

Economy Update

China's Energy Transition

2024 - 05 - 21

BACKGROUND



Carbon peak by 2030
Carbon neutrality by 2060

The goals for peak CO₂ emissions and carbon neutrality constitute a strategic choice for the sake of humanity's future as well as for realizing the Chinese Dream of national rejuvenation. As important tasks in building a beautiful China, requisites for meeting the people's new expectations for a better life, and powerful tools for promoting high-quality development and realizing economic and social transformation, reaching peak CO₂ emissions and carbon neutrality are closely related to China's development goals.

POLICY FRAME



what to do:

-- **Working Guidance** for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy

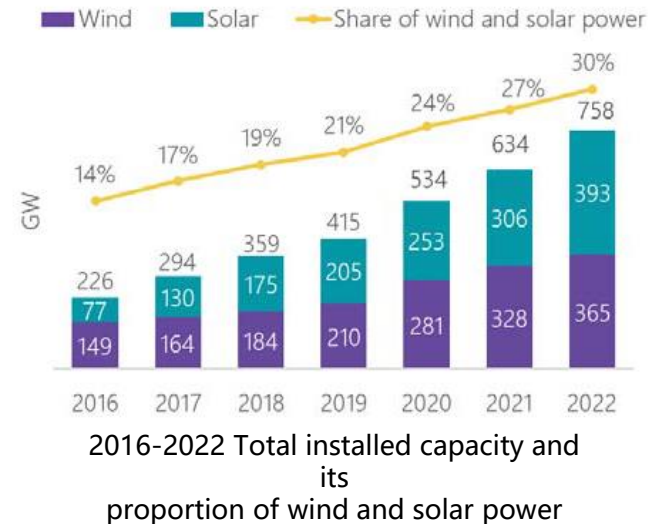
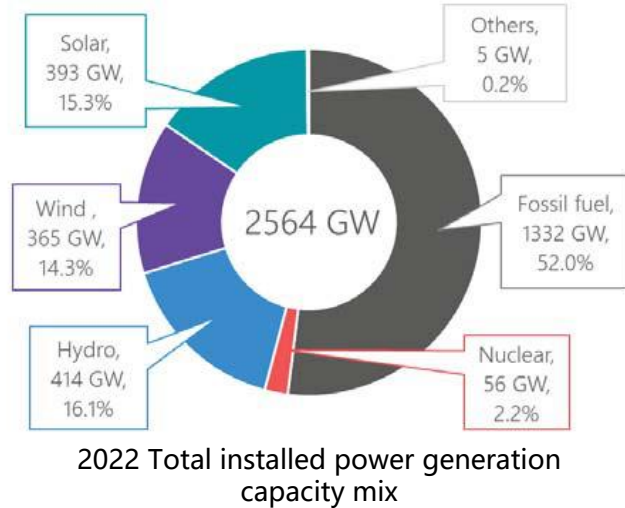
how to do:

-- **the Action Plan** for Reaching Carbon Dioxide Peak Before 2030

Form the basis of China's climate policy framework for reaching its carbon reduction targets, known as the "1+N" policy framework.

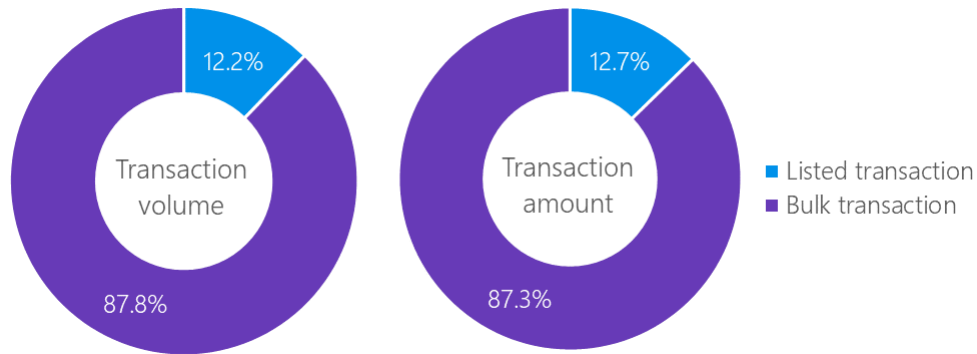
RENEWABLE

Wind power and solar PV have become the main body of newly installed capacity in 2022

