



# **Environmental Information Disclosure (TCFD) Report 2021**

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# Declaration

## Reporting Scope

This report covers China Construction Bank Corporation and its subsidiaries.

## Reporting Period

This report covers the period from 1 January 2021 to 31 December 2021. Part of the contents may contain information that is beyond the above mentioned period.

## Compilation Basis

This report was prepared in accordance with *Guidelines for Financial Institutions Environmental Information Disclosure* released by the People's Bank of China, and referred to the suggestions of the *Recommendations of the Task Force on Climate-related Financial Disclosures* released by the Task Force on Climate-Related Financial Disclosures (TCFD).

## Reporting Principles

This report is disclosed by the principle of truthfulness, timeliness, consistency and continuity.

## Data Explanation

The data in this report mainly covers the period from 1 January 2021 to 31 December 2021. Part of the data is beyond the above mentioned period and contains data from previous years. The data of this report mainly comes from internal documents and relevant statistical material of the Bank.

## Definition Explanation

In this report, unless the context otherwise requires, the following terms shall have the meanings set out below.

“CCB”, “the Bank”, “We”, “China Construction Bank”	➤ China Construction Bank Corporation
“the Group”	➤ China Construction Bank Corporation and its subsidiaries
“CCB Asia”	➤ China Construction Bank (Asia) Corporation Limited
“CCB Property & Casualty”	➤ CCB Property & Casualty Insurance Co., Ltd.
“CCB Principal Asset Management”	➤ CCB Principal Asset Management Co., Ltd.

“CCB Wealth Management”	➤ CCB Wealth Management Co., Ltd.
“CCB Futures”	➤ CCB Futures Co., Ltd.
“CCB Life”	➤ CCB Life Insurance Co., Ltd.
“CCB Investment”	➤ CCB Financial Asset Investment Co., Ltd.
“CCB Trust”	➤ CCB Trust Co., Ltd.
“CCB Pension”	➤ CCB Pension Management Co., Ltd.
“CCB Financial Leasing”	➤ CCB Financial Leasing Co., Ltd.
“CCB International”	➤ CCB International (Holdings) Limited
“CCB PE”	➤ CCB Private Equity Investment Management Co., Ltd.
“CCB Consulting”	➤ CCB Engineering Consulting Co., Ltd.
“CCB Fintech”	➤ CCB Financial Technology Co., Ltd.
“ESG”	➤ Environmental, Social and Governance

## Forms of Release

This report is released in electronic format, which is available on the official website of the Bank (<http://en.ccb.com/en/home/indexv3.html>).

The report is prepared in simplified Chinese and English. Should there be any discrepancies among these versions, the simplified Chinese version shall prevail.

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## Chairman's Statement



Tian Guoli Chairman

“

The construction of ecological civilisation is closely related to the well-being of the people and the future of humankind. The Party Central Committee with Comrade Xi Jinping as the core has incorporated the construction of ecological civilisation into the five-sphere integrated plan, established the goals of carbon peaking and carbon neutrality, and promoted the green development, circular development and low-carbon development, which not only points out the orientation for the sustainable development of the Chinese nation, but also denotes the important connotation of developing a community with a shared future for mankind. CCB actively practices Xi Jinping's thought on ecological civilisation, sets the new development stage as foundation, accurately and comprehensively implements the new development concepts, promotes New Finance initiatives across the board, and serves the green transformation of economy and society, which will significantly empower the greater green development with finance power.

”

### Painting the ecological background with the brush of New Finance while adhering to our original aspiration

“Keeping the nation's development priorities in mind”, we integrate the goal of the construction of ecological civilisation into strategic development, and make progress on the path of the “people-oriented” New Finance. We took the lead in proposing the housing rental strategy to help liquidise remnant houses on the market and guide the real estate industry to transform to a healthy and long-term “housing purchase and rental” mode. We proactively promoted the strategy of inclusive finance, served small and micro enterprises and “mass entrepreneurship and innovation” finance model innovatively with technology and data innovations, and stimulated the vitality of economic transformation and development. We fully implemented Fintech strategy, built “the most financial-savvy technology group”, advanced operational management while facilitating the green transformation of operations, and promoted the development of intensive online financial services. More than 99% of the business was handled through online channels, effectively reducing energy consumption and carbon emissions. We focused on serving rural revitalisation, gained benefits from green actions with financial tools, facilitated the development of green industry and consolidated the achievements in poverty alleviation, to achieve the coordinated development of beautiful environment and common prosperity. We also collaboratively promoted the construction of the smart government affair, enabling various government affairs to be handled online or on mobile devices, allowing “less travel of people and more data transmission”, and facilitating the modernisation of the national governance system and governance capacity.

### Taking actions with finance power leads to the achievement of sustainable development

“Lucid waters and lush mountains are invaluable assets”. Adhering to the green overall view, we elevated green finance to a major strategic level, successively set up the Green Finance Committee and the Leading Group for Carbon Peaking and Carbon Neutrality, and have formulated and implemented the *Strategic Plan for Green Finance Development* and the *Action Plan for Carbon Peaking and Carbon Neutrality*. We promoted the construction of the green balance sheet, and increased credit support for green transportation, clean energy, energy conservation and environmental protection and other industries, resulting in a balance of green loans exceeding RMB2 trillion. We issued multi-currency green bonds and sustainable bonds, increased the underwriting and investment of green bond tools, and played green leading roles in comprehensive investment and financing business such as funds, wealth management, leasing, and equity investment. Actively promoting international communication and cooperation, we joined the *“Belt and Road” Green Investment Principles*, signed the *Joint Pledge by Banking Financial Institutions to Support Biodiversity Protection*, and became a supporting agency of the Task Force on Climate-related Financial Disclosure (TCFD). The effectiveness of CCB's green development has been widely recognised. The Bank was accredited an A rating for ESG performance from MSCI for the second consecutive year and an AAA rating for ESG performance from China Securities Index (CSI), which are both top rankings in the industry domestically. The Bank was also selected into the Hang Seng (China A) Corporate Sustainability Benchmark Index.

### Vitalising green transformation through collecting wisdom and empowerment

We grasped the historic opportunities of industrial structure adjustment and ecological environment governance and actively promoted green innovation in capital markets. The “CCB-Wind Green ESG Bond Issuance Index and Yield Curve” won the International Finance Forum Global Green Finance Innovation Award in 2021. We launched the “Carbon Credit Loan” product, and enhanced credit through carbon emission quota pledge to facilitate power companies to accelerate their technological upgrading for energy conservation. We conducted “carbon sink pledge financing” business to facilitate the positive cycle of carbon sink resources and the forestry industry, enabling the forest to expand into an ecological oasis. We explored and supported the “dual-circulation carbon neutrality” model of desertification control via tree planting and photovoltaic power.

Through this model, the species of Kubuqi Desert have increased from less than 10 to 530, and many wild animals and plants that were unseen for years have returned to their homelands... Our numerous green explorations resemble prospering new shoots well-prepared to grow into towering trees in the future, creating a new pillar in our pursuit of high-quality development and a new competitive edge in the market.

### Taking precautions to build a protective barrier for green development

We grasped the trend of environment and climate change and low-carbon development, actively paid attention and responded to the risk of “Green Swans”, proactively strengthened the control of climate risks and transformation risks, continuously optimised the credit policies of environmentally sensitive industries, and coordinated and balanced the credit control and energy security of industries with “high pollution and high energy consumption”. We have incorporated environment and climate-related risks into the comprehensive risk management system and integrated the risks into the whole process management of the pre-loan stage, the loan granting approval stage and the post-loan stage. We implemented the “One-Vote Veto” policy in the credit granting process, strengthened environmental and social elements in credit rating, and explored the construction of an ESG evaluation system for corporate clients, to guide the low-carbon, circular and sustainable development. Promoting climate risk stress testing in an orderly manner, we completed climate transition risk sensitivity stress testing in thermal power, iron and steel, cement and aviation industries, and gradually expanded the scope of stress testing to provide strong support for the systematic response to environmental and climate risks.

### Starting low-carbon transformation from our own operation

We fully understand that every person and every social entity is an important participant, contributor and leader in the construction of ecological civilisation. While advocating green and low-carbon operation concept in the whole bank, we formulated carbon footprint management goals, implemented energy conservation and emission reduction measures in daily work and business travel, encouraged green travel, dug deep into the potential of energy conservation, and integrated requirements of environmental protection, energy conservation and emission reduction into the procurement process. With comprehensive inventory of the energy and resource consumption from 2016 to 2021, the Bank steadily promoted the “zero-carbon” pilot work, and Guangdong Zhongshan Cuiheng New District Sub-branch became the first “zero-carbon outlet” in the industry. Moreover, we explored and launched the series of activities of “CCB Low-Carbon Lifes Month”, and promoted activities such as “Lights Out for One Hour” to drive clients and the public to actively participate in low-carbon environmental protection actions, enjoying green life, and building clean and beautiful home together.

At present, the construction of ecological civilisation in China is in a critical, tough and window period. CCB will resolutely implement the decision and deployment of the Party Central Committee and the State Council, focus on the goal of the construction of ecological civilisation and the “1+N” policies for carbon peaking and carbon neutrality, continuously enrich the green connotation of new finance, and give full play to the guiding role of green finance, to support the establishment and improvement of an economy system with green, low-carbon and circular development, and contribute the wisdom and strength of CCB to building a harmonious and symbiotic home of human and nature on earth.

“People who protect the natural environment will eventually benefit from the environment”. Let us join hands to paint a better future together!

Tian Guoli

Chairman



Zhang Jinliang President



Wang Yongqing Chairman of the board of supervisors



# 01

## Annual Overview

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## Corporate Introduction

China Construction Bank Corporation, headquartered in Beijing, is a leading large-scale commercial bank in China. Its predecessor, China Construction Bank, was established in October 1954. It was listed on Hong Kong Stock Exchange in October 2005 (stock code: 939) and the Shanghai Stock Exchange in September 2007 (stock code: 601939). At the end of 2021, the Bank's market capitalisation reached US\$175,302 million, ranking sixth among all listed banks in the world. The Group ranks second among global banks by Tier 1 capital.

The Bank provides customers with comprehensive financial services, including personal banking, corporate banking, investment and wealth management. With 14,510 banking outlets and 351,252 staff members, the Bank serves hundreds of millions of personal and corporate customers. The Bank has subsidiaries in various sectors, including fund management, financial leasing, trust, insurance, futures, pension and investment banking, and has nearly 200 overseas entities covering 31 countries and regions.

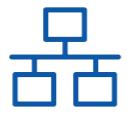
The Bank proactively practices "New Finance", and fully promotes the implementation of the "Three Major Strategies" of house rental, inclusive finance and FinTech. By adhering to the digitalised operation strategy of "building ecologies, setting up scenarios and expanding user base", the Bank strives to achieve a breakthrough at the Customer Community with its root deeply planted among the general public so as to serve as a "warm and cosy" bank for the populace. Moreover, the Bank focuses on empowering the Business Community, so as to create an ecology featuring co-existence and co-prosperity and become a lifetime partner of its corporate customers. Furthermore, the Bank promotes its connection with the Government Community, striving to support social governance so as to become a national trusted financial pillar.

Adhering to the "market-oriented, customer-focused" business concept, the Bank is committed to developing itself into a world class banking group with top value creation capability. The Bank strives to achieve the integration of short-term and long-term benefits and the synthesis of business goals and social responsibilities objectives, so as to maximise the value for its stakeholders including customers, shareholders, associates and the society.



Market capitalisation at the end of 2021

**US\$ 175,302 million**



Banking outlets

**14,510**



Staff

**351,252**



Overseas entities covering

**31** countries and regions



# Environment-related Strategic Objectives

In 2021, at its initial development stage, the Bank fully, accurately and comprehensively implemented the new development philosophy, formulated the *Outline of Development Plan for the "14th Five-Year" Period Plan and Long-range Objectives through the Year 2035 of China Construction Bank* and the *Strategic Plan for Green Finance Development (2022-2025)*. Focusing on the strategic deployment of the national strategy of the construction of ecological civilisation and "carbon peaking and carbon neutrality", we strengthened top-level design, optimised development strategy, enriched the green connotation of the New Finance initiatives, clarified the related strategic vision, basic principles, development goals and key tasks of green finance, and formulated relevant safeguard measures.

## Strategic vision

**Strive to become  
a bank with world-  
leading sustainable  
development**



## Basic principles

### Comprehensive planning

To strengthen top-level design, promote the synergic development involving the Head Office, branches and sub-branches, the front, middle and back offices, parent company and subsidiaries, as well as domestic and abroad branches, and carry out green credit and non-credit business in a collaborative manner, so as to generate a synergy to drive green development.

### Steady and orderly progress

To achieve a balanced relationship between development vs. emission reduction, overall development vs. partial development, as well as long-term goals vs. short-term goals. By maintaining proper pace and intensity, the Bank serves for the green and low-carbon transformation of economic and social development in a powerful, orderly and effective manner.

### Differentiated policies

To set up goals and tasks based on local conditions, accelerate development in key regions and key sectors and move faster to impose demonstration effect, formulating a new development framework for various areas that draws upon the experiences of key exemplar projects.

### Innovation-driven development

To improve product and service innovation capability, strengthen technology application to close the gap between what customers need and existing financial service offer, enhancing the quality and efficiency of green financial services.

## Development goals

Focusing on business development, product innovation, risk management, technology application and self-operation, the Bank has refined major tasks, and set up specific development goals concerning asset business, liability business, risk management, etc.

### Improve the green nature and feature

Increase financial support for green industry, promote the comprehensive green transformation of all business areas and continuously improve the green nature and feature of key areas.

### Open up diverse financing channels

Develop multiple financing channels, improve the supply of green bonds, green funds, green leasing, green trust, green wealth management, green insurance and other products and services.

### Enhance risk management ability

Actively respond to climate change and strive to improve the risk management ability concerning environment, climate and biodiversity.

## Key tasks

The Bank implements the green finance "green core" project and builds the "Five Cores" for green finance, namely business-driven core, product integration core, risk perception core, technical processing core and accountability transmission core, striving to make green finance a new pillar for the Bank's high-quality development and a new competitive advantage in the market.

## Highlights and Awards

### Optimising top-level design continuously.

During the reporting period, the Bank established the Leading Group for Carbon Peaking and Neutrality led by the chairman to coordinate and promote the service for the green and low-carbon transformation of the economy and society, and formulated 20 key action tasks to serve the goals of carbon peaking and carbon neutrality. The Bank established the ESG Promotion Committee to coordinate and promote the planning, implementation and coordination of the Group's ESG strategy.

### High-quality development of green finance

Green loans	Green bonds
In order to support the strategic transformation of energy structure, the Bank made clear of the requirements for green and low-carbon development in credit policies, constantly optimised the credit structure of the industry, actively supported energy conservation and environmental protection sectors and enterprises engaged in research, development and application of advanced low-carbon technologies, as well as increased the proportion of loans of wind energy, solar energy and other renewable energy sectors. The Bank also increased credit support to green transportation construction and new energy vehicle industry to boost the green transformation of transportation structure and urban construction. As at the end of 2021, the balance of green loans granted by the Bank amounted to RMB1.96 trillion, up by 35.61% over the last year, striking a historical record in growth.	The Bank increased the insurance, underwriting and investment of green bonds. In 2021, the Bank issued multi-currency ESG-themed bonds, including the world's first sustainability-linked bond in USD for financial institutions, the world's first demonstration green bond based on the <i>Common Ground Taxonomy - Climate Change Mitigation</i> released by China and the EU and the first transition bond of the Bank. The Bank underwrote the market's first batch of carbon neutrality bonds, sustainability-linked bonds, the first green Quasi-REITs in the interbank market and the green bond dubbed as Lotus Bond. By the end of 2021, the green bonds balance in RMB portfolios increased by 342.57% compared to 2020, and the green bonds balance in foreign currency portfolios increased by 140.09% compared to 2020. In addition, the Bank issued the "CCB-Wind Green ESG Bond Issuance Index and Yield Curve", the first issuance index in the Chinese green bond primary market that integrates the concept of ESG and carbon neutrality.
The balance of green loans granted by the Bank amounted to	the green bonds balance in RMB portfolios increased by
RMB <b>1.96</b> trillion	<b>342.57%</b>
Up by	compared to 2020
<b>35.61%</b>	the green bonds balance in foreign currency portfolios increased by
over the last year	<b>140.09%</b>
<b>Other green finance businesses</b>	
The Bank continuously boosted the development of integrated green investing and financing business of the subsidiaries. CCB Principal Asset Management joined the United Nations-supported Principles for Responsible Investment (UN PRI) and issued multiple ESG-themed products. CCB Wealth Management and other subsidiaries issued ESG-specific products. CCB Investment issued carbon neutrality-themed private equity investment funds and asset management product and increased investments in green assets. CCB Consulting provided high-quality sustainable development consulting services for various green and low-carbon projects. CCB International continuously improved its professional judgement ability and issued a number of relative reports on carbon neutrality and ESG investment.	

### Continuous improvement of environmental and climate risk management ability

The Bank integrated environmental and climate risks into the overall credit process management, and carried out measurement, research and training related to environmental and climate risks to continuously improve risk prevention and control capabilities. The Bank participated in the climate transition risk stress testing organised by People's Bank of China, facilitating to formulate the common banking industry template of climate risk stress testing for the thermal power sector during the pilot period. In May 2021, the Bank became a supporting organisation of the Task Force on Climate-related Financial Disclosure (TCFD).



### Deep integration of the green operation concept

The Bank comprehensively reviewed the overall energy and resource consumption from 2016 to 2021, and set qualitative and quantitative environmental-related targets. The Bank built or renovated buildings and offices with green design, pushed forward intelligent operation and increased energy efficiency. Moreover, the policies of environmental protection, energy conservation and emission reduction were considered in the procurement system, while green, low-carbon, energy-saving, and environmental protection indicators were added to the assessment standards of suppliers, and steadily establish the product recycling mechanism. The Bank also organised environmental protection publicity and education activities to promote energy conservation and emission reduction comprehensively.



### Establishment of green pilot has achieved phased results

Proactively promoting the development of green finance and "zero-carbon" pilot projects, the Bank set up 6 green finance pilot institutions at the Head Office level (Guangzhou Huadu Branch, Zhejiang Huzhou Branch, Chongqing Wan Zhou Branch, Shanghai Qingpu Sub-branch, Zhejiang Jiashan Sub-branch and Suzhou Wujiang Branch) and established the first sub-branch for climate investment and financing in China (Guangdong Nansha Climate Sub-branch). The Bank also owns two overseas branches which were certified "carbon neutrality" (Sydney Branch and Zurich Branch) and the first "zero-carbon outlet" in China which achieved carbon neutrality (Guangdong Zhongshan Cuiheng New District Sub-branch).



### Actively promoting biodiversity conservation

The Bank co-organised the themed forum of "Banking Financial Institutions to Support Biodiversity Conservation" under the Biological Convention Forum of the 15th meeting of the Conference of the Parties (COP 15) to the *Convention on Biological Diversity*, signed the *Joint Pledge by Banking Financial Institutions to Support Biodiversity Conservation*. In doing so, we committed to reach development goals to identify biodiversity preferences, increase investment and encourage innovation in biodiversity, strengthen the risk control over biodiversity, improve biodiversity performance and promote biodiversity cooperation.



