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# How much does China's hybrid energy and China Mobile share 5G base stations





## Overview

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Will China build a 5G base station next year?

Technicians from China Mobile check a 5G base station in Tongling, Anhui province. [Photo by Guo Shining/For China Daily] China aims to build over 4.5 million 5G base stations next year and give more policy as well as financial support to foster industries that can define the next decade, the country's top industry regulator said on Friday.

Does China have a 5G network?

Given that China currently has the largest 5G network in the world (~1.53 million base stations by the end of 2021, Table S1) and that base station number was projected by up to 6–8 million by 2030 (CCID Consulting, 2020), concerns are being expressed regarding 5G mobile networks' environmental effects and sustainability.

How many 5G sites are there in China?

Mobile operators in China are ramping up 5G and 5G-A rollouts, with the former now at 4.5 million cell sites and the latter in 300 cities; a new 2027 roadmap will see 75% of mobile data in the country on 5G networks. 5G on 5M sites – China has over 4.486 million 5G sites; 5G now comprises more than 35% of total mobile base stations.

How much carbon is produced by 5G in China?

which is four times that of a 4G base station at 1.1 kWh. One 5G base station is estimated to produce 30 t of carbon emissions in one year of operation<sup>10</sup>. Thus, 5G networks in China are roughly estimated to produce over 60 Mt of carbon emissions annually at the national level<sup>11</sup>.



## How much does China's hybrid energy and China Mobile share 5G base stations?



### The carbon footprint response to projected base stations of China's 5G

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### [Carbon emissions of 5G mobile networks in China](#)

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Jun 27, 2025 · Mobile operators in China are ramping up 5G and 5G-A rollouts, with the former now at 4.5 million cell sites and the latter in 300 cities.



## 5G Infrastructure Market Size & Share, Industry Report 2030

The 5G infrastructure market in China is expected to grow at a significant CAGR of 26.1% from 2024 to 2030. According to the GSMA's The Mobile Economy China 2023 report, by the end of

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