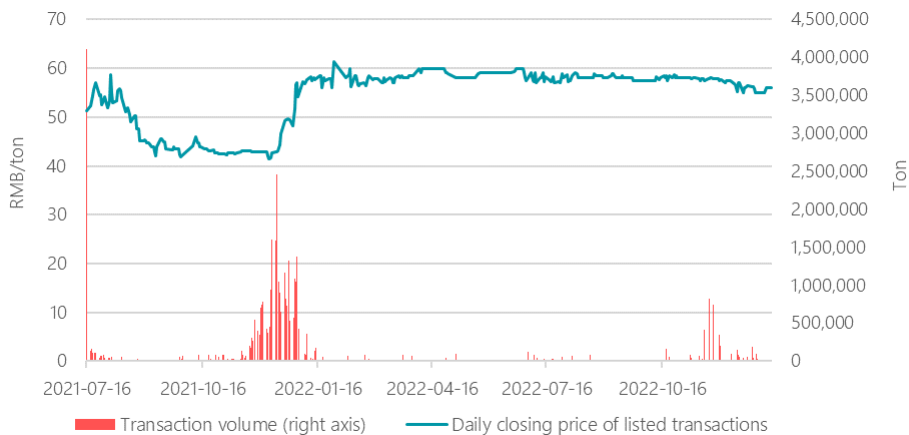


China's total installed power generation capacity reached 2,564 GW, a year-on-year increase of 7.8%. Non-fossil energy is now nearly 50% of the total installed capacity. The total installed capacity of wind power reached 365 GW, an increase of 11.2% year-on-year; the total installed capacity of solar power was 393 GW, an increase of 28.1% year-on-year.

CARBON MARKET



The proportion of annual transaction volume and annual transaction amount of listed transactions and bulk transactions in the national carbon market in 2022



The daily closing price and transaction volume of listed transactions in the national carbon market (July 16, 2021, ~ January 10, 2023)

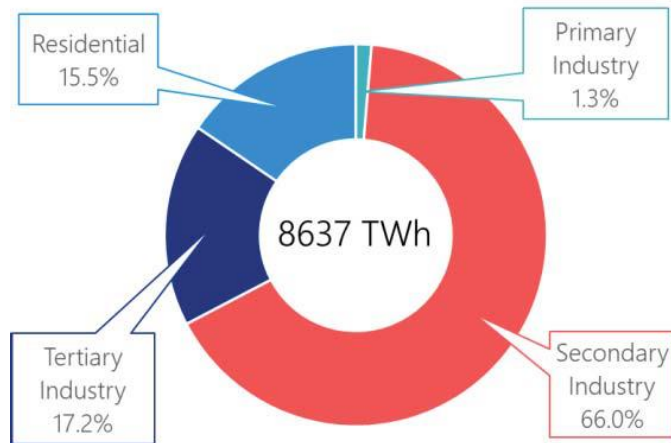
▪ Listed agreement transaction:

The daily closing price is between 55-61.4 RMB/ton; the closing price on December 30, 2022 was 14.6% higher than the opening price on the first day of the launch of the national carbon market .

▪ Bulk agreement transactions:

the average daily transaction price is between 42.5-62.5 RMB/ton, and the annual average transaction price is 55.0 RMB/ton

ELECTRICITY CONSUMPTION



2022 Electricity consumption mix



2021-2022 The year-on-year growth rate of electricity consumption by industry

- In 2022, the total electricity consumption reached 8,640 TWh, a year-on-year increase of 3.6%. 60% of the electricity is consumed by the secondary industry.
- The electricity consumption of the new energy vehicle (NEV) manufacturing industry has increased by 71.1% year-on-year.
- The growth rate of national electricity consumption is expected to reach 6% in 2023.

POLICES

Targets for green energy transition

The Action Plan released in October 2021 set specific goals for the green energy transition in the coming decade, including renewable energy buildout and low carbon development of several industries, such as construction, transport, and industrial sectors. These targets aim to lay the groundwork for the country to begin reducing overall carbon emissions before 2030.

The screenshot displays the official website of the Central People's Government of the People's Republic of China. The page features a navigation bar with categories like 'State Council', 'Premier', 'News', 'Policy', 'Interaction', 'Service', 'Data', 'Nationality', and 'National Government Service Platform'. The main content area is titled '国务院关于印发2030年前碳达峰行动方案的通知' (Notice of the State Council on Issuing the Action Plan for Carbon Peak Before 2030). It includes a metadata table with details such as the document number (000014349/2021-00098), issuance date (October 24, 2021), and subject (Action Plan for Carbon Peak Before 2030). The notice is addressed to provinces, autonomous regions, and municipalities, and is signed by the State Council on October 24, 2021. A sidebar on the right provides related reports and interpretations of the plan.

