



LOW CARBON CONSUMPTION PROJECT NEWSLETTER

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LCCP Team
Energy Foundation China



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 regrantor, 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

In July, **the General Office of the State Council** disseminated a communication from the National Development and Reform Commission titled **the Notice on Measures to Restore and Expand Consumption**. The promotion of eco-friendly consumption is notably underscored in diversifying emerging consumption trends. This entails actively cultivating the market for green and low-carbon consumption, fortifying the production and promotion mechanisms for green and low-carbon products, refining the framework for energy-efficient, low-carbon, and green manufacturing standards, enhancing the certification and labeling system for eco-friendly products, and expediting the establishment of a lifestyle and consumption model characterized by simplicity, moderation, and a commitment to green, low-carbon principles.

In July, **seven ministries, comprising the National Development and Reform Commission and the Ministry of Industry and Information Technology**, released the **Several Measures to Promote the Consumption of Electronic Products**. Paramount initiatives encompass the facilitation of channels for electronic product recycling, the standardization of the electronic product recycling system, the advocacy of the "Internet + Recycling" model, and the orchestration of exhibitions showcasing green and intelligent electronic products to foster a culture of sustainable consumption. Efforts will be intensified in disseminating the principles of green and energy-efficient practices, executing

pilot initiatives for labeling green electronic products, and proactively steering consumers toward the replacement of outdated and energy-intensive household appliances.

In July, **five ministries, including the National Development and Reform Commission and the National Energy Administration**, issued the **Guiding Opinions on Promoting the Recycling of Retired Wind Power and Photovoltaic Equipment**. The outlined objectives include the establishment of a fundamental responsibility mechanism for managing retired equipment from centralized wind farms and photovoltaic power stations by the year 2025. The Opinions underscores the proactive promotion of green design, urging manufacturing enterprises to incorporate objectives like lightweight construction, easy disassembly, convenient transport, and efficient recycling in both product design and production processes. Furthermore, it advocates for the implementation of a robust responsibility mechanism for managing retired equipment and the enhancement of equipment recycling systems, among other crucial tasks.

In July, **the Ministry of Science and Technology** released **the National Catalog of Advanced Green and Low-Carbon Technologies**. The Catalog encompasses 85 technological achievements across six areas, with 23 items in the field of solid waste treatment, disposal, and recycling, and 13 items in the areas of energy conservation, emissions reduction, and low-carbon

technologies. These technological achievements include energy-efficient and carbon-reducing equipment, process transformations for energy conservation and emissions reduction, energy-efficient and low-carbon utilization of waste heat and pressure, and efficient and clean utilization of coal.

In August, **the General Office of the National Development and Reform Commission, the General Office of the Ministry of Industry and Information Technology, and the General Office of the Ministry of Ecology and Environment** organized the **second batch of household appliance production enterprises' recycling actions of the target responsibility system**. This initiative aims to further promote the implementation of the extended producer responsibility system. The entities implementing the target responsibility system encompass producers of four categories of household appliances: televisions, refrigerators, washing machines, and air conditioners. More household appliance manufacturers are encouraged to actively expand recycling channels, innovate recycling methods, and enhance processing capabilities. Proactive collaboration between e-commerce platform enterprises and household appliance manufacturers is encouraged as well.

In August, **ten departments, including the National Development and Reform Commission, the Ministry of Science and Technology, and the Ministry of Industry and Information Technology**, formulated the **Implementation Plan for the Demonstration Projects Featuring Advanced Green and Low-Carbon Technologies**. The Plan outlines the goals until 2025, focusing on the implementation of demonstration projects featuring advanced green and low-carbon technologies. It aims to implement a batch of demonstration projects, and transform and apply a batch of advanced and applicable green and low-carbon technological achievements, thereby exploring effective pathways for carbon reduction in key areas. In addition, the Plan presents 12 key directions along with the project declaration, selection, and management processes.

In August, the collaborative effort of **four departments, including the Ministry of Industry and Information Technology and the Ministry of Science and Technology**, culminated in the **issuance of the Implementation Plan for the New Industry Standardization Pilot Project**

