LOW CARBON CONSUMPTION PROJECT NEWSLETTER

Issue 4, Q4 2022

ENERGY FOUNDATION
能源基金会

LCCP Team
Energy Foundation China

Q4 2022 LOW CARBON CONSUMPTION PROJECT

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 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 November, **five departments including the National Development and Reform Commission and the Ministry of Industry and Information Technology**, issued the Advanced Level, Energy-saving Level and Access Level of the Energy Efficiency of **Key Energy-using Products and Equipment (2022 Version)**, classifying the energy efficiency of 20 relevant products and equipment like industrial motors and household air conditioners into three levels, namely advanced level, energy-saving level and access level. Vigorous efforts will be made to promote energy-efficient products and equipment, improve policies related to government green procurement, and expand the scope of green procurement products. In particular, the document notes that when introducing policies and measures to stimulate consumption, all local governments should adhere to the green and low-carbon approach, and subsidies, trade-ins, reward points and other methods are encouraged to guide residents in purchasing products and equipment at the advanced energy efficiency level.

In November, **the General Office of the Ministry of Industry and Information Technology** released the list of **the fourth batch of green design demonstration enterprises for industrial products**, and 99 enterprises appeared on the list.

In December, **the General Office of the Ministry of Ecology and Environment** released **the Catalogue of Low-carbon Technologies Vigorously Promoted by Chin**a (Fourth Batch), which includes 35 low-carbon technologies in 6 categories, to support the application and popularization of low-carbon technologies.

In December, **the National Development and Reform Commission and the Ministry of Science and Technology** issued **the Implementation Plan for Further Improving the Market-oriented Green Technology Innovation System (2023-2025**). Focusing on energy conservation and green and low-carbon transition, pollution control, conservation and efficient and cyclic use of resources, low-carbon and zero-carbon industrial process reengineering, carbon sequestration and carbon sink increase capacities of ecosystems, carbon negative and greenhouse gas emission reduction, etc., China will strengthen green technology innovators, facilitate the coordination of green technology innovation, expedite the transformation and application of green technologies, improve green technology evaluation systems, beef up fiscal, tax and financial support for green technologies, reinforce the construction of green technology talent teams, enhance the protection of and services for green technology property rights, and deepen international exchanges and cooperation on green technologies.

In December, **the National Government Offices Administration** released **the Green and Low-carbon Technologies for Public Institutions (2022**), selecting 55 green and low-carbon technologies applicable to public institutions, including “intelligent group charging system for electric vehicles”. The document aims to unleash the potential of energy conservation and carbon reduction with advanced technologies,

and promote the formation of green and low-carbon ways of production and life.

In December, **the National Development and Reform Commission** released **the Implementation Plan for the Domestic Demand Expansion Strategy for the "14th Five-Year Plan" Period**. The Plan clearly proposes to vigorously promote green and low-carbon consumption, proactively develop the green and low-carbon consumption market, and advocate a green lifestyle featuring conservation and efficient use of resources of all types in the part "Comprehensively boosting consumption and speeding up consumption quality improvement and upgrading". The specific contents include: expanding the sales of green products, establishing and improving green product standardization, labeling, certification and other systems, encouraging green electricity transactions, perfecting the compulsory scrapping system and the recovery and disposal system for durable consumer goods such as waste and used household appliances, thoroughly launching the campaigns to create energy-saving institutions, green families, green schools, green communities and green shopping malls, constructing urban public transit and non-motorized transportation systems, and continuously advancing the control of over-

LCCP's INTERPRETATION

In the context of domestic demand expansion and dual circulation, green consumption has the potential to become a key lever for carrying out relevant work. One year has passed since the Implementation Plan for Promoting Green Consumption was released, and the support of macro-policies and the construction of infrastructure in various fields are under gradual improvement. More efforts are expected to transmit low-carbon technologies accumulated to application and implementation as well as more real scenarios, effectively transform them into products and commodities and apply them in a more efficient manner. Moreover, technological development will also affect the establishment of green product standardization, labeling, certification and other systems in various fields. As standards and systems will also serve as the crucial foundation for the future work, we look forward to more results.