### Comprehensively deepening research and publicity on green finance

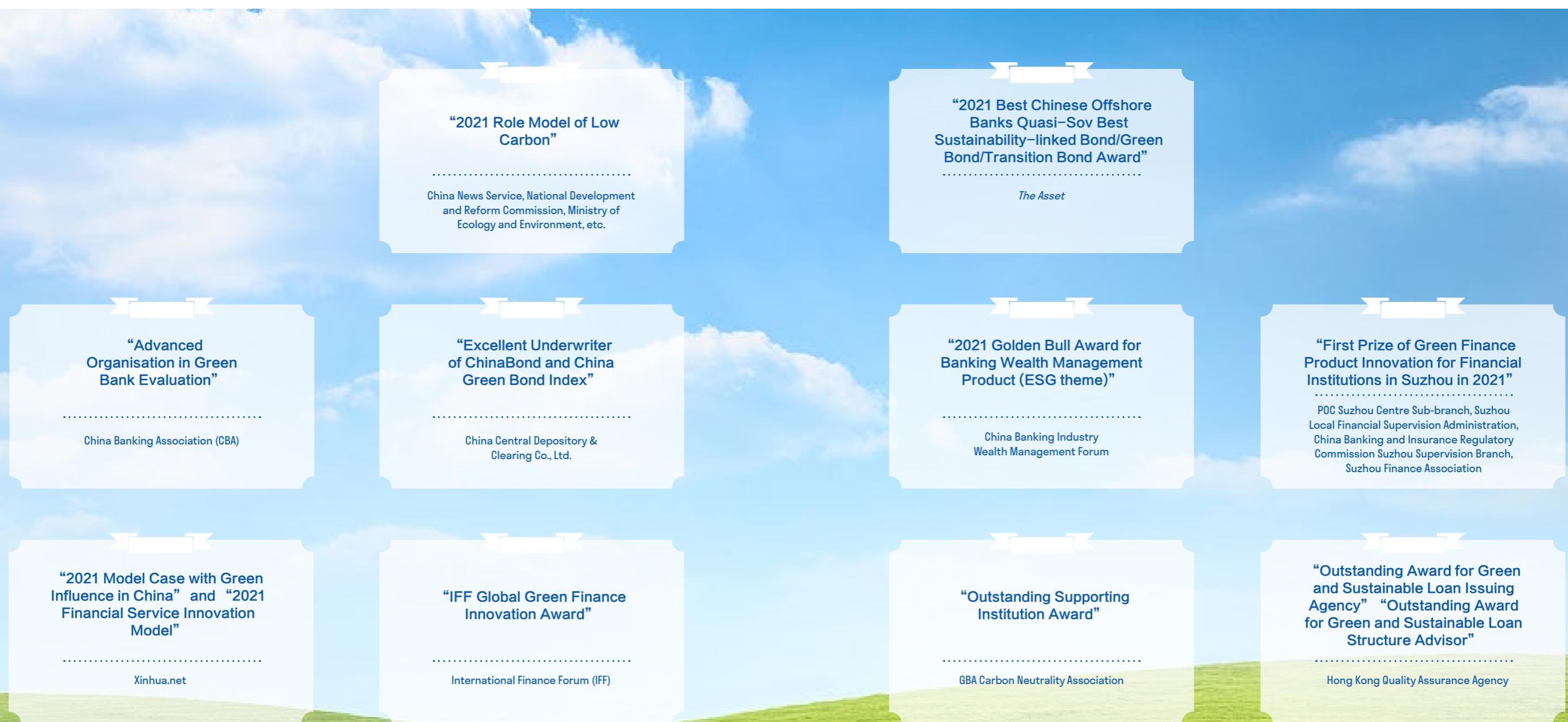
The Bank set up special research groups and flexible research teams to study and analyse relevant policies and development trends of green finance in the aspects of risk management, approval guidelines, industry strategies, business development, and forward-looking judgments, to strengthen the application of research outcomes in improving policy guidelines and promoting business development. The Bank also broadened the channels for the release of research outcomes, promoted external communication, and guided employees and clients to implement the concept of green development.



## Widely recognised ESG performance

The Bank's MSCI ESG rating consistently achieved an A rating for two consecutive years, marking it one of the highest-rated Chinese banks among the world's top 10 banks by market capitalisation. Meanwhile, we have won many honors in green finance development, green finance product innovation and other fields.

The following illustrates the major awards received by the Bank and the related products and cases of the Bank during the reporting period.





# 02

## Environment-related Governance Structure

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The Bank constantly improves the top-level design of green finance, integrates environment-related strategic objectives into the governance system, and promotes the sustainable development of the Group. The Bank's Leading Group for Carbon Peaking and Carbon Neutrality formulates overall plans to push forward and serve the green and low-carbon transformation of the economy and society, providing assistance for achieving the goals of carbon peaking and carbon neutrality.

## Board of Directors

The Board of Directors of the Bank formulates the Group's overall environment-related strategies, defines the environment-related strategic objectives and priorities, improves the process management of important matters, supervises and evaluates the effectiveness of the strategy, and guides the disclosure of relevant information. It also regularly listens to reports on the promotion of green finance and supervises the management to thoroughly implement the concept of green development. The Board of Directors launches a series of environment-related strategic initiatives to integrate the concept of green development into daily operation management.

### Strategy Development Committee

The committee formulated the *Strategic Plan for Green Finance Development (2022-2025)* (approved by the resolution at the first meeting of the Board of Directors in 2022), proposed the overall strategic objectives and key tasks, encouraged the Bank to deeply implement the country's major strategic deployment for "carbon peaking and carbon neutrality", and proactively integrated into the development of green and low-carbon transformation of the economy and society. By strengthening the organisation and implementation, optimising the operation and management mechanism, improving the digital management ability of green finance, building a team of green finance professionals and other measurement, the committee advanced the implementation of specific measures and ensured the effective implementation of green finance strategy.

### Related Party Transaction, Social Responsibility and Consumer Protection Committee

The committee is responsible for formulating green finance strategies of the Bank and ESG management guidelines and strategies, supervising and guiding the Bank in fulfilling social responsibilities and green finance strategies. In 2021, the committee revised its working rules and strengthened the ESG governance responsibilities, deliberated on core environmental issues such as green finance, ESG work promotion and non-financial information disclosure, provided instructions and oversaw the implementation of important matters. The committee held ESG seminars to maintain closer exchange and communication with external institutions and stakeholders to improve the Group's ESG performance.

### Risk Management Committee

The committee has established a reporting mechanism for ESG-related risks to listen to regular reports on key tasks such as environmental and climate risk analysis and quantitative risk analysis on ESG-related factors so as to provide guidance. The committee supervises and guides the management to integrate ESG-related risk management into a comprehensive risk management system to accurately identify and effectively control the major ESG-related risks. It promotes the forward-looking management of environmental and climate risks, expanding the coverage of climate risks stress tests. The committee pushes the management to optimise the credit policies for environmentally sensitive industries, incorporates ESG-related risk factors into the corporate credit rating, explores and constructs a client assessment system to improve risk assessment and pricing capabilities related to ESG-related factors.

### Organising the Board's ESG seminar

Case

The Bank held the Board's ESG seminar in April 2021. Graeme Wheeler, Chairman of the Related Party Transaction, Social Responsibility and Consumer Protection Committee under the Board of Directors, presided over the seminar, with the presence of board members, senior management and heads of relevant departments. Experts from the World Bank and 3 institutions in the industry were invited to thoroughly communicate and discuss the international and domestic ESG development trends, information disclosure requirements and regulatory trends, advanced experience of international peers, as well as ESG management recommendations.

## Board of Supervisors

The Board of Supervisors pays great attention to the environment-related work and the construction of the green finance system, which has been included in the annual supervisory priorities. The Board of Supervisors holds discussions with senior management to learn about the progress of ESG work in the Bank. It suggests to develop based on actual situation, continuously improve the construction of ESG management system and mechanism, further integrate ESG elements into business management and risk control, and establish an evaluation system aligning with our own corporate values and strategic objectives. Under the New Financial practices, we should explore and construct a new model of coordinated and sustainable development between finance and society. The Board of Supervisors reviews the corporate social responsibility reports, focusing on the support of inclusive finance for rural revitalisation and green finance for the goals of carbon peaking and carbon neutrality, and supervises the disclosure of relevant information. It continues to understand the stress testing of environmental and climate risks, takes initiatives to follow up ESG management trends in the domestic and overseas areas and carries out targeted research and analysis of relevant aspects. During the reporting period, some supervisors attended special training related to carbon neutrality and green finance to learn about the latest development trend of green finance and other industry conditions.

### Finance and Internal Control Supervision Committee

The Finance and Internal Control Supervision Committee of the Board of Supervisors specially listened to the report on the development of green credit. With regard to the implementation of the goals of carbon peaking and carbon neutrality and the promotion of green transformation, the committee put forward suggestions on formulating green finance development plans, seizing market opportunities and speeding up structure adjustment.



The Bank provided support for Yalong River green power project

# Management

The Management of the Bank is responsible for developing work plans and setting goals for environment-related work, promoting the development and implementation of specific work among departments in the Head Office, domestic and overseas branches and subsidiaries.

## Green Finance Committee

The responsibilities of Green Finance Committee of the Bank are to make concerted efforts to drive the development of green finance, study and make decisions on major matters in promoting green finance business, plan and deploy key directions and measures in developing green finance across the Bank. During the reporting period, the Committee held 3 theme meetings and 1 seminar on realising the value of ecological products to discuss the management focus on green finance and drive the deployment of plans and key initiatives for fostering new advantages of green finance.

### Overview of relevant meetings

**March**

- The Green Finance Committee held its first meeting of 2021, which reviewed and approved twenty action plans for achieving the goals of carbon peaking and carbon neutrality, and arranged major works of green finance in 2021.

**June**

- The Green Finance Committee held its second meeting of 2021 and the first meeting of the Leading Group for Carbon Peaking and Carbon Neutrality to deploy the implementation of the *Opinions on Establishing a Sound Mechanism for Realising the Value of Ecological Products* and the next step to achieve carbon peaking, carbon neutrality and green finance.
- The Green Finance Committee organised a forum on the implementation of the *Opinions on Establishing a Sound Mechanism for Realising the Value of Ecological Products*, which planned to dynamically integrate green finance into "Three Major Strategies", rural revitalisation and digitalised operation, to grasp new opportunities for realising the value of ecological products and promote the value realisation of ecological products via green finance.

**August**

- The Green Finance Committee held its third meeting of 2021 to analyze the external challenges and weaknesses of the Bank's green finance work and arrange for next priorities.

## ESG Promotion Committee

The ESG Promotion Committee of the Bank is responsible for organising and promoting ESG strategic planning, implementation and coordination. The Committee has an Environmental Working Group, a Social Responsibility Working Group and an Information Disclosure and Investor Relations Working Group. In November 2021, the Committee held its first meeting, which reviewed and approved the working procedures of the Committee, deployed the coordination and promotion of overall ESG strategic planning, clarified the communication and reporting mechanism, etc.

## Risk Management and Internal Control Management Committee

The Risk Management and Internal Control Management Committee of the Bank promotes the integration of environmental and climate risks into the entire business management process, conducts forward-looking stress testing, clarifies specialised departments for professional management, holds regular meetings and reports to the Risk Management Committee of the Board of Directors on important issues and work progress, continuously improving the bank-wide environmental and climate risk management abilities.

## Work Promotion Mechanism

The Bank's professional departments are responsible for the actual implementation and promotion of environment-related corporate business, retail business, capital market business, risk management, disclosure and publicity, carbon footprint management, etc. In addition, the departments continuously optimise environmental policies, improve teams' professional abilities and constantly enhance the capability and market competitiveness of green financial services. All domestic and overseas branches and subsidiaries establish a sound green finance working mechanism to apply objectives of green development and environment-related requirements to business management, business development and risk control, helping the Group achieve sustainable development.



ESG Promotion Committee held the first meeting in 2021

# 03

## Environment-related Policies and Systems

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The Bank strictly abides by national laws and regulations targeted to the environment, earnestly implements corresponding national strategies and industrial policy guidelines and actively refers to and follows relevant international principles and initiatives, comprehensively improving the Bank's green development policies and systems.



We comply with relevant environmental laws and regulations in a strict manner, such as the *Energy Conservation Law of the People's Republic of China*, the *Environmental Protection Law of the People's Republic of China*, etc.



We implement the *Integrated Reform Plan for Promoting Ecological Progress*, the *Guiding Opinions on Accelerating the Establishment of a Sound Economic System with Green, Low-carbon and Circular Development*, the *Working Guidance for Carbon Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy*, the *Action Plan for Carbon Peaking Before 2030* issued by the State Council, the *Guidelines for Establishing the Green Financial System* jointly issued by seven national ministries and commissions including Ministry of Finance, National Development and Reform Commission and PBOC, etc., the *Evaluation Programme for Green Finance among Financial Institutions in the Banking Sector* issued by PBOC and other relevant requirements and guidance.



We actively joined the *"Belt and Road" Green Investment Principles* issued by the Sino-British Green Finance Working Group. We also refer to international standards and principles relevant to the sustainable development and climate change responses such as the United Nations Sustainable Development Goals (SDGs), the *Paris Agreement* and the *Recommendations of the Task Force on Climate-related Financial Disclosures*.

The Bank formulates and improves environmental policies and systems regarding green finance and green operation to implement relevant works, provide assessments and incentives, support and guarantee and supervision and inspection to related works, driving a stable development of green finance business in an orderly manner. In 2021, the Bank developed the *Action Plan for Carbon Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy*, which specifically integrated the action of serving carbon peaking and carbon neutrality into our work to contribute to the low-carbon development in key economic and social areas, deepened the green transformation of key businesses, and established a sound low-carbon operation and management system. Furthermore, we strengthened environmental and climate risk control, as well as promoted FinTech application and empowerment to advance our strategic objectives of green and low-carbon transformation in a stable manner.



The Bank led the financial leasing project of Guangzhou Public Transport Group Co., td. to support the upgrading of green transportation

## Improving Green Finance Policies and Systems

### ◆ Strengthen credit approval and evaluation management

Under the credit policy, the Bank identifies key areas in pursuing the green finance development and sets up a series of development goals, such as accelerating the cultivation of new green finance advantages. With substantial support given to the green industry development, we formulate differentiated management policies for green credit whitelist clients. We have issued the *2021 Industry Limits Plan* to explicitly incorporate ecological protection and environmental governance into priority support scope for enterprises and projects, granting preferential policies to high-quality enterprises with substantial benefits in emission reduction and environmental protection. We create a credit approval model of "green channel" to optimise approval method, adopt a differentiated credit granting approval process for client projects that meet green standards. We also develop differentiated authorisation policies to adjust and optimise the approval authority for green loans. Furthermore, we formulate management policies for environmental and climate risks, implement a "One-Vote Veto" mechanism for matters related to environmental and climate risks and make biodiversity review a pre-requisite for project evaluation. Besides, the Bank has released the *Notice on Matters Concerning Enhancement of Quality and Efficiency Evaluation for Green Credit Projects* to clarify the assessment contents and workflows of green credit, establishing a fast track for technical support and increasing the differentiated assessment methods.

### ◆ Enhance the management of industries with high pollution and high energy consumption

The Bank coordinates to balance energy security and investment and financing management of industries with high pollution and high energy consumption, conducts adequate assessments on the ecological impacts and economic feasibility of related projects, as well as puts more efforts to mitigate environmental and climate risks. We take environmental and climate risks into account throughout the overall credit management process and make the situation of energy efficiency levels, greenhouse gas and pollutant emissions an important reference in client and project selection, credit granting approval and post-credit management. We implement the "One-Vote Veto" mechanism for matters related to environmental and climate risks, and refrain from supporting enterprises that does not comply with national industrial planning, environmental protection policies or the direction of green and low-carbon development, resolutely resisting the blind development of low-level projects with high energy consumption and high emissions.

### ◆ Improve policies of environment-related industries

For major industries and environmentally sensitive industries such as power, transportation, green building, agriculture, forestry, mining, petrochemical, iron and steel and others, the Bank has incorporated the environment-related regulatory requirements into their subdivision credit policies to actively support green development and control environmental risks.

Industries	Description of related policies	Industries	Description of related policies
 Power industry	<p>To ensure energy supply and coordinate the green and low-carbon transformation of energy, clarify requirements on pollutant discharge and coal consumption in the selection criteria of thermal power projects. Firmly downsize and withdraw projects with backward production capacities and enterprises with high environmental and social risks, which the state has been officially eliminated. Support the coal and electricity enterprises in the “Three Reforms”. Regard clean energy industry as a priority support industry, grant more credit and expand the proportion of the industry in the credit pool. Since the fourth quarter of 2021, the Bank has ceased providing financing support for new coal and electricity projects overseas, except for those already contracted.</p>	 Forestry	<p>Regard forestry industry as a priority support industry and grant more credit. In the selection criteria of forestry clients, specify requirements on compliant operation, environmental protection and quality safety, and execute the “One-Vote Veto” policy over environmental and climate risks. Credit access to clients and programmes with significant environmental and climate risks is prohibited. Actively support the key national seed bases of forest tree and key construction projects under the national forest operation planning, thus contributing to the nationwide afforestation, increasing the forest stock volume, and enhancing carbon-sink capacity.</p>
 Transportation industry	<p>Actively support the green transformation of transportation structure, focus on key green transportation projects such as urban public transport and rail transport, and support the development of new energy vehicle industry along with the electrification and clean development of transportation vehicles.</p>	 Mining industry	<p>Support green, clean and intelligent mining projects, and consider various factors such as product safety, environmental protection and resource utilisation as the criteria to select clients and projects. Execute the “One-Vote Veto” policy over environmental and climate risks. Credit access to clients and programmes with significant environmental and climate risks is prohibited. Resolutely downsize and withdraw the support for enterprises acting against national industrial policies with illegal production or outdated low-capacity and those acting against the environmental protection and safety production standards.</p>
 Green building industry	<p>Take active measures to facilitate the coordinated development of green finance, the construction of green city, and the promotion of green buildings, enhance energy conservation and emission reduction in construction field. Provide differentiated support policies for the green building industry and serve the green and low-carbon transformation of the real estate industry. In the selection of real estate projects, take the compliance with green building standards as an essential consideration.</p>	 Petrochemical industry	<p>Support the green, low-carbon and recyclable development of the petrochemical industry, and consider various factors such as product safety, clean production, energy consumption level and carbon emission intensity as the criteria to select clients and projects. Pay close attention to the impact of enterprises' production and projects construction on energy consumption, carbon emission, ecology and environment, and biodiversity, execute the “One-Vote Veto” policy over environmental and climate risks. Credit access to clients and programmes with significant environmental and climate risks is prohibited. No engagement in new production capacity projects in key areas of air pollution prevention and control. Resolutely withdraw projects acting against the national industrial planning and environmental protection policies, as well as enterprises with high environmental and climate risks and those acting against the requirements of green and low-carbon development.</p>
 Agriculture	<p>Regard agriculture as a priority support industry and grant more credit. In the selection criteria of agriculture clients, specify requirements on compliant operation, environmental protection and quality safety, and execute the “One-Vote Veto” policy over environmental and climate risks. Credit access to clients and programmes with significant environmental and climate risks is prohibited. Actively support energy-saving agricultural clients, such as those adopting high efficiency and low power consumption agricultural machinery and those applying technologies to reduce the consumption of fertiliser and water.</p>	 Iron and steel industry	<p>Support the green development, transformation and upgrade of iron and steel industry, and consider various factors such as energy efficiency, greenhouse gas emissions and pollutant discharge as the criteria to select clients and projects. Pay close attention to the impact of project construction on the control of total energy consumption and intensity, carbon emission, ecology, environment and biodiversity, and execute the “One-Vote Veto” policy over environmental and climate risks. Credit access to clients and programmes with significant environmental and climate risks is prohibited. Resolutely withdraw support for projects against the national industrial planning and environmental policies, and enterprises against the standards regarding environmental protection and production safety.</p>

## Strengthening Low-carbon, Environmental-friendly and Green Operation

### ◆ Strengthening biodiversity conservation

The Bank actively participates in and supports major projects of biodiversity conservation, and ecological protection and restoration, including the protection of animal and plant resources, the protection and restoration of rivers, lakes and wetlands, the restoration of the ecology and environment of mines, the protection and restoration of national ecological security barriers, and the comprehensive governance of key ecological protection areas. The Bank implements the spirit of "joint protection and no large-scale development" in the Yangtze River and the decisions and arrangements of "focusing on protection and governance" in the Yellow River, and has released the *Notice on Further Supporting the Ecological Protection and High-quality Development of the Yellow River and the Yangtze River Areas* to the whole bank. For wind power, photovoltaic power generation and other industries involved in credit business, the Bank pays close attention to the impact of project construction and development on the ecological environment and biodiversity. The Bank clarifies the requirements of raising the awareness of environmental protection and strictly complying with the red line of ecological protection, the bottom line of environment quality, the upper limit of resources utilisation and the access list of ecological environment, and takes efforts to reduce the impact of industrial production on the ecological environment.

### ◆ Drive green growth in capital markets business

The Bank has developed the *Implementation Plan for the Expansion of Green Capital Market* and the *Promotion Plan for Carbon Peaking and Carbon Neutrality in Capital Markets Business* to actively play the diversified and full-cycle financing functions of the capital market. The Bank enriches its financial products, effectively attracts more social funds in investment and financing concerning "carbon peaking and carbon neutrality", and optimises the access process for green bond investment industry and issuers. Moreover, we strengthen duration management and improve the mechanism of post-investment management and issuer re-check policies, comprehensively creating differentiated competitiveness and service advantages.

### ◆ Expand the ecological footprint of green business

The Bank has issued the *Guidelines on Finance and Investment for Green Trade* to clarify the principles of green screening for trade finance and cross-border investments, promoting the construction of "Belt and Road" and contributing to the green and high-quality development in international trade. Giving full play to the advantage of the Group's full-coverage financial licenses, all subsidiaries actively respond to the strategic plan for green finance, optimise green finance business policy systems considering their own business characteristics and development directions, constantly optimise green finance business policy systems and develop green finance action plans and implementation specification.

### ◆ Intensify performance assessment

The Bank introduces an indicator named "supporting the ecological civilisation strategy" to management performance appraisal and increased the weight of green finance in the performance appraisal system across departments in the Head Office, branches and subsidiaries. Besides, we refine the requirements of green finance development in major areas, introduce new requirements of green development for manufacturing, inclusive finance and agriculture-related areas, and include environmental and climate risks control in the appraisal scope.

### ◆ Saving energy and reducing emissions in daily operation

The Bank actively creates a green and low-carbon office working environment, steadily promotes the construction of "zero-carbon" pilots, and optimises and strengthens low-carbon and energy-saving management. The Bank updates and applies energy conservation and emission reduction technologies, selects environmental-friendly building materials and equipment to save energy and water, promotes paperless working to build green office spaces, and organises environmental protection publicity and education activities, promoting green operations comprehensively. The Bank has formulated the *Interim Measures for Financial Management* and the *Interim Measures for Management of Computer and Peripherals*, and ensures electronic waste recycled safely and eco-friendly.