(2023-2035). This strategic blueprint is designed to propel the innovative development of emerging industries and proactively shape the trajectory of future industrial advancements. It places a strategic focus on eight burgeoning sectors, including next-generation information technology, new energy, new energy vehicles, and green environmental protection. The Plan orchestrates the comprehensive lifecycle of standards, encompassing research, formulation, implementation, and internationalization. By the year 2025, the Plan ambitiously aims to attain a proportion exceeding 60% for the generation of standard outcomes in common key technologies and applications as part of scientific and technological plans. This involves the introduction of more than 2,000 new national and industry standards. The Plan delineates specific general standards, including those pertaining to carbon peaking, carbon neutrality, and green manufacturing. Noteworthy additions encompass standards such as product carbon footprint accounting and verification. The initiative extends to the development of comprehensive standards addressing technology and equipment aspects, ranging from source control and production process control to end-of-pipe treatment and collaborative carbon reduction. Furthermore, the Plan proposes the formulation of standards for green and low-carbon evaluation, carbon emission management, and carbon asset management, as well as the revision of evaluation standards for green factories across various sub-sectors of green manufacturing, along with general standards for evaluating green industrial parks. Notably, the Plan emphasizes the formulation of green supply chain standards tailored to industries characterized by lengthy supply chains and robust driving forces. It also underscores the importance of standards related to the green design for key products, aiming to perpetually refine the green manufacturing standards system.

In August, **eight departments encompassing the Ministry of Industry and Information Technology, the National Development and Reform Commission, and the Ministry of Finance** released the **Work Plan for Stabilizing Growth in the Building Materials Industry**. It proposes the main objectives for stabilizing growth in the building materials industry from 2023 to 2024—achieving growth rates of industrial added value of around 3.5% and 4% in 2023 and 2024, respectively, and an annual average increase of over 10% in the operating

income of enterprises above designated size in the fields of green building materials, mineral functional materials, and inorganic non-metallic new materials. Key points include promoting green transformation, intensifying efforts in green and low-carbon technological transformations, supporting building materials enterprises to strive for A-level environmental performance with a particular focus on cement, flat glass, building sanitary ceramics, and glass fiber sectors, advancing coupled development, encouraging the establishment of coupled development zones for raw material industries in eligible regions, improving the industrial circular chain, expanding the widespread application of green building materials in cities, and enhancing government procurement standards for green buildings and materials. Moreover, it is imperative to improve the certification system for green building materials. The Plan sets a target of striving to increase the number of certified green building material enterprises to over 1,500, covering over 3,000 varieties of certified green building materials by the end of 2024.

The National Energy Conservation Promotion Week took place from July 10 to 16, with the theme of "Energy Conservation and Carbon Reduction, Together We Act". **The National Low-carbon Day** was designated on July 12, with the theme of "Actively Addressing Climate Change, Promoting Green and Low-Carbon Development".



Figure: Wu Tan Jiang Hu mini program

On July 12, the **Ministry of Ecology and Environment** released the **Assessment Report on the Progress of the National Low-Carbon City Pilot Project** during the main event of the "National Low-carbon Day". The Report summarizes the overall progress and achievements, task implementation, highlights,

existing problems and deficiencies of the pilot project. Cities such as Beijing, Shenzhen, Yantai, Weifang, Quzhou, Changzhou, Chongqing, Shanghai, Jinan, and Guangzhou were recognized for their progress in the low-carbon city pilot project with a rating of "excellent".

LCCP's INTERPRETATION

Currently, "green consumption" has become an important concept in a series of national recovery and consumer promotion documents. Promoting green consumption has also become an important lever. The related actions are becoming more proactive and focused, such as the "enterprise recycling target responsibility system action". On the other hand, soft infrastructure in the field is also continuously under construction, such as the implementation plan of the "New Industry Standardization Guiding Project" which explicitly proposes the formulation of standards for green manufacturing, green factories, green supply chains, etc.

02 CITY-ACTIONS

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

GREEN DEVELOPMENT

In July, **Jiangsu** issued the **Three-Year Action Plan for the High-Quality Development of the Green Building Materials Industry** in Jiangsu Province (2023-2025). The Plan outlines six main tasks, including enhancing innovation leadership capabilities (such as promoting the tackling of key technological problems), accelerating green and low-carbon development (including constructing a green manufacturing system), and promoting the application of green building materials (expediting certification of green building material products).

In July, **Shanghai** released the **Measures for the Administration of Energy Performance**

Contracting Projects of Public Institutions of Shanghai Municipality, aiming to encourage substantial investment from social funds and forces into the green, low-carbon, and circular development of public institutions to improve the efficiency of energy resource utilization. The Measures highlight contract energy management models, including energy-saving benefit-sharing, energy-saving and environmental protection, and energy cost trusteeship. The Measures specify important work content in eight areas such as applicable scope, preliminary assessment, and budget arrangement.

