#### 绿色创新发展中心 innovative Green Development Program

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#### About iGDP

iGDP is a non-profit consultancy that focuses on green and low-carbon development.

It works to strengthen China's lowcarbon environmental policy design and implementation through interdisciplinary, systematic, and empirical research. We work with all stakeholders to promote a zeroemissions future and tell the story of China's green and low-carbon development.

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#### **CARBON NEUTRAL LOCAL INITIATIVES AT A GLANCE**

The "1+N" policy system at the local level has been gradually improved, with many provinces and cities releasing implementation plans for carbon peaking in key industries, as well as policies for energy conservation and emission reduction, synergies of pollution and carbon emissions reduction. To ensure the completion of the national target, provinces and cities put forward targets based on their own characteristics and endowments: Sichuan Province will establish a renewable energy system of hydro, wind and photovoltaic complementary, and the capacity of installed clean energy will account for 89% by 2025. Beijing Municipality will formulate a carbon peaking plan for municipal enterprises, Shanghai will put forward a renewable energy replacement rate target for new urban buildings which is higher than the national average, Anhui Province proposes a 14th Five-Year Plan that makes extreme positive progress in the control of non-CO<sub>2</sub> greenhouse gas emissions.

A number of provinces and cities have released new energy and renewable energy industry plans and action plans to support the implementation of local low-carbon policies and climate action. The hydrogen energy application in Jiangxi Province and the new energy storage project in Shandong Province are gradually expanding their application scenarios, which will provide an important support to promote the province's renewable energy consumption and green low-carbon development. The development of Zhejiang Province in the field of new energy vehicles will continue to play a positive leading role. In addition, the introduction of green finance development planning in Jiangxi Province will provide strong support for the low-carbon transformation of local industries and the two carbon targets.

#### About CCNT (China Carbon Neutrality Tracker)

China Carbon Neutrality Tracker (CCNT) is an online database and interactive platform that tracks China's national and sub-national carbon neutrality actions by collecting and sorting publiclyavailable policy documents with an impact on GHG emissions. It offers an overview and structural classification of China's climate actions and serves as a comprehensive compendium of the specific policies and actions of various government departments and key non-state entities.

CCNT includes all policies and actions with a climate impact and classifies them by region and sector. It gathers policy information primarily from authoritative government sources at national, regional, provincial and municipal levels. CCNT currently has national and provincial webpages. The database is continuously updated to include new provincial and city-level actions, and CCNT regularly issues short policy briefings.

For the latest national and subnational carbon neutrality actions, please visit the CCNT database at <a href="https://ccnt.igdp.cn">https://ccnt.igdp.cn</a>.





# • Chongqing issued the Implementation Plan for Carbon Peaking in Chongqing Industry

By the end of the 14th Five-Year Plan, the optimization of industrial structures will make positive progress, the efficiency of energy and resource utilization will be significantly improved, more than 30 green parks at the municipal level and above will be built, more than 300 green factories will be built, the energy consumption of added value from industry above the threshold will drop by 14.5% compared to 2020, and carbon dioxide emissions per unit of industrial added value will drop by more than that of society as a whole. Emissions per unit of industrial value added will decrease by more than the rate of decline in the whole society. During the Fifteenth Five-Year Plan period, green and new industries will become the new driving force of the industrial economy, the overall energy efficiency of key industries will reach an advanced level, and carbon dioxide emissions in the industrial sector will peak by 2030.