索引号:	000014349/2021-00098	主题分类:	城乡建设、环境保护\环境监测、保护与治理
发文机关:	国务院	成文日期:	2021年10月24日
标题:	国务院关于印发2030年前碳达峰行动方案的通知	发布日期:	2021年10月26日
发文字号:	国发〔2021〕23号		
关键词:			

国务院关于印发2030年前碳达峰行动方案的通知
国发〔2021〕23号

各省、自治区、直辖市人民政府，国务院各部委、各直属机构：
现将《2030年前碳达峰行动方案》印发给你们，请认真贯彻落实。

国务院
2021年10月24日

相关报道
* 国务院印发《2030年前碳达峰行动方案》

解读
* 2030年前碳达峰的总体部署——就《2030年前碳达峰行动方案》专访国家发展改革委

POLICES

NEA proposed a timetable for the construction of the new-type power system



Blue Book on New-Type Power System Development



stage1: Accelerated transition period (currently ~2030)

New-type power system accelerates the clean and low-carbon transition



stage2: Overall shaping period (2031~2045)

The overall formation of a new-type power system



stage3: Consolidation and perfection period (2046~2060)

The new-type power system has entered a mature stage

POLICES

标题: 国家发展改革委等部门关于发布《高耗能行业重点领域能效标杆水平和基准水平（2021年版）》的通知
发文机关: 国家发展改革委 工业和信息化部 生态环境部 市场监管总局 国家能源局
发文字号: 发改产业〔2021〕1609号
来源: 发展改革委网站
主题分类: 国土资源、能源\其他
公文种类: 通知
成文日期: 2021年11月15日
发布日期: 2021年

【字体: 大 中 小】

国家发展改革委等部门关于发布《高耗能行业重点领域能效标杆水平和基准水平（2021年版）》的通知

发改产业〔2021〕1609号

标题: 关于加快废旧物资循环利用体系建设的指导意见
发文机关: 发展改革委 商务部 工业和信息化部 财政部 自然资源部 生态环境部 住房城乡建设部
发文字号: 发改环资〔2022〕109号
来源: 发展改革委网站
主题分类: 城乡建设、环境保护\节能与资源综合利用
公文种类: 意见
成文日期: 2022年01月17日
发布日期: 2022年

【字体: 大 中 小】

国家发展改革委等部门关于加快废旧物资循环利用体系建设的指导意见

发改环资〔2022〕109号

National Development and Reform Commission and other departments released the notice of the Benchmark index to promote energy efficiency in Key Fields of Energy-intensive Industries.

STANDARDS



Revised standards in transformer, motor for renewable energy

Updated ESG, energy management **standards**

Improved green financial **standard system**

PROJECT

Research on technical roadmap for energy standard and label harmonization of green and efficient cooling products of China-ASEAN

- Research on the Current Status of Energy Efficiency Standards and Labeling of Room Air Conditioners in China and ASEAN Countries
- Comparative Analysis of Energy Efficiency Standard and Labels, such as Scope, Testing Methods, Energy Efficiency Evaluation Indicators, Labelling
- Technical Roadmap for Energy Efficiency Standard and Label Harmonization of Room Air Conditioners

典型制冷产品能效标准协调和提升技术路

线图研究报告

Research Report on Technical Roadmap for
Energy Efficiency Standard and Label
Harmonization of Typical cooling product

2024 年 5 月

May , 2024

PROJECT-Next Steps

Technical Exchanges with ASEAN Countries

- **Time:** June
- **Format:** Virtual meeting
- **Objective:** To strengthen the exchange and cooperation of energy efficiency standard and labeling, share practical experience in the formulation and implementation of energy efficiency standards for typical cooling products such as air conditioners, to promote energy efficiency improvement, and jointly address the climate change.
- **Exchange topics:**
 - The latest updates on energy efficiency policies and labeling in China/ASEAN countries
 - Development and Implementation of Energy Efficiency Standards for Room Air Conditioner in China/ASEAN Countries
 - Potential for further cooperation in the future

Thank you!

LIU Ren
liuren@cnis.ac.cn

YANG Jie
yangjie@cnis.ac.cn