### ◆ Initiatively refining the procurement system

The Bank takes initiative to integrate environmental protection, energy conservation, and emission reduction policies into procurement system. In the *Management Measures for the Centralised Procurement*, it is stipulated that "energy-saving and eco-friendly products shall be first considered for centralised procurement". In the *Supplier Management Regulations*, it is stipulated that "in the access and selection stage of suppliers, suppliers with energy-saving and eco-friendly products shall be first considered". In the selection stage of candidate suppliers, the Bank strengthens the review of the green and environmental protection credentials, prioritises suppliers with the credential of energy conservation and environmental protection or green credential to participate in procurement and increases the weight of indicators related to energy conservation and environmental protection during model selection test and procurement review.



Guangdong Zhongshan Cuiheng New District Sub-branch became the first nationwide "zero-carbon outlet"



# 04

## Environment-related Risks and Opportunities

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With great importance attached to the actual and potential impact imposed by environment and climate-related risks and opportunities on strategies, business and future planning, the Bank has kept improving its risk management system, and has carefully identified, analysed and responded to environment and climate-related risks and opportunities.

## Environment-related Risk Management System

The Bank has incorporated environment-related factors into the regular identification and management of risks, conducted climate-related risk stress testing and ESG rating quantitative analysis, and researched corresponding measures for environment-related risks and opportunities to effectively guide the implementation of green finance business.

In 2021, environment and climate-related risks were officially incorporated into comprehensive risk management system, and managed by the specialised risk management department. The Bank carried out the construction of the ESG evaluation system for corporate clients and explored to establish a sustainable development capability assessment tool for enterprises. The

information of environmental protection related penalties was incorporated in the comprehensive risk alert and detect platform as an important indicator for client profiling, and also incorporated into the "Smart Risk Control" App to facilitate convenient query on mobile terminal. New features, such as the icons of "environmental protection related penalty in the past two years" and the branch-specific management and control rules, were added to the risk scan and detect system and applied bank-wide. An environmental related factor reporting framework was established, and the *Environment and Climate-related Risk Analysis Report* and the *Report on Risk Quantification of ESG-related Factors* were prepared.

## Full Process Management of Environmental and Social Risks

To strengthen the overall risk management and control of credit business, the Bank has classified clients from all industries into A, B and C categories (with a risk level of high, medium and low, respectively) based on their environmental and social risk rating, and implemented differentiated management measures for clients with different risk levels.

The Bank requires targeted investigations based on the characteristics of the industry and region where the client operates, including but not limited to the client's current environmental and social risk measures, and historical violations against environmental safety requirements.

### At the prelending investigation stage

- The Bank declines new clients identified as the one with high risks, and rejects to grant new credits to existing clients identified with high risks.
- Clients with medium risks are required to go through strict access review and implement risk mitigation measures. For clients who have completed the rectification but are still under observation, approval is required before new credit is granted.
- Clients with low risks can apply for loans in accordance with the relevant rules and regulations.
- Clients pending to be classified will not be accepted for credit approval.

### At the loan granting approval stage

The Bank implements strict inspections on violations of environmental protection laws and regulations, safety accidents, and other issues.

### At the post-loan management stage

The Bank reviews risk issues monthly and conducts timely re-inspection, classification, and confirmation. Clients identified with medium and high risks will be put into the list system management and subject to stricter inspection, including more frequent on-site inspections and quarterly dynamic assessment.

In the project evaluation, the Bank refines the evaluation requirements for energy-saving and emission reduction, environmental protection, resource conservation and recycling, environmental and climate risks, etc., and added a special impact analysis in the terms of "carbon peaking" and "carbon neutrality".

## Full Process Management of Environmental and Climate Risks

To cope with risks associated with climate change, the Bank has formulated environmental and climate risk management policies for all corporate credit clients, in which it has incorporated environmental and climate risks into the overall credit management process. The Bank specifically considers projects with high energy consumption and carbon emission under the list for primary management, and focuses on key basis such as situations of energy efficiency, greenhouse gas emission and pollutant emission during the selection of clients and projects, credit approval and post-loan management.

### In terms of client selection

The Bank evaluates clients' environmental and climate risks, and executed the "One-Vote Veto" mechanism based on the evaluation results. In other words, the enterprises will be rejected to grant credit if they are identified to be against national policies and regulatory requirements, with incompetent environmental protection, with environmental and climate violations and rectification has not yet been completed or with significant environmental and climate risks. The Bank has downsized the support for or withdrew enterprises or projects with serious problems, severe negative impacts, repeated violations, or inability to rectify.

### In terms of credit review

The Bank implements differentiated credit approval strategies based on clients' environmental and climate risks. Credits will not be granted for enterprises or projects that fail to meet the environmental and climate risk control.

### In terms of post-loan management

Factors related to environmental and climate risks are covered in the post-loan inspection. The Bank has strengthened the inspection and tracked the management on the early warning of risks, to ensure timely processing of early warning signals. For clients with major environmental and climate risks, the Bank has implemented strict control over credit exposure for effective risk mitigation.



Liugonghui Urban Renewal Project in Shougang Park, Shijingshan District, Beijing—Low-carbon Innovation Industrial Base

# Identification and Response to Environmental Risks and Opportunities

Referring to the *Recommendations of the Task Force on Climate-related Financial Disclosures*, the Bank identifies and analyses current or potential transition risks, physical risks and their impacts, and researches relevant opportunities. We have formulated countermeasures to risks, and conducted environmental and climate risk stress testing in the thermal power, iron and steel, cement, aviation and other industries. The Bank will further explore the impact of environmental and climate-related risks, integrate climate change risk factors into the management of risks, and improve comprehensive risk management system.

## Risk Identification and Response

The examples of main environmental and climate-related risks identified by the Bank and corresponding measures include:

**Transition risks**

Risks arising from changes in public policies, technologies, the preferences of clients and investors and business models in relation to addressing climate change and adapting to low-carbon development in the course of transforming to a climate-resilient economy, namely the cost of actively addressing climate change.

**Policies and laws**

**Risk description**

Under the background of the goals of "reaching carbon peaking by 2030 and carbon neutrality by 2060" in China, in the future, the price of greenhouse gas emissions may increase. Tax may be levied on greenhouse gas emissions. Stricter requirements may be imposed on the reporting and information disclosure of carbon emissions, and stricter technical and regulatory requirements may be imposed on existing products and services.

**Major impact**

The failure to keep abreast of relevant national laws, regulations and policies, and to formulate and implement specific implementation measures, may incur additional costs, and even face legal risks such as fines or lawsuits.

**Response**

- Pay constant attention to the development of national legislations with respect to green development and environmental protection, and enhance the ability to address legal risks.
- Enhance research on credit approval, continuously improve the scientific and forward-looking attributes of the credit approval process, and pay close attention to the issues related to environment sector; establish a mechanism for interpreting regulatory policies related to credit approval, keep track of the policies trends, and strengthen the focus of credit granting accordingly.

 <b>Market</b>	<b>Risk description</b> <ul style="list-style-type: none"> <li>The customer preferences and investment behaviours will change with the increasing awareness of climate change in the market, and customers will prefer products and services that are more environmentally friendly.</li> <li>In the process of green and low-carbon transformation of the economy and society, high carbon-emission industries may face situations such as declining revenues, rising costs and declining profits, which will lead to higher default risk.</li> </ul>
 <b>Major impact</b>	<ul style="list-style-type: none"> <li>The failure to develop corresponding green products in a timely manner may result in risks including client lost and reduced demand for products and services.</li> <li>The operation of high carbon-emission clients will be affected, potentially challenging asset quality management of banks.</li> </ul>
 <b>Response</b>	<ul style="list-style-type: none"> <li>Timely research and develop products and services that meet the clients and consumers' environmental needs.</li> <li>In the credit policy, it is clearly required to promote green finance and achieve healthy leap-frog development, and to vigorously support the construction of a new energy supply and consumption system based on large-scale wind and photovoltaic plants bases, supported by clean, efficient, advanced and energy-saving coal power in its surrounding areas, and with stable, safe and reliable UHV power transmission and transformation lines as the carrier.</li> <li>Introduce special policies and systems, strengthen the management of credit, investment and financing business in industries with high energy consumption and high emissions. Energy efficiency levels, greenhouse gas emissions and pollutant emissions shall be regarded as important basis for client and project selections, credit approval and post-loan management, to resolutely curb the irrational development of high-energy-consuming, high-emission and low-level projects.</li> </ul>
 <b>Reputation</b>	<b>Risk description</b> <p>As the public awareness of issues such as environmental protection and climate change gradually deepens, poor environmental performance and negative news may adversely affect the Bank's reputation.</p> <p><b>Major impact</b></p> <p>In the course of daily operation and business management, the environmentally unfriendly behaviours or the failure to response to climate change in a timely manner may have negative impacts on the corporate image.</p> <p><b>Response</b></p> <p>Strengthen the cultivation of corporate culture and brand building, actively assume social responsibilities, accept public supervision, disclose information in a timely and accurate manner, and conduct regular inspection of potential reputational risks.</p>

Technology	
Risk description	<ul style="list-style-type: none"> <li>The phaseout of old technologies and equipment may result in risks such as assets idling or obsolescence.</li> <li>Replacing existing equipment and technologies with energy-saving and emission-reduction options may affect business stability during the conversion process and increase operating costs.</li> <li>Investments in new technologies may fail.</li> </ul>
Major impact	<ul style="list-style-type: none"> <li>The shutdown of outdated technologies and equipment may result in financial losses.</li> <li>Replacing energy-saving and emission-reducing equipment and promoting technological transformation may affect business stability and continuity, and increase operating costs (such as research and development expenses, original equipment modification costs, etc.).</li> <li>Failure of investment and financing related to new energy-saving and emission-reduction technologies may lead to financial losses.</li> </ul>
Response	<ul style="list-style-type: none"> <li>Promote the construction of an integrated scrapping and disposal mechanism for outdated technologies and resources, allow the market to determine the recycling price of outdated technologies and resources, and promote the secondary uses and recycling of resources.</li> <li>In the process of new and outdated technology transformation, the relevant testing and implementation processes are strictly checked to control the risk of switching and ensure the stable operation of the business.</li> <li>Promote the construction of the technical resources framework-order mechanism, continue to expand the coverage of the purchase framework, and consider both green environmental protection and procurement costs.</li> <li>Strengthen the adjustment of credit structure, tighten up customer selection, actively support the research and development of key technologies for energy conservation and emission reduction as well as application demonstration projects, and select high-quality enterprises to support breakthroughs in key and core technologies of enterprises.</li> </ul>

## Physical risks

Risks arising from the physical impacts of climate change, mainly including a variety of climate-related natural disasters and events, namely the cost of passively suffering from climate change.

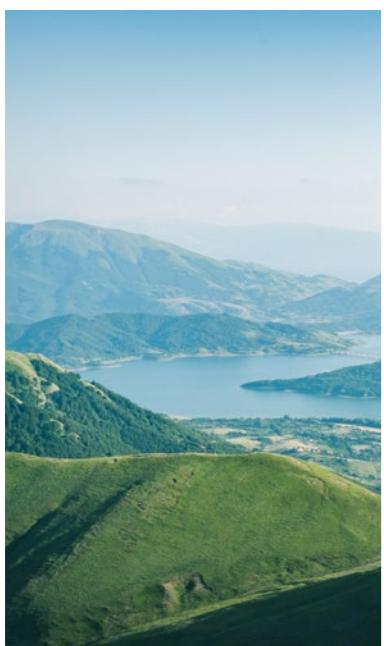
Acute	
Risk description	The severity of extreme weather events such as cyclones, hurricanes and floods may increase.
Major impact	Extreme weather events may result in water and electricity outage, damage to workplace, casualties, which could cause disruption to operations or loss of assets.
Response	<ul style="list-style-type: none"> <li>Formulated the <i>Business Continuity Management Policy</i>, the <i>Overall Emergency Response Plan for Business Continuity Management</i>, the <i>Management Procedures of Special Emergency Response Plan and Emergency Exercise for Business</i> and other policies. The organisational structure, emergency response strategy, emergency response plans and drill requirements are defined clearly. A management system for whole-process business continuity is established to effectively address the disruption of important business operations caused by physical risks.</li> <li>Formulated the policies such as the <i>Graded Response Mechanism for Safety and Security Emergencies</i>, the <i>Emergency Response Plan for Natural Disasters</i>, the <i>Regulations on Safety Early Warning</i> and other policies, the early warning and handling process for the events related to extreme climate are clarified. Safety early warning will be released in a timely manner to remind relevant branches to prevent and take countermeasures in advance.</li> <li>Based on the architecture of “three centres in two locations”, important business information systems can be switched to other centres, in case of any extreme weather or other disasters affecting the data centre.</li> </ul>

Chronic	
Risk description	Climate in coastal areas changes with the rainfall undulation, extreme weather changes, rising average temperature and rising sea level.
Major impact	Climate change may adversely affect climate-sensitive industries such as agriculture in the relevant areas and result in damages to the properties and facilities possessed by individuals or companies, consequently increasing the risk of debt default in relevant industries or areas.
Response	In view of the major risks related to climate change, we will carry out emergency drills in core business systems, employee channels, etc., improving practical capabilities of disaster preparedness.

## Enhance Risk Response Capability

### Improve policies and strengthen the guidance for the response to environmental risks

The Bank formulated the *Guideline for Assisting Carbon Peaking and Carbon Neutrality and Promoting Green Credit Development*, analysed the environmental-related opportunities and challenges, and hence proposed strategies for the low-carbon development to enhance the policy transmissions and business guidance. The Bank conducted research on various sectors and released documents such as the *Marketing Guidelines for Green Building Industry* and the *Marketing Guidelines for Wind Power and Photovoltaic Power Industry*, which reviewed the current situation and development trends of relevant industries, established future marketing strategies based on the credit situation, and guided branches to increase support for key green industries. In addition, the Bank has actively explored the quantitative analysis of environmental and climate-related risks, whereby understanding the methods and rules adopted for the scenario design, stress transmission paths and stress indicator calculation of the climate transition risk stress testing for thermal power, iron and steel, cement and aviation industries. The potential impact of climate transition on the above-mentioned carbon-intensive industries were comprehensively analysed.



### Conduct regular audits to ensure the quality of green finance

In accordance with the principle of seamless coverage between periods, the Bank has conducted targeted audits on green credit on a regular basis, focusing on the strategic planning for green credit, the formulation and implementation effectiveness of green credit policies, the compliance of the process control of green credit business, the effectiveness of operation and management mechanisms and the major risks of related businesses. Since 2020, the Bank has continuously paid attention to green credit business by methods combining both off-site risk analysis and on-site verification. 34 domestic tier-1 branches have been conducted the targeted audit on green finance. When conducting audit on the green bond business, the Bank has attached importance to the situation in promoting and implementing national policies, the adequacy and appropriateness of the promotion measures for green bonds underwriting, and relevant supporting systems and assessment policies, as well as the compliance of the bonds underwriting and investment.

- Explore the quantitative analysis of environmental and climate-related risks
- Conduct targeted audits on green credit on a regular basis
- Carry out special training on environment and climate-related risks stress testing



### Organising targeted trainings to enhance staff's professional capability

The Bank conducted a targeted training for all compliance reviewers, on *Policies, Systems, FAQs and Case Study for Green Credit Recognition*. The Bank carried out special training on environment and climate-related risks stress testing, inviting internal and external experts to share their insights on the concept, future developments and international practices of environmental and climate-related risks, and methods and tools of the stress testing, which enhanced the capacities of relevant key personnel of Head Offices, branches and subsidiaries. Focusing on opportunities and challenges for commercial banks, the bank also organised a series of lectures on "carbon peaking and carbon neutrality" to all staff on regarding development trends in energy, industries and other sectors.



## Identify and Grasp Opportunities

### The environment and climate-related opportunities

In the process of the mitigation and adaptation to climate change, create opportunities such as saving costs, exploring new market and enhancing reputation by adopting green technologies and developing low-carbon products and services, namely the opportunities for operation and marketing arising from proactive transformation.



- The examples of environmental and climate-related opportunities identified by the Bank are as follows:

Reduce operating costs



Reduce operating costs by adopting energy-saving and emission-reducing technologies and green office measures, to decrease the consumption of fossil energy and carbon-intensive resources in the course of operation.

Explore green products and services



Continuously develop and launch green finance and transition finance products, such as green bonds, green loans, transition bonds and transition loans, to gradually improve the green attributes of various financial products to meet the growing demand of clients for green financial products, which enhance market competitiveness and facilitate the green and low-carbon transformation of the economy and society.

Enhance corporate image



The Bank will not only effectively avoid losses of operation, but also acquire positive comments from the public, clients, investors and other stakeholders, and enhance its public image by actively implementing the "1+N" policies for carbon peaking and carbon neutrality and effectively responding to risks related to environment and climate change.

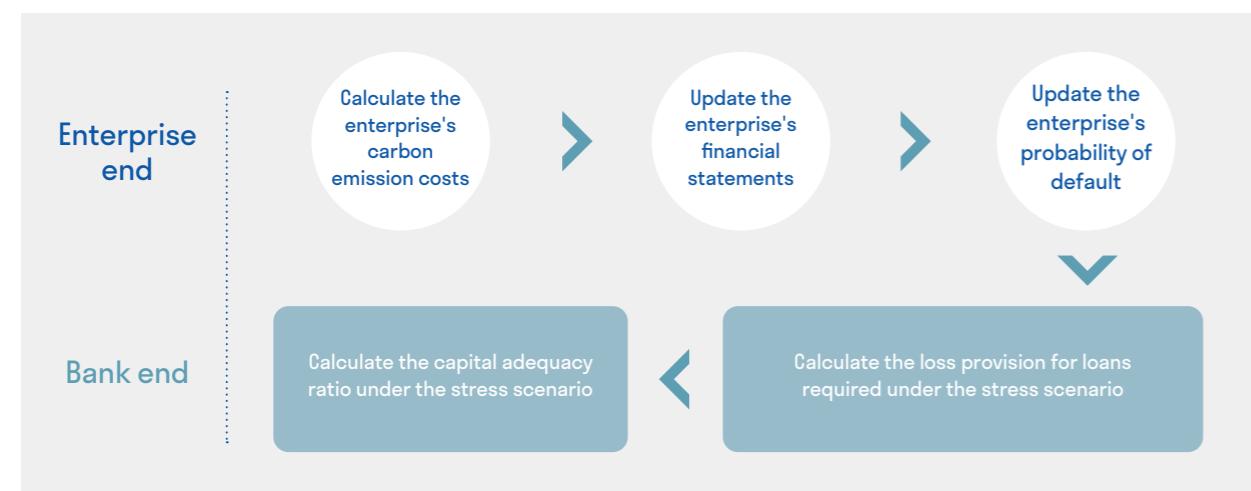
# Quantitative Analysis of Environmental Risks

In 2019 and 2020, the Bank conducted environmental risk and climate transition risk stress testing for the chemical and thermal power industries. In 2021, the Bank continued to refine the methodology of the climate transition risk stress testing for thermal power industry, and research the methodology of the climate transition risk stress testing for carbon-intensive industries such as iron and steel, cement and aviation industries, and conducted stress testing one by one.

## Methodology and results of climate transition risk stress testing

In 2021, the Bank participated in the climate transition risk stress testing organised by the People's Bank of China and completed the stress testing for thermal power, iron and steel and cement industries to assess the potential impact of the transition to the goals of carbon peaking and carbon neutrality on the Bank's credit assets. In addition, the Bank actively conducted the climate transition risk stress testing for the aviation industry.

With the international mainstream methodology adopted, the test assessed enterprises one by one "from bottom to top" in a quantitative way for the impact of climate transition risks on clients' financial costs, credit ratings and the Bank's capital adequacy. The test focused on the Bank's corporate clients in thermal power, iron and steel, cement and aviation industries with annual carbon emissions above 26,000 tonnes of carbon dioxide equivalent (with reference to the recognition criteria for significant greenhouse gas emitters released by the Ministry of Ecology and Environment). The test set the end of 2020 as the base period and covered a duration of 10 years, with three stress scenarios (mild, moderate and severe) which mainly considered the carbon price fluctuation in the domestic carbon emission trading market and the carbon price scenarios of the Central Banks and Supervisors Network for Greening the Financial System (NGFS). The test is based on three key assumptions: 1) the enterprises are charged at certain rate of cost for their carbon dioxide and other greenhouse gas emissions, and the cost increase annually; 2) no technological improvement, and a single enterprise has no bargaining power over upstream and downstream enterprises; 3) the insolvent enterprises are unable to repay the loans and goes into default of the corresponding loans. The tested enterprises are charged for carbon emissions, resulting in higher production costs, lower profitability and higher probability of loan default, which consequently increase the bank's expected losses and affect its capital adequacy. The risk transmission path is as shown in the diagram below.



Under the stress scenario, a bank was considered to have passed the stress testing if the Core Tier 1 capital adequacy ratio, Tier 1 capital adequacy ratio and total capital adequacy ratio could all meet the regulatory requirements (including the additional capital requirement for systemically important banks).

