

LOW CARBON CONSUMPTION PROJECT NEWSLETTER

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ENERGY FOUNDATION
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LCCP Team
Energy Foundation China

NEWSLETTER

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Energy Foundation China is a professional grantmaking charitable organization registered in California, U.S. Our vision is to achieve prosperity and a safe climate through sustainable energy. Our mission is to achieve greenhouse gas emissions neutrality, world-class air quality, energy access, and green growth through transforming energy and optimizing economic structure. We deliver the mission by serving as a grantor, facilitator, and strategic advisor.

01 MACRO-POLICIES

Summing up policies recently released by relevant ministries and commissions on green and low carbon consumption and relevant topics

On February 3, **eight ministries and commissions, including the Ministry of Industry and Information Technology and the Ministry of Transport**, jointly issued the Notice of **Implementing the Pilot Program of Comprehensive Electrification Pilot Areas of Vehicles in Public Domain**, putting forward the following goals—increasing the proportion of new energy vehicles newly increased and renovated in such pilot fields as urban public transport, taxi, environmental sanitation, express mail service and urban logistics distribution up to 80%, realizing 1:1 in terms of the ratio of newly-increased public charging piles (standard piles) to the number of new energy vehicles promoted in public domain (standard vehicles), and achieving no less than 10% of expected proportion of parking spaces with charging facilities in small parking spaces in the expressway service area. The Notice also identifies new policies to support innovation in such business models as charging, finance leasing, and vehicle-electricity separation, speed up the integrated pilot application of “photovoltaic power generation, energy storage, charging and discharging”, optimize the construction of public charging network in central urban areas, and to study the right of way, electricity utilization discount, and low/zero-carbon emission zones.

On February 6, **the Central Committee of the Communist Party of China and the State Council** issued **the Outline on Improving the Quality of Development**, mainly proposing efforts to establish the orientation of green and high-quality development. Specifically, China will launch campaigns to benchmark and improve the resource efficiency of major industries and major products, move faster to make breakthroughs in critical and core technologies concerning low carbon, zero carbon and negative carbon, and facilitate the low-carbon transition of high energy-consuming industries. China will comprehensively pursue green design, green manufacturing and green construction, improve the unified system for green product standardization, certification and identification, and step up efforts to develop green supply chain. China will optimize the technical standards for recycling of resources, realize the green and efficient recycling of resources, establish and improve the standard measurement system for carbon peaking and carbon neutrality, and propel the establishment of internationally recognized carbon accounting benchmarks and standards, carbon monitoring and performance evaluation mechanism. Measures will also be taken to establish and implement the standard system for ecological restoration of territorial space, put in place the system for promoting the consumption of green products, and publicize green lifestyles.

On February 20, **nine ministries and commissions, including the National Development and Reform Commission**, released the **Guiding Opinions on Coordinating Energy Conservation, Carbon Reduction and Recycling to Accelerate the Upgrading and Reconstruction of Products and Equipment in Key Fields**, mainly proposing that China needs to expedite energy conservation, carbon reduction, renewal and upgrading of products and equipment in key fields, and improve the recycling system of waste products and equipment. The document also indicates that China will duly update the

advanced level of energy efficiency, energy conservation level and access level of key energy-consuming products and highlighting proprietary identification, issuing green discount coupons and other means. Efforts will be also made to expand the certification and implementation scope of green products involving energy efficiency label, energy conservation, low carbon and recycling of resources, etc.

On March 8, **the National Development and Reform Commission and the State Administration for Market Regulation released the Notice of Further Enhancing Updating, Upgrading, Application and Implementation of Energy-saving Standards**, proposing to organize and implement 100 activities for improving energy-saving and carbon reduction standards in the “14th Five-year Plan” period. Main contents of the Notice include speeding up the formulation and revision of energy-saving standards for key fields, steadily lifting requirements of energy consumption quota of key energy-consuming industries, and continuously improving the energy efficiency level of key energy-consuming products and equipment. In addition, efforts will be made to fully leverage the supporting role of energy efficiency labels as well as energy-saving and low-carbon products certification in government procurement and in guiding green consumption, and to explore the inclusion of energy savings and carbon reductions of products and equipment into energy efficiency labels.

