Currently, there is a surge in "decentralized carbon assets" such as distributed photovoltaic systems. According to statistics, by the end of 2023, the installed capacity of distributed photovoltaic systems in Suzhou Industrial Park has reached 270 MW, that of Suzhou City has reached 3,814 MW, and that of Jiangsu Province has reached 27,722.4 MW. This model promotes the aggregation and packaging of distributed carbon assets to form carbon inclusiveness products for market trading or collateral financing. By activating regional distributed carbon assets through market mechanisms, it optimizes the allocation of carbon resources throughout society, stimulates market entities' enthusiasm for carbon reduction, promotes green industrial upgrading, and supports low-carbon development.

2. Mechanism Leadership: Collaborating to Establish a Carbon Inclusiveness Market Mechanism

The Suzhou Industrial Park Carbon Inclusiveness System has joined distributed photovoltaic investors, government agencies, banks, carbon-reduction-demand enterprises, the Shanghai Environment and Energy Exchange, and other stakeholders to innovatively establish a complete market-based voluntary emission reduction trading system.

Collaborating with local government authorities, the system has worked together with the government to establish a carbon inclusiveness market management mechanism, assisting in clarifying the basic content of the carbon inclusiveness market, such as commercial operation rules, operation entities, standardized processes, service standards, and promoting the government to issue policy documents such as carbon inclusiveness verification methodologies and market implementation measures to clarify the market operation mechanism.

In cooperation with the Shanghai Environment and Energy Exchange and under government guidance, the system has jointly drafted rules such as the "Overall Implementation Plan for Carbon Inclusiveness," the "Management Measures for Carbon Inclusiveness," the "Development and Application Guide for Carbon Inclusiveness Methodologies," and the "Construction Guide for Carbon Inclusiveness Projects," establishing a regional carbon inclusiveness market operation mechanism.

Continuing with the translation, requiring accuracy and professionalism **collaborating with banks,** the system conducts innovative research on carbon inclusiveness financial products, establishing regulations for product credit standards, operational procedures, and risk management. Additionally, federated learning technology is applied to customer credit inquiries to achieve efficient credit checking.

Partnering with authoritative domestic and international institutions, the system has introduced certification bodies such as CQC (China Quality Certification Center), CTI (Centre Testing International), SGS (Societe Generale de Surveillance S.A.), and BSI (British Standards Institution). These collaborations focus on carbon neutrality certifications based on carbon inclusiveness reductions. Successfully, certification services have been provided to some Suzhou enterprises and exhibition events.

3. Digital Empowerment: Attracting Multi-Stakeholder Efficient Participation in the Carbon Inclusiveness Market

By rediscovering the value of electric power big data, we integrate the "electricity market" with the "carbon market" and collaborate with the government to actively build a "Carbon Inclusiveness Intelligent Service Platform". This platform serves as a full-link digital platform that enables digital verification, over-the-counter trading, online cancellation, verification assistance, and carbon neutrality services entirely online. A service mini-program is launched to allow carbon-related transactions to be conducted anytime, anywhere. An online auction function is introduced to enable online bidding and contracting of high-quality carbon assets such as carbon offsets. Public data service functions, including photovoltaic subsidies and electricity certification, are provided to enhance platform traffic.

4. Ecological Operation: Ensuring the Healthy Development of the Carbon Inclusiveness Market

Establishing Jiangsu's First One-Stop Service Center. In collaboration with Chinese conglomerates, Singapore's MVGX Technology, and the Suzhou Industrial Park Resource Conservation and Energy Management Association, under the guidance of government administrators, we have established a one-stop carbon neutrality and inclusiveness service center. This center connects the four key service chains of carbon verification, carbon reduction, carbon trading, and carbon neutrality certification, providing market participants with comprehensive one-stop green and low-carbon services throughout the entire process.

Promoting the Co-construction and Sharing of the Carbon Inclusiveness System for Cross-Regional Cooperation and Service Promotion. We are advancing the development of methodologies. Based on distributed photovoltaic carbon inclusiveness reduction products, the service center has newly released methodologies for three additional reduction projects: EV charging stations, lighting energy efficiency, and wetland carbon sequestration. We are also promoting the development of cross-regional reduction assets. In partnership with the Natural Resources and Planning Bureau of Hailing District, Taizhou City, we have developed wetland carbon sequestration resources and issued over 2,500 tons of wetland carbon sequestration credits. Furthermore, we are promoting cross-regional carbon inclusiveness transactions. We have achieved cross-provincial carbon inclusiveness reduction transactions with Chuzhou, Anhui; Chengdu, Sichuan; and Jiaxing, Zhejiang, with a total of 1,795 tons of reduction credits traded.

Project Impact & Sustainability

The one-stop inclusive carbon neutrality Inclusiveness service system is the first regional market-based voluntary emission reduction trading mechanism established nationwide on November 16, 2022, led by Suzhou Power Supply Company. Its operational model has been reported by CCTV News, People's Daily Online, and other media outlets. The entire system has continuously improved the operational management model for inclusive carbon services, regularly organized Suzhou Low-Carbon Green Development Salons, opened inclusive carbon service windows in business halls to serve local enterprises in their low-carbon transitions, and assisted enterprises in obtaining over 20 carbon neutrality certificates. It has continuously enriched inclusive and applicable scenarios and types of emission reductions, having published four methodologies for emission reduction projects and implemented the first national inclusive carbon trading for electric vehicle charging, with two more methodologies under development. Efforts have been made to actively promote cross-regional cooperation for inclusive carbon services, with strategic cooperation agreements signed with Chuzhou, Taizhou, Jiaxing, and other cities to replicate and promote the Suzhou experience. Through collaboration with international authoritative institutions and the signing of cooperation agreements with domestic and foreign certification bodies such as SGS and BSI, the system has achieved carbon neutrality certification for inclusive carbon reduction products that meet both domestic and international standards, fulfilling the export needs of enterprises and forming an international influence. It strives to become a high-quality inclusive carbon service system with Suzhou characteristics and international influence.

Expert Comments

State Grid Suzhou Power Supply Company has developed a market-based carbon inclusion trading system, leveraging distributed photovoltaics as a starting point. This system integrates four essential service links—carbon verification, carbon emission reduction, carbon trading, and carbon neutrality certification—allowing for the quantification, verification, and value realization of widespread, small-scale carbon reduction activities in the region. By providing comprehensive, one-stop green and low-carbon services throughout the entire process, the system attracts diverse stakeholders to efficiently engage in the carbon inclusion market. It also promotes cross-regional cooperation in carbon inclusion, achieving substantial environmental benefits, economic gains, and social value. This operational model has been reported by CCTV's News Broadcast, Economic Information Broadcast, and People.cn, among other media outlets.