

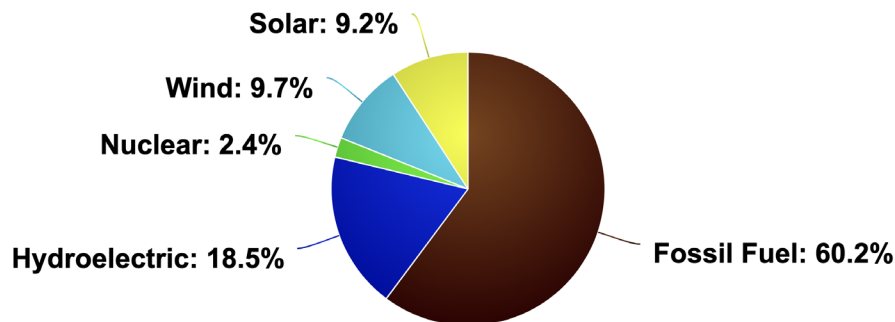
Introduction

Over the last ten years, China has faced increasing internal and international pressure over pollution and carbon emissions. Since assuming office in 2012, President Xi Jinping signed a bilateral agreement with the U.S. and made China a signatory to the Paris Climate Agreement. He also pursued the development of green energy technology and renewable energy sources. While China has reduced its carbon intensity, a measure of emissions per unit of GDP, net carbon emissions have continued to rise. To avoid a 1.5° C increase in global temperatures, as the Paris agreement prescribes, China must reduce emissions.

China's Commitments to the World: Yesterday, Today, and Tomorrow

The ratio of electrical power generated by fossil fuels to power generated by renewables is shrinking. In 2000, new fossil fuel capacity represented 70% of all new power capacity in the country. By 2017, newly installed fossil fuel capacity accounted for only 60.2% of new power generation capacity.^{1,2}

Newly Installed Power Generation Capacity (GwH) (2019)
China Statistical Yearbook 2019 Section 9-15

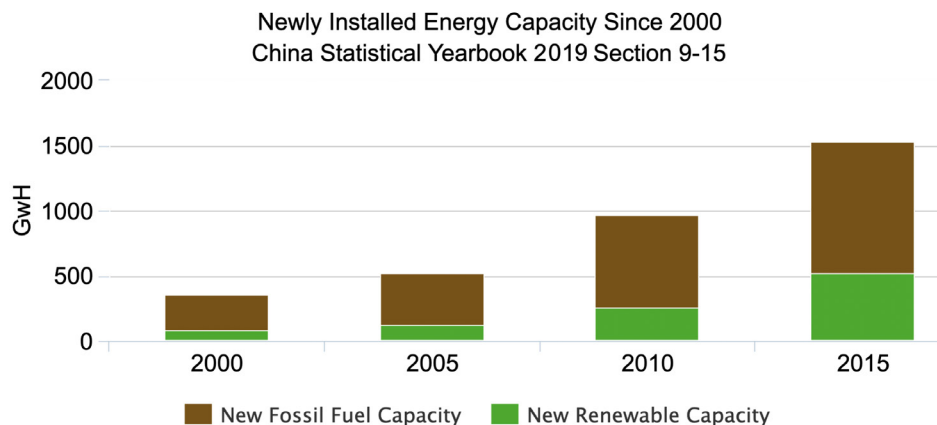


China's trend towards clean energy is in part due to domestic and international pressure to cut carbon emissions.

- In 2012, citizen protests over hazardous levels of pollution and environmental degradation pressured the Chinese government to recognize the consequences of burning fossil fuels publicly.³
- In 2014, the U.S. and China signed a bilateral agreement to cut carbon emissions ahead of the 2015 Paris Climate Summit.⁴
- As part of the Paris climate agreement, China committed to peak its carbon emissions and increase its share of renewable power generation to 20% by 2030. China has also agreed to reduce the carbon intensity of its economic activity by 60-65% below 2005 levels by 2030.⁵
- After the U.S. announced its planned withdrawal from the Paris agreement, China recommitted to the accord and was making progress towards its targets; however, COVID-19 has complicated these efforts.

China's investment in the development and adoption of clean energy and green technology is the highest in the world, and its position is going largely unchallenged.

- China's investment in clean energy and green technology is roughly double what the U.S. has invested.⁶
- Between 2013 and 2018, China's investment in renewable energy increased more than two-fold; China alone accounts for roughly 23% of the global renewable energy market.



- Newly installed solar power generation capacity has been multiplying, with capacity roughly doubling each year since 2013.²
- In 2020, China unveiled an ambitious new energy law that seeks to bring all energy policies under one umbrella. The goal is to make energy policy more manageable and reduce commercial energy consumption each year. The target for 2020 is a reduction of 2.5%; however, COVID-19 will likely complicate this effort.⁷

Despite recent improvements in its energy mix, China still faces significant long-term challenges to sustained reductions in emissions.

- Since 2000, China has nearly tripled its energy output to keep up with rising demand.⁸ Much of that new demand is being met by fossil fuels, particularly coal.^{9,10}
- China is constructing new coal power plants and increasing natural gas generation capacity.^{10,11,13}
- China is also building hundreds of coal-fired power plants abroad, as part of the Belt and Road Initiative.¹²
- The speed at which China is adopting renewables is not nearly fast enough to achieve global emission reduction targets, particularly given its activities abroad.

Moving Forward

If the world is to keep global average temperatures from rising more than 1.5°C by 2100, China must reduce its carbon emissions at a faster pace, requiring the use of renewable sources.¹⁴ However, the Chinese government faces a difficult quandary: how to balance economic growth with reductions in carbon emissions.

Much emphasis is put on China to reduce emissions. Yet, the U.S. must do its part. China is not going to make difficult policy decisions to reduce emissions, potentially forgoing economic growth, if the U.S. is not also reducing emissions through cleaner energy sources. To that end, the U.S. must resume its position as a climate leader, invest in green energy technology and infrastructure, and make reducing carbon emissions a national priority.

Endnotes

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