 Powering Life
with Green Energy



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China Resources Power Holdings Company Limited

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About the Report



This is the 13th annual Sustainable Development Report published by China Resources Power Holdings Company Limited ("CR Power") for the year from January 1 to December 31, 2022.

Basis of Preparation

This Report is prepared with reference to the following important standards:

- *Environmental, Social and Governance Reporting Guide* as set forth in Appendix 27 of the *Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited* issued by the Stock Exchange of Hong Kong Limited ("HKEx")
- *Sustainability Reporting Guidelines* of the Global Reporting Initiative (GRI Standards)
- *Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR4.0)/Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-ESG 5.0)* released by the Chinese Academy of Social Sciences
- *Guidelines to the State-Owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities* released by the State-Owned Assets Supervision and Administration Commission of the State Council (SASAC)
- *CR Group Social Responsibility Program Management Rules*
- *CR Power Social Responsibility Program Management Standards*

Scope

This Report relates to China Resources Power Holdings Company Limited and its affiliates (see Organizational Structure at page 49), referred to herein as "We," "the Company," or "CR Power". China Resources (Holdings) Co., Ltd. is referred to herein as "CR Group".

We have engaged an independent third party to provide assurance of 20 performance indicators in this Report. The Assurance Report is available at page 4 to 5.

Information Source

Unless otherwise specified, the information and data herein are based on the Company's official documents, statistical reports, financial reports, or relevant public documents. CR Power undertakes that this Report contains no false records, misleading statements, or material omissions, and the Board of Directors is responsible for the truthfulness and accuracy of this Report.



2010



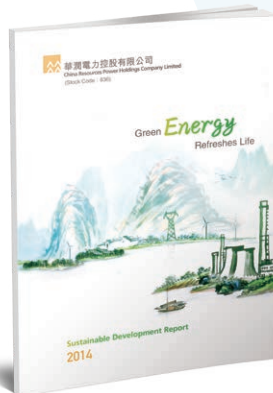
2011



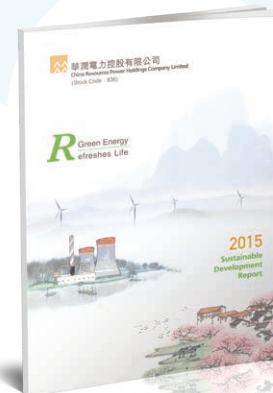
2012



2013



2014



2015

Reporting Principles

This Report complies with the requirements of the Environmental, Social and Governance Reporting Guide for the “Materiality”, “Quantitative”, “Balance”, and “Consistency” principles. Specifically, this Report responds to the principle of “Materiality” by providing materiality matrix analysis of sustainability issues, the principle of “Quantitative” by setting out lists of quantitative data and sources of conversion factors, the principle of “Consistency” by applying consistent data disclosure standards and statistical methods, and the principle of “Balance” by disclosing and reviewing negative issues.

Confirmation and Approval of this Report

This Report was confirmed by the Company’s Sustainability Committee and approved by the Board of Directors on April 24, 2023.

Access to this Report

This Report is available on the HKEx website (www.hkexnews.hk) and the CR Power website (www.cr-power.com/power_en/SocialResponsibility/Sustainable/).

For any inquiries, comments or suggestions about this Report or the Company’s sustainability, please contact:

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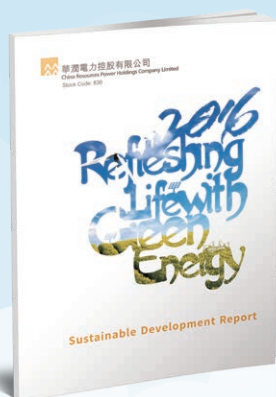
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2016



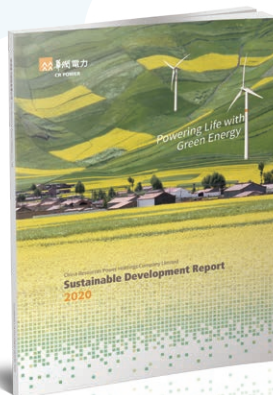
2017



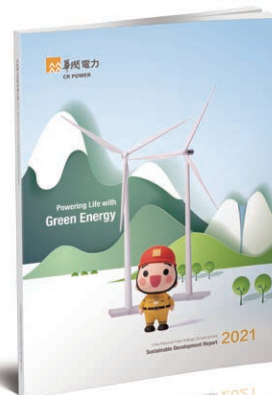
2018



2019



2020



2021

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Assurance Report

安永华明(2023)专字第 60462313_H01 号

To the Board of China Resources Power Holdings Corporation:

