

Renewables 2022 Global Status Report

China Factsheet

Key Headlines:

- **Renewables energy shares and targets**
 - During 2021, China became the first country to exceed 1 terawatt (TW) of installed renewable power capacity.
 - In 2021, China led global markets for bio-power, hydropower, solar PV and wind power. It accounted for around 43% of the total global additions.
 - China was the global leader for installed capacity in all renewable power, bio-power, hydropower, solar PV, wind power and solar water heating.
 - The policy transition led annual solar PV installations in China to fall more than 30% in 2019. However, as installers sought to benefit from the final years of FIT support, the market grew more than 60% in 2020, to reach a record 55 GW of new installations in 2021.
 - Since 2010, China has been the third largest ethanol producer, providing 3% of the global supply (70 PJ or 3.3 billion litres) in 2021.
 - China maintained the lead in commissioning new hydropower capacity in 2021, standing first in global Hydropower Capacity (30%).
 - China stands first in Solar PV Global Capacity addition (31%). The country added 54.9 GW of solar PV capacity in 2021, of which around 29.3 GW (53%) was distributed solar PV and 25.6 GW was centralised solar PV.
 - The largest renewable hydrogen project (using a 150 MW electrolyser) entered commercial operation in China in early 2022, powered by a 200 MW solar PV plant.
 - China, in its 14th Five-Year Plan released in March 2021, committed to ramping up wind power solar PV and CSP as well as expanding power infrastructure development and energy storage.
- **Investment**
 - China plans to invest USD 350 billion during 2021-2025 to upgrade its grid to achieve better compatibility with renewables.
 - China's overall investment in renewables increased 32% to USD 137 billion in 2021.
- **Renewable energy policies and fossil fuel phase-out**
 - In 2021, China, Japan and the Republic of Korea committed to ending funding for the construction of new coal power projects overseas (but not necessarily domestically).
 - In China, where the last national-level FIT is set to expire by the end of 2022, Guangdong became the first province to introduce a FIT, in mid-2021.
 - As part of its carbon neutrality objective, China published an energy code that emphasises reducing the energy consumption of buildings.

CHINA ENERGY STATISTICS

GDP	RMB 114.4 trillion (USD 17.7 trillion) as of 2021
Population	1,412,600,000 as of 2021
USD invested in renewables in the country	China invested 137.2 billion USD in renewables in 2021, equivalent to twice the GDP of Uzbekistan in 2020.
Total installed capacity of renewable power	1032.1 GW - Enough to power all of Europe or two times India, a growing trend (124 GW additions in 2021).
Renewable energy developments in past 10 years	Renewable energy share in final energy demand increased 118% between 2009 and 2019.

RENEWABLE ENERGY POLICY SITUATION IN CHINA

Indicator	Sector and year
Renewable energy targets	<ul style="list-style-type: none"> • Economy-wide RE: 26% by 2030. • Power: 40% by 2030 • Transport: 2 million EVs by 2020; 20% EVs by 2025; ICE ban by 2040. • China's ministry for housing set a target for the 5 years plan announcing in 2022, 100 Million sqm of geothermal – warm water for residential use.
Net-zero target	Climate neutrality by 2060.
Renewable energy policies	
<i>New policies in 2021</i>	<ul style="list-style-type: none"> • China's plan for new energy vehicles (NEV) in the next 15 years aims to promote the transition from a state-led to a market-led industry. • In 2021, as part of the General Code of Building Energy Saving & Renewable Energy Usage, a code to be valid starting from April 2022 was announced. The new code puts a stronger emphasis in reducing the energy consumption of buildings and is aligned with the 2060 objective of Carbon Neutrality.

City /subnational targets	<ul style="list-style-type: none"> • More than 13 Chinese cities with 20 RE, P, H&C or T targets in 2021. • Around 12 Chinese cities with net-zero targets.
City / subnational policies	<ul style="list-style-type: none"> • Around 32 cities with 52 RE, P, H&C or T policies in 2021, mostly in the shape of capital subsidies, grants or rebates. • Coal ban in the cities of Handan, Taiyuan and, Xingtai. • Selected counties¹ to have at least 20% of all residential rooftops equipped with solar, as well as at least 30% of commercial and industrial structures; 40% of non-government public buildings, such as hospital and schools; and half of the roofs on the government estate.

GLOBAL RANKINGS

Total renewable power capacity, end-2021 (GW)	Renewable power capacity per person, not including hydropower, end 2021 (GW)	Leaders in renewables share in total final energy consumption, end 2019 (%)
1. China	1. Iceland	1. Iceland
2. USA	2. Denmark	2. Norway
3. Brazil	3. Germany	3. Sweden
4. India	4. Sweden	4. Tajikistan
5. Germany	5. Australia	5. Brazil
	25. China	45. China

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¹ Fujian, Guangzhou, Shaanxi, Jiangxi, Gansu and Zhejiang.