In March, **the General Office of the Ministry of Finance, the General Office of the Ministry of Housing and Urban-Rural Development and the General Office of the Ministry of Industry and Information Technology issued the Guide to the Implementation of Policies that Government Procurement Supports Green Building Materials and Promotes Building Quality Improvement**. Containing 49 articles in eight chapters, namely General Provisions, Feasibility Research, Design and Review, Government Procurement, Construction, Examination, Acceptance Inspection and Supplementary Provisions, the Guide is applicable to related activities of construction projects that are included into the implementation scope of policies that government procurement supports green building materials and promotes building quality improvement. Such activities involve the whole process of feasibility report

compilation, design and review, government procurement, construction, examination, acceptance inspection, and (preliminary) appraisal of third-party institutions.

In March, **the General Office of the Ministry of Industry and Information Technology published the 2022 Green Manufacturing List**, including 874 green factories, 643 products with green design, 47 green industrial parks, and 112 green supply chain management enterprises. In addition, 41 green factories, 72 products with green design, 3 green industrial parks and 5 green supply chain management enterprises included in the former six batches of lists were moved out of the Green Manufacturing List.

LCCP's INTERPRETATION

As green development becomes a policy priority, policy systems improve gradually, and related policies in various fields increasingly enter the implementation phase, more concrete and quantitative indexes, pilot schemes and implementation guides have been put forward for key industries. The importance attached to relevant standards and certification and the refinement of “details” of policies will effectively guide and enable the concrete practices in corresponding fields and cities.

02 CITY-ACTIONS

Summing up sub-national level and city level's recent green and low carbon consumption practices and actions

CIRCULAR ECONOMY

In January, the Implementation Plan for the Development of Recycling System of Waste Materials of **Tianjin** Municipality was released. The Plan includes some quantitative goals—building up 1,200 renewable resource recovery outlets using over 300,000 renewable express packaging by 2025., etc., deploys key tasks—promoting recycling of second-hand goods, increasing the processing and utilization level of renewable resources, etc., and aims to advance key projects—project to build up the capacity in recycling and disassembling scrapped cars,

project of recycling of waste textile products, etc.

In February, the Plan for the Development of Circular Economy of **Shanxi Province** in the “14th Five-year Plan” Period was released, making clear certain key goals. Specifically, by 2025, the rate of output of major resources will be elevated by about 20% from that in 2020, the comprehensive utilization rate of newly-increased bulk solid wastes across the Province will reach 60%, the proportion of green travel in large cities will amount to 70%, and the proportion of green building area in new buildings in urban areas will reach 100%. The Plan also identifies six major tasks: comprehensively increasing resource utilization efficiency, building waste materials recycling system, establishing the new mode of ecological recycling agriculture, advancing green, low-carbon and circular development of parks, improving the technological innovation capacity of circular economy, and pursuing green and circular lifestyles.

In March, the Implementation Plan for the Development of Recycling System of Waste Materials of **Nanchang City** was released, setting some quantitative goals. Specifically, the recovery rate of main varieties of renewable resources will exceed 85%, over 90% of communities will establish waste materials recovery outlets, the recycled amount of nine types of major renewable resources will reach 675,000 tons, and the transaction volume of second-hand goods will reach CNY8 billion. The Plan also designs 20 major supporting projects, with a total investment of about CNY11.045 billion.

In February, the Work Plan for Building “Zero Waste City” of **Shanghai Municipality** was released, coming up with certain goals. Specifically, by 2025, the rate of reaching the standard for household garbage classification and recovery rate will exceed 95% and 45%, respectively; Shanghai will build over 200 demonstrative entities of green manufacturing; the storage and disposal quantity of general industrial solid wastes across Shanghai will achieve zero growth, and record no less than 95% of comprehensive utilization rate; and the resource utilization rate of construction wastes across Shanghai will amount to about 93%. The Plan specially points out that the leading and demonstration role of Baowu Group, Sinopec Shanghai, Shanghai Chengtou and other major

enterprises should be highlighted.

In February, **Liaoning Province** and **Jilin Province** released their respective Plan for Advancing the Building of “Zero Waste City” in the “14th Five-year Plan” Period. Both Provinces specifically refer to the comprehensive utilization of industrial solid wastes, construction of green mines, and other contents.