### • Shanxi issued the Views of the Shanxi Provincial Chinese Communist Party and People's Government of Shanxi Province on the Full, Accurate and Comprehensive Implementation of the New Development Philosophy in the Work of Carbon Peaking and Carbon Neutrality

By 2025, per unit gross regional product (GRP) energy consumption and carbon dioxide emissions will decline to ensure the completion of the national target, the proportion of non-fossil energy consumption will have reached 12%, the proportion of new energy and clean energy installed will reach 50%, the proportion of power generation will reach 30%, the forest coverage rate will show an improvement of 2.5% points compared to 2020. By 2030, energy consumption and carbon dioxide emissions per unit of GRP will continue to decline, the proportion of non-fossil energy consumption will reach 18%, the proportion of new energy and clean energy installations will reach more than 60%, the total installed capacity of wind power and photovoltaic power generation will reach about 120 million kilowatts, and the forest coverage and forest accumulation will grow steadily. Under the premise of ensuring national energy security, carbon dioxide emissions should reach a peak.

## • Guizhou released the Implementation Plan for Carbon Peaking in the Energy Sector in Guizhou Province

By 2025, the proportion of non-fossil energy consumption will reach about 20%, and aim to reach 21.6%, and the proportion of electrical energy in final energy use will reach about 30%. By 2030, the proportion of non-fossil energy consumption will reach about 25%, and the proportion of electrical energy in final energy use will reach about 35%.





# • Sichuan released the Implementation Plan for Carbon Peaking in the Energy Sector in Sichuan Province

By 2025, a clean, low-carbon, safe and efficient energy system will be built. Hydropower, wind power and solar power generation capacity will be 138 million kilowatts or more, clean energy installed capacity will be about 89%, the proportion of non-fossil energy consumption will have increased to about 41.5%, the proportion of natural gas consumption will have reached 19%, the proportion of coal consumption will continue to fall, the proportion of electricity will be 30% of final energy use. By 2030, the total installed capacity of hydropower, wind power and solar power generation will reach 168 million kilowatts, the proportion of non-fossil energy consumption will reach about 43.5%, the proportion of natural gas consumption will reach 21%, the proportion of coal consumption will be further reduced, the proportion of electrical energy in final energy consumption will reach 35%, important progress will be made in the construction of new power systems, and carbon dioxide emissions in the energy sector will reach a peak.

### • Chongqing released the Implementation Plan for Carbon Peaking in the Urban and Rural Construction Sector in Chongqing

By 2030, carbon emissions in urban and rural construction will reach a peak. Chongqing will improve the green and low-carbon level of buildings and optimize the energy structure of urban construction. By 2025, green building standards will be fully implemented in new buildings in cities and towns, the percentage of star-rated green buildings will reach more than 30%, the area of ultra-low (near-zero) energy consumption buildings and low-carbon (zero-carbon) building demonstration projects will not be less than 300,000 square meters, the area of new urban existing buildings to be transformed into green buildings will be 5 million square meters, and the area of new renewable energy building applications will be 5 million square meters. By 2030, the body of new residential buildings will reach 75% of energy-saving requirements, and the body of new public buildings will reach 78% of energy-saving requirements. The proportion of assembled buildings in new urban buildings will reach 40%.

### • Beijing released the Action Plan for Municipal Enterprises to Achieve Carbon Peaking

By 2025, the proportion of renewable energy consumption in municipal enterprises will reach more than 15%, energy consumption per 10,000 yuan of income will drop by 14% compared to 2020, carbon dioxide emissions per 10,000 yuan of income will drop to ensure the completion of the targets set by the government, and the proportion of business income of "advanced and sophisticated high-tech" industries will reach one-third. By 2030, the proportion of renewable energy consumption in municipal enterprises will reach about 25%, and overall CO<sub>2</sub> emissions will reach the peak and achieve a steady decline, ensuring the completion of the targets set by the government, and achieving the goal of carbon peaking by 2030 as scheduled.





### • Shanghai released the Implementation Plan for Carbon Peaking in Yangpu District

By 2025, energy consumption per unit of GDP will drop by 13.5% compared with 2020, and CO<sub>2</sub> emissions per unit of GDP will hit the targets set by the city. By 2030, energy consumption per unit of GDP and carbon dioxide emissions per unit of GDP will further decline, ensuring that carbon peaking will be achieved by 2030.