02 CITY-ACTIONS

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

CONSUMPTION CARBON ACCOUNTING

In November, the **Suzhou** Carbon Accounting Intelligent Service Platform (Carbon Accounting Platform) was launched in Suzhou Industrial Park. Through the distributed solar PV, the Carbon Inclusion Platform provides carbon emission reduction certification and trading services for micro-, small- and medium-sized enterprises in the Park for the purpose of enabling the transition to green and low-carbon production modes. The Carbon Inclusion Platform is developed by Suzhou Industrial Park in collaboration with State Grid Suzhou Power Supply Company and Shanghai Environment and Energy Exchange, and the State Grid Jiangsu Electric Power Co., Ltd. Suzhou Industrial Park Power Supply Branch takes the lead in establishing a carbon accounting (Suzhou Industrial Park) operation center. Till now, 15 solar PV enterprises in Suzhou have joined the Carbon Accounting Platform, and more than 20 companies such as BorgWarner and Safran Aircraft Engines have made clear their intentions of purchasing carbon emission reductions, signifying a potential annual demand for carbon emission reductions of over 200,000 tons. Going forward, Suzhou will push forward with the accounting of emission reduction scenarios such as distributed energy storage, electric vehicle mobility, shore power at ports, and standardized individuals into the project system, and strive to achieve carbon inclusion co-building in the Yangtze River Delta region and even in a greater area.

In November, the **Beijing** Municipal Ecology and Environment Bureau publicized the Verification Report on Carbon Emission Reductions of the Amap Beijing Low-carbon Mobility Project. Upon verification by Beijing Transport Institute, during the project monitoring period from May 1, 2021 to April 28, 2022, Amap users reduced a total of 97,634.85 tons of carbon emissions by adopting the transportation modes of buses, subways, cycling, walking, etc.

In December, **Shanghai** released the Work Plan of Shanghai Municipality for Carbon Accounting System Construction, proposing that by 2025, the top-level design of the carbon accounting system will be formed, relevant systems, standards and methodologies will be constructed, carbon accounting platforms will be built, multi-level consumption channels will be explored, and regional individual carbon accounts will be created in an exploratory way. Specifically, the carbon accounting platform will extensively connect with various carbon accounting projects and scenarios by relying on public information platforms such as "Suishenban" and try to link with commercial carbon credit platforms. Shanghai will take the lead in developing such scenarios as new energy, new energy vehicles, charging piles and public transit, gradually establish the declaration and evaluation mechanism for individual emission reduction scenarios, connect with Shanghai's carbon emission trading market, and jointly build the carbon accounting mechanism within the Yangtze River Delta region.

Figure: key initiatives of the Work Plan of Shanghai Municipality for Carbon Accounting System Construction

In December, the Low Carbon Planet applet, jointly forged by the **Shenzhen** Municipal Ecology and Environment Bureau, China Emissions Exchange and Tencent, announced the conclusion of the first trading of PHCERs. The emission reductions accumulated by the users were listed on the China Emissions Exchange and the transaction was completed by returning the full amount to users in the form of subway tickets. In 2022, more than 1 million Shenzhen citizens accumulated carbon credits through the Low Carbon Planet and recorded their emission reductions generated from the travelling by public transit. At present, the highest record of personal carbon credits accumulated by Shenzhen citizens is 8,317 points, equivalent to nearly 1 ton of cumulative carbon reductions, which can be exchanged for 69 subway tickets.

CIRCULAR ECONOMY

In October, **Guangdong** Province issued the Implementation Plan of Guangdong Province for Circular Economy Development (2022-2025), setting forth several goals to be achieved by 2025—the circular production mode shall be fully implemented, the output rate of major resources shall be increased by about 20% compared with 2020, and the comprehensive utilization rate of general industrial solid waste shall exceed 80%. The Plan incorporates 17 key tasks (e.g. accelerating the construction of a resource recycling industrial system, improving the system for the cyclic use of waste and used materials, vigorously developing green and ecological circular agriculture, and deeply pushing forward with the conservation and efficient utilization of resources) and 10 special campaigns (the recycling transformation of parks, the construction of the system for cyclic use of waste and used materials, the demonstration of comprehensive utilization of bulk solid waste, the resource-oriented utilization of construction waste, the high-quality development of the remanufacturing industry, the quality improvement in the cyclic use of waste electrical and electronic products, the promotion of entire lifecycle management of vehicle use, the recycling of waste and used power batteries, the control of plastic pollution, and the green transition of express packaging. It also proposes that consumers should be guided to establish the concept of green consumption, so as to press for the change of production mode from the consumption link, thereby creating a sound environment for the development of green products, green technologies and green industries.