The test results indicated that the Bank's clients in thermal power, iron and steel, cement and aviation industries would see declines in repayment ability to various extents under the stress scenarios. Although this decline resulted in credit rating downgrades, the risks were generally under control. The thermal power, iron and steel and cement industries were affected to larger extents. Under three stress scenarios (mild, moderate and severe), the Bank's capital adequacy ratios decreased by 0.86, 1.15 and 1.35 percentage points respectively by 2030. However, since the loan balances of industries mentioned above accounted for a relatively low portion, the impact on the Bank as a whole was limited, and the ultimate capital adequacy ratios were all above the regulatory requirements.

The Bank will make full use of the stress testing results to strengthen credit management in related industries, monitor the development and changes of credit business in relevant industries, and formulate risk warnings. The Bank plans to carry out the transition climate risk stress testing in other high-carbon industries, such as petrochemistry, chemistry, non-ferrous metals, plate glass, papermaking, power grid, and airport. In addition, the Bank has launched the research and exploration on physical climate risk stress testing.

## CCB Asia and CCB Hong Kong Branch conducted special climate risk stress testing



In early 2021, CCB Asia and CCB Hong Kong Branch were invited to participate in a climate risk stress testing conducted by the Hong Kong Monetary Authority, which focused on physical risks and transition risks, as well as key risk indicators including credit risk, market risk and operational risk. Based on the climate information provided by the Hong Kong Observatory, scenarios provided by the Central Banks and Supervisors Network for Greening the Financial System (NGFS), relevant climate predictive analysis and sustainability reports issued by enterprises, CCB Asia and CCB Hong Kong Branch prospectively measured the impact of physical risk and transition risk on profits and capital adequacy ratio, exploring new climate risk stress testing methodology.



The Bank facilitates power companies to accelerate technological upgrading for energy conservation



# 05

## Environmental Influence from Investing and Financing Activities

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The Bank continues to improve the long-term mechanism for green finance development, accelerates green and low-carbon transformation of investment and financing, and leverages the advantages of FinTech and fully licensed finance, to actively explore new products, services and initiatives for the development of green finance. The Bank also utilises a combination of financial instruments, including green credit, green bonds, green leasing, green trust, green insurance and green wealth management to extensively support and nurture green industries.



<sup>1</sup>In accordance with the *Notice on the Work Related to Green Financing Statistical System* issued by the China Banking and Insurance Regulatory Commission, the Bank updated the statistical caliber for indicators related to green loan in 2021. The historical data of 2020 is disclosed according to the relevant caliber of the *Notice on the Submission of Green Credit Statistics Form* issued by the former China Banking Regulatory Commission.

<sup>2</sup>Underwritten green bond data disclosed by the Bank includes green bond and sustainable development bonds underwritten in domestic and overseas bond markets.

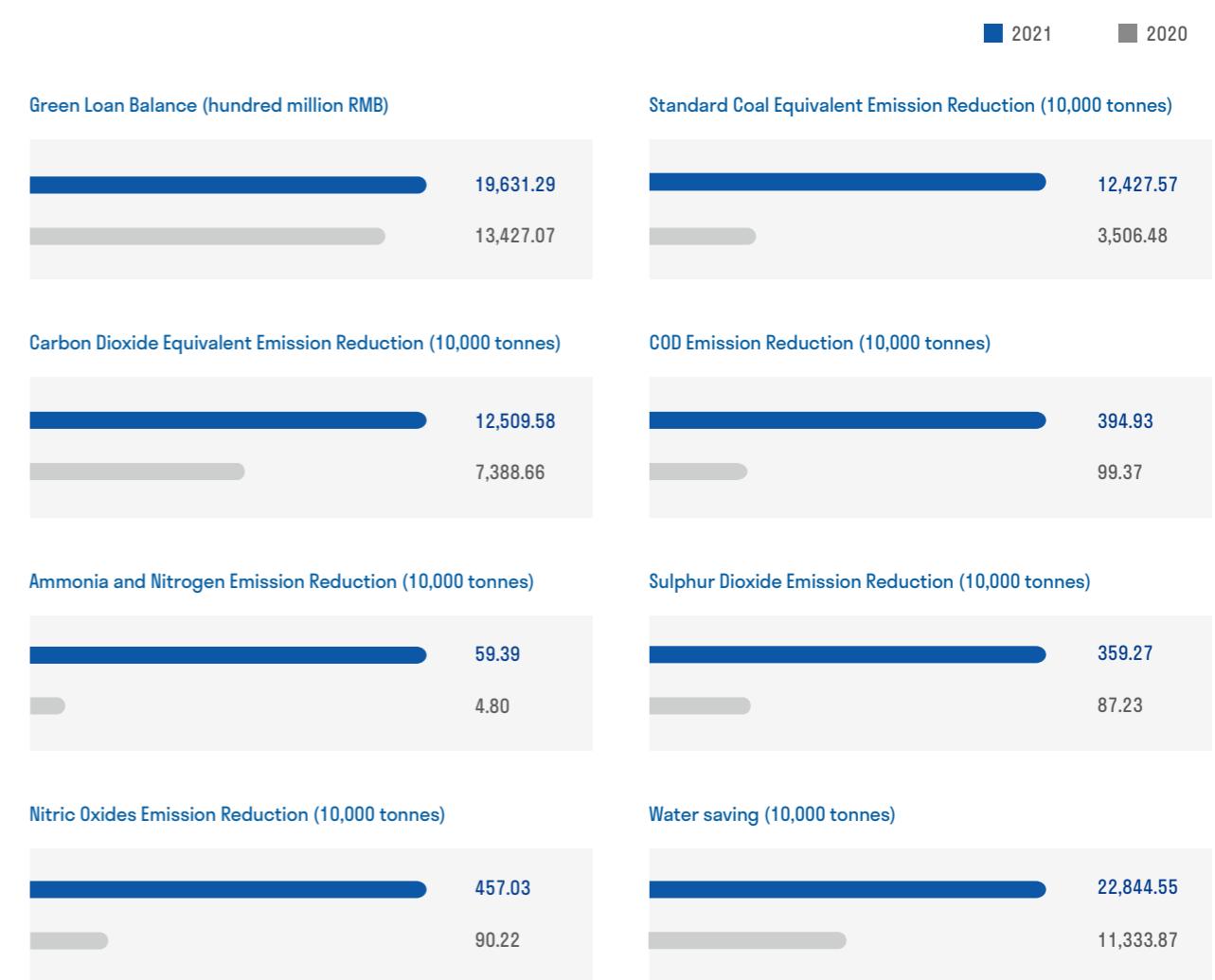
<sup>3</sup>ESG-themed bonds disclosed by the Bank include the green bond, social bond, sustainability bond, sustainability-linked bond and transition bond that comply with the relevant principles of the International Capital Market Association (ICMA).

## Green Credit and Its Environmental Influence

In 2021, in active response to national policies and requirements related to green finance, the Bank broadly expanded clients from green industries. As of the end of the reporting period, the balance of green loans was RMB1.96 trillion, up by 35.61% over the last year. The proportion of green loans continues to increase, and the Bank has invested more in green loans and put emphasis on investment fields of various industries such as green upgrades of infrastructure, clean production and clean energy, energy conservation and environmental protection, ecological environmental protection and green services. In addition, the Bank has given priority support to industries relating to clean energy, and facilitated the approval process of carbon reduction supporting tools and re-lending projects for green and efficient use of coal. Special policies and regulations were issued to tighten the screws on management of loans that invest in and finance for high energy-consuming and high emission projects. The Bank also reduced and withdrew from projects with backward production capacity, high environmental and social risks, and energy efficiency levels against standards.

### Environmental impact of green credit

The Bank has measured the environmental impact of green credit based on the filling rules, the requirements and the guidance for measuring energy saving and emission reduction in accordance with the *Notice on the Work Related to Green Financing Statistical System* issued by the China Banking and Insurance Regulatory Commission as well as the data of the project approval documents and feasibility study reports of green credit projects.



# Investing and Financing of Green Bonds

The Bank implemented a variety of measures to continuously promote the development of green bonds business. With more financial resources invested in green and low-carbon industries, the Bank innovatively developed green bond underwriting and issuance services, and actively participated in investment and transactions of green bonds, to explore new practical paths for the sustainable development of financial service model.

## Issuance of green bonds

The Bank put emphasis on supporting green enterprises and products. As of the end of 2021, accumulative volume of ESG-themed bonds issued by the Bank amounted to RMB45,495 million.

As of the end of 2021

Issued ESG-themed bonds amounted to

RMB **45,495** million

In April 2021, the Bank simultaneously issued multi-currency ESG-themed bonds overseas, with the total amount of raised fund equivalent to US\$2.4 billion, achieving a number of innovations and breakthroughs. The bonds issued include three-year and five-year dual duration sustainability-linked bonds of US\$1.15 billion, which is the first sustainability-linked bond in USD among global financial institutions, taking the proportion of green loan balance to total domestic loans as the key performance indicator (KPI). The Bank issued a three-year green bond of EUR800 million, with the raised fund used for sustainable water resource projects, such as sewage treatment and riverway governance in the Yangtze River, the Yellow River and other basins. The Bank also issued a two-year offshore RMB transition bond of RMB2 billion, as the largest scale offshore RMB transition bond, mainly used to support projects with significant environmental benefits in carbon-intensive industries.

In December 2021, the Bank issued the second three-year overseas green bonds of US\$500 million in 2021, which has been the Bank's first USD floating rate bond priced at the new benchmark interest rate, as well as the world's first green bond based on the *Common Ground Taxonomy - Climate Change Mitigation* released by China and the EU.



Luxembourg Branch held the listing ceremony for green bond of EUR 800million

## Underwriting of green bonds

Accelerating the underwriting of green debt financing tool for the interbank market, the Bank provided cross-border and cross-market green bond underwriting services for the Bank's green clients. In 2021, the Bank underwrote 72 domestic and overseas green and sustainability bonds totalling RMB124,037 million, including green bonds totalling RMB41.4 billion of non-financial enterprises, with a year-on-year growth of 527%. These bonds included the market's first batch of carbon neutrality bonds, sustainability-linked bonds, the first green Quasi-REITs in the interbank market and the green bond dubbed as Lotus Bond. In addition, the Bank issued 3 green debt financing plans totalling RMB1.2 billion and 17 wealth management direct financing tools and other products of urban construction in Zhejiang Province totalling RMB6.59 billion. Each year, the underwriting of the first green and energy industry interbank Quasi-REITs can save 207.7 thousand tonnes of standard coal and reduce emissions of carbon dioxide, sulphur dioxide, nitrogen oxides, soot and dust of 1,135 thousand tonnes, 501.95 tonnes, 73.07 tonnes and 92.63 tonnes respectively.

In 2021, the Bank undewrote domestic and overseas green and sustainability bonds

**72**

Totalling

RMB **124,037** million

With strengths in underwriting rate bonds and local government bonds and the utilisation of FinTech empowerment, the Bank has taken the initiative in underwriting green policy-based financial bonds and local government green bonds, promoted the concept of green investment to the market through multiple channels, and cultivated the awareness of responsible investment. Moreover, the Bank, relying on interconnect trading platform, has empowered small and medium-sized financial institutions with FinTech, to collaborately participate in the investment of green bonds and support national strategy. For the purpose of opening up of bond market, the Bank has given full play to the Group's advantages in globalised business to attract overseas investment organisations to participate in the issuance and subscription of green bonds through "Bond Connect" and other channels, such as "infrastructure green upgrades - green transportation" themed bond issued by China Development Bank. For local government bonds, the Bank has facilitated the innovations of the issuance modes and cooperated with issuers, regulators and infrastructure organisations in the market to research and promote green certification of local bonds.

## Investing in green bonds

The Bank has invested more in green bonds, including green financial bonds, green local government bonds, green corporate bonds and green bond financing instruments. In addition to ever-improving refined management in the investment of green bonds and launching more portfolios in green industries, the Bank has provided sustained financial supports in key green industries and high-quality issuers in China's strategic key fields, such as construction of Guangdong-Hong Kong-Macao Greater Bay Area, the Yangtze River Economic Belt and the ecological protection of the Yellow River basin.

As of the end of 2021, the Bank saw a year-on-year increase of 342.57% of green bonds balance in RMB portfolio and 140.09% in foreign currency portfolio. Moreover, the Bank has taken a series of measures to actively participate in primary market investment of green bonds and liven up secondary market transactions, such as establishing synergy mechanisms and subscription of innovative bonds, contributing to direct green financing totalling over RMB130 billion, and giving full play to the Bank's leading and supporting functions of green finance in industries.

## Green bonds trading

The Bank has performed the duties as a market maker, carrying out the green bonds marketing in the interbank bond market and over-the-counter bond market, to promote green bonds trading. Through business channels including outlets and mobile banking, the Bank has sold the "carbon neutrality" themed green bonds issued by China Development Bank and the first carbon neutrality bonds for forestry carbon sequestration in China issued by Agricultural Development Bank of China to investors.



# Development of Other Green Finance Businesses

In virtue of well-coordinated and inter-connected strengths, the Bank has expanded the scale of green finance services and accelerated its green transformation.



## Green housing and personal financial services

The Bank has increased application of green products in its industrial chain, enhanced the ability to provide green financial services for housing finance business, implemented the classification for new green individual mortgage loans, and guided new individual mortgage loans to support green building projects. The Bank has advocated green business process and improved online financial services such as mobile banking.

## Green supply chain

Regarding “green development” as one of the development strategies of supply chain finance, the Bank has innovated in the service mode of green supply chain. The Bank has taken full advantage of its comprehensive business advantages, explored and developed in key areas such as clean energy, green building, green transportation, etc., created tailored solutions, and improved the circulation efficiency of the industrial chain, to promote the combined benefits of society and economy.

## Green fund

The Bank has served the establishment and investment operation of green funds, conducted green funds custody, and made contributions to set up the National Green Development Fund. With the first contribution of RMB800 million in May 2021, the Bank became the custodian bank of the fund. In addition, CCB Principal Asset Management has actively allocated green assets and issued green products. It has managed 8 green-related public offering fund products, with the offering size of about RMB7,625 million.

## Green wealth management

CCB Wealth Management innovatively issued ESG-themed, carbon neutrality-themed and other green wealth management products. Since 2020, six “Ruixin ESG” themed wealth management products have been issued, with the product scale of RMB14.1 billion.

## Green investment

CCB Investment has expanded the scale of green equity investment, with completed green investment projects amounting to more than RMB15 billion. It has cooperated with major state-owned enterprises to set up multiple “carbon neutrality” themed funds. CCB PE has stepped into green and low-carbon industry through financing service combining stocks and bonds. In 2021, two new energy projects were successfully invested, with a total investment scale of RMB125 million.

## Green leasing

CCB Financial Leasing has expanded the scope of green leasing business by adding clean energy as the key area in addition to rail transit, green vehicles, water environment treatment and other fields. In 2021, the investment in total green leasing was RMB14.2 billion, with a steady growth of green assets maintained.

## Green insurance

In 2021, CCB Life issued “CCB Asset Management Pujiang - Enjoying Carbon Neutrality Themed Asset Management Products”, a green themed investment portfolio product. CCB Property & Casualty actively developed green building performance insurance products, utilised insurance as a credit enhancement reliance for banks’ green credit, and promoted new exploration of green building credit.

## Green futures

CCB Futures has provided differentiated price to clients who actively disclose information and demonstrate high performance in energy conservation, emission reduction, pollution prevention and control, and lowered transaction costs for such clients through service fee reduction and interest and fee return. As of the end of 2021, the balance of green business of CCB Futures was RMB1,389 million, of which an increase of RMB1,059 million from the beginning of the year.

## Green pension

CCB Pension has continued to increase investment in green finance assets, constantly increased the proportion of green business which were mainly invested in green infrastructure, energy conservation and environmental protection industries.

## Green consulting

While providing costing, supervision and other services for green development related projects, CCB Consulting has actively cooperated with professional institutions such as design institutes in project budget preparation and investment control of green buildings, and participated in consulting services for green and low-carbon projects such as prefabricated buildings. In 2021, CCB Consulting undertook 43 domestic green and low-carbon projects, including low-carbon operation, energy conservation and emission reduction, environmental governance and ecological protection, with an investment of RMB13.5 billion.

## Green trusts

CCB Trust has allocated green assets in various ways, including governmental green projects at different levels, corporate green projects and green asset-backed commercial bills. In 2021, as a strategic investor, CCB Trust participated in the investment of the AVIC Shougang Biomass REITs, the first green public offering REITs project. As of the end of 2021, the scale of green finance business of CCB Trust was RMB12,940 million.

## Quantitative Calculation of Environmental Impact

The Bank's environmental performance data of investment and financing activities are mainly obtained from the project approval documents, feasibility study reports and environmental impact reports, etc. If the corresponding data are not provided in the above documents, the calculation of environmental impact of green credit would be conducted based on the formula provided by the new version of the *Guidelines for Measuring Energy Saving and Emission Reduction of Green Credit Projects* issued by the China Banking and Insurance Regulatory Commission in May 2020.

The Bank calculates the annual energy saving and emission reduction resulting from the green loan based on the total investment amount of the project group and the project energy saving and emission reduction data reported by the client manager in the business system, combined with the bank's loan balance and formula provided according to the guidelines mentioned above, i.e.

$$\text{The annual energy saving and emission reduction facilitated by the loan} = \frac{\text{The balance of the Bank's loan to the project}}{\text{Total investment in the project}} \times \text{The annual energy saving and emission reduction after the completion of the project}$$

## Typical Cases of Green Finance

### Typical Cases of Green Loans

Exploring a new mode of "bank-enterprise mutual promotion of low-carbon transformation"

case

The Bank has stepped up cooperation on "carbon finance" with state-owned enterprises and explored a new mode of "bank-enterprise mutual promotion of low-carbon transformation". The Bank innovated the "carbon credit loan" business model, provided a state-owned company with low-cost financing support of RMB200 million for energy conservation technology upgrading and took carbon emission allowances as the pledge. Through writing off the saved carbon quota, the state-owned company became the first power producer in the domestic power industry to commit to voluntary emission reduction and write off carbon quota, which also allowed Guangzhou Huadu Branch to become the first domestic banking institution to achieve "carbon neutrality" in its own operation through green loan support. This project helped to promote the transformation of enterprises from passive carbon reduction to active carbon reduction, realising the synergistic low-carbon development of financial institutions and green enterprises.



China Emissions Exchange awarded the certificate of carbon neutrality for Guangzhou Huadu Branch

Innovation in "carbon sequestration pledge financing"

case

Using dual pledge of carbon sequestration and carbon notes as risk mitigation measures, the Bank issued a green loan of RMB10 million to a forestry company, which is a subsidiary of a state-owned enterprise in July 2021, to support the trade procurement of forestry products certified by the Forest Stewardship Council (FSC). This green loan enabled the enterprise to revitalise the existing forestry carbon sequestration resources, and was the beneficial attempt cooperating with state-owned enterprises clients to explore the transaction of Chinese Certified Emission Reduction (CCER) of forestry carbon sequestration.

Supporting the construction of a photovoltaic project for desertification control

case

Inner Mongolia Branch approved a capital construction loan of RMB489 million for the photovoltaic project developed by a wind power company for desertification control with a term of 13 years. In 2021, RMB383 million has been granted, and carbon reduction supporting tools has been funded, which has provided preferential interest rate financing for the project and effectively guaranteed the construction progress of the project. After the completion of the project, the average annual power generation is expected to be 0.25 billion kWh. Compared with coal-fired thermal power plants of the same scale, it will be able to save 81.5 thousand tonnes of standard coal, 1,436.18 tonnes of sulphur dioxide emission and 197.5 thousand tonnes of carbon dioxide emission.

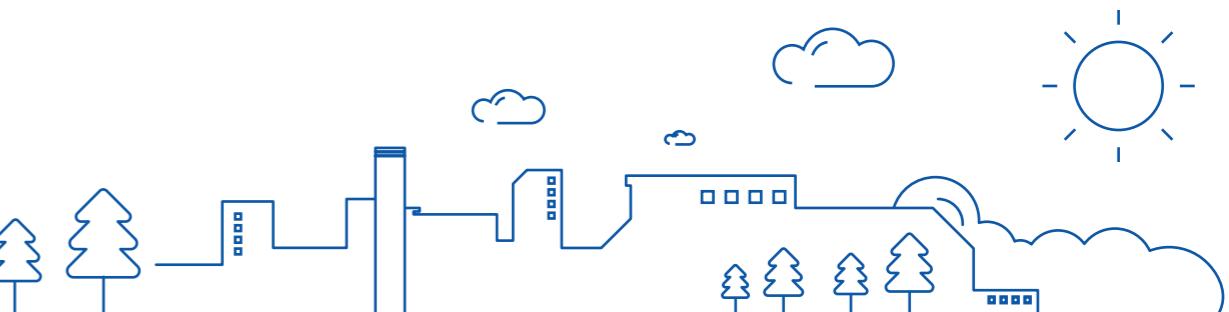


Inner Mongolia Branch provided credit support for the photovoltaic project for desertification control

Supporting the construction of green power station demonstration projects

case

With a total investment of over RMB10 billion, a green power station demonstration project located in Ulanqab, Inner Mongolia, has become the first new energy station with an energy storage configuration scale of 1,000 MWh in China. Inner Mongolia Branch approved a capital construction loan of RMB1.6 billion for the first phase of the project with a term of 15 years. RMB159 million of loans have been successfully placed in 2021, and carbon emission reduction supporting instrument fund has been obtained. In December 2021, 425 thousand kW of wind turbines, 75 thousand kW of photovoltaics and 140 thousand kW × 2 hours of lithium battery energy storage in the first phase of the project were completed and combined to the grid, supporting sustainable economic and social development with new energy.



