coal stocks fell by 8.3% year-on-year, reflecting a pattern of tight electricity and coal supply.

**Global fuel price increases are further pushing up coal prices and reducing the incentive for thermal power plants to generate electricity.** In the context of soaring global fuel prices, the coal prices in China have reached a high level since 2008, with the coal price exceeding RMB 1,000/ton (5,500 kcal/kg NAR) in September, a nearly double year-on-year increase. The current situation makes it difficult for the price of coal to come down quickly. At the same time, the coal power price has a floating ceiling, and the government controls over the electricity prices on end-user side, so the cost of coal cannot be effectively transferred to the grid and users but rather be the power plants to bear. According to estimates, large-scale power generation enterprises can lose more than RMB 100 million a month, which to a certain extent affects the incentive of power generation.

**Some provinces are under pressure to complete the energy consumption and intensity dual-control targets in 2021, and directly take the way of shutting down production to reduce energy consumption.** Due to the epidemic in 2020, some provinces have been approved to build new energy-intensive projects, including data centers, and many projects have been put into operation this year. Combined with the overall expansion of industrial production nationwide, total energy consumption rose rather than fell. In the fourth quarter, in order to fulfill the dual control targets for 2021, some central and eastern provinces have taken measures to shut down production and cut the electricity to thousands of enterprises, aiming to reduce the production capacity of industrial raw materials such as cement, calcium carbide, electrolytic aluminum and rebar.

On October 8, 2021, the State Council clearly announced series of measures to ease the pattern of tight electricity and coal supply, especially to guarantee the energy security of this winter.<sup>11</sup> Major solutions include: 1) take residential heat supply as top priority, e.g. the heating coal in northeast region will adopt 100% medium and long-term contract price this year<sup>12</sup>; 2) increase domestic coal production, e.g. 120 million tons of new coal production capacity has been released since August according to the NEA<sup>13</sup>; 3) state-owned coal power plants should generate electricity as much as possible, the government will postpone the deadline of tax payment as a compensation; 4) increase the floating ceiling of market-based coal power price from 10% to 20% above the baseline tariff and increase the floating floor from 15% to 20% below the baseline tariff, only for energy-intensive enterprises, the coal power prices do not have a power price ceiling. In addition, local governments should remain the principle of not expanding new energy-intensive and emission-intensive projects disorderly. In the meantime, to speed up the development of large-scale wind power and solar PV projects, as well as emergency reserves and dispatchable power sources.

<sup>10</sup> Xu Ruiyao, "【专访】林伯强：三大因素导致拉闸限电，上调电价应小步慢走," Jiemian, 27 September 2021, accessed at <http://finance.sina.com.cn/tech/2021-09-27/doc-iktzqtyt8336399.shtml>; Hu

Xianhe, Jiang Huizi, "拉闸限电"七大焦点解读," Beijing News, 28 September 2021, accessed at <https://baijiahao.baidu.com/s?id=1712115645387914669&wfr=spider&for=pc>; "最严限电令来了！上千家企业停产，原料涨价层出不穷！我国为何限电，为何控能？," 51 ore, 24 September 2021, accessed at <https://www.163.com/dy/article/GKKEBI7H0512MI6A.html>.

<sup>11</sup> "李克强主持召开国务院常务会议," the State Council, 9 October 2021, accessed at <http://cpc.people.com.cn/n1/2021/1009/c64094-32247774.html>.

<sup>12</sup> "国家发改委：东北采暖用煤将100%实行中长期合同价," the National Development and Reform Commission, 22 September 2021, accessed at <https://baijiahao.baidu.com/s?id=1711584419088348164&wfr=spider&for=pc>.

<sup>13</sup> "国家能源局：煤炭增产保供措施已经见到实效," National Energy Administration, 9 October 2021, accessed at [https://m.thepaper.cn/baijiahao\\_14832380](https://m.thepaper.cn/baijiahao_14832380).