In November, **Zhejiang** Province released the Guidelines of Zhejiang Province for the Construction and Evaluation of Waste-free City Cells and the Rules of Zhejiang Province for the Administration of Construction and Evaluation of Waste-free City Cells (for Trial Implementation). "Waste-free city cells" refer to various production and life units in the society which perform outstandingly in source reduction, resource-oriented utilization and harmless disposal of solid waste. The Guidelines explains in detail

the solid waste pollution prevention and control and other environmental pollution prevention and control.

GREEN STANDARDS

Figure: the Guangdong-Hong Kong-Macao Greater Bay Area Carbon Footprint Labeling

In October, **Shenzhen** released the Work Plan for Creating Carbon Footprint Labeling Certification and Promoting Green and Low-carbon Development in the Guangdong-Hong Kong-Macao Greater Bay Area (2023-2025), proposing to explore carbon footprint data grading to realize the industrialized application of carbon footprint data, complete the demonstration of carbon footprint labeling certification application for 300 products, and basically build a carbon footprint public service platform for the Greater Bay Area with clear rules and processes, diversified application scenarios and perfect systems by 2025. The Plan involves a range of key tasks, including establishing basic data sets and accounting models for carbon footprint, boosting the green supply for the sector ensuring the people's wellbeing, demonstrating supply chain carbon reductions, enhancing the alignment between carbon footprint and the policies related to green procurement, green buildings, carbon inclusion and green consumption, strengthening studies on credit application, and realizing mutual recognition of carbon footprint labeling certification in the Greater Bay Area and in the world.

GREEN DEVELOPMENT

In October, **Changzhou** issued the Plan for the In-depth Implementation of Green and Low-carbon Leading Campaigns for Public Institutions, making clear the energy consumption control indicators of public institutions. By 2025, the energy consumption and carbon emissions per unit building area of public institutions in this city will decline by 6% and 7% respectively compared with the end of the 13th Five-Year Plan period. The Plan also puts forward 21 key tasks in 6 aspects.

LCCP's INTERPRETATION

Facing the complicated system of carbon inclusion, many cities have taken an "important step", from building methodologies for specific fields, relying on platforms for data collection and calculation relating to enterprises or individual citizens, and conducting verification by third-party institutions organized by the government, to completing emission reduction transactions and providing feedback to enterprises or individual citizens. The whole link has been initially established. Whether it relates to the expansion of green life scenarios, or the extension from enterprises to individual citizens, each path is worth exploring and will contribute to the top-level design of more cities. Relatively speaking, the work in connection with circular economy is more focused, and can form a synergy with the work of "waste-free cities". The implementation plans quickly developed in the six cities are extremely valuable, which can be used for crucial reference by other pilot cities in their building of waste-free cities.

03 INDUSTRY VOICES

Collect the latest practices of industrial sectors, enterprises and iNGOs

GREEN STANDARDS

In October, an association standard titled **the Corporate Carbon Management System Construction Guide for Retail Sector** was released for the Chinese chained retail industry, which explains the carbon management process, carbon emission reduction, carbon neutrality and carbon asset management measures for the retail industry.

In November, the Chinese Society of Technology Economics released an association standard titled **the Green (Low-carbon) Product Assessment—Detergents—Part 1: Liquid Detergents**. Jointly drafted by the China National Institute of Standardization, Unilever China and Alibaba, this standard provides guidance for the production of green and low-carbon liquid detergents by selecting packaging made of green and environment-friendly raw materials, producing in a low-carbon and energy-saving manner, providing low-foaming and water-saving detergents and other ways to reduce pollution and energy consumption.

In November, the China Energy Conservation Association officially released the association standard of **the Management Standards for Individual Carbon Emission Reduction Incentives Based on Internet Platforms**. The standard is proposed by the Carbon Neutrality Committee of China Energy Conservation Association, and co-formulated by 30+ industry-university-research organizations, including Ant Group, China Beijing Environment Exchange, Institute of Finance and Sustainability, China Internet Development Foundation, China Chain Store & Franchise Association and Tongji University. It will serve as service guidelines for various kinds of entities to better conduct systematic management (identification, quantification, incentivization, evaluation and assessment) of individuals' green and low-carbon behaviors by relying on Internet platforms.