CONSUMPTION CARBON ACCOUNTING

In January, the **Shanghai** Municipal Bureau of Ecology and Environment released the Measures for the Administration of Carbon Inclusion System of Shanghai Municipality (for Trial Implementation). Under the Measures, the Shanghai Pollution Reduction and Carbon Reduction Center will be responsible for establishing the Shanghai Carbon Inclusion Management Center, while the Shanghai Environment and Energy Exchange will be responsible for establishing the Shanghai Carbon Inclusion Operation Center. Relying on the “Suishenban” platform, the Operation Center will conduct relevant management of emission reduction projects, scenarios, emission reductions and carbon credits, among others. Eligible transaction entities could trade the registered emission reductions.

In January, the Plan for the Establishment of Carbon Inclusion System of **Tianjin** Municipality was rolled out, proposing that Tianjin will conduct the top-level design of carbon inclusion system from 2022 to 2024, form the framework of carbon inclusion system from 2025 to 2026, improve and deepen the standards and operation mechanisms of carbon inclusion system in the medium term of the “15th Five-year Plan” period.

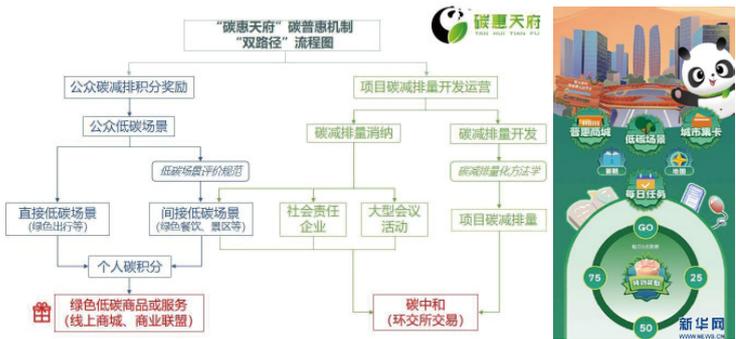
In January, the Plan for the Establishment of Carbon Inclusion System of **Shandong Province** was released, proposing that by the end of 2023, Shandong will complete the top-level design of carbon inclusion system and gradually improve it from 2024 to 2025. Regional operation sub-centers will be set up in Jinan, Qingdao, Yantai, Weifang, Weihai and other cities with sound basis for low-carbon development, realizing

top-down connection and integrated efforts of the Province and its cities. Shandong will also develop a carbon inclusion App.

In February, the Office of the Steering Group of Establishing **Hainan** National Ecological Civilization Pilot Zone released the Measures for the Administration of Carbon Inclusion of Hainan Province (for Trial Implementation). Users can register via the “Haiyiban” platform. The Department of Ecology and Environment of Hainan Province is responsible for supervising and managing work related to carbon inclusion. The Big Data Administration of Hainan Province is responsible for establishing and maintaining the unified carbon inclusion management system of Hainan based on “Haiyiban”. Carbon credits may be used to exchange inclusive commodities or services, but should not be used in market transactions. Furthermore, measures will be explored to change carbon credits to golden coconut credits (personal integrity credits), and include into the credit indicators of the golden coconut credits platform.

As of March, the Tanhuitong value realization platform of ecological products of **Chongqing** had completed the transaction of over 3.23 million tons of carbon emissions in cumulative terms, with over CNY77.85 million in transaction volume; over 800,000 users had registered on the individual terminal of the platform, and ten green and low-carbon application scenarios had been set up such as Yukuaiban and Chongqing Bureau of Human Resources and Social Security. The Tanhuitong platform is supervised by the Chongqing Bureau of Ecology and Environment and run by Chongqing Credit Reference Co., Ltd. The platform integrates the functions of “carbon contract fulfillment, carbon neutrality and carbon inclusion”. For example, a wind power project of Wulong District registered over 140,000 tons of carbon reductions at the Tanhuitong platform.

