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National Energy Administration

Renewable Energy Development in China

7 July 2021

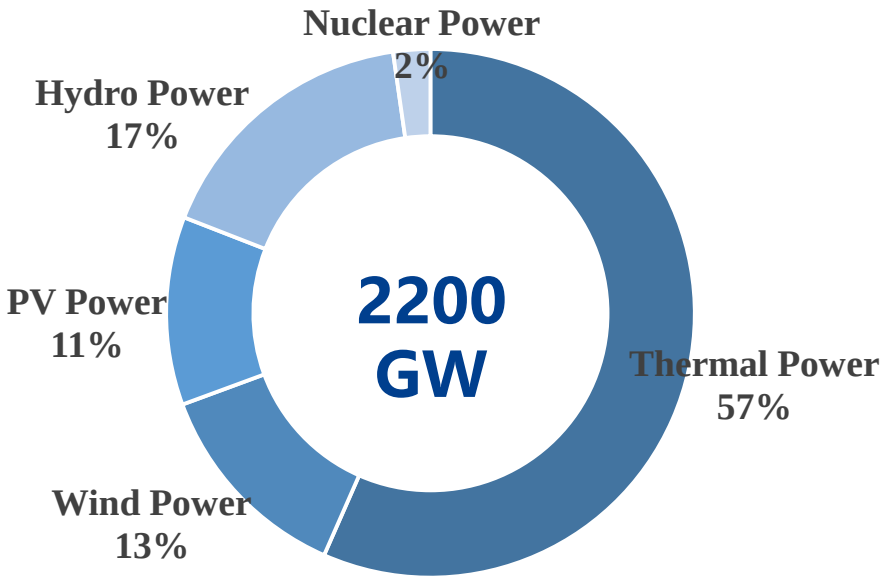
1ST ESCAP-GTI Seminar on Energy Cooperation in North-East Asia

Overview of Renewable Energy Development

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01 The installed capacity continued to grow

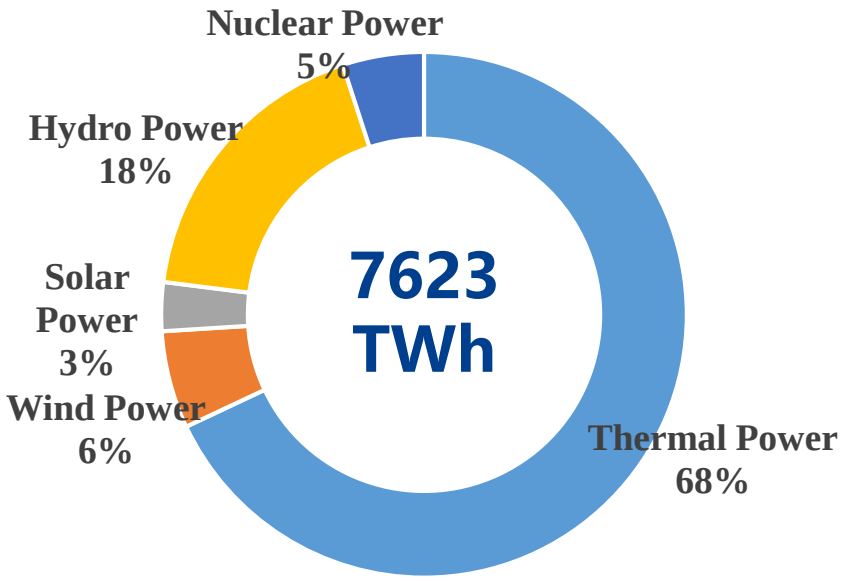
- RE installations reached 934 GW, accounting for more than 40% of China‘s total.
- In 2020, the newly added RE installation reached 139 GW, with that of the wind power and PV power hitting the records.



2020 China total installed capacity

02 The utilization level continued to improve

- In 2020, RE power generation exceeded 2200 TWh, with a year-on-year growth of 8.4%, and accounting for nearly 30% of the total power generation.
- The annual utilization rate of hydropower in the main rivers , wind and solar power generations reached more than 97%, and the utilization level continued to improve.



2020 electricity production by fuel

03 The industrial advantages continued to enhance

- Prominent advantages in hydropower industry, making China the key force of hydropower construction in the world.
- As the manufacturing costs of wind and solar power generation continues to decline, China has established a relatively competitive industrial system with high quality products and services in the world.
- The price of onshore wind and PV power has approached or reached the national average benchmark price of coal-fired power.