I. Scope of Our Engagement

The 2022 Sustainable Development Report (the "Sustainable Development Report") of China Resources Power Holdings Co., Ltd. (the "Company") has been prepared by the Company, Management of the Company (the "Management") is responsible for the collection and presentation of information within the Appendix 27 *Environmental, Social and Governance Reporting Guide* of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited and Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI Standards), and for maintaining adequate records and internal controls that are designed to support the sustainable development reporting process.

Our responsibility is to carry out limited assurance procedures in accordance with *International Standard on Assurance Engagements 3000 ("ISAE3000")*: "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" issued by the International Federation of Accountants and issue the assurance statement for the key performance information in the Sustainable Development Report for the year ended 31 December 2022 in accordance with the Management's instructions and the terms of the Engagement Letter signed in April 2023.

According to the terms of the Engagement Letter, the Assurance Report is only prepared by the Board of the company. Our work was limited to these stated above and our report is made solely to the Board, as a body, and for no other purpose. We do not therefore accept or assume any responsibility for any other purpose or any other person or organization. Any reliance any such third party may place on the Sustainable Development Report is entirely at its own risk.

II. Work Performed

Our review has been planned and performed in accordance with ISAE3000. In order to form our conclusions, we carried out the following procedures:

According to the Management's instructions, we performed limited assurance procedures in:

- China Resources Power Holdings Co., Ltd. Headquarters

We did not perform limited assurance procedures on other sites.

The limited assurance procedures were performed over the following key performance indicators in the Sustainable Development Report for the year ended 31 December 2022:

Safety

- Employee personal injury and fatality incident (s)

Environment

- Installation rate of desulfurization equipment in coal-fired power plants (%)
- Installation rate of denitrification equipment in coal-fired power plants (%)
- Total GHG emissions (Mt)
- Carbon emission intensity of power generation (g/kWh)
- Carbon emission intensity of thermal power generation (g/kWh)
- Net generation standard coal consumption rate (g/MWh)
- Natural gas consumption (Mm³)
- Diesel consumption (kt)
- Coal consumption (kt)
- Purchased electricity (MWh)
- Nitrogen oxide emissions (kt)
- Sulfur dioxide emissions (kt)
- Particulate emissions (kt)
- Nitrogen oxide emission rate (g/kWh)
- Sulfur dioxide emission rate (g/kWh)
- Particulate emission rate (g/kWh)



Social

- Total headcounts (Person)
- Female employees (Person)
- Ethnic minority employees (Person)

In response to the above key performance indicators, the company has applied the reporting guidelines in the Appendix 27 *Environmental, Social and Governance Reporting Guide* of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited and *Sustainability Reporting Guidelines* of the Global Reporting Initiative (GRI Standards) to prepare.

The limited assurance work includes interviews with persons in charge of selected key performance indicators, execution of analytical procedures and other limited assurance procedures, etc.

The limited assurance procedures we carried out are following:

- Interviewing the company's Management and staffs responsible for the selected key performance information;
- Performing analytical review procedures;
- Performing sample inspection on the selected key performance information;
- Performing recalculation procedures on the selected key performance information;
- Other procedures we considered necessary.

We believe that the evidence obtained is sufficient and appropriate as the basis for issuing limited assurance conclusions.

III. Limitations of Our Scope

Our scope of work did not include:

- Assessing the accuracy or fairness of information (including financial information) other than the selected key performance information;
- Reviewing the forward-looking statements made by the Management;
- Reviewing and consequently providing assurance on historical data.

安永华明(2023)专字第 60462313_H01 号

IV. Level of Assurance

Our evidence gathering procedures have been designed to obtain a limited level of assurance (as set out in ISAE 3000) on which to base our conclusion. The procedures conducted do not provide all the evidence that would be required in a reasonable assurance engagement and, accordingly, we do not express a reasonable assurance opinion or an audit opinion. While we considered the effectiveness of the Management's internal controls when determining the nature and extent of our procedures, our review was not designed to provide assurance on internal controls.