Figure: Flow chart and interface of "Tanhui Tianfu" mini program



As of March, “Tanhui Tianfu”, the carbon inclusion platform of **Chengdu**, had rolled out 17 online carbon credit scenarios in cumulative terms, including voluntary vehicle non-working, recovery of large wastes, snapshot, green health care, and house property inquiry, and successively released 44 offline low-carbon consumption scenarios, such as Dujiangyan-Qingchengshan Scenic Spot, and Chengdu Giant Panda Breeding Research Base. Relevant entities had participated in public welfare activities of carbon neutrality by buying carbon emission reductions through “Tanhui Tianfu”, consuming about 80,000 tons’ carbon emission reductions and with a subscription amount of nearly CNY1 million cumulatively. Moreover, the government of Chengdu mentioned in the 2023 objectives concerning practical work for people’s wellbeing that Chengdu will deepen the “Tanhui Tianfu” mechanism, and the number of carbon inclusion users will reach 2 million.

GREEN DEVELOPMENT

In February, the **Shanghai** Municipal Education Commission released the Implementation Plan for the Development of Green and Low-carbon Development and National Educational System of Shanghai Municipality, integrating green and low-carbon development into the national educational system of Shanghai. Among others, the Plan makes clear that by 2025, the concept of green and low-carbon life and the standards for green and low-carbon development will be popularized and diffused among universities, middle schools and primary schools; the green and low-carbon concept will be mainstreamed into the educational system of universities, middle schools and primary schools; and relevant universities and colleges will preliminarily establish the professional system of relevant disciplines of carbon peaking and carbon neutrality.

On February 1, the 1st anniversary of the **Olympic Winter Games Beijing 2022** (Beijing 2022), Beijing 2022 Organizing Committee, the International Olympic Committee and the International Paralympic Committee jointly released the Beijing 2022 Post-Games Sustainability Report, which systematically sums up the modes and outcomes of conducting work related to green, low-carbon and sustainable development during the preparation and proceedings of Beijing 2022 in seven chapters, including sustainability management, protection of the ecosystem, addressing climate change, implementing sustainable sourcing, promoting development for the region, enhancing public engagement, and the legacy of sustainability. Typical outcomes are as follows: all venues obtained the green building label, all venues realized 100% of green power supply, and post-games utilization rate of venues reached 100%. Beyond that, the proportion of energy-saving and clean energy vehicles stood at 84.9%, and the penetration rate of water-saving domestic water appliances reached 100%. Sustainability requirements are also made clear in the technical standards for 11 types of products. Based on the three modes of compensation, namely forestry carbon sink, partner sponsorship and carbon inclusion, carbon neutrality was made a reality right after the conclusion of Beijing 2022.

In February, the Work Plan for the Appraisal of Carbon Footprints of Products of **Shandong Province** (2023-2025) was released. The Plan indicates that by 2025, Shandong will basically complete the accounting of carbon footprints of products of 600 major enterprises, study and formulate technical standards for carbon footprints, put in place the appraisal system of carbon footprints of products, establish green consumption platforms for low-carbon products, and realize the interconnectivity with carbon inclusion platforms and applications. Efforts will be made to establish and improve the incentives mechanism for the green consumption of low-carbon products in conjunction with the development of the carbon inclusion system of the Province. This year, Shandong will preliminarily complete the collection of basic data on carbon footprints and carbon emission factors of key enterprises in the Province, start establishing the accounting and appraisal system of carbon footprints and the methodology accounting system, and fulfill the accounting of carbon footprints of 100 key enterprises in iron & steel, electrolytic aluminium, cement, chemical fertilizer and plastics industries.

In February, **Chongqing** released the Implementation Plan for Conducting Further Activities to Guide Green and Low-carbon Development of Public Institutions to Promote Carbon Peaking of Chongqing Municipality. According to the Plan, by 2025, the energy use structure of public institutions of Chongqing will be optimized continuously, energy use efficiency will be elevated constantly, and the total yearly energy consumption will be under effective control. With the figures of 2020 as the base, the energy consumption per unit of building area will be down by 5%, carbon emissions will be down by 7%, institutions with good conditions will realize carbon peaking before 2025, and the total carbon emissions of public institutions of Chongqing will peak before 2030. The Plan proposes major efforts to promote and utilize green and low-carbon technologies and products, intensify the promotion and application of green and low-carbon technologies, purchase more green and low-carbon products, and cultivate the green and low-carbon lifestyles of leaders and staffers.