In July, **Inner Mongolia** issued the **Catalog of Green and Low-Carbon Advanced Technology Promotion of Inner Mongolia Autonomous Region (2023)**, selecting a batch of advanced and applicable green and low-carbon technologies, involving 39 energy-saving technology equipment products, 3 water-saving technology equipment, and 6 comprehensive resource utilization technology equipment in industries such as metallurgy, chemicals, building materials, and communication.

In August, the official release of the **Special Plan for Comprehensive Transportation of the Demonstration Area of Ecological, Green and Integrated Development in the Yangtze River Delta** marked a significant milestone. This Plan seamlessly integrates the principles of green ecology into the design of its overarching framework, with a particular emphasis on Transit-Oriented Development (TOD). The primary objective is to optimize the hub layout within the demonstration area, facilitating its seamless integration into the larger vision of the "Yangtze River Delta on Rails". The Plan strategically targets enhancements across four major transportation systems: rail transit, road traffic, distinctive modes of transportation, and passenger and freight hubs. Noteworthy improvements are directed at elevating the overall travel experience concerning intra-city transportation, water transportation, and emerging forms of transportation.

In September, the **Beijing** Municipal Commission of Development and Reform revised and issued three normative documents related to energy conservation, namely the **Implementation Measures for Energy Conservation Review of Fixed Asset Investment Projects in Beijing, the Pilot Implementation Plan for Commitment-Based Energy Conservation Review of Fixed**

Asset Investment Projects in Beijing, and Several Provisions on Further Strengthening the Energy Conservation Review of Data Center Projects. These documents strengthen mid-term and post-event supervision, refine the content of energy conservation review commitments, and elaborate on the utilization of renewable energy and waste heat.

In September, **Tianjin** Development and Reform Commission, in collaboration with relevant units, formulated the **Implementation Plan for Further Constructing a High-Quality Charging Infrastructure System in Tianjin**. The Plan aims to build no less than 100,000 new charging piles of various types in the city by 2030. Key points include building an interconnected charging service network in the Beijing-Tianjin-Hebei region and improving the planning and construction conditions of charging infrastructure in residential areas.

CONSUMPTION CARBON ACCOUNTING SYSTEM



Figure: Athlete engaged in 'Cloud Village'

The **Asian Games Hangzhou** hosted the "Cloud Village for the Asian Games," a green and low-carbon initiative. Since its launch, the low-carbon accounts have accumulated a reduction of over 15 tons of carbon emissions, with a total participation exceeding 640,000 person-times. This includes actions such as the Clean Your Plate Campaign, plastic-free shopping, green cycling, and bottle recycling, accumulating over 160,000 instances of carbon reduction behaviors. Athletes can redeem commemorative items using their green points.

In July, during the 2023 National Low-carbon Day in **Shanghai**, the city officially launched the **Consumption Carbon Accounting of Green**

Transportation Demonstration Scenario, covering modes such as the subway, buses, shared bicycles, and ferries. Subsequently, this Demonstration Scenario will gradually integrate with Shanghai's public transportation codes, including Shanghai Public Transport Card, Alipay Travel, and other green transportation data sources like Amap, Baidu Map, Yunshanfu, and Hellobike. Moreover, Shanghai's Carbon-Inclusive Green Transportation Demonstration Scenario will also incorporate inclusive benefits provided by various social and commercial institutions.

During the **FISU University Games Chengdu**, Sichuan United Environment Exchange, as a partner in carbon neutrality initiatives, introduced the "Dot Dot Carbon Neutrality" service platform, featuring a dedicated section for the "Low Carbon Universiade." Spectators and athletes attending the event can search for the mini-program "Dot Dot Carbon Neutrality" enter the "Low Carbon Universiade" section, click on "Offset My Carbon Emissions", and through online calculations of personal carbon emissions, subscribe to the Chengdu Certified Emission Reduction (CDCER) of the "Carbon Benefits Chengdu" mechanism to offset individual carbon footprints. This process enables participants to receive a customized carbon neutrality certificate for the FISU University Games.

LCCP's INTERPRETATION

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03 INDUSTRY VOICES

Collect the latest practices of industrial sectors, enterprises and iNGOs

GREEN CONSUMPTION SCENARIOS



Figure: Interface of Green Energy Vehicle Charging and Swapping Map

On July 12, within the context of the 2023 week-long national campaign to promote energy conservation, the World Wide Fund for Nature (WWF) Beijing Office, in collaboration with the China Electricity Council, unveiled the inaugural Green Electricity Map for Green Energy Vehicle Charging and Swapping in China. This initiative, known as the "Green Electricity Initiative and Pilot Platform for Green Electric Vehicle Charging and Swapping" (GEV-EVsGoGreen), serves as a practical guide for vehicle owners, offering officially released information. Remarkably, it stands out as the first map in China to consolidate data on green charging and swapping stations, pioneering the world's premier platform illustrating the incorporation of green electricity consumption for electric vehicles. Utilizing graphics, textual information, and dynamic demonstrations, the map vividly displays the structures of green energy stations, city layouts, and operator details. Through this map, vehicle owners can efficiently locate green charging and swapping stations, thereby facilitating the adoption of green electricity consumption practices.