## Typical Cases of Green Bonds

### Empowering smart city construction and green mobility

 case

Yunnan Branch provided loans of RMB2,156 million for the Kunming Railway Line 4 and Line 5 projects in 2021. After the completion and opening of Line 4, it has formed a “cross” backbone network, serving the needs of the main city of Kunming, effectively relieving traffic congestion in the main city and promoting green and low-carbon transportation. The construction of Line 5 has completed thorough research and optimisation of line planning, station design and power supply, which has effectively reduced power consumption for station operation and lighting, decreased vehicle energy consumption, and saved energy and reduced emissions by ventilation and air conditioning systems.



The Kunming Rail way Line 5 has been established for use

### Implementing the first carbon quota pledge financing business in Tianjin

 case

In April 2021, Tianjin Branch, in collaboration with Tianjin Climate Exchange, innovatively took the carbon emission quota as the pledge to be the credit enhancement measure, granted a credit limit of RMB30 million and provided a single business loan of RMB20 million for Tianjin Juncheng Pipeline Industry Group Co., which was the first successful carbon quota pledge financing business in Tianjin. At the same time, this business included carbon quota in the scope of eligible pledges, and expanded the pledges's scope of environmental rights and interests. This case became an example of the cooperation between carbon emission trading platform and financial institutions in Tianjin and made great progress in exploring the integration of market-based carbon asset management and financial business.



Implement the first carbon quota pledge financing business in Tianjin

### Issuance of the world's first *Common Ground Taxonomy* exemplary bond

 case

In December 2021, the Bank successfully issued its second offshore green bond in 2021, raising US\$500 million over a 3-year period, which is the Bank's first USD floating rate bond priced at the new benchmark interest rate and the first green bond issued worldwide based on the *Common Ground Taxonomy - Climate Change Mitigation* released by China and the EU. The funds raised are specifically used to support high-quality projects of clean transportation and clean energy in the Guangdong-Hong Kong-Macau Greater Bay Area. Meanwhile, the bond also complied with the relevant standards of the *Green Bond Principles* and the *Guidance on Taxonomy of Climate Investment and Financing Projects*, and was rated as “deep green” by Global Capital Asia.

### Underwriting and issuing the first “carbon neutrality + rural revitalisation” double-labelled ultra-short-term financing bond in China

 case

In June 2021, the Bank successfully underwrote and issued RMB0.5 billion ultra-short-term financing bonds for Huaneng Lancang River Hydropower Inc. in Yunnan Province. This bond is the first “carbon neutrality + rural revitalisation” double-labelled ultra-short-term financing bond in China to facilitate the construction of clean engergy. The funds raised this time were all used to repay bank loans for the construction of Nuozhadu Hydropower Station, Gongguoqiao Hydropower Station and Xiaowan Hydropower Station Project which had been completed. According to the calculation of investment ratio, the corresponding projects can realise carbon dioxide emission reduction of 136.1 thousand tonnes per year, annual standard coal saving of 81.9 thousand tonnes, annual sulphur dioxide emission reduction of 50.01 tonnes, annual nitrogen oxide emission reduction of 52.15 tonnes, and annual soot emission reduction of 10.16 tonnes.

### Investing innovations in bond market

 case

The Bank actively participated in the investment of various innovative green bonds in the market, and became the first batch of investors in sustainability-linked bonds, carbon neutrality bonds, blue bonds, etc, expecting to help realise considerable environmental effects. Thereinto, the related offshore wind power plant project of invested blue bonds generates electricity through wind energy, and replaces the same amount of fossil fuel power plants in the East China regional power grid to generate electricity, reducing the consumption of fossil fuels. It is calculated that the relevant project can annually save 720.1 thousand tonnes of standard coal, reduce 377.67 tonnes of sulphur dioxide emission, 423.27 tonnes of nitrogen oxides emission and 75.54 tonnes of soot emission, supporting the development of marine economy.

### Launching the first nation-wide inter-bank Real Estate Investments Trusts (Quasi-REITs)

 case

The Bank led the underwriting of the first issuance of 2021 Green Directed Asset-Backed Notes (Quasi-REITs) of the State Power Investment Corporation(SPIC) Guangdong Electric Power Company Limited, which was successfully completed with book entry on 29 October 2021, and set up with payment on 1 November 2021. As the first nation-wide inter-bank Quasi-REITs pilot project and the only green and energy infrastructure industry project in the first batch of pilot projects, the product meets the requirements of the *Green Bond Endorsed Projects Catalogue (2021 Edition)*. The operation of the underlying assets can annually save 207.7 thousand tonnes of standard coal, and reduce carbon dioxide, sulphur dioxide, nitrogen oxides and soot emissions by 1,135 thousand tonnes, 501.95 tonnes, 73.07 tonnes and 92.63 tonnes respectively.

## Underwriting the first batch of carbon neutrality bonds in the market



In February 2021, the Bank led the underwriting of the first batch of carbon neutrality bonds. The carbon neutrality bond of Yalong River Hydropower Development Co., Ltd. obtained the dual certification of green entity and green project, and all the funds raised have been used for the construction of the Lianghekou Hydropower Station project. Compared with the thermal power generation of the same scale, the Station can annually reduce carbon dioxide emissions by 6,287.6 thousand tonnes and save 3,370.4 thousand tonnes of standard coal. The funds raised by the carbon neutrality bond of China Three Gorges Co., Ltd. will be used exclusively for the Baihetan Hydropower Station on the Jinsha River, which can reduce carbon dioxide emissions by 33,677.9 thousand tonnes and standard coal of 18,477.6 thousand tonnes each year, with significant carbon emission reduction.



落实“碳达峰”助力“碳中和”银行间市场首批碳中和债券  
中国长江三峡集团有限公司  
2021年度第一期绿色中期票据（碳中和债）



债券简称	发行规模	发行期限	主体/债项评级	发行时间	主承销商
21三峡GN001 (碳中和债)	20亿元	3年	AAA/AAA	2021年2月7-8日	中国银行、建设银行
<b>本期债券募集资金可实现减排效果</b>					
项目名称 金沙江白鹤滩水电站	年减排二氧化碳 (万吨) 3367.79	年节能量 (万吨标煤) 1847.76	年减排二氧化硫 (吨) 11794.19	年减排氮氧化物 (吨) 11310.32	年减排烟尘 (吨) 2295.38

## Underwriting the first batch of sustainability-linked bonds in the market



In May 2021, the Bank led the underwriting of the first batch of sustainability-linked bonds in the market. Among these bonds, the sustainability-linked bond of China Yangtze Power Co., Ltd. was pegged to the installed capacity of renewable energy under management and was committed that the installed capacity of renewable energy under management would not be less than 71 million kW by the end of 2023. The sustainability-linked bond of GD Power Development Co., Ltd. was pegged to the increasing proportion of installed wind power generation capacity, with a commitment that from 2021 to 2022, the newly installed wind power generation capacity will be no less than 11.9% of the issuer's total installed wind power generation capacity as of the end of 2020. The sustainability-linked bond of Huadian Fuxin Energy Co., Ltd. was pegged to the issuer's holding installed capacity of wind and solar power generation, and committed that the installed capacity would grow from 9,250 MW at the end of 2019 to 25,000 MW at the end of 2023, with a compound annual growth rate of 28.22%.

## Typical Cases of Green Funds

## Issuing clean energy M&amp;A fund



CCB Investment and SPIC Clean Energy Fund Management Co., Ltd. have cooperated in industrial investment fund, jointly set up two clean energy industrial investment funds with a scale of RMB5 billion in 2021, which would further support central state-owned enterprises in accelerating the asset distribution in new energy power generation.



The signing ceremony of the strategic cooperation agreement between the Bank and the SPIC

## Issuing green investment funds



CCB Principal Asset Management has issued and established CCB Principal Intelligent Vehicle Equity Fund to guide capital flow to new energy smart vehicle industry. As of the end of 2021, the fund scale was RMB443 million. It has issued and established CCB Principal CSI Intelligent Electric Vehicle Index ETF, which tracks the CSI Principal Smart Electric Vehicle Index and is a “carbon neutrality” product on the passively managed ETF product line, the raised funds of which are used in investing in smart electric vehicle related industries. As of the end of 2021, the fund scale was RMB64 million.

## Issuing Chongqing region's first green accounts receivables debt financing plan of Beijing Financial Assets Exchange



Chongqing Branch underwrote non-standard green wealth management products for a major urban construction entity group in Beibei District, Chongqing. The product was posted and issued on the Beijing Financial Assets Exchange, a non-standard asset trading platform designated by the National Association of Financial Market Institutional Investors, and successfully registered the green accounts receivable debt financing plan of RMB0.8 billion, to solve the group's difficulty of financing for woodland resource protection. It is calculated that the carbon sequestration of the forest land of the basic assets of the group reached 3,035.2 thousand tonnes.

## Custody of Baowu green carbon private investment fund



The Bank actively provided comprehensive financial service solutions for the Baowu Green Carbon Private Equity Investment Fund (Shanghai) Partnership (Limited Partnership). CCB Investment participated in fund investment, and Shanghai Branch provided custody services for the fund as well as supervised the raised funds. Baowu green carbon private investment fund is led, initiated and established by China Baowu Steel Group Corporation Limited, with a total target scale of RMB10 billion. The fund has relied on the relevant planning of the company, focusing on clean energy, green technology, environmental protection, pollution prevention and other carbon neutrality related industries. It will participate in the transformation and development of the Yangtze River Economic Belt, follow the construction of the clean, low-carbon, safe and efficient national energy system, and deeply explore high-quality carbon neutrality industrial projects of wind, solar power and other clean energy in potential developing regions and investment markets.

## Typical Cases of Green Leasing

Promoting the development of green public transportation industry case

Shenzhen Branch has granted a public transportation company in Shenzhen a group credit limit of RMB1,995 million, including a credit line of RMB500 million from the parent bank and a financing line of RMB1,495 million from CCB Financial Leasing, aiding the company in employing the internet-enabled "e-bus quality bus" along with the asset-light "hybrid leasing" operating model. From 2017 to 2021, CCB Financial Leasing has provided combined-leasing financing services for 2,710 new energy buses of the company.

Addressing the new energy vehicle procurement needs of micro online car-hailing enterprises case

CCB Financial Leasing has established a new energy vehicle ecosystem with the Group, new energy vehicle manufacturers, vehicle operation companies, and users. CCB Financial Leasing has built scenarios of financial leasing products, new energy vehicles and related equipment and facilities procurement, providing financing support for enterprises with vehicle procurement needs to support the development of new energy vehicle manufacturing enterprises. In 2021, CCB Financial Leasing solved the procurement needs of 5,503 new energy network booking taxis for 35 micro-enterprises engaged in online car-hailing business across the country, with an investment of RMB590 million.

Completing the first "household distributed photovoltaics" to support rural revitalisation case

CCB Financial Leasing and Anhui Branch successfully issued a total lease payment of RMB324 million for three project companies under Anhui Jidian New Energy Company Limited, which was the first direct financing lease business of "rooftop distributed photovoltaics" in domestic industry and the first implemented rural household photovoltaics direct rental project within the Bank. This project made full use of rural rooftop resources to export clean energy and build a "environmental-friendly roof" with positive ecological and environmental effects, which would benefit 5,164 households and was estimated to bring over RMB1,000 income to farmers each year.

Promoting clean energy development and cooperation in M&A scenarios case

CCB Financial Leasing served SPIC Hebei Electric Power Co., Ltd. to acquire a group of photovoltaic and wind power green projects, provided lease financing and replacement financing in the early stage of the project based on the construction need of photovoltaic and wind power projects, and invested a total of 6 sales-leaseback with a total amount of RMB1,447 million, exploring replicable models for promoting the construction of clean energy power ecology and cooperation in mergers and acquisition scenarios.



CCB Financial Leasing supports the clean energy development and the cooperation in M&A scenarios

## Typical Cases of Green Consumption

"Carbon Ledger" based personal financial services case

The Bank adopted financial technology to empower the creation of the "low-carbon living" ecological scenarios model. Under the premise of fully protecting user privacy, through the CCB Lifestyle APP, Mobile Banking APP and other terminals, the Bank identifies users' green behaviour in daily low-carbon life and financial scenarios, records the personal carbon footprint of consumers, and introduces authoritative carbon emission measurement rules to carry out carbon emission reduction calculations and form a personal "Carbon Ledger". Under the premise of controllable risk, the Bank provides users with personal financial services based on their "Carbon Ledger", such as consumption discounts and payment benefits with bank cards, special preferences of credit cards, and points redemption, exploring diversified carbon related inclusive mechanisms and guiding consumers to actively practise the concept of low-carbon living.

The case, "perosnal financial services based on 'Carbon Ledger'", became the only case selected in the fourth batch of innovative applications of Beijing FinTech Innovation Supervision Instruments, and was publicised on the official website of the PBOC. As of the end of 2021, the "low-carbon living" ecological scenarios model has been promoted in Beijing, Shanghai, Shenzhen, Zhengzhou, Qingdao and other cities through the CCB Lifestyle App and non-financial scenarios such as Zhengzhou Metro and Qingdao Metro. The carbon emission reduction accounting of 8 low-carbon scenarios has been completed, and scenarios including ETC payment, living payment, underground travel and bus travel have been developed and launched.

Credit card business with the green and low carbon concept case

The Bank actively explores new products, new models and new scenarios of green finance for credit card business and rapidly develops the new energy vehicle purchase installment business. The credit card business cooperated with more than 300 models of new energy vehicles, covering more than 70 car brands with a new energy vehicle credit balance of RMB13.9 billion, and providing more than 80 thousand clients with new energy vehicle purchase installment business supports. The Bank accelerated the promotion of digital credit card products, and more than 10 million digital credit cards were issued in total, further reducing carbon emissions during the production and deliveries of cards. The Bank effectively promotes the concept of low-carbon and environmentally friendly life, continuously innovates credit card application, activation, card use, account checking, repayment, account inquiry and other services, and creates more than 60 electronic and mobile functions of credit cards. About 90% of clients have applied for credit cards through electronic channels, and more than 90% of clients with cards chose electronic bills, which has reduced more than 2.7 billion paper bills.

Creating green travel and consumption scenarios case

The Bank conducts activities such as bicycle sharing discounts, "CCB Pay on the Road" bus and subway discounts, and new energy vehicle charging discounts, to encourage clients to choose green models of travel. The Bank has built a low-carbon travel section on the "CCB Lifestyle" App, launched a joint card for low-carbon travel, and organised activities such as "one cent" low-carbon impeded travel, striving to create green travel scenarios.

## Typical Cases of Green Supply Chain

### "Loans" for green supply chain development



Focusing on the transaction link of photovoltaic industry chain, Shenzhen Branch tailored a green supply chain service plan for a new energy equipment company listed in the *List of Smart Photovoltaic Pilot Demonstration Enterprises* jointly released by the Ministry of Industry and Information Technology and other 5 ministries. The new energy equipment company had numerous suppliers, large demand for procurement funds, long downstream payment cycle, and strong bargaining power. Based on the above features, Shenzhen Branch tailored the entire industry chain's comprehensive service plan by "CCB e-loan" and "e-Xintong + e-Xiaotong", settling the difficulties of funds with a solution package. In 2021, a total of RMB202 million of loans were made for the upstream and downstream of the client. Shenzhen Branch fully utilised the advantages of "CCB e-loan", realised the full-process online and seamless connection between banks and enterprises, and provided online financial services for the company and its nearly 1000 upstream and downstream clients across the country, which greatly enhanced the accessibility of financial services for clients in the green industry chain. Beginning with the supply chain service, the Bank will deepen the coordinated development of banks and enterprises, provide supporting comprehensive financial solutions, and promote comprehensive cooperation in capital settlement business, international business and personal business, to construct a comprehensive finance service system for the green supply chain.

### Helping the development of a hydrogen energy enterprise



In 2021, CCB PE invested RMB80 million in the equity of FTXT Energy Technology Co., Ltd. through National Strategic Emerging Industries Fund, to help the company actively implement its strategies of hydrogen energy development in terms of its team, R&D centre, core technology layout of the industrial chain and technical reserves, and to support the creation of an integrated industrial chain ecosystem of "manufacturing-storage-transportation-processing-application", which realised independent R&D and technological iteration in the field of hydrogen fuel cells and supported the development of clean energy industry.

## Typical Cases of Green Consulting

### CCB Asia green finance advisory business



CCB Asia develops green financial advisory business, facilitates clients' construction of a green finance framework, and has obtained third-party green certification. In the past two years, CCB Asia has successfully acted as a green advisor for 8 loans. In 2021, CCB Asia, as the leading green advisory bank, led the Bank of China (Hong Kong) and HSBC to launch the first sustainability-linked dual-currency senior term loan for Yunnan Provincial Energy Investment Group Co., Ltd.



CCB Asia was awarded the Green and Sustainable Finance Awards

### Investing in the "green equity investment note" in Yunnan Province



Yunnan Branch, collaborating with CCB Wealth Management with an equity contribution of RMB0.36 billion, invested in the green medium-term notes of Yunnan Provincial Energy Investment Group Co., Ltd., which was the first "green equity investment note" in Yunnan Province. The total size of the medium-term note issuance is RMB1.2 billion, and all the funds raised will be used for the Baihetan Hydropower Station project in Jinsha River. After the completion of this hydropower plant project, it is expected to annually save 19.68 million tonnes of standard coal, and reduce emissions of 51.60 million tonnes of carbon dioxide, about 0.15 million tonnes of nitrogen oxides, and 0.17 million tonnes of sulphur dioxide. The project has significant energy conservation and emission reduction benefits, helping realise the goal of national "west-to-east electricity transmission" and develop clean, low-carbon, safe and efficient energy.



Yunnan Branch collaborated with CCB wealth Management to support the construction of Baihetan Hydropower Station project in Jinsha River

## Typical Cases of Green Investment

### Promote the renovation of energy conservation and emission reduction for electrolytic aluminium industry



In 2021, CCB Investment, together with other strategic investors, invested Shandong Hongqiao New Material Co., Ltd. with RMB6.8 billion in the enterprise's equity, effectively enhancing its capital strength and financing capacity. The investment also effectively promoted the electrolytic aluminium industry to follow the national green development policies and relevant guidances, continued to renovate the energy conservation and emission reduction technology, gradually transformed thermal power smelting to hydropower smelting, and significantly reduced carbon emissions.



CCB Investment supports the renovation of energy conservation and emission reduction for electrolytic aluminium industry

## Other Typical Cases of Green Finance

### Supporting the development of new energy vehicle manufacturing industry by "direct bank-enterprise cooperation"



By building a digital financial service platform of "direct bank-enterprise cooperation", Guangdong Branch has developed a "one on one" cross-border settlement financial service solution through direct bank-enterprise cooperation for a new energy vehicle battery supplier, helping it to simplify the cross-border settlement business transaction process. The enterprise can use its own system to make banking business online inquiries, transfer, remittance, fund collection and information download, with the whole process of business digitalised, visualised and traceable, which enables a smooth connection between the bank and the enterprise. This solution leveraged FinTech to ease cross-border settlement, effectively promoting its business development of new energy vehicle power battery. At the same time, financial services on the "direct bank-enterprise cooperation" platform covers enterprises' major subsidiaries along with upstream and downstream industrial chains, and further expands the field of cooperation. The platform has provided the company with a full range of personalised product and services such as green loans, cross-border finance, transaction finance, supply chain finance, house rental, and financing by domestic and international cooperation.

# 06

## Environmental Influence from Operation Activities



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The Bank highly values green operations, continuously improving its energy-saving and environmental protection management system, setting environmental targets for green operations. In addition, the Bank also strengthens the implementation of energy-saving and emission reduction measures, optimises waste disposal, conducts low-carbon and environmental-friendly procurement, improves statistical analysis of environment-related data, and enhances staff awareness of environmental protection to promote the construction of an eco-friendly bank.

## Calculation of Environmental Impacts

### Key Environmental Impact Indicators of Business Activities (2021)

				
Total Greenhouse Gas (GHG) Emissions (scope 1 and 2) (tonnes)	Energy Consumption (tonnes of standard coal)	Water Consumption (tonnes)	Total A4 Paper Consumption (tonnes)	Proportion of Off-Counter Account Transactions (%)
1,692,538.66	339,598.61	21,106,648.09	10,094.78	99.58
Annual GHG Emissions per Employee (scope 1 and 2) (tonnes/person)	Annual Energy Consumption per Employee (tonnes of standard coal/person)	Annual Water Consumption per Employee (tonnes/person)	Annual A4 Paper Consumption per Employee (tonnes/person)	Financial Transaction Migration Rate via Electronic Channels (%)
4.74	0.95	59.17	0.028	97.34

#### Notes:

1. The related index of greenhouse gas emissions, energy consumption, water consumption and paper consumption cover the Head Office, all institutions under the jurisdiction of 37 domestic branches, Northeastern China College and Eastern China College of CCB Learning Centre, Beijing Production Park, and Wuhan Production Park. Compared with the data disclosed in the Bank's 2021 Annual Report, the data disclosed in this report also covers data from Henan Branch and Hainan Branch.