V. Our Conclusions

Subject to the limitations of scope and based on the procedures specified above for this limited assurance engagement, we provided the following conclusions:

Nothing has come to our attention that causes us to believe that the key performance indicators selected in the company's 2022 Sustainable Development Report are unfairly expressed in any material respect according to the criteria defined above.

VI. Our Independence

We are in compliance with the Ernst & Young Global Independence Policy which was designed to comply with the requirements of the IFAC Codes of Ethics for Professional Accountants (the IFAC Code). We believe that there were no events or prohibited services provided which could impair our independence.

VII. Our Assurance Team

Our assurance team has been drawn from our ESG Report assurance service network, which undertakes similar engagements to this with a number of domestic or international businesses. Our assurance team has met the requirements of competence and work experience of this engagement.



27 April 2023

Chairman's Message



The year 2022 marked the 20th National Congress of the Communist Party of China and was critical for the implementation of the 14th Five-Year Plan, creating important strategic opportunities for CR Power to make leaps and breakthroughs. During the year, we focused on growth and made encouraging progress on the new track of green and low-carbon development, promoting positive interaction between environmental protection and corporate development. Working towards the goals of innovation, steady growth, and “Four Reinventions”, we gained the advantage of high-quality development. As a central state-owned enterprise (“SOE”), we remained committed to the mission of serving the people, fulfilled social responsibilities, promoted the welfare of the community, and developed together with all stakeholders.

Empowering Green Development under the Dual Carbon Goals

Under the dual carbon goals, we identified and addressed risks related to climate change always from a forward-looking perspective, and invested in clean energy projects such as wind power and PV plants, with the attributable installed capacity of renewable energy accounting for 32.3% of the total. We continued to explore low-carbon technologies such as carbon capture, utilization, and storage (CCUS), promoted the pilot program of zero-carbon industrial park, and optimized the model for carbon asset management. Throughout the year, we captured more than 30,000 tonnes of carbon dioxide through CCUS technology, and sold 1.35 billion kWh of green electricity. We also improved the environmental management system by formulating rules on environmental protection, assessing the environmental impact of our projects, saving energy and reducing consumption in business operations, and taking an active part in biodiversity protection. All these efforts aimed to promote low-carbon transition.

Cementing Development Foundation

To promote high-quality development, we have been reforming organizational management and control in line with corporate strategy, modernizing management system and capability, and optimizing functions and duties for better management and control. Under the direction of the Board of Directors, we pursued sustainable development while creating business value, reaching HKD 103.31 billion of operating revenue last year. We also took a range of measures to stabilize and expand employment, customized training programs for different positions, and established a safety management system that manages all matters, controls all processes, and covers all employees. In 2022, we offered 1,496 jobs, spent RMB 18.78 million on staff training, and invested RMB 280 million in safe production.

Pursuing Innovation to Accelerate Transition

Believing in the driving force of innovations in industry leading technologies, we continued to improve the corresponding top-level structure by establishing the Intelligent and Digital Development Committee and the Science, Technology, and Digitalization Department as the governing bodies of innovations to expedite digital transition. We researched on new technologies such as smart energy storage, virtual power plants, and wind farm frequency regulation, and accelerated the commercialization of research results to develop our strengths. In addition, we set up the Integrated Energy Development Department and formulated an integrated energy development plan, aspiring to create a new growth pole that can promote leapfrog development during the 14th Five-Year Plan period. In 2022, we invested RMB 419 million in research and development, filed 203 patent applications, and had 326 patents licensed. The Technical Research Institute was recognized as a Pioneering Research and Development Institute in Guangdong Province.

Building a Better Community through Joint Efforts

Aligning with the culture of "Making Money in the Right Way and Spending Money for Society," we performed the responsibility of supplying energy as a central SOE. Facing energy shortage, COVID-19, and a sweeping cold wave, our undaunted and devoted staff did their best to ensure stable power and heat supply. In carrying out the national rural revitalization strategy, we combined clean energy with modern farming, breeding, and rural tourism and healthcare, powering local economic and income growth. In 2022, we invested RMB 39.482 million in rural revitalization, benefiting more than 110,000 people. Furthermore, as a responsible SOE with a long history of philanthropy, we spent over RMB 55 million on charity, and had 1,568 employees participating in volunteer activities.