Figure: Part of the Beijing 2022 Post-Games Sustainability Report

In February, the **Beijing** Municipal Commission of Housing and Urban-Rural Development and the Beijing Municipal Finance Bureau jointly formulated the Implementation Rules for the

Administration of Demonstrative Projects of Incentive Funds for Green Development of Buildings of Beijing Municipality (for Trial Implementation) (Draft for Comment) to reward the energy-saving and green renovation projects of public buildings, prefabricated buildings above Grade AA, and green building label projects above 2-stars as per area. For example, as for prefabricated buildings above Grade AA, per square meter will be provided with no more than CNY120 in municipal incentive award as per the implemented building area, and the highest incentive for a single demonstrative project will be no more than CNY10 million.

In March, the **Shanghai** Municipal Transportation Commission released the Implementation Plan for Carbon Peaking in the Transportation Sector of Shanghai Municipality, proposing that by 2025, the gasoline and diesel oil consumption of urban transportation will enter the peaking plateau, and the proportion of battery electric vehicles in newly-purchased vehicles of individuals will exceed 50%, and the carbon emission intensity of converted turnover of operational vehicles will be down by about 5% from that of 2020. By 2030, urban transportation will realize carbon peaking; the direct carbon emissions of railway traffic will approach zero, that of highway traffic will enter the peaking plateau, and the carbon emission intensity of converted turnover of operational vehicles will be down by about 9.5% from that of 2020. The Plan mainly indicates that by 2025, the proportion of green travel in central city will reach 75%; and by 2035, the proportion will amount to 85%.

LCCP's INTERPRETATION

Under the guidance and promotion of top-level design, local cities have been rapidly advancing implementation plans. Different regions have found their powerful means to advance their work based on local realities, and outstanding cases may be expected to spring up in the implementation phase. Besides that, after incubation and accumulation of the carbon inclusion system in a period of time, preliminary results have been achieved in system design, implementation and operation, and other aspects, offering different solutions to key problems such as whether combining production scene with the scenes of life, whether it is tradable, and how to sustain operation, and serving as reference for more cities.

03 INDUSTRY VOICES

Collect the latest practices of industrial sectors, enterprises and INGOs

GREEN STANDARDS

In March, the All-China Federation of Industry and Commerce published the 2022 China Green Development Report of Private Enterprises, mentioning that in questionnaire survey, about 60% and 46% of industrial and non-industrial enterprises regard the high investment and operation costs and technical restrictions involving the construction of pollution control facilities as the main issues that affect the pollution reduction and green and low-carbon development of enterprises. About 60% of enterprises hope to obtain policy supports like tax relief and fiscal subsidies, while 30% of enterprises hope to get technical assistance and financial support.

In March, Douyin Group released the 2022 Corporate Social Responsibility Report, while ByteDance publicized its carbon neutrality goals, undertaking that by 2030, it will realize operational carbon neutrality, and reduce at least 90% of operational emissions through active emission reduction. In addition, 100% of its global operations will use renewable electricity before 2030.

In March, Adidas No. 20 Sports Park and its first sustainable court in China were officially opened. 40,000 pairs of waste sneakers are used to make nearly 800 square meters of cushion of the basic level, resting chair cushion and ground mat at the entrance of the court, and shoelaces are recycled to produce the goal net of the soccer field.