In December, **the carbon footprint label of the Guangdong-Hong Kong-Macao Greater Bay Area and two carbon footprint association standards**—T/SQIA019-2022 General Technical Requirements for Carbon Footprint Evaluation and T/SQIA020-2022 Technical Standards for Carbon Footprint Data Quality Evaluation — were officially released. The two standards, whose draft is led by the Shenzhen Academy of Metrology & Quality Inspection, are basic to the carbon footprint standardization system in the Greater Bay Area. Specifically, the General Technical Requirements for Carbon Footprint Evaluation will unify the general technical requirements and basic principles for carbon footprint evaluation of 100 types of products within the carbon footprint work scope of the Greater Bay Area, and serve as a scientific guide for enterprises in the Greater Bay Area to carry out carbon footprint evaluation. The Technical Standards for Carbon Footprint Data Quality Evaluation will help guarantee data credibility and accuracy, support high-quality carbon footprint accounting, and lay a guarantee foundation for future integration and mutual recognition with international authoritative databases.

GREEN SUPPLY CHAIN

On September 13, 2022, Boston Consulting Group and Greenpeace released the report **From Concept to Practice—An Efficient Management Guide for E-commerce Platforms to Promote Carbon Reduction of Merchants**. The Report has proposed clear action pathway plans and suggested measures for e-commerce platforms to mobilize joint carbon emission reduction of merchants from a practical perspective, and has provided reference for brick-and-mortar retail enterprises and other types of Internet platforms like life services. In 2019, carbon emissions throughout the lifecycle of the goods traded on Chinese e-commerce platforms reached 300-400 million tons, approximately equal to the total carbon emissions of the whole UK in one year. The Guide recommends that e-commerce platforms shall establish a three-tier capability system covering "goals, pillars and guarantees", and gradually launch actions to mobilize merchants' carbon reductions through the "closed-loop five-step method" including analysis, alliance, empowerment, assessment and incentivization at the pillar level.

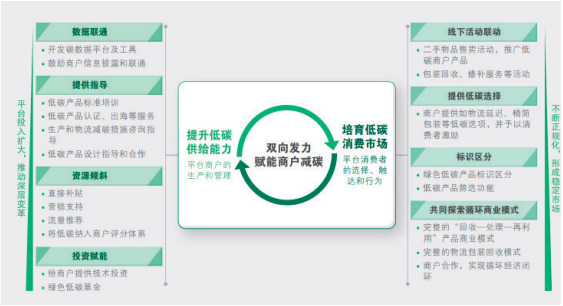

Figure: Practical means empowering merchants to reduce emissions

In November, the China General Chamber of Commerce, the China Environmental Protection Foundation, Meituan's Blue Mountain Project and Deloitte released the Research Report on **Low-carbon Action Guidelines for Catering Merchants**, as well as the supporting **Carbon Emission Accounting Methodologies for Catering Enterprises** and **a free mini-program named "Carbon Footprint Calculator for Catering Merchants"**. The Report presents

the best practice cases of merchants in energy conservation and carbon reduction, draws a carbon reduction roadmap for catering merchants, and maps out the three-stage guidelines for catering businesses' low-carbon actions.

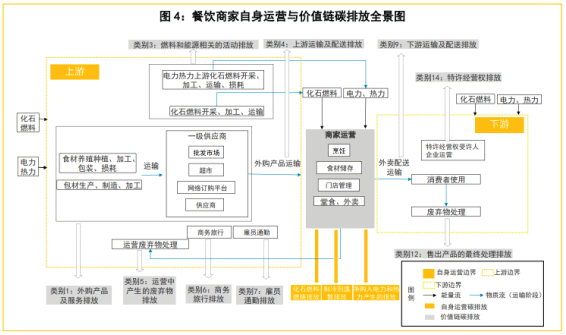

Figure: Panorama of catering businesses' own operation and value chain emission

GREEN ALLIANCE#

In December, Tencent launched **the CarbonLIVE platform** to address the problems such as the dispersed distribution of resources to start low-carbon-related businesses and the need for support during the implementation of hard low-carbon technologies. Through this platform oriented to low-carbon technology enterprises, low-carbon technologies can be connected with different parties with demand, supply, resource and capital and find their own application scenarios. Information including incubation projects, roadshow activities, policy library, green and low-carbon technology and product sets, case collections, energy bid invitation and investor directory has been included.

GREEN CONSUMPTION SCENARIOS#

Cainiao released the Report on **Green Logistics during Tmall's Double 11 Festival,** showing that as of November 14, the number of consumers participating in green logistics and the number of express deliverymen witnessed YoY increases of 5% and 30% respectively. By organizing the activities such as "exchange eggs for express packing boxes" and "exchange for Li Jiaqi-version environmental protection bags with recycled express packing boxes", 7.44 million boxes have been recovered as of November 20, an increase of more than 80% over the same period last year. In addition, among every 10 people who place an order via Cainiao APP to send packages at courier stations, more than 6 on average used second-hand containers, hitting a record high.