2. Based on the nature of the Group's business, GHG emissions mainly originate from purchased electricity and fossil fuel combustion. The calculation of greenhouse gas emission is in compliance with the requirements for the activity level data and emission factors in the *Guidelines on Accounting Methods and Reporting of Greenhouse Gas Emissions of the Operating Unit (Company) of Public Buildings (Trial)*, the *ISO 14064-1 Greenhouse Gases-Part 1: Specification and Guidance at the Organisation Level for Quantification and Reporting of Greenhouse Gas Emission and Removal*, and the *2011 and 2012 Average CO<sub>2</sub> Emission Factor for Regional Power Grids in China*.

3. The Group's major sources of energy consumption includes direct energy and indirect energy. Direct energy mainly includes natural gas, liquefied petroleum gas, coal, diesel, petrol and others (alcohol-based fuel such as bio-alcohol and methyl alcohol), and indirect energy mainly includes purchased electricity.

4. The energy consumption is calculated based on power and fuel consumption and relevant conversion factors provided in the *Chinese National Standard General Rules for Calculation of Comprehensive Energy Consumption* (GB/T2589-2008).

5. The statistical scope of the Group's water consumption statistics includes municipal water and reclaimed water.

## Environment Goals for Green Operation

In order to further promote green operation management, the Bank has set the following environment-related goals related for the green operation.



Emission reduction goals

- The Bank will organise bank-wide low-carbon publicity activities and carbon peaking and carbon neutrality professional training every year, together with World Environment Day, World Water Day, and the National Energy Conservation Awareness Week, to enhance employees' awareness of emission reduction and energy conservation.
- From 2022 to 2026, the Bank will conduct bank-wide energy auditing. Based on the results of the energy auditing, the Bank will gradually carry out energy-saving renovation projects. LED fixtures will be preferred when adding or replacing lighting fixtures. It is expected that by 2026, 100% of lighting fixtures in the buildings owned by the Bank will use LED fixtures.
- The Bank will continuously construct the "green outlets". From 2022 to 2026, the percentage of recyclable materials used in renovated or new outlets will reach more than 60%.
- The Bank will prioritise the new energy vehicles as the new official vehicles. From 2022 to 2026, the proportion of new energy official vehicles in the Bank will be gradually increased to promote green commuting.
- From 2022 to 2026, the PUE (Power Usage Effectiveness) value of the data centres will be gradually reduced.



Energy conservation goals

- From 2022 to 2026, the energy consumption and carbon emission intensity across the Bank will be on a decreasing trend.
- The Bank will strengthen its capacity to reduce carbon emissions across the Bank, establish a bank-wide "carbon emission management platform", construct a solid database of the energy consumption, and improve the capabilities to collect, analyse and apply the data on energy and resource consumption of institutions at all levels.



Wastes reduction goals

- From 2022 to 2026, 100% of CCB's waste IT assets will be delivered to enterprises with the qualification to dispose of electronic wastes and are registered on the website of the government's environmental protection department for green and eco-friendly treatment.
- From 2022 to 2026, 100% of CCB's discarded self-service devices such as ATMs will be recycled every year by suppliers with qualification.
- The Bank will promote a paperless office, improve the recycling rate of office supplies, and reduce the generation of office supplies waste. From 2022 to 2026, the office paper consumption per employee used in the Head Office will be lowered by 5%.



Water conservation goals

- From 2022 to 2026, water-saving appliances will be selected for replaced and new water installations to gradually increase the coverage of water-saving appliances, and water-saving education activities will also be held across the Bank.
- From 2022 to 2026, the Bank will organise water conservation promotion activities at least once a year at the Head Office of the Bank.
- From 2022 to 2026, the Bank will promote pilot projects on reclaimed water recycling in branches with appropriate conditions.

## Energy Saving and Environmental Protection Measures and Achievements

### Green and Low-carbon Operations

The Bank promotes an environmental-friendly way of working and intelligent operations, encourages energy-saving technology renovation, constructed "zero-carbon" pilots, and builds green data centres. Electricity consumption at the Head Office has continued to decline in recent years, and carbon emissions have continued to fall since peak in 2014.

#### Implementations of Environmental Protection Measures

- In terms of green office working,** the Bank adopts energy-saving and environmental protection measures in the full process of office operations. We promote the construction of "zero-carbon" bank pilots and carry out green construction and renovation in places such as business outlets, office buildings, data centres and computer rooms. The Bank continuously updates low-carbon equipments to reduce carbon emissions from its own operations, renovates and upgrades key energy-consumption equipments including central air-conditioning systems and lifts, and replaces LED energy-saving lighting lamps. We also reduce the use of disposable office supplies, relying on technologies such as "CCB video conferencing system" to promote the achievement of paperless working, and realise online training, meetings and communications. The Bank reduces the number of travels, promotes the use of new energy cars, increases the proportion of procurement of new energy business cars, and reduces vehicle exhaust emissions.
- In terms of green counter service,** based on the application "CCB Banking Centre", clients are provided with paperless services such as online booking and pre-filling, and online queuing via scanning codes at outlets to support the establishment of a low-carbon model. Clients are introduced to green lifestyle concepts by earning "low-carbon life" points as a reward. The application of "Guawaiqing", a client-side integration equipment with e-signature, electronic seal and other functions, has enriched paperless service scenarios over the counter. In addition, the Bank has continuously optimised "Zhihuiban" by building reservation and pre-processing capacity and scenarios, such as online reservation, online and offline orders shunting, doorstep service, and counter service reservation, to save clients' commute to outlets, enhance online and offline collaboration, reduce waiting time at outlets and raise efficiency of counter services.



The scenarios of paperless counter services actively provided at the Bank's outlets

#### Carbon footprint management

#### case

The Bank has set up a working group under the Leading Group for Carbon Peaking and Neutrality to manage the Group's carbon footprint. The working group formulates the Group's decarbonisation roadmap, targets of carbon neutrality, and the daily operation plans and measures of low carbon emissions. It also improves the Group's carbon emission measurement tools and conducts a carbon footprint inventory of the Group's institutions. In 2021, cooperated with experts in carbon emission, the Bank researched and formulated statistical standards for energy consumption, and conducted an inventory of bank-wide energy and resource consumption between 2016 and 2021. The Bank also established a ledger of carbon emission data, built a digitalised management platform of carbon emissions data, and conducted special training for statisticians.

## The renovation with LED lighting in Liaoning Branch

## case

Since 2017, the Liaoning Branch has implemented the renovation project of LED energy-saving bulb and has installed a total of 73 thousand LED lighting, resulting in a net saving of over RMB3 million in electricity fees after covering the replacement costs. The lighting replacement costs can be saved by over RMB1 million per year due to the extended service life. After completion of the renovations, it is expected that the Branch will save up to 6 million kWh of electricity and reduce electricity costs by RMB5.50 million per year.

## Building Green Outlets

The Bank has issued the *Guidance on Promoting the Building of Green Outlets*, which specified measures to build and operate green outlets, and revised the *Administrative Measures for Building of Outlets*, stipulating detailed requirements in material selection, site selection, design, construction, operation, maintenance and daily management. CCB Guangdong Zhongshan Cuiheng New District Sub-branch is the first nationwide “zero-carbon outlet” and has obtained the carbon neutrality certificate issued by China Emissions Exchange; the Business Department of Chongqing Liangjiang Branch has verified, accounted and written off greenhouse gas carbon emissions, becoming the first “5G+ smart bank” which has achieved zero-carbon operation in China.

## The first “zero-carbon outlet” in the banking industry of China

## case

In May 2021, Guangdong Branch, in line with the thought of zero-carbon building, reduced energy consumption and controlled pollution through the renovation, daily operation, and investment and financing activities. The branch also constructed the carbon-neutrality operation model of outlets, and built Zhongshan Cuiheng New District Sub-branch as the first “zero-carbon outlet” in the banking industry of China. During the construction, Cuiheng New District Sub-branch collaborated with the China Emissions Exchange to implement carbon neutrality cooperation, voluntarily purchased and wrote off 7 tonnes of carbon emission reduction from China's voluntary emission reduction projects, achieving the goal of carbon neutrality in the construction and operation of the branch. The outlet was awarded a certificate of carbon neutrality by the China Emissions Exchange. At the same time, the outlet made a carbon neutrality plan for the 2021 annual operation activities, to integrate the concept of low-carbon and environmental protection into the overall operation and management of the outlet, and fully implemented electricity conservation, water conservation, paper reduction, and garbage classification.



The award ceremony of carbon neutrality certificate to the “zero-carbon outlet” Zhongshan Cuiheng New District Sub-branch

## Building a green and intelligent outlet by 5G technology

## case

On 10 September 2021, the first “5G+ Green Smart Bank” of the Bank, built by Beijing Branch, was officially opened in the Beijing Municipal Administrative Centre Government Service Centre. With the low-carbon concept of green design, green construction and green operation, “5G+ Green Smart Bank” innovatively adopted zero-energy solar door lintels in the construction process and the modular design for removable, reusable and recyclable prefabricated materials to reduce carbon emissions in the process of construction and post-maintenance. The outlet introduced full life-cycle intelligent management tools in management process, and adopted distance supervision and on-site management methods, which effectively reduced the use of paper and on-site inspections. In daily operations, the outlet uses green electricity and purchases carbon quota, applies technologies such as Internet of Things and big data to collect energy consumption and green data of the outlet, promotes employees' low-carbon travels and paperless office working, and optimises rubbish disposal. In financial services, the outlet has set up innovative scenarios such as the “intelligent cloud chain” and the remote “CCB Startup Station” through 5G technology. This built a new green finance model to “enable policies to empower enterprises”. It also provides clients and employees with energy-efficient and collaborative service through remote service scenarios, such as “smart financial management rooms” and “remote lobby managers”.



“5G+ Green Smart Bank”

## Participation in the standard establishment of the green outlets

## case

Shanghai Branch actively cooperates with the Shanghai Green Building Council to build two green outlets, the Zhangjiang Dangui Road Sub-branch, and Huangpu Quxi Road Sub-branch. Through the evaluation by the Shanghai Green Building Council, the two sub-branches were honoured with the first batch of “Green Demonstration Outlet” and “Green Standard Outlet” respectively in Shanghai. In addition, Shanghai Branch, together with the Shanghai Green Building Council, has compiled the *Applicable Technology Catalogue for the Green Bank Branch in Shanghai*, which sets out key technologies, recommended technologies and innovative technologies in four aspects: “green and environmental-friendly materials and construction, efficient electromechanical equipment and control, all-age friendly facilities and design, and green and low-carbon operation and management”. In the Catalogue, a total of 20 key technologies and 16 recommended technologies are included, covering indoor and outdoor building materials, furniture testing, air-conditioning facilities, energy and electricity conservation, barrier-free services and other requirements. In terms of innovative technologies, complex technical indicators are proposed, such as micro landscaping, carbon footprint management and renewable energy utilisation, to provide technical guidance and standards for the construction of green outlets in the industry.

## Building Green Data Centres

For its own data centres, the Bank achieves green energy conservation, and safe and stable operations by measures such as improving energy utilisation efficiency and adopting renewable energy sources.

**Beijing Production Park**

The data room area of Beijing Daoxianghu Production Park is deployed with high-efficiency UPS, precision air conditioning, ice storage and other energy-saving systems according to the American LEED certification standard. In 2021, it won the "Certification for Data Centre Infrastructure" issued by China Quality Certification Centre(CQC). In May 2021, the "Intelligent Central Infrastructure Management System (ICIM)", a smart park project, has been put into service. It has initially enabled the predictive management of operation and maintenance activities driven by data indicators, conducted collection and correlation analysis of operational data to obtain rules and decision-making basis, thus improving the resource utilisation and management efficiency accurately.

- The air-conditioning system in the data room adopts the air-cooled water chiller unit with natural cooling function as the cold source, saving the energy consumption of refrigeration.
- The air-cooled water chiller unit allows adjusting temperature of inlet water and return water to improve the working efficiency of compressor, and closing the inside cold channel of the medium- and high-density module rooms to reduce energy consumption.
- The water-source heat pump unit enables two-way utilisation of cold and heat sources, and can recycle the heat energy generated by IT loads from data room in heating season and reuse it for assistant heating.
- Compared with water-cooled water chiller unit, the application of air-cooled water chiller unit saves more water.

Moreover, the lighting system in public areas of the Beijing Daoxianghu Production Park and Yangqiao Production Park has been replaced with LED lamps, and the outdoor landscape lighting has been renovated to light control, saving about 1.60 million kWh of electricity annually; RFID chips are used to collect dining big data to supply data-based food and monitor rubbishes after dining, thus reducing food waste in the whole process; EV charging piles are installed to facilitate green transportation for employees.

Beijing Daoxianghu Production Park

**Wuhan Production Park**

The Wuhan Production Park has formulated and implemented a series of energy-saving and emission-reduction measures regarding energy recycle, daily refined management, and energy-saving renovation of equipment and facilities, and fully explored potentials in energy conservation.

- In winter and transition seasons, the plate heat exchanger makes full use of the external natural cold source to cool down the data room naturally, minimising the mechanical cooling time and maximising the energy consumption reduction of the air conditioning system.
- Related personnel in the park will strictly implement the maintenance plan of equipment and facilities to ensure continuous and efficient operation of them and reduce unnecessary losses.
- Real-time control over cooling water quality can effectively reduce scaling in heat exchangers of the water chiller units and improve heat exchange efficiency.
- On the basis of ensuring the safety and stability of the system operation, the park upgrades the operation parameters of infrastructure system, including improving the controlling areas of the lighting system switch, raising the temperature of supply and return water, and optimising the air supply volume of air conditioning system, to reduce the energy consumption in system operation.
- The park has renovated its lighting system's remote control of building halls, basement parking and other public areas, to reduce the lighting energy consumption.
- Indoor air purification renovation project has been implemented in the park to purify indoor air and improve the heat exchange efficiency of central air-conditioning units at the same time.

Wuhan Production Park

## Waste Disposal Optimisation

To ensure the electronic waste being properly disposed of and reduce the negative impact on the environment effectively, the Bank steadily builds a recycling mechanism and refines the management of the recycling and scrap of various types of electronic waste.

In 2021, the Bank investigated the disposal of 65 types of waste IT assets among first-level branches, subordinate centres, and subsidiaries, and compiled the *Research Report on the Construction of the Disposal System of Waste IT Assets*, which was the solid foundation for optimising the closed-loop management of scrap disposal and improving the level of refined management of IT assets. The Bank took the lead among the bank industry in standardising the recycling of UPS supporting batteries and employed professional recycling

companies to carry out bank-wide battery recycling services. The recycling mechanisms was also introduced for a number of products such as smart POS and code scanning terminals to further explore the value of recycling resource.

The Bank has completed the disposal of electronic waste in an efficient and environmental-friendly way. Hazardous waste IT assets (such as lead-acid batteries) of branches, subordinate centres, and subsidiaries are mainly disposed of by qualified third-party resource recycling companies. Waste storage media generated by regional data centres are uniformly physically destroyed in the national confidential carrier destruction centres, while the other e-waste is disposed of by third parties with electronic waste disposal qualifications selected through competitive bidding.

## Promotion of Environmental Protection Concepts

The Bank has continued to promote and popularise green and low-carbon knowledge and skills of energy conservation and emission reduction, advocated green commuting, and organised activities in the "CCB Low-Carbon Lifes Month" to drive staff and clients to actively reduce emission and protect the environment.

In 2021, the Head Office launched a week-long campaign to promote energy saving and emission reduction. The campaign aimed to promote the goal of carbon peaking and carbon neutrality and relevant knowledge in the working and life. Activities included signing a low-carbon pledge declaration, a low-carbon knowledge quiz, and the distribution of environmental protection bags and knowledge e-brochures.

The bank gives full play to the advantages of the public welfare brand "Workers' Harbour", organising practical and educational activities on environmental protection, resource conservation, and rubbish classification among all business outlets, to advocate a green and healthy lifestyle to the public. The Bank has also promoted environmental protection projects such as "Workers' Harbours Public Welfare Forest" with third-party organisations to enhance the public awareness of environmental protection and emission reduction.

## Low Carbon Environmental Procurement

The Bank integrates green, energy conservation and emission reduction into its procurement system to actively build a low-carbon and environmental-friendly corporate value chain.

Strengthen the foundation of green procurement management	<ul style="list-style-type: none"> <li>The Bank tracks the relevant national policy and regulations, summarises the requirements of the green qualification for suppliers and procurement commodities, and initiates the development of a bank-wide green procurement commodity catalogue.</li> </ul>
Demonstrating green concepts in the whole procurement process	<ul style="list-style-type: none"> <li>The Bank promotes green procurement in the whole process of selection testing, candidate supplier selection, and procurement execution. In the candidate supplier selection, the review of green qualifications is strengthened, and suppliers with energy-saving, environmental protection, or other green qualifications are prioritised to participate in the procurement. In the selection testing and procurement evaluation, the weight of energy conservation and related environmental protection indicators is increased. In the procurement projects of office furniture, precious metal processing services etc., the performance on carbon emission, energy-saving, and environmental protection are included in the criteria to select suppliers.</li> </ul>
Vigorously advocating digital procurement	<ul style="list-style-type: none"> <li>With controllable risks and considerations of the current epidemic situation, the Bank promotes online business negotiations and contract signing to improve the quality and efficiency of green procurement.</li> </ul>





# 07

## Data Sorting, Verification and Protection

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In order to improve the capability for data quality and security, the Bank continues to refine data governance system, optimises statistics verification process management and control, strengthens business continuity management, conducts emergency drills for security incidents, and enhances related professional training.



## Improving Data Governance System

The Bank strictly complies the *Guidelines on Data Governance for Banking Institutions* issued by the China Banking and Insurance Regulatory Commission and other regulatory requirements, formulates and implements the *Data Governance Measures of China Construction Bank* to improve its data governance system framework and define the duties of employees at different levels. The Bank has formulated work process and methodology to ensure unified management, efficient operation and controllable quality of the data, and to give full play to the value of data governance during its operation and management.

The management of the Bank takes responsibility to establish and advance the development of data governance system, configure data governance resources, develop and implement data governance accountability and incentive mechanism, establish data quality control mechanism, organise evaluation on the effectiveness and implementation of data governance, and report to the Board of Directors on a regular basis. In 2021,

“data governance and application” was clearly identified as one of the key projects of the *Outline of Development Plan for the “14th Five-Year” Plan Period* of the whole bank. The Bank has strengthened data governance and optimised global coordination and synergy across all lines of business.

Data Governance Working Group under the FinTech and Digital Promotion Committee is responsible for putting the related regulatory requirements on data governance into practice, promoting the implementation of the Group’s data strategy, establishing data governance system, driving digital capacity building, and preventing data risks. The working group also ensures data governance effectiveness, leverages the value of data assets, and popularises data culture. In 2021, the working group held six meetings, which studied and solved major problems on data governance and application across the Bank and deliberated relevant key rules and regulations on data governance.



## Intensifying Data Sorting and Verification

With building of data middle-office as a focus, the Bank continuously improves its data governance ability. The Bank strengthens capability building such as data acquisition, integration, mining and analysis, data asset management, operation management empowerment, data security and privacy protection and data quality management, for green finance relevant business. The Bank establishes a mechanism for sorting and automatic stocktaking of data assets, making it possible to investigate, correlate and integrate the internal and external data assets of the Group. Meanwhile, the Bank builds a unified multi-dimensional data asset catalogue system featuring different perspectives such as “business”, “technology” and “data”, continuously strengthening data sorting and verification capabilities, to ensure the accuracy and completeness of data. The Bank has counted and verified more than 2 million data assets, and strengthened data sorting and verification of strategic priorities such as green finance.

In respect of carbon footprint management and data on green operations, the Bank works with experts in the relevant field to formulate energy data statistics standards that meet the Bank’s current situation, based on the requirements of relevant guidelines and standards on the activity level data and emission factors. In order to realise the sharing and centralised management of carbon emission data for institutions at all levels, the Bank clarifies the process for collection, verification, accounting and monitoring of carbon emission data, and develops a carbon emission management platform covering the whole bank as well as a statistical ledger system for tracking carbon emission data. The Bank strengthens the inventory and training of data reporting to enhance the quality of data reporting and management in institution for all levels. During the inventory on the Bank’s carbon data, the Bank engages third-party accrediting agencies, adopts both online inventory and on-site inventory, verifies the completeness, authenticity and accuracy of the data through cross review based on the data under inventory and related supporting documents.



## Enhancing Data Information Security Management

The Bank strictly abides by the *Personal Information Protection Law of the People's Republic of China* and the *Data Security Law of the People's Republic of China* and other related laws and regulations. We have formulated and implemented the *Measures for Data Risk Management*, the *External Data Management Measures*, the *Management Rules on Security of Production Data Application*, the *Data Security Grading Standard* and other policies for data and information security, and further improved the data and information security management system by developing data security components at enterprise level, establishing dedicated data security environment, improving user experience of internal data use, and conducting robust boundary protection and stringent control of data transmission at terminals and network borders.