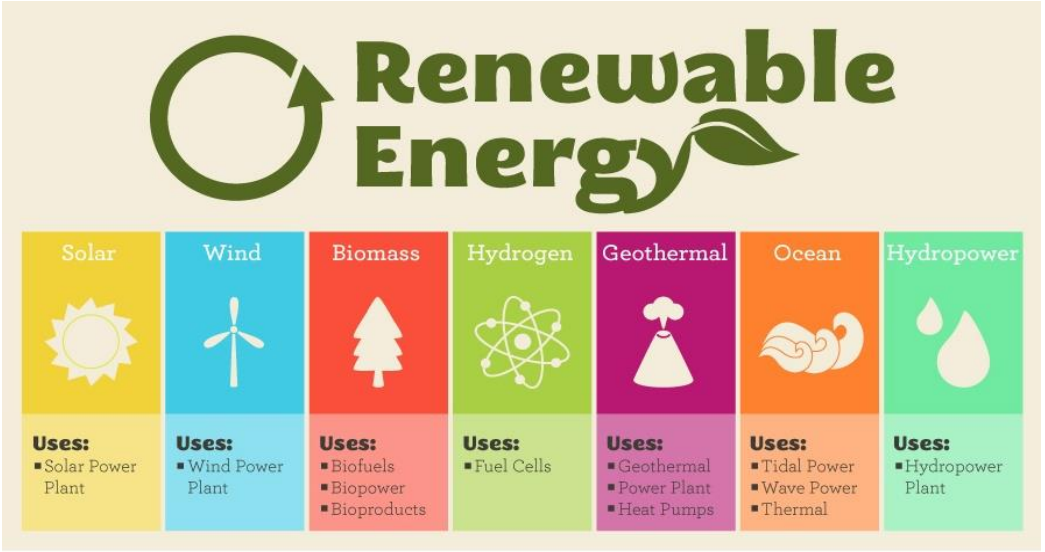
National Plan of RE Development

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- **UN General Assembly, September 2020**

China will scale up the Intended Nationally Determined Contributions by adopting more vigorous policies and measures, and aim to have **CO_2 emissions peak before 2030 and achieve carbon neutrality before 2060**.





- **Climate Ambition Summit, December 2020**

By 2030, China will lower its carbon dioxide emissions per unit of GDP by over **65%** from the 2005 level, increase the share of non-fossil fuels in primary energy consumption to around **25%**, and bring the total installed capacity of wind and solar power to over **1.2 TW**.

National Plan of RE Development

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The Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and the Long-range Objectives through the Year 2035

- Be compared to 2020 level, the energy consumption and carbon dioxide emissions per unit of GDP in 2025 will be reduced by **13.5%** and **18%** respectively, total emissions of the main pollutants will continue to fall.
- China will accelerate the development of non-fossil energy, adhere to both centralized and distributed methods simultaneously, vigorously increase the scale of wind power and photovoltaic power generation, accelerate the development of distributed energy in the eastern and central regions, orderly develop offshore wind power, accelerate the construction of the Southwest Hydropower Base, safely and steadily promote the construction of coastal nuclear power, build a batch of multi-energy complementarity clean energy bases, and increase the proportion of non-fossil energy in total energy consumption to about **20%**.
- China will promote the clean, low-carbon, safe, and efficient use of energy and advance the low-carbon transformation of industry, construction, and transportation.
- ……

Future Actions

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1. Strengthen communication and coordination of clean energy policies

With focus on carbon peak and carbon neutrality goals, China will strengthen exchanges on transition paths with GTI member countries to further promote utilization of renewable energy in a larger scale and higher proportion.

2. Strengthen cooperation in R&D and innovation of clean and low-carbon technologies

China stands ready to scale up cooperation in energy science and technology innovation with other membership countries in key technology fields such as hydrogen energy, energy storage, large-scale wind turbines, deep sea wind power and smart energy, break regional barriers and make major breakthroughs in green and low-carbon technologies.

3. Make full use of the existing energy cooperation mechanisms to strengthen international energy cooperation

China will promote exchanges among government departments, energy enterprises and research institutions of GTI countries and seek more cooperation opportunities under GTI , UNESCAP and other international platforms. China will keep on following the principle of mutual benefit and win-win results to carry out international cooperation, enhance high-quality cooperation under the Belt and Road initiative, take active participation in the international cooperation on global energy governance and tackling climate change.

THANKS