### • Sichuan released the Implementation Plan for Carbon Peaking in Sichuan Province

In the 14th Five-Year Plan period, the industrial structure and energy structure adjustment and optimization will have made significant progress, the key industry energy use efficiency will have significantly improved, coal consumption will continue to decline, the construction of a hydropower-based, hydro, wind, photovoltaic multi-energy complementary renewable energy system will be accelerated, the formation of clean energy as the main body of the new power system. By 2025, the province's non-fossil energy consumption will reach about 41.5%, hydropower, wind power, and solar power generation capacity will reach 138 million kilowatts or more, energy consumption per unit of gross regional product are to the national targets. By 2030, the proportion of non-fossil energy consumption in the province will reach about 43.5%, the total installed capacity of hydropower, wind power and solar power generation will reach about 168 million kilowatts, and carbon dioxide emissions per unit of gross regional product will drop by more than 70% compared with 2005, so as to achieve the carbon peak target on schedule.

## • Tianjin released the Implementation Plan for Carbon Peaking in the Industrial Sector of Tianjin City

By 2025, the energy consumption per unit of added value of industry above the designated amount will drop more than the level of energy consumption per unit of gross regional product in the city, and carbon dioxide emissions per unit of industrial added value will drop more than that of the whole society. The carbon dioxide emissions intensity of key industries will drop and the industrial solid waste comprehensive utilization rate will be maintained at more than 98%. During the Fifteenth Five-Year Plan period, the industrial structure will be further optimized, industrial energy consumption intensity and carbon dioxide emissions intensity will continue to decline, and efforts will be made to reach a peak and then reduce, while capacity for carbon neutrality will be strengthened on the basis of achieving carbon peaking in the industrial sector to ensure that carbon dioxide emissions in the industrial sector reach a peak by 2030.

## • Shanghai issued the Implementation Plan for the Synergies of Pollution and Carbon Emissions Reduction in Shanghai

By 2025, the pattern of work for reducing pollution and carbon will be in place. At the same time, 24 key initiatives are proposed in eight major areas, focusing on energy, industry, transportation, and urban and rural construction. In 2025 and 2030, the proportion of non-fossil energy in the city's total energy consumption will reach 20% and 25% respectively, and the replacement rate of renewable energy in new buildings in urban areas will reach 10% and 15%. During the 14th Five-Year Plan, the city's total coal consumption will drop by about 5%.





### • Shanxi issued the 14th Five-Year Implementation Plan for Energy Saving and Emissions Reduction in Shanxi Province

By 2025, energy consumption per unit of gross regional product in the province will drop 14.5% compared to 2020, and total energy consumption will be reasonably controlled. Chemical oxygen demand, ammonia nitrogen, nitrogen oxides, volatile organic compounds reduction in key projects will reach 71,900 tons, 0.28 million tons, 80,100 tons, 30,400 tons, respectively. The policy of energy saving and emissions reduction will be more comprehensive, the efficiency of energy use in key industries and the level of control of major pollutant emissions will have reached an internationally advanced level.

#### • Anhui issued the 14th Five-year Plan for Addressing Climate Change in Anhui Province

By 2025, the province's greenhouse gas emissions target control system will mean that carbon dioxide emissions intensity continues to decline and carbon dioxide emissions will be strictly controlled. By 2025, carbon dioxide emissions per unit of GDP will drop by 18% compared to 2020, energy consumption per unit of GDP will drop by 14% compared to 2020, non-fossil energy will account for more than 15.5% of primary energy consumption, and total carbon emissions will be effectively controlled. Non-CO<sub>2</sub> greenhouse gas emissions control will have made positive progress. Methane emissions from energy and waste areas will be effectively controlled, industrial production processes such as nitrous oxide and sulfur hexafluoride will have their greenhouse gas emissions controls further strengthened, and total nitrous oxide emissions from farmland will be steadily decreasing. Ecological carbon sink capability will also be continuously improved. By 2025, we will strive to achieve a forest coverage rate of no less than 31%, a forest accumulation of 290 million cubic meters, a wetland protection rate of 53%, and a ratio of nature reserves to the national land area of 8% or more.