Simultaneously, on the aforementioned day, the World Wide Fund for Nature (WWF) and Syntao Consulting jointly unveiled the Guidelines for Promoting Eco-Friendly Product Consumption Behavior. The Guidelines revealed that consumers generally exhibit a willingness to pay a premium of up to 10% for eco-friendly products. In conjunction, they introduced the "WWF Low Carbon Fashionable Food Lifestyle" mini program. This collaborative initiative with forest-friendly partner enterprises is centered around aspects such as low-carbon living, knowledge dissemination, and visits to offline low-carbon supermarkets. Through engaging features like tasks, puzzles, and badges, the mini program strives to incentivize consumers to actively participate in low-carbon practices within the realm of "Fashionable Food".

The United Nations Development Programme and the Chengdu High-tech Zone Management Committee jointly hosted the United Nations Development Programme Re:Think 2023 Sustainable Development Innovation Week. WeChat Pay has released the 2022 WeChat Pay Low Carbon Report, summarizing the low-carbon achievements of users leveraging WeChat Pay over the past year. The data reveals that hundreds of millions of WeChat Pay users have collectively reduced carbon emissions by 17.655 million tons in the past year through tools such as online payments, government services, green transportation, QR code food ordering, and e-invoicing (Re:Think SDG InnoWeek). During the event, they jointly released a sustainable-themed activity calendar called the "Chengdu Supporting Partners Activity Calendar" and the "2023 Chengdu Sustainable Lifestyle City Map".



Figure: 2023 Chengdu Sustainable Lifestyle City Map

Additionally, creative events like the "Cycle of Things" fashion show and a sustainable market were organized.

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Figure: Wechat Pay Low Carbon Report

GREEN VALUE CHAIN



Figure: Industrial distribution of 100 engaged enterprises

The 2023 Report on Low-Carbon Transformation and High-Quality Development of Chinese Enterprises, jointly compiled by the Sustainable Development Committee of the China Chamber of International Commerce, the Beijing Energy Conservation Low Carbon Environmental Protection Industry Service Association, and Shangdao Consulting Co., Ltd., was released on September 5 during the "2023 Green Development and Carbon Neutrality (Beijing) Forum" at the China Beijing International Fair for Trade in Services. The Report outlines the low-carbon transformation risk and opportunity profile and evolutionary characteristics of four major industries: primary resources, industrial manufacturing, commercial consumption, and basic services, during the period 2022-2023. Notably, 75% of enterprises have already engaged in or applied data intelligence technologies; 73% have utilized green electricity; 34% have initiated hydrogen energy utilization or technology development; and 18% have deployed technologies related to carbon capture, utilization, or sequestration.

In September, the China National Textile and Apparel Council launched the "China Fashion Brand Climate Innovation Carbon Neutrality Acceleration Plan" (30-60 Carbon Neutrality Acceleration Plan), unveiling the Climate Action Progress and introducing the "Textile Full Life Cycle Green Evaluation System" – a digitalized full life cycle environmental footprint tracking and assessment SaaS platform. The goal is to provide the market with a trustworthy and scientific platform for the analysis, evaluation, and design of the full life cycle of green textile products. Simultaneously, a localized database for the carbon footprint of textile and apparel in China was developed, covering 13 fiber types, 6 spinning methods, 24 yarn counts, 2 fabric weaving methods, and 3 dyeing methods, across various categories such as clothing, bedding, fabrics, and yarns. Currently, 21 brand enterprises and 42 manufacturing enterprises have responded to this initiative.

The Arup Innovation Research Institute released the Outlook on the Development of Net Zero Technologies in Chinese Buildings and Environments, emphasizing carbon reduction actions based on the entire system and the full life cycle of the built environment. This provides a broader perspective for the development and application of low-carbon technologies. The report highlights that in 2020, the total carbon emissions from the entire process of Chinese construction were 5.08 billion tons, accounting for 50.9% of the national total carbon emissions. Actions must be taken based on the entire life cycle and the entire system.