Our staff have dedicated for 21 years to creating today's CR Power. In 2023, guided by our culture, dream, and mission, we will move towards the vision of becoming "a world-class clean energy supplier and integrated energy service provider." We will also seek to create environmental and social benefits together with economic value and collaborated with all the stakeholders to build a sustainable future.

Wang Chuandong
Chairman of the Board



About Us

CR Power was established in August 2001 and listed on the Main Board of the HKEx in November 2003 (stock code 836). Its businesses include wind power, photovoltaic power generation, thermal power, hydroelectric power, distributed energy, power sales, integrated energy services, and coal mining.

As of 31 December 2022, CR Power had HKD 283.388 billion of assets, 67,814 MW of operational generation capacity, and 52,581 MW of attributable operational generation capacity (of which 32.3% were contributed by renewable energy projects), with businesses covering 31 provinces, autonomous regions, municipalities, and special administrative regions. CR Power has been listed in the S&P Global Platts Top 250 Global Energy Companies and Forbes Global 2,000 for 16 consecutive years, ranking 187th and 1,305th, respectively, in 2022. Since 2020, CR Power has been selected as a constituent of both the Hang Seng ESG 50 Index and the Hang Seng Corporate Sustainability Benchmark Index for three consecutive years.



Assets

HKD **283.388** billion



Attributable operational generation

capacity **52,581** MW

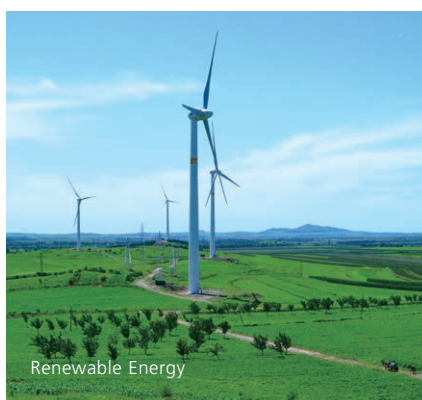


Operational generation capacity

67,814 MW

Attributable capacity mix of
renewable energy projects

32.3%



Renewable Energy



Thermal Power



Integrated Energy Services

Business Types and Distribution

Jiangsu

Changshu (1,950.0MW)
Changzhou Gas (103.0MW)
Guoneng Taicang (1,200.0MW)
Huaxin (660.0MW)
Nanjing Banqiao (660.0MW)
Nanjing Chemical Industry Park (670.0MW)
Nanjing Thermal (1,200.0MW)
Taizhou Gas (83.0MW)
Tongshan (2,000.0MW)
Xuzhou (1,280.0MW)
Yangzhou No. 2 (1,260.0MW)
Zhenjiang (1,540.0MW)
Gaoyou Wind (53.0MW)
Huai'an Wind (80.0MW)
Nantong Wind (65.5MW)
Pizhou Wind (87.5MW)
Suining Wind (37.1MW)
Yancheng Wind (44.0MW)
Yixing Wind (42.9MW)
Huai'an Photovoltaic (10.1MW)
Suqian Photovoltaic (20.4MW)

Henan

Dengfeng (1,840.0MW)
Gucheng (600.0MW)
Jiaozuo Longyuan (1,320.0MW)
Shouyangshan (1,200.0MW)
Anyang Wind (250.0MW)
Biyang Wind (238.9MW)
Dingbian Wind (50.0MW)
Fengqiu Wind (70.0MW)
Huaxian Wind (200.0MW)
Linying Wind (100.0MW)
Luohe Wind (30.0MW)
Lushan Wind (28.6MW)
Neihuang Wind (450.0MW)
Queshan Wind (60.4MW)
Qixian Wind (34.0MW)
Shangqiu Wind (20.0MW)
Tanghe Wind (363.0MW)
Wugang Wind (76.0MW)
Xinxian Wind (22.5MW)
Xinyang Hengming Wind (14.0MW)
Xinyang Mingjie Wind (20.0MW)
Xinyang Yangming Wind (20.0MW)
Xinyang Yaoming Wind (30.0MW)
Xinye Wind (90.0MW)
Yanshi Wind (30.0MW)
Yexian Wind (60.7MW)
Yucheng Wind (50.0MW)
Yuanyang Wind (30.0MW)
Zhoukou Wind (20.0MW)
Zhumadian Wind (18.0MW)
Dengfeng Photovoltaic (4.0MW)

