



As China reopens, expect volatility

In 2023, China is heading into a period of especially high uncertainty, which will be reflected in overall energy consumption growth. This has, in fact, been the case since the beginning of the pandemic: in 1Q 2020, electricity consumption fell 6.5 per cent year-on-year and GDP dropped 6.8 per cent year-on-year. Then, in 2021 electricity consumption shot up by 10.1 per cent year-on-year, contributing to power shortages.¹ Following China's sudden loosening of Covid restrictions in early December 2022, infections are likely to weigh heavily on economic activity and power demand in the first few months of the year, followed by a recovery in the second half. While the timing and strength of the rebound remain an open question, the economic expansion is likely to spur energy demand from both the consumer sector and, perhaps more significantly, from infrastructure sectors that the government typically turns to for economic stimulus.

This could lead to a return of the power shortages that have plagued China over the past two years. While price controls and administrative mandates for production and restocking have boosted physical coal supplies, China's recent shortage of hydro could become a constraint in 2023.

Beijing has been emphasising supplies in policy documents,² including in the National Energy Administration's (NEA) 2023 guidance.³ The first item on the NEA's agenda for 2023 is, 'improving the ability to guarantee energy production.'⁴ Already in 2022, coal production capacity increased by a staggering 8 per cent year-on-year even though demand growth was slower. Coal-fired power capacity additions have also accelerated, reaching 8.9 GW in 1H 2021, and a reported 165 GW are in the pipeline currently, a huge number even if only a fraction of that gets built.⁵ The guidance for 2023 includes promoting the construction of intelligent coal mines as well as enhancing safe and resilient increases in coal production. The government is also reportedly mulling lifting its informal ban on Australian coal imports.⁶

¹ Electricity demand growth is loosely correlated with GDP growth; the two sometimes diverge during periods of economic downturns and recoveries. See Boqiang Lin, Yao Wang, "Inconsistency of economic growth and electricity consumption in China: A panel VAR approach" 2019,

<https://www.sciencedirect.com/science/article/abs/pii/S0959652619314970>

² Michal Meidan, Anders Hove, "China's 20th Party Congress and energy: The good, the bad and the unknown", OIES Comment, November 2022, <https://www.oxfordenergy.org/publications/chinas-20th-party-congress-and-energy-the-good-the-bad-and-the-unknown/>

³ National Energy Administration "Study and Implement the Spirit of the 20th CCP Congress; Provide Strong Energy Guarantees for the Construction of a Socialism Modern Country; the 2023 National Energy Work Conference was held in Beijing"; 30 December 2022, http://www.nea.gov.cn/2022-12/30/c_1310687421.htm

⁴ 2023 年能源工作安排来了, 风光累计装机将达 9.2 亿千瓦 <https://m.jiemian.com/article/8669261.html>

⁵ "China is doubling down on coal despite its green ambitions", Japan Times, 31 October 2022, <https://www.japantimes.co.jp/news/2022/10/31/business/china-doubles-down-coal/>

⁶ "China considers lifting ban on Australian coal imports." Argus, 4 January 2023



While coal is clearly a means of ensuring supply security, renewable installations have been rising strongly. In that vein, solar and wind additions in the first 11 months of the year reached 65.7 GW and 22.5 GW, respectively, out of a planned 120 GW in 2022. The NEA aims to add 160 GW of wind and solar in 2023.⁷ Meanwhile, the government continues to emphasize market reforms in principle, while in practice limiting the potential for any volatility by setting a new standard of locking in 90 per cent of industrial power demand via monthly and annual contracts, limiting the role of any spot markets.⁸

The NEA guidance also echoes the government's broader stimulus efforts with a focus on physical infrastructure, specifically more pipelines, long distance transmission lines, and electric vehicles. China's electric vehicle market and battery manufacturing sectors are poised for more growth. In 2022, China's new energy vehicle (NEV⁹) market reached nearly 7 million sales, the second consecutive year that China's EV market has doubled. Even as Covid lockdowns chilled consumer activity, NEVs captured over 35 per cent of the passenger vehicle market in November 2022, up from just over 5 per cent only 24 months ago. China is on track to vastly exceed its official 2025 NEV market share target of 20 per cent, potentially reaching 10 million EV sales in 2023, nearly half of the passenger vehicle market. In 2023, the government could raise the outdated NEV target, set targets for fleet electrification, and introduce new EV incentives into the heavy-duty trucking field.

On climate, China is poised to take action on methane. A joint working group on methane emissions was part of the US-China joint declaration at COP26 in Glasgow, while at COP27, China announced new strategic plan on controlling methane. Action on methane is important because of the impact on climate - the UNFCCC estimates implementing the global pledge on methane would prevent 0.3 degrees C of warming by 2050 - but also due to its impact on the energy sector.

The IEA estimates China is responsible for 16 per cent of global methane emissions, and 48 per cent of global methane emissions from energy.¹⁰ China's energy-related emissions stand at 28 million tonnes per year, according to the IEA, and the majority of China's methane emissions come from coal, including both vented gases and fugitive gas emissions. Methane emissions from the oil and gas industry account for 3 million tonnes annually. China's national oil companies have pledged significant reductions as part of their carbon neutrality commitments. It will be important to see if the national methane reduction plan is indeed issued, and if companies and provinces issue additional action plans. The extent to which provincial officials and coal mining companies will ramp up monitoring and regulating methane emissions is also an open question. Policies may focus on shutting down or consolidating smaller mining operations with bigger players which have the resources to deal with methane. Both the issuing and implementation of plans in 2023 will be important to watch as an indicator of how China thinks about the compatibility of economic growth and the low carbon transition.

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⁷ 风光新增装机规模将达 1.6 亿千瓦！明年能源工作划重点, <https://news.cnstock.com/news,bwxx-202212-5000072.htm>

⁸ NDRC, 国家发展改革委 国家能源局关于做好 2023 年电力中长期合同签订履约工作的通知, https://www.ndrc.gov.cn/xxgk/zcfb/tz/202212/t20221222_1343756.html

⁹ The NEV category includes mainly pure EVs but also plug-in hybrids and a small number of fuel cell vehicles, the latter mainly buses and trucks

¹⁰ <https://www.iea.org/reports/global-methane-tracker-2022/methane-and-climate-change>