Many provinces and cities have issued policies to support the development of hydrogen energy, energy storage and new energy vehicles. Jiangxi Province has proposed a timetable for the basic marketization of hydrogen production from renewable energy sources. Shandong Province intends to promote the development of new energy storage from the initial stage of commercialization to the scale of development during the 14th Five-Year Plan. These actions will provide significant support for the province's renewable energy consumption and green low-carbon development. Zhejiang Province will continue to play a leading role in the field of new energy vehicles. In addition, the introduction of green finance development planning in Jiangxi Province will provide strong support for the low-carbon transformation of local industries and the carbon peaking and carbon neutrality goals.

## • Jiangxi issued the Medium and Long-Term Plan for the Development of the Hydrogen Energy Industry in Jiangxi Province (2023-2035)

By 2025, the amount of renewable energy hydrogen production will reach 1,000 tons/year and become an important part of new hydrogen energy consumption and new renewable energy consumption. The







number of fuel cell vehicles in the province will be about 500, and 10 hydrogen refueling stations will be built in total. From 2026 to 2030, the comprehensive energy efficiency of electricity-hydrogen and hydrogen-electricity systems will be significantly improved, and demonstrations of fuel cell distributed power generation and hydrogen energy storage will be widely carried out. Hydrogen energy will play an important role in the process of re-electrification and deep carbon reduction in transportation, industrial areas, and so on. From 2031 to 2035, hydrogen production from renewable energy sources will be marketized.

### • Shandong issued the New Energy Storage Project Development Action Plan in Shandong Province

During the 14th Five-Year Plan period, the diversification and multi-scene applications of advanced energy storage technologies will be vigorously promoted, and the shift of new energy storage from the initial stage of commercialization to large-scale development will be realized. By the end of 2023, the province's new energy storage scale will reach more than 2 million kilowatts, by 2024 to 4 million kilowatts, and by 2025, to about 5 million kilowatts.

### • Jiangxi issued the *Green Finance Development Plan of Jiangxi Province* (2022-2025)

By 2025, the scale of green credit will have continued to expand. Green credit balance will exceed 800 billion yuan, the average annual growth rate will exceed that of the average growth rate of the province's credit balance, and the balance of green loans will reach 11%. The green securities market will continue to expand. Banks and enterprises will strive to issue green bonds reaching 60 billion yuan. To promote environmental and climate information disclosure, the voluntary disclosure rate of environmental and climate data of listed enterprises in the province and listed enterprises on the New Third Board will increase by 50% compared to the end of 2021.

#### • Zhejiang issued the Action Plan for Accelerating the Development of the New Energy Vehicle Industry in Zhejiang Province

By 2025, the annual production of new energy vehicles will exceed 1.2 million units, accounting for more than 60% of the province's total automobile production. The share of new energy vehicle production will account for about 10% of the national figure, and the proportion of new energy for public sector vehicles will be the domestic leader, taking the lead in the large-scale commercial application of self-driving cars.

(Information arranged by Han Di and Yuan Yating. Translation by Yefren Nye, Helen Liang and Fang Shanyu.)







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Innovation Green Development Program (iGDP) is the executive body of the Green Low Carbon Development Think Tank Partnership Secretariat, the Governing Body of the Green Finance Professional Committee of the China Finance Society, the Expert Body of the Northeast Asia Low Carbon Cities Platform of the Northeast Asia Environment Cooperation Mechanism of the United Nations Economic and Social Commission for Asia and the Pacific, and undertakes the Climate and Energy Research Center of the Beijing Institute of Green Finance and Sustainable Development.

iGDP's research, consulting, and communications focus on the following areas:

Energy transition

Green economics

Climate strategies

Sustainable cities

Strategic communication

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