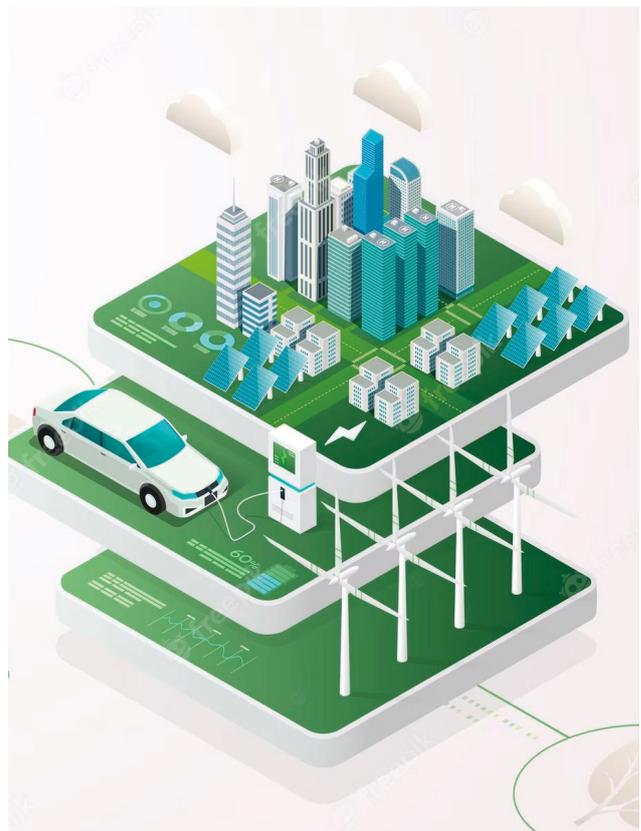
Figure: The first sustainable court in China

In March, the China Beijing Green Exchange and Songguo Travel signed the strategic cooperation agreement in Beijing, under which both sides will engage in cooperation in many fields, such as the development of low-carbon travel and carbon inclusion emission reduction model, and the trading of China Certified Emission Reduction (CCER).

In March, the Consumer Goods Forum (CGF) and member enterprises of “Decarbonization-friendly Actions” jointly held the first Seminar of “Decarbonization-friendly Actions” at the 5th Consumer Goods Forum · China Day, and announced phased results in low-carbon consumption, such as Low-carbon-friendly Commodity System V1.2 and the report of Insights into the Green Lifestyles of Chinese Young People. Initiated by Alibaba, “Decarbonization-friendly Actions” has 24 member enterprises, including P&G, Bosch, Nestle, McDonald’s, L’Oreal, Unilever, etc.

LCCP's INTERPRETATION

For enterprises, carbon reduction cost and technical problems are objective, making communication and cooperation among enterprises highly important. The requirement for ESG development and the restraint of corporate social responsibility are also prompting enterprises not only to see the brand marketing value of green consumption, but to launch deeper practices and explorations.



04

The Projects' Progress of Energy Foundation China

The project of promoting green and low-carbon consumption among community residents: The community represents the basic component unit of urban life, offering important scenes for residents' life. It integrates a wide range of residents' behaviors related to energy use and waste disposal, such as food intake, mobility, and the consumption of water, electricity, and gas. Exploring the change of low-carbon consumption behaviors of residents in community-based scenes in terms of their food, clothing, housing, transportation and use of daily necessities can be forward-thinking and of significance to carbon reduction efforts. As such, Energy Foundation China funded the Institute for Global Decarbonization Progress (iGDP) in conducting the project of promoting green and low-carbon consumption among community residents. The project aims to develop a set of Working Guidelines for Promoting Low-carbon Consumption among Community Residents, providing practical guidelines with reference value for sub-district and community managers, property management companies and residents. Meanwhile, the project has initiated and established the "Network of Community Partners for Promoting Low-carbon Consumption among Residents", in an effort to facilitate exchange of experience among community workers from different cities and the dissemination of the best practices, thereby boosting low-carbon consumption work in communities more extensively.

The project of low-carbon behavior evaluation and incentive mechanism research for the express packaging industry and its users: With the popularity of e-commerce and take-out services in China, express packaging has become an indispensable part of people's day-to-day life. According to relevant statistics, China's express delivery sector consumes more than 10 billion packaging boxes every year. In order to incentivize the express packaging industry to be greener, more low-carbon and recyclable through transformation and upgrade, encourage users to

change their behaviors from the perspective of end consumers, and to promote the positive interaction and circulation of the entire industry, Energy Foundation China funded Shanghai Center for Energy Saving and Emission Reduction in conducting the pilot project of low-carbon behavior evaluation and incentive mechanism research for the express packaging industry and its users in Shanghai. The project will determine the green and low-carbon behaviors, evaluation indicator systems, evaluation methods and incentive mechanisms for express packaging, and guide enterprises to adopt the user points method to motivate users to consume green and low-carbon express packaging. In addition, the project will organize government agencies, industry experts, and enterprise representatives to carry out dialogs and discussions on green and low-carbon transformation in the field of express packaging.

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