Guangdong

Guangzhou Thermal (600.0MW)
Shenzhen (2,000.0MW)
Liyujiang A (600.0MW)
Liyujiang B (1,300.0MW)
Zhuhai Gas (102.0MW)
Fogang Wind (50.0MW)
Huilai Wind (133.5MW)
Leizhou Wind (100.0MW)
Lianzhou Wind (345.0MW)
Lianzhou Wind Phase II (50.0MW)
Longmen Wind (81.7MW)
Lufeng Wind (66.0MW)
Qingyuan Fogang Wind (74.5MW)
Qingyuan Qingxin Wind (110.0MW)
Shantou Chaonan Wind (145.9MW)
Shantou Haojiang Wind (18.0MW)
Shantou Wind (29.3MW)
Xinfeng Wind (50.0MW)
Xinyi Wind (39.0MW)
Xuwen Wind (100.0MW)
Yangjiang Wind (89.8MW)
Yangjiang Wind Phase II (45.5MW)
Shenzhen Photovoltaic (3.9MW)
Yingde Photovoltaic (28.0MW)
Zhuhai Photovoltaic (4.0MW)

Hubei

Hubei (600.0MW)
Hubei Phase II (2,000.0MW)
Xiantao (1,320.0MW)
Yichang (700.0MW)
Dangyang Wind (37.5MW)
Guangshui Wind (182.3MW)
Shayang Wind (100.0MW)
Suixian Tianhekou Wind (634.8MW)
Suizhou Fengming Wind (76.5MW)
Suizhou Wind (49.8MW)
Yicheng Wind (217.8MW)
Yicheng Lvze Wind (75.0MW)
Yingcheng Wind (100.0MW)
Zaoyang Bailu Wind (40.0MW)
Zaoyang Wind (181.3MW)
Zhongxiang Wind (70.0MW)

Hebei

Bohai Xinqu (700.0MW)
Cangzhou (660.0MW)
Caofeidian (600.0MW)
Caofeidian Phase II (2,000.0MW)
Tangshan Fengrun (700.0MW)
Yundong (700.0MW)
Chengde Weichang Wind (246.0MW)
Fucheng Wind (50.0MW)
Handan Wind (100.0MW)
Linzhang Wind (50.0MW)
Mulan Weichang Wind (450.0MW)
Qinhuangdao Wind (100.0MW)
Zhangbei Wind (50.5MW)
Caofeidian Photovoltaic (11.3MW)

Shandong

Heze (1,200.0MW)
Dezhou Wind (150.0MW)
Dongying Wind (100.0MW)
Feixian Wind (119.4MW)
Haizhang Wind (300.0MW)
Heze Wind (100.0MW)
Jiaozhou Wind (28.4MW)
Jining Wind (49.5MW)
Jüxian Wind Phase I (50.0MW)
Jüxian Wind Phase II (50.0MW)
Linyi Wind (86.0MW)
Linyi Wind Phase II (80.0MW)
Penglai Daliuhang Wind (49.8MW)
Penglai Daxindian Wind (49.8MW)
Qingdao Wind (134.0MW)
Qingdao Wind Phase I (50.0MW)
Qingdao Wind Phase II (50.0MW)
Rizhao Wind (48.6MW)
Weihai Huancui Wind (50.0MW)
Weihai Wind (50.0MW)
Wulian Wind Phase I (50.0MW)
Wulian Wind Phase II (50.0MW)
Yantai Penglai Wind (46.6MW)
Yantai Wind (48.0MW)
Zibo Wind (38.0MW)
Zoucheng Wind (44.0MW)

Inner Mongolia Autonomous Region

Dengkou (600.0MW)
Xilinguole (1,320.0MW)
Jingneng Xilinguole (1,320.0MW)
Bayinxile Wind (198.0MW)
Manzhouli Wind (49.5MW)
Manzhouli Wind Phase II (49.5MW)
Taipusiqi Wind (300.0MW)
Wulanchabu Hongmu Wind (49.5MW)
Xilinhaote Wind (200.0MW)
Zhengxiangbaiqi Wind (225.0MW)



Thermal power



Wind power, hydro-electric power, photovoltaic power