### Measures for protecting data information security

The Bank establishes a normalised network security operation mechanism, builds a smart security operation platform, improves the sensitive data detection and interception mechanism, regularly organises internal and external security penetration testing and risk assessments, and carries out internal and external network security attack and defence drills. Meanwhile, the Bank has formulated the *Plan for Protecting Personal Client Information* and the *Plan for Implementing Data Security Management*, further advanced the construction of clients' information protection and data security system. To ensure clients' information security and rights, the Bank strengthens the control of clients' notification and authorisation, conducts data masking, avoids displaying unnecessary information, strengthens the management of query authorisation, and improves client information inquiry and employee behaviour monitoring, effectively applying the principles of "legality, legitimacy, necessity and integrity".



### Internal audit of data information security

The Bank conducts annual internal audit regarding information security and other matters, and realises a full coverage of main information technology audit on a three-year basis, including the Head Office, tier-1 branches and the subsidiary, CCB Fintech. From 2020 to 2021, the Bank carried out information security audits of branches, which covered all businesses and branches. In 2021, the Bank carried out audit in the FinTech area, which covered inspections on information security and other relevant matters of the Data Centre of the Head Office, CCB FinTech and other institutions or departments, realising a full coverage of all businesses and institutions at the Head Office level.



### Data information security capability building

The Bank has continuously strengthened the culture cultivation and risk education of data and information security, organised training classes on topics including information security attack and defence, and Capture the Flag confrontation, safety technology, FinTech security internal control and audit rectification, FinTech professional community mode series, and consumer protection of FinTech employees for all CCB staff. The Bank has provided data security courses on the online learning platform of Training Centre, attracting over 70,000 training participants. The Bank prepared data analyst textbooks covering data security content and developed the *Practical Manual for Information Security Personnel* and the *Introduction to Regulatory Regulations on Information Technology*, as well as organised the whole bank's technical staff to undergo training and learning.

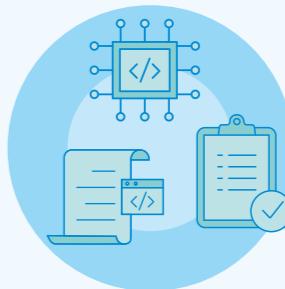


### Data information security risk assessment

The Bank carried out overall risk assessment, special risk assessment, data security assessment and risk assessment of machine room infrastructure, and started to evaluate the risks of domestic subsidiaries in 2021. To apply national classified protection requirements, the Bank collaborated with a third-party testing institution to test and evaluate the classified protection performance of its level III and above system in 2020, and tested and evaluated cybersecurity classified protection and cryptography application security in 2021 according to the *Cryptography Law of the People's Republic of China* and the latest released classified protection standard of financial industry version 2.0.

## Reinforcing Emergency Management

The Bank has formulated the *Emergency Plan for Network and Information Security* and other emergency management measures to put data and information security into control.



### Strengthening daily network and data security management

The Bank clarifies the treatment process and responsibilities for cybersecurity incidents and carries out security penetration tests and risk assessment on a regular basis, strengthens coordinative management of leakage, and conducts rectification and emergency treatment for issues and risks identified.



### Implementing emergency plans and drills

The Bank makes network and information security emergency plans and carries out regular emergency drills. Once a security incident occurs, the Bank will conduct emergency treatment for the incident according to the emergency plan, including determining the level of the security incident and the liable unit, collecting evidence for the incident, performing analysis on the attacking manner and the source of data leakage, and evaluating the security status of the Bank, so as to find out potential abnormal behaviours and threats of attack.



### Effectively ensuring business continuity

In order to effectively respond to the interruption risk of critical business operations caused by security incidents, the Bank clarifies related strategies, organisational structure, plans and requirements on drills, continues to improve the construction of the disaster recovery system, and establishes a data operation structure of "three centres in two locations" and the whole process for business continuity management.



# 08

## Innovative Practices and Research Achievements

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# Innovative Practices of Green Finance Products and Services

The Bank has continued to increase the attention and investment in green finance innovation, actively carried out new practice and exploration around green products and services, and regularly organised Innovation Marathon activities, promoting the formation of an innovative atmosphere across the Bank.

## Innovation Achievements in Green Loan Products and Services

**"Renewable Energy Subsidy-based Loan"**

Based on the receivable but uncollected right-vested financial subsidies of the renewable energy power generation enterprises, the Bank provides financing support for those enterprises to help alleviate the shortage of funds caused by the delay of the subsidies and promotes the sound development of the wind power and photovoltaic power generation and other industries. In 2021, the Bank issued RMB841 million of renewable energy subsidy-based loans.

**"Energy Efficiency Loan"**

Zhejiang Branch has innovatively launched the "Energy Efficiency Loan", the first loan service related to ESG rating in the local market. It takes corporate environmental indicators as loan access conditions, and requires the Bank to take differentiated risk mitigation measures for the credit according to the environmental information of companies. The various degrees of favourable lending rates are granted depending on the green rating of enterprises. The loan mainly serves green financing enterprises featuring green operations and recognised by the local government's green evaluation system. In 2021, RMB25 million of "Energy Efficiency Loan" has been invested.

**"Carbon footprint" linked loans**

Guangdong Branch links the interest rate and comprehensive loan cost to the carbon dioxide emissions from business development of enterprises, and has launched carbon footprint linked loan products to grant loans for eligible enterprises. Being accounted by a professional third-party institution which has been recognised by the relevant authorities, enterprises will get their initial evaluation of emissions as the benchmark value. During the monitoring period, based on the changes of the emission of an enterprise compared with the benchmark value, its loan interest rate or comprehensive cost will be adjusted up or down appropriately. By linking the performance of carbon emission reduction with the financing cost of enterprises, this product effectively facilitates enterprises to reduce financing cost through energy conservation and emission reduction and enhances the motivation of enterprises improve the efficiency of energy conservation renovations.

**"Carbon Neutrality Preferential Loans"**

Based on the "Energy and Carbon Intensity Code" developed by the local government for enterprises, Zhejiang Huzhou Branch innovatively launches the "Carbon Neutrality Preferential Loan" programme, which includes the evaluation result of the "Energy and Carbon Intensity Code" into the whole credit management process, and grants fixed asset loans or working capital loans to enterprises to meet their needs for green transformation and upgrading or daily business turnover. For clients with different energy efficiency levels, Huzhou Branch provides differentiated interest rate preferences, risk mitigation measures, green channels for loan approval and other services. By the end of 2021, a total of RMB314 million of Carbon Neutrality Preferential Loans was released to 40 clients.



**"Green Equipment Loan"**

Suzhou Branch has innovatively issued the "Green Equipment Loan" for reputable small and micro enterprises, which organically combined inclusive finance with green finance and fully supported the transformation of small and micro enterprises to green production modes, improvement of production environment and technical renovation or equipment purchase for the improvement of the production environment, energy conservation and environmental protection. As of the end of 2021, 15 micro and small enterprises were supported to complete the construction and operation of distributed photovoltaic power plants, with the "Green Equipment Loan" of RMB25,286 thousand.

**"innovation"**

**"Environmental Protection Loan"**

Jiangsu Branch has innovatively launched "Environmental Protection Loan", which supports the construction, renovation, operation and maintenance of projects in seven major areas, including energy and water conservation, ecological protection and restoration, and resource recycling, etc. For the registered projects in the Environmental Protection Department of Jiangsu Province, "Environmental Protection Loan" will grant clients priority of access, acceptance and approval, and will enable the clients to enjoy the differentiated policies in pricing, loan limit, term, and guarantee mode. Since the issuance of the "Environmental Protection Loan" in July 2020, RMB3.50 billion has been approved for more than 25 projects, with a total disbursed loan of more than RMB1.8 billion, covering fields such as rubbish power generation, kitchen waste treatment, solid waste landfill, tail gas purification, etc., strongly supporting enterprises in low-carbon emission reduction and resource recycling.

**"innovation"**

**"Heilongjiang Forestry Quick Loan"**

Heilongjiang Branch has launched an innovative online loan product "Heilongjiang Forestry Quick Loan" to support the development of forest economy. By collecting multi-dimensional data on undergrowth business varieties, production and operation scale, and credit fund demands related to forestry, managed by local forestry workers, the loan provides financing supports for this client group. In 2021, a total of RMB61 million of "Heilongjiang Forestry Quick Loan" was invested.

**"innovation"**

**"Carbon emission management platform"**

The Bank supports "carbon approval" through FinTech, and has launched the "carbon emission management platform" at Chongqing Branch as a pilot branch, to bring carbon dioxide emissions of credit clients into the reference scope of credit approval decision-making. The platform collects carbon emission information of existing clients through the data directly input or imported from external authorities, and conducts the comparative analysis with carbon emission intensity indicators. Horizontally comparing the average level of carbon emission intensity indicators in client's industry, the Bank will give priority to enterprises that help achieve the goal of carbon peaking. Vertically comparing client's carbon dioxide emission data per unit of output value with those of the previous year or the previous credit granting, the Bank will focus on supporting companies whose carbon emissions decrease year-on-year.

**Creating carbon neutrality private equity fund product**

Based on the risk appetite and investment need of private banking clients, the Bank has activated long-term capital of private banking clients through reasonable asset allocation, created 15 private equity products (in the phase) with CCB Trust as the product manager, with a product scale of about RMB10,127 million, attracting a total of RMB8,486 million of private banking clients inside and outside the bank. The series of products currently has a cumulative investment amount of RMB7,023 million and has completed a total of 103 investment projects, covering high-quality science and technology innovation projects such as new energy, new materials, electronics and high-end equipment manufacturing that benefit from carbon neutrality policy industries and are in line with the ESG investment philosophy.

**Innovation Achievements in Green Bond Products and Service****"CCB-Wind Green ESG Bond Issuance Index and Yield Curve"**

In May 2021, the Bank has released the "CCB-Wind Green ESG Bond Issuance Index and Yield Curve" in Beijing and Luxembourg, which was dynamically updated on the Bank's official website, Wind information terminal and the official website of the Luxembourg Exchange. As the first green bond issuance index in the Chinese primary market that combines concepts of ESG and carbon neutrality, the Index links the Bank's green bond underwriting and issuance experiences with relevant green bond standards and ESG rating methodologies, and provides market issuers and investors with an important reference for pricing trends, improving the green bond price discovery mechanism.



CCB-Wind Green ESG Bond Issuance Index

**Carbon neutrality themed collective asset management plan products**

The Bank actively cooperates with CCB Principal Asset Management to continuously issue innovative carbon neutrality-themed collective asset management plan products based on the needs of clients' equity asset allocation. The product focuses on investment opportunities in carbon neutrality-related industries, especially the new energy, high-end manufacturing and other industries. Through quantitative and qualitative analysis, it will explore listed companies that are expected to continuously benefit from carbon neutrality strategies, and those that have sustainable growth potential and reasonable market value, to support the sound development of green industries.

**Green building performance insurance products**

CCB Property & Casualty has developed and launched a green building performance insurance product, which guarantees the rectification or compensation liability arising from the deviation between the green building's predetermined star rating target and the actual star-rating. A risk management third-party will also be introduced to provide risk management services throughout the green building project process, and offer professional pieces of advices and risk assessment reports. The product has established an "insurance + bank" sharing compensation mechanism of credit risks, establishing a multi-level green financial product system.

**Convenient and low-carbon financial services on mobile banking**

The Bank supports customers to complete more than 350 kinds of payment services such as convenience services, public welfare services, transportation, living expenses, school education, government services, etc. through various online channels such as mobile banking, personal online banking, WeChat account, internet website, mobile portal, CCB Lifestyle and others. The Bank also adds online electronic invoice issuance functions, reduces paper printing and simplifies the business handling process. By the end of 2021, more than 20 million users have completed 0.18 billion online payments. The Bank added and optimised a variety of business application functions on the mobile banking App, such as expending the business applications and recording inquiries of personal credit certificates and personal loan settlement certificates, etc. In addition, the Bank uses the QR code to transfer offline business to online, so that clients can complete withdrawal and other services by scanning QR codes through the mobile banking, which further optimises the clients' experiences.



Convenient online payment via "Yue sheng huo Joyful Life"

**Other Innovation Achievements in Green Financial Products and Services****Integrated financial services for public Real Estate Investments Trusts (REITs)**

Relying on the new type of capital management product, the public REITs, the Bank's "CCB Infrastructure and Real Economy Supporting" project has paid close attention to the business opportunities in the fields of the wind, photovoltaic and hydroelectric power, energy storage, charging and exchanging power stations, sewage treatment, solid waste treatment and utilisation, green buildings, carbon capture and storage, etc. The project has provided comprehensive financial services in a full chain for relevant green and low-carbon REITs projects, including research and analysis, project reservation, Pre-REITs cultivation, supporting financing, issuance and sale, supporting investment, Post-REITs operation and maintenance. The project will revitalise the stock assets of the green infrastructure, and support the development of the green and low-carbon infrastructure.



Public REITs financial service of "CCB Infrastructure and Real Economy Supporting"

**"Contactless payment"**

The Bank has actively adapted to the demand for contactless payment services through product innovations in recent years, and vigorously promoted products such as the "contactless payment". Based on licence recognition technology and bank card fast payment technology, the "contactless payment" realises "no parking, no card swiping, and no code scanning" for vehicles entering and exiting, which effectively reduces the parking and refueling time of vehicles, thereby decreasing fuel consumption and promoting green develop-

ment. At present, "contactless payment" has covered parking, car washing, refueling, motorways and other scenarios, and has expanded to more than 5,000 merchants as clients, including more than 30 airports, more than 20 high-speed rail station and railway stations, and more than 150 hospitals. In 2021, there were 50,779 million transactions of the Bank's online payment, an increase of 17.55%, and the transaction amount was RMB21.97 trillion, an increase of 17.11% over last year.

**"New type financial advisor of carbon peaking and carbon neutrality"**

The Bank customises the product of "new financial advisor of carbon peaking and carbon neutrality" for large and medium-sized enterprises in the fields of the energy conservation, emission reduction, clean energy, clean transportation and green environmental protection, providing services including the industry economic information, interpretation of "carbon peaking and carbon neutrality" policies, corporate investment opportunities and financing proposals, and corporate transformation strategies in the context of "carbon peaking

and carbon neutrality". Through developing customised allocation plans of "carbon peaking and carbon neutrality" financial products for enterprises based on their own development characteristics, the product has solved their problem of capital needs in the process of achieving carbon peaking and carbon neutrality. Moreover, linking with subsidiaries and partner institutions, the product also provides advisory support such as M&A collocation and strategic investors introduction.

**"CCB Match Plus" platform**

Exploring international cooperation in diversified green industries, the Bank has created the "CCB Match Plus", a B2B intelligent cross-border matchmaking platform, and has carried out a series of green-themed cross-border matchmaking activities based on this platform.

- London Branch, the UK Department for International Trade and the UK Export Finance jointly held the "2021 China-UK New Energy Cloud Meeting" with the theme of "Advocating ESG and Embracing Green Finance" to share the new energy industry development trends in the UK and successful cases of cross-border cooperation. The meeting connected Chinese and British companies to deeply communicate the development and cooperation of the new energy industry between the two countries.



On 29 January 2021

On 15 June 2021

On 16 June 2021



On 22 September 2021

- The Bank and the Investment Promotion Bureau of the Ministry of Commerce jointly held the "Cross-border Communication of Green Economy Industry Forum". Important institutions and representatives from enterprises in green economy field from China, Korea, Germany and Canada were invited to the forum, and communicated and reached cooperation intentions on topics such as the cross-border industry cooperation of green economy, green innovations and green strategies.

On 9 November 2021



- In order to further promote the solar energy trade and technology exchanges between China and New Zealand, New Zealand Branch successfully held the "Green Life, CCB Accompanying" photovoltaic power generation cross-border cloud matchmaking activities together with Beijing Branch.



- Zurich Branch, Qingdao Branch and Yunnan Branch co-hosted the "Focusing on Green Transformation, Embracing Green Finance" Sustainable Development Forum and Cloud Fair Of Commodity Industry. The event invited many global leading companies in the commodity industry from China and Switzerland to discuss sustainable development and green transformation, jointly exploring the path of transformation.



In addition, relying on the matchmaking service platform, CCB Asia has innovatively explored cooperation with the Hong Kong Quality Assurance Agency (HKQAA), an authoritative certification body in the Asia-Pacific region, in the green field, and established a "HKQAA Certification Zone" on the platform's Guangdong-Hong Kong-Macao Greater Bay Area to support the online acceptance of the "Green Finance Certification Scheme". It has promoted the concept of green finance to corporate clients via showcasing the advantages of the financial technology of the platform.

# Research Achievements Related to Green Finance

## Internal Professional Research

The Bank actively organised research related to green development. In 2021, Chairman Tian Guoli published articles named—"Writing a New Chapter of Rural Revitalisation with New Finance" and "Promoting the Spirit of Poverty Alleviation and Activating Green Development Momentum" on *People's Daily* and *Study Times* respectively, which emphasised that serving rural revitalisation with financial services and creating green ecology. The executive vice president Wang Hao published an article named—"Promoting Comprehensive Green Transformation with Financial Measures" on *China Finance*, sharing the Bank's exploration,

research and practise in green transformation.

The Bank encourages relevant departments and institutions to set up teams to carry out project researches and analysis on the development of green finance from the aspects of risk management, approval guidelines, industrial strategies, business development and prospective research, expands channels for releasing research findings, promotes foreign exchanges, and enhances the application of research findings in improving policies and guidelines, driving business development, etc.

## Research on industrial strategy

The Bank has formulated and distributed the *Guidelines on Marketing of Green Building Industry* and the *Guidelines on Marketing of Wind Power and Photovoltaic Power Industry* to sort out the policies and industry chain development status and trends of related industries and propose marketing strategies for the future. The Bank strengthens the deep research on the industry chain related to carbon peaking and carbon neutrality, evaluates the impact of emerging low-carbon industries on the traditional industries and the supply, demand and price of

bulk commodity, publishing special articles about carbon markets. Moreover, the Bank has prepared a number of research reports on green industries concerning new energy storage, infrastructure construction of hydrogen refuelling station, energy conservation transformation of buildings, green agriculture and food security, and has released articles like the *Improvement of Industrial Certainty for "Carbon Peaking and Carbon Neutrality" Goals, and Expansion of the Market of New Energy Vehicle*.

## Research on risk management

Since September 2021, the Bank has launched the environmental and climate risk research, organised "Proactive Risk Management of Climate Change" Youth Forum to carry out in-depth research on regulatory documents related to carbon peaking and carbon neutrality, constantly followed up on the conditions of major domestic and overseas carbon trading markets and the cutting-edge researches and findings disclosure of climate risk, roll out special researches on regulatory requirements, interbank practices, stress tests, ESG rating, carbon trading and product innovation, and proactively explore methodology and tools for management of environmental and climate

management. As at the end of 2021, the Bank held six sessions of "Proactive Risk Management of Climate Change" Youth Forum sharing campaigns, and produced 16 research reports, which were shared, studied and researched with the Group to deepen the Bank's systematic understanding of environmental and climate issues and to enhance ability to manage environmental and climate risks in a forward-looking manner. In addition, the Bank has carried out a series of research on risk management related topics such as hydrogen energy, energy storage, energy conservation of existing buildings, and the impact of the two goals of carbon peaking and carbon neutrality on the aviation industry.

## Research on business development

The Bank carried out the research about the *Green Asset Management Culture Building under Goals of "Carbon Peaking and Carbon Neutrality"* and the *Development of Green Bond Market under the Goal of Carbon Neutrality*, prepared more than 30 research reports in respect of investment banking business, and published them via authoritative journals and public accounts. The Bank held "Investment, Research and Development Expert" seminar to invite external experts to share their views on "opportunities and responses of asset management

institutions under the carbon neutrality goal". The Bank held the "Carbon Peaking & Carbon Neutrality and ESG Research Sharing Meeting for Subsidiaries" to share research findings, such as the *ESG Investment Opportunities under Goal of Carbon Peaking and Carbon Neutrality* and the *Carbon Reduction Achievements and Development Trend of Global Carbon Emission Rights Trading Market*, to continuously enhance subsidiaries' research ability.

## Research on approval guidelines

The Bank has released a series of important research findings, such as the *Guidelines on Approval of Credit Business (Hydrogen Energy)*, the *Guidelines on Approval of Credit Business (Electrochemical Energy Storage)*, the *Guidelines on Approval of Credit Business (New Coal Chemical Industry Reinspection)*, the *Guidelines on Approval of Credit Business (New Energy Vehicle Charging Pile Operator)* and the *Passivhaus Industry Research Report*.

It strengthens the support and guarantee capability of the approval process, the quality and efficiency of approval, the scientific and forward-looking nature of credit approval work in environmental protection and climate risks. The Bank has also established a mechanism for interpreting regulatory policies related to credit approval, continuously tracking green finance policies and raising credit concerns for relevant policies.