During the Double 11 Festival, **Amap, in collaboration with Freshippo**, launched the **"Green Mobility + Organic Life"** campaign, which has been operated in many cities in China. Users can collect corresponding carbon energy by using green mobility-related services such as public transit, cycling, and walking navigation through Amap, and then via the Green Mobility-Carbon Inclusion homepage, exchange the energy for "zero-carbon" organic agricultural products provided by Freshippo.

Goofish, an idle items trading platform under Alibaba held the first Goofish Low-Carbon Double 11 event this year. The event included a highlight—after users participated in transactions of idle items, completed tasks and jointly accumulated the energy of 100 million, they could participate in the activity of co-building wind-driven generators with Goofish and China Power Investment Corporation, and obtain relevant certificates and medals.

Figure: Amap & Freshippo's "Green Mobility + Organic Life" campaign

Figure: Cainiao's Double 11 green logistics campaign

Prior to the Double 11 Festival in November 2022, the National Development and Reform Commission and other departments held a symposium on strengthening the control of plastic pollution and over-packaging by e-commerce and express delivery enterprises with the aim of studying and deploying relevant work in the field of e-commerce and express delivery during the Double 11 Festival period. Relevant persons in charge from e-commerce and express delivery enterprises like Alibaba, JD.com, Suning.com, pinduoduo.com, China Post, SF, Cainiao, Zhongtong, Shentong and Yunda, as well as China Development and Reform News, China Post and Express News, ByteDance and other relevant organizations attended the symposium.

GREEN CONSUMERS

In December, Jiemian under Shanghai United Media Group and SynTao released **the China Sustainable Consumption Report 2022**. According to the Report, traditional media remain the channel for most consumers to know about low-carbon products and consumption. Specifically, non-profit publicity through TV, radio, newspapers, and books and that in public spaces account for 62.80% and 62.61% respectively. When it comes to low-carbon products, most consumers will first think of electronic and electrical products, paper and cleaning products, and automobiles and accessories, with their respective share of 34.88%, 34.24% and 34.13%. Among the factors preventing consumers from purchasing low-carbon products, difficulty in telling whether the products are low-carbon or not accounts for 50.75%, and excessively high price accounts for 44.94%. Regarding second-hand products, over 60% of respondents will buy them only if the products are as cheap as 60% off or even cheaper.

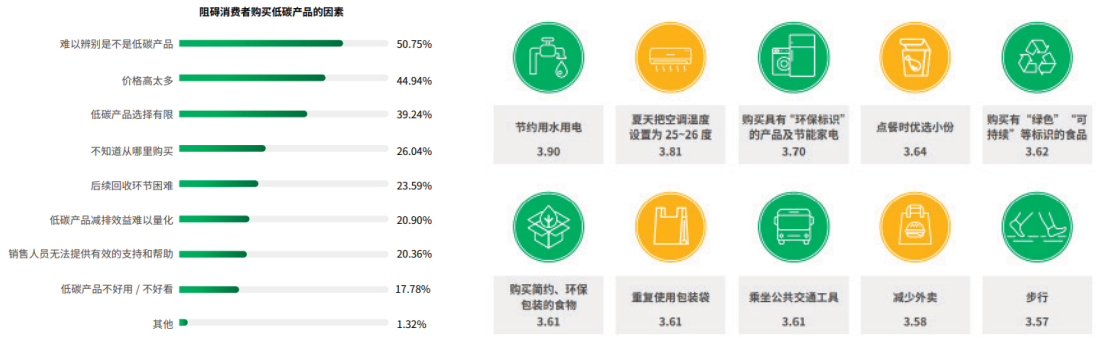

Figure: Factors hindering consumers from purchasing low carbon products and consumers' annual 10 low carbon consumption actions

LCCP's INTERPRETATION

The society's attention to big events and key fields constantly facilitates the low-carbon transition of enterprises. Discussions on green consumption have gradually gone deeper from awareness and strategies to actual tactics and actions, and their carbon reduction effect is gradually emerging as well. In increasing supply chain/consumption scenarios, we can see that platform enterprises, merchants, think tank institutions and industry associations are producing effective cooperation, and successful cases deserve dissemination in a far wider scope of the society.