In July, the China National Light Industry Council—along with 11 industry associations such as the China Petroleum and Chemical Industry Federation and the China Electricity Council, and 19 key enterprises including China State Shipbuilding Corporation Limited and China National Petroleum Corporation—jointly released the Declaration on Carbon Peaking and Carbon Neutrality in Key Industries. The Declaration advocates and commits to strengthening comprehensive energy-saving management, promoting optimization and adjustment of industrial structure, actively participating in the construction of a green, low-carbon, and circular economic system, and accelerating the planning and construction of a new energy system.

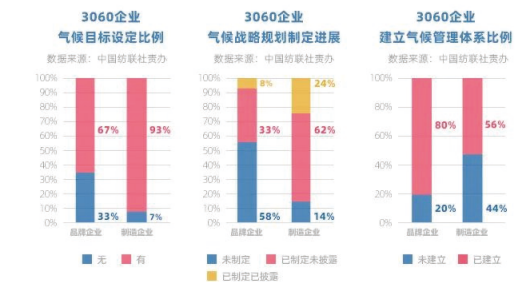


Figure: Enterprises' actions and products in assessment platform

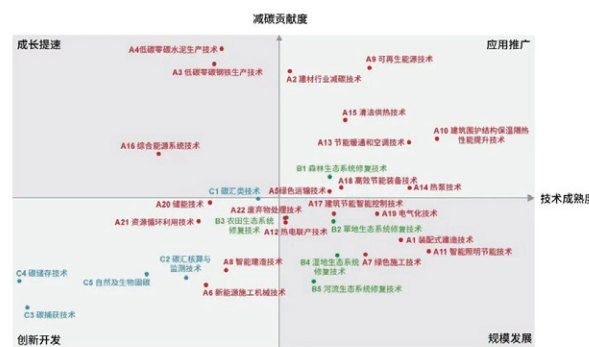
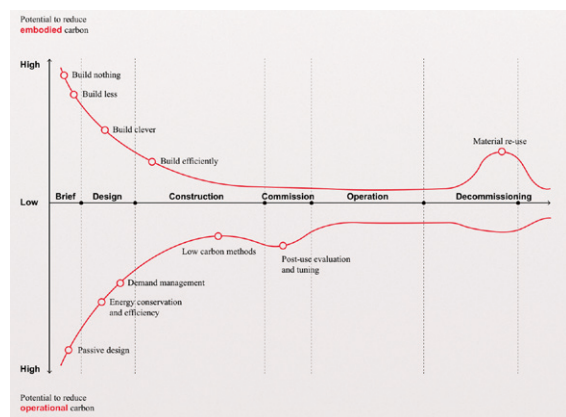


Figure: Arup's report of Net Zero Technologies in Chinese Buildings and Environments

In July, Nestlé made the announcement of discontinuing carbon offsetting and retracting "carbon-neutral" objectives for brands such as KitKat and Nespresso coffee. The company decided to withdraw these brands' carbon-neutral commitments and redirect investments towards projects and practices contributing to the reduction of greenhouse gas emissions within its supply chain and operations. Nestlé has set an ambitious goal to achieve a 20% reduction in emissions from scopes 1, 2, and 3 by 2025, using the 2018 baseline. Furthermore, by 2030, Nestlé aims to accomplish a 50% reduction target.

In July, Apple introduced the carbon-neutral Apple Watch, with a focus on mitigating carbon emissions in power generation, materials production, and transportation. Each carbon-neutral Apple Watch adheres to stringent criteria: the entire manufacturing process relies on 100% clean energy, 30% of the total weight consists of recycled or renewable materials, and 50% of transportation does not involve air transport. These measures collectively result in a reduction of emissions by at least 75% for all models. Additionally, Apple plans to roll out a new feature in the United States that predicts the electricity grid, aiding users in identifying periods of clean energy transmission and enabling informed decisions on when to utilize electricity.

Dell Technologies unveiled its fiscal year 2023 ESG report, revealing that 94.5% of the packaging across its entire product portfolio is crafted from recycled or renewable materials. Dell's pivotal ESG objectives encompass attaining net-zero greenhouse gas (GHG) emissions by 2050, spanning scopes 1, 2, and 3. Additionally, the company targets having all its packaging composed of recycled or renewable materials or adopting reusable packaging by 2030.

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LCCP's INTERPRETATION

The third quarter witnessed a diversified and vibrant exploration in various industries. Green consumption is gradually becoming part of people's daily lives through activities such as markets, events, and lifestyle maps. Enterprises are also actively exploring more practical approaches, shifting their dependency from carbon offsetting to green manufacturing and low-carbon transportation. Furthermore, they are spreading the influence of green values to Scope 2 and Scope 3, which is worth paying attention to and learning from.