## Prospective research

The Bank actively conducts independent research in climate change, energy situation, international carbon reduction policies, impact of "carbon peaking and carbon neutrality" goals, industrial transformation and upgrading, regional low-carbon development, green finance, carbon finance, forest carbon sinks, etc. More than ten special research reports were generated and a number of articles such as the *Prospective Response*

*to Challenges of Carbon Finance Development*, the *Reflections on Building China's Sustainable Development Evaluation System with ESG Concept*, the *Research on the Structural Mutation of Carbon Emission Trading Price of China*, were presented in domestic and international journals including the *China Finance*, the *Modern Commercial Banking Herald* and the *Open Journal of Business and Management*.

## External Collaborative Research

Specialised in green finance, the Bank participates in the building of the green standards system, and coordinates with the government, regulators and industry associations to promote the development of standards for green finance products and services.

### Participating in the “climate risk sensitivity stress testing” research and pilot work

In cooperation with the Financial Stability Bureau of the PBOC, the Bank implemented the relevant work of “climate risk sensitivity stress testing” (thermal power, iron and steel and cement industries) as one of the three pilot banks, and was responsible for researching and producing the general climate risk stress testing template for thermal power industry to the banking industry, which transformed the Bank’s stress testing methodologies and standards into common industry practices.



The Bank provided loan to the project of water security and ecological environmental protection in the Yellow River basin

### Participating in the formulation of green bond standards

The Bank involves in the study on green finance standards of the Research Bureau of the PBOC, joins the working group on Climate Attributes of the *Green Bond Endorsed Projects Catalogue* and the working group on ESG Evaluation Criteria for Green Bonds, and assists the PBOC in translating the *Green Bond Endorsed Projects Catalogue (2021 Edition)* into an English version, contributing to develop green bond standards and principles with

characteristics of “domestic unification and international integration”. Besides, as a member of the China Green Bond Standards Committee, the Bank assists the PBOC and the National Association of Financial Market Institutional Investors in developing green bond standards and standardising information disclosure documents and other works.

### Participating in the study of “Green Financial Product Classification and Coding Standards”

The Bank cooperated with the Science and Technology Department of the PBOC to carry out the project research on “Green Financial Product Classification and Coding Standards”, submitted research reports such as the *Research on Green Financial Product Classification and Coding Standards*, the *Outlines for Carrying Out Green*

*Financial Product Classification and Coding Work*, and the *Applicability Analysis of Existing Financial Product Classification and Coding to Green Financial Products*, and formed draft standards and proposals for standard project approval.

### Driving the development of standards on green building project loans

The Bank participates in formulating related standards of green building service specifications. We assisted the Chongqing Local Financial Supervision and Administration Bureau and Chongqing Housing and Urban-Rural Construction Commission in issuing the *Guideline of Chongqing on Green Financial Service for Green Buildings*, aiming to precisely match differentiated green financial services with green building projects. The Bank has helped

Huzhou, Zhejiang Province, to release the local standard, *Implementation Regulations on Green Building Project Loans*, which provides an authoritative evidence for local banking industry to identify green building loans during the construction phase of projects and link businesses with the government, giving support to the pilot project on synergistic development of green building and green finance.

### Participating in the “Expert Working Group on Banking Sector to Support the Achievement of the Goal of Carbon Peaking and Carbon Neutrality”

In 2021, the Bank, as a deputy group leader unit, joined the “Expert Working Group on Banking Sector to Support the Achievement of the Goal of Carbon Peaking and Carbon Neutrality”, and involved in research tasks of the working group such as *Climate Risk Stress Testing Methods* and

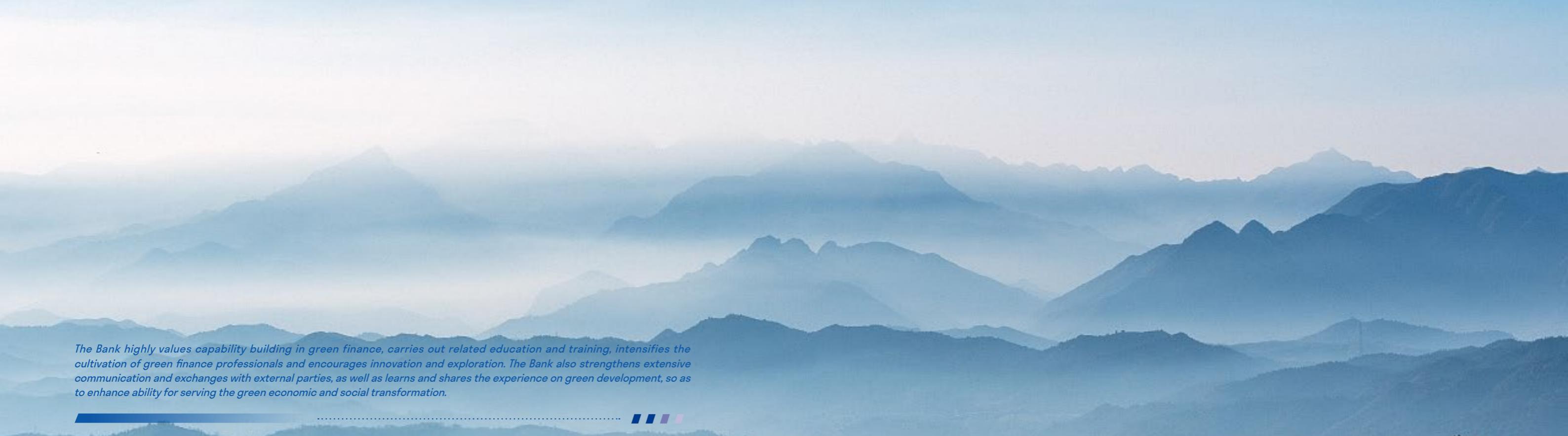
*The Compilation of Domestic Banking Practices*, promoting the research on standards related to the banking sector supports for the goals of carbon peaking and carbon neutrality.

# 09

## Construction of Environment-related Capabilities

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The Bank highly values capability building in green finance, carries out related education and training, intensifies the cultivation of green finance professionals and encourages innovation and exploration. The Bank also strengthens extensive communication and exchanges with external parties, as well as learns and shares the experience on green development, so as to enhance ability for serving the green economic and social transformation.



## External Communications

The Bank takes an active role in the international exchanges and cooperation concerning green finance, organises and participates in important environmental conferences and seminars to share green development concepts and practices, and to learn from advanced industry experience, enhancing integration of international and domestic green development systems.

### Jointly organising the “Banking Financial Institutions to Support Biodiversity Protection” themed forum

The 15th Meeting of the Conference of Parties to the *Convention on Biological Diversity* (COP 15) was held in Kunming, Yunnan Province on 11 October 2021, in which the Bank jointly organised the “Banking Financial Institutions to Support Biodiversity Protection” themed forum under the ecological civilisation forum. Chairman Tian Guoli attended and delivered a speech by video, stating that CCB should further promote ecological development and highlight finance nature based on Chinese characteristics, actively participate in, drive and lead the construction of eco-friendly banks, innovate in green financial products, facilitate the realisation of ecological products value and ecological protection compensation reform, as well as step up support for the green, circular and low-carbon economy.

### Participating in the Global Systemically Important Financial Institutions (G-SIFIs) meeting during the Annual Conference of Financial Street Forum

From 20 to 22 October 2021, the 2021 Annual Conference of Financial Street Forum was held in Beijing, with the theme of “Economic Resilience and Financial Actions”. Chairman Tian Guoli was invited to attend the opening ceremony and the G-SIFIs meeting, emphasising that CCB will continue to consolidate the green nature and feature of New Finance and build a climate-friendly and eco-friendly bank. Chairman of the Board of Supervisors Wang Yongqing attended the parallel forum of “Green Development and Financial Responsibility” and delivered a keynote speech on the theme of “Accurate drip irrigation of financial living water into the field”. Executive vice president Ji Zhihong attended the parallel forum of “Real Economy and Financial Services” and delivered a speech of “Practise the New Development Philosophy and Solidly Promote the High-Quality Development of Inclusive Finance”. Executive vice president Li Yun attended the parallel forum of “Green Development and Financial Responsibility”. Hu Changmiao, secretary to the Board, attended the parallel forum of “Real Economy and Financial Services” and delivered a speech “Practise the New Development Philosophy Facilitate the Low-carbon Transformation of the Economy and Society with New Financial Actions”. During the forum, the Bank hosted the discussion of “New Finance Empowers Rural Revitalisation” under the parallel forum of “Green Development and Financial Responsibility”.

### Participating in the 2021 Budapest Eurasia Forum

On 18 November 2021, Chairman Tian Guoli attended the 2021 Budapest Eurasia Forum by video, and delivered an opening speech, highlighting that the new future opportunities lie in green development. Mr. Tian stated that green finance would continuously inject “oxygen” into green transformation and promote the development of the global economy in a green, low-carbon and sustainable direction, and call on win-win cooperations based on new development and new opportunities, to promote the sustainable recovery and prosperity in Eurasia together.

### Participating in China-Singapore Strategic Connectivity Initiative Financial Summit

On 23 November 2021, Chairman Tian Guoli attended the opening ceremony of 2021 China-Singapore (Chongqing) Strategic Connectivity Initiative Financial Summit via video and delivered a keynote speech, stating that the current China-ASEAN environmental cooperation focused on strategic directions such as building sustainable cities, responding to climate change and biodiversity protection. The Bank was willing to cooperate with all partners to bring about green and low-carbon development demonstration projects, explore new products, new models and new standards, to support low-carbon sustainable development.

### Holding the CCB BlackRock sustainable investment experience sharing and communication

On 16 November 2021, the Bank and BlackRock jointly held a sustainable investing experience sharing and communication session. Executive vice president Ji Zhihong attended the event and delivered a speech, saying that CCB is an active practitioner of the concept of sustainable development, and is committed to integrating “green genes” into business development and operation management to facilitate the green, low-carbon and high-quality development of the economy and society. BlackRock shared the latest progress of the UN Climate Change Conference, the current status and evolution trend of global ESG investment and BlackRock’s sustainable investing practices. The two sides look forward to extensive cooperation in the field of sustainable investment.

### Participating in the 2021 Green Finance Forum in Qinghai, China

In July 2021, executive vice president Wang Hao attended and presented at the “2021 Green Finance Forum in Qinghai, China”. Mr. Wang said that contributions to build a world-class salt lake industrial base in Qinghai should be centred on technological innovation. Assistance to the establishment of Qinghai’s leading position in national clean energy industry should be aimed at low-carbon and emission reduction. Efforts to help make Qinghai an international ecological tourism destination should be accompanied by the realisation of the value of ecological products. Supports to make Qinghai an exporter of green and organic agricultural and animal products should be provided with financial means for rural revitalisation. Aids to biodiversity protection of Qinghai should be offered by bringing into play the Bank’s sentiment and responsibilities of a large bank, comprehensively promoting high-quality economic and social development of Qinghai.

### Participating in the 2021 Asian Financial Summit Forum and Asian Financial Think Tank Annual Forum

On 2 December 2021, executive vice president Li Yun was invited to attend the 2021 Asian Financial Summit Forum and Asian Financial Think Tank Annual Forum by video and delivered a keynote speech. He expressed that the Bank would continuously carry out new financial practices and adhere to innovation-driven green development in promoting financial connectivity and sustainable regional economic development, supporting to create a new pattern of regional financial cooperation.

### Participating in the ESG Theme Salon of the China Association of Public Companies

On 15 April 2021, the China Association of Public Companies held an ESG Theme Salon for listed companies, inviting more than 20 listed companies, domestic and foreign ESG index rating institutions and consulting companies to exchange insights. Hu Changmiao, secretary to the Board, was invited to participate in the event to share the ESG management and performance of the Bank with the theme of “New Finance Promotes ESG Performance”. He said that the Bank would actively benchmark the international authoritative rating system, learn from the practices of domestic and foreign peers, continue to improve the quality of information disclosure, strengthen effective communication with the capital market and investors, and enhance ESG performance.

### Becoming a supporter for the Task Force on Climate-related Financial Disclosure (TCFD)

In May 2021, the Bank officially became a supporter for TCFD. In the future, the Bank will, based on requirements of regulatory and the TCFD disclosure framework, improve the disclosure quality of environmental and climate-related information continuously, better integrate with information disclosure systems of international financial enterprises and investment institutions, and promote the understanding and recognition of capital markets and rating agencies of the Bank’s work including ESG and green finance.

### Jointly hosting a seminar on “carbon peaking and carbon neutrality” policies

On 13 April 2021, Tianjin Branch together with relevant local government departments and Tianjin Eco-City Investment & Development Co., Ltd., organised a seminar on “carbon peaking and carbon neutrality” policies in China-Singapore Tianjin Eco-City, the first national demonstration zone for green development approved by the State Council. The seminar gave a comprehensive interpretation of related policies with deep exchange and discussion on issues such as promotion of green urban transition.

### CCB Principal Asset Management joining the UN Principles for Responsible Investment (UN PRI)

In July 2021, CCB Principal Asset Management officially joined the UN PRI, and became one of public offering fund management companies that signed the Principles and committed to practising the principles of responsible investment. CCB Principal Asset Management will build a distinctive investment research system around green development, formulate investment strategies, comprehensively integrate environmental-related factors in investment management process, and continuously strengthen environmental risk management and build a talent team. Moreover, it will develop ESG-related products, and explore investment opportunities that bring a long-term positive impact on environment and society to increase sustainable long-term investment returns. It will also establish a sound communication mechanism with stakeholders to promote green and low-carbon investment concepts, effectively satisfying clients’ investment needs and guiding investees to improve their ESG performance.

The screenshot shows the official website of the Principles for Responsible Investment (PRI). At the top, there is a navigation bar with links to 'Collaboration Platform', 'Data Portal', 'Reporting Tool', 'PRI Academy', and 'Careers'. Below the navigation bar, the 'PRI' logo is displayed, followed by the full name 'Principles for Responsible Investment'. The main content area features a search bar with fields for 'Optional keyword', 'Content Type', and 'All filters', along with a 'SEARCH' button. A section titled 'SIGNATORY DIRECTORY' lists 'CCB Principal Asset Management Co., Ltd' as a signatory. Below this, there are sections for 'Most popular' and 'Latest' news, each featuring a thumbnail image and a brief description. The 'Most popular' section includes items like 'East Capital: Incorporating SDG outcomes into emerging markets investments', 'Diversity, equity & inclusion: Key action areas for investors', and 'Financial vs ESG payoffs: How ESG investors impact asset pricing'.

CCB Principal Asset Management joining the UN PRI

# Internal Empowerment

## Encouraging Innovation and Exploration

The Bank strengthens its attention and investment in environment-related innovative businesses and products, and actively enhances its influence in the green industry.

- We held a green bond business promotion seminar, presided by Wang Jiang, the then president of the Bank, to study and discuss the business development strategies of green bond underwriting and investment, optimise the customer-centred financial service system, and improve the high-quality coordinated development of green bond business.
- We firmly implemented the position of “house is for living, not for speculation”, supported to establish a system combined with house purchasing and renting, innovated product and service models. By integrating existing real estate resources, we supported the transformation of villages in cities and old residential areas. We created “CCB Home” long-term rental community to promote green and environmental protection concept. In 2021, Zhu Kepeng, the head of the Disciplinary Inspection and Supervision Team of Central Commission for Discipline Inspection of the CPC at CCB, made a field survey of relevant work in Zhejiang Branch, Jiangxi Branch and the subsidiary, CCB Housing.
- We held a summary and commendation meeting of “Data Innovative Application Activities”, which was presided over by the executive vice president Zhang Min. Data innovation and application outcomes from the fields of data support for green finance, technological innovation, customer service, management improvement, risk prevention and control were presented to demonstrate the vitality of data innovation.
- We carried out the activity of selecting “Excellent Cases of New Finance in the Capital Market” to explore the Bank’s advantages and characteristics in the fields of house rental, inclusive finance, financial technology, green finance, etc. Those cases quantitatively presented the remarkable effects of the New Finance initiatives in terms of customer acquisition and activation, risk control, cost control and comprehensive income, and strengthened the external publicity of ESG concepts and practices.
- We regularly held the “Innovation Marathon” activities for the whole bank and social makers to explore innovative projects around green products and services. Since 2019, more than 100 innovative products and platforms focusing on green finance have emerged.

## Improving the Education and Training System

The Bank continues to improve the green finance education and training system, and build shared learning channels. Focusing on green finance, green industry, green lifestyle and other areas, the Bank invested vast resources into areas of training and learning, teaching and research development, scientific research topics, industry-university-research-practice, etc, and organised diversified fruitful trainings and learnings. During the reporting period, over 100 theme trainings on green finance in different tiers and groups were conducted across the Bank.

### Lectures on “carbon peaking and carbon neutrality”

In order to strengthen the guidance of relevant policies and knowledge, the Bank has successfully delivered 12 lectures on “carbon peaking and carbon neutrality”, covering opportunities and challenges of commercial banks, energy policies and technologies, changes in industry landscape (including industrial and transportation sectors) as well as transformation paths. The Bank encourages staff to learn via internal publications and issued a collection of expert opinions on “carbon peaking and carbon neutrality” lectures. The number of staff joined in online and offline amounted to more than 70 thousand throughout the year.



Carbon peaking and Carbon neutrality Lecture

## International Lectures on Green Finance

The Bank organised 7 “International Lectures on Green Finance”, inviting teachers and industry experts from top international universities, economic policy think tanks as well as financial and energy institutions, such as the Harvard Kennedy School, the Official Monetary and Financial Institutions Forum and KfW to share the world’s leading green finance practices and related hot issues online. The lectures covered industry practices of different countries, interpretation of international ESG regulatory policies, insights of banking regulation, and hot topics like transformation practices of the global banking industry under the “carbon neutrality” policy, aiming to broaden staff’s international vision and cultivate their business advantages.

**NextEra Energy is comprised of strong businesses supported by a common platform**

**NEXTERA ENERGY**

- \$144 B market capitalization<sup>(1)</sup>
- ~58 GW in operation<sup>(2)</sup>
- \$132 B in total assets<sup>(3)</sup>

**FPL**

- The largest electric utility in the United States by retail MWh sales

**NEXTERA ENERGY RESOURCES**

- The world leader in electricity generated from the wind and sun

**Engineering & Construction Supply Chain**

**Wind, Solar, and Fossil Generation**

Communication with international experts

## The Learning Channel for Green Finance

The Bank builds the “Learning Channel for Green Finance” to address issues of insufficient, fragmented and unsystematic learning resources in green finance. The first batch of more than 100 learning resources has been selected, which emphasises on carbon peaking and carbon neutrality, green and low carbon, energy conservation and environmental protection, emission reduction and pollution reduction, climate change, biodiversity, etc., and covers green development concepts, policy interpretations for green credit and green bonds, products and services, and classic cases. The channel provides convenient and mobile learning experience for all staff around the clock, attracting more than 58 thousand learners.

绿色金融学习频道

新金融行动助力全面绿色低碳发展

双碳大讲堂

“碳达峰 碳中和”

工业系列大讲堂

“碳达峰 碳中和”

工业系列大讲堂

“碳达峰 碳中和”

工业系列大讲堂

The portal of the learning channel for Green Finance

## Outlook

In a context where China makes efforts to promote the construction of ecological civilisation and achieve the goals of “carbon peaking and carbon neutrality”, the intensive development of green finance, practice of green operation, improvement of climate risk identification and response capabilities play an essential role in promoting green development, facilitating energy conservation and emission reduction, and controlling climate risks.

In the future, the Bank will implement new development philosophy comprehensively and precisely, taking green efforts as the ecological backdrop of New Finance actions while adhering to the greater green picture. We will continuously promote the implementation of strategic plans including the *Strategic Plan for Green Finance Development (2022-2025)* and the *Action Plan for Carbon Peaking and Carbon Neutrality*, accelerate the development of green finance business, enhance the investment in green industries and projects, consolidate the green nature and feature of our assets, continuously build a green asset balance sheet, give a full play to direct appropriate resource allocation, further open up diversified investment and financing channels, and explore innovations of financial products and services. We will steadily respond to environmental and climate risks, strengthen technology application, construct a ecological-friendly bank, and demonstrate the social responsibility influence of a leading large state-owned bank, facilitating the construction of a beautiful China and the national goal of “30·60”. Collectively, we aspire to contribute our wisdom and power to the green and low-carbon transformation and sustainable development of the economy and society.



# Appendix I:

## Index of Guidelines for Financial Institutions Environmental Information Disclosure

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	The information about the management positions or internal institutions related to green finance at senior management levels, and the main responsibilities and reporting routes of such management positions or internal institutions.	22-23
	At the level of professional departments, the implementation and effectiveness of green finance related work within the scope of departmental responsibilities.	22-23
Environment-related policies of financial institutions	The environment-related internal management policies formulated by financial institutions, especially new policies and initiatives implemented during the reporting year.	26-31
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	The quantitative analysis of environmental risks by financial institutions.	42-43

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The environmental impact of investment and financing activities of financial institutions	The environmental impact of the investment and financing activities of commercial banks.	47-61
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## Appendix II:

### The Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) Index

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Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	36-41
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	12-13, 34-41, 47-51
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	42-43
Risk Management	a) Describe the organization's processes for identifying and assessing climate-related risks.	34-35
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	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	26-30, 34-40
Metrics and Targets	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	46-51, 64-65
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	64-65
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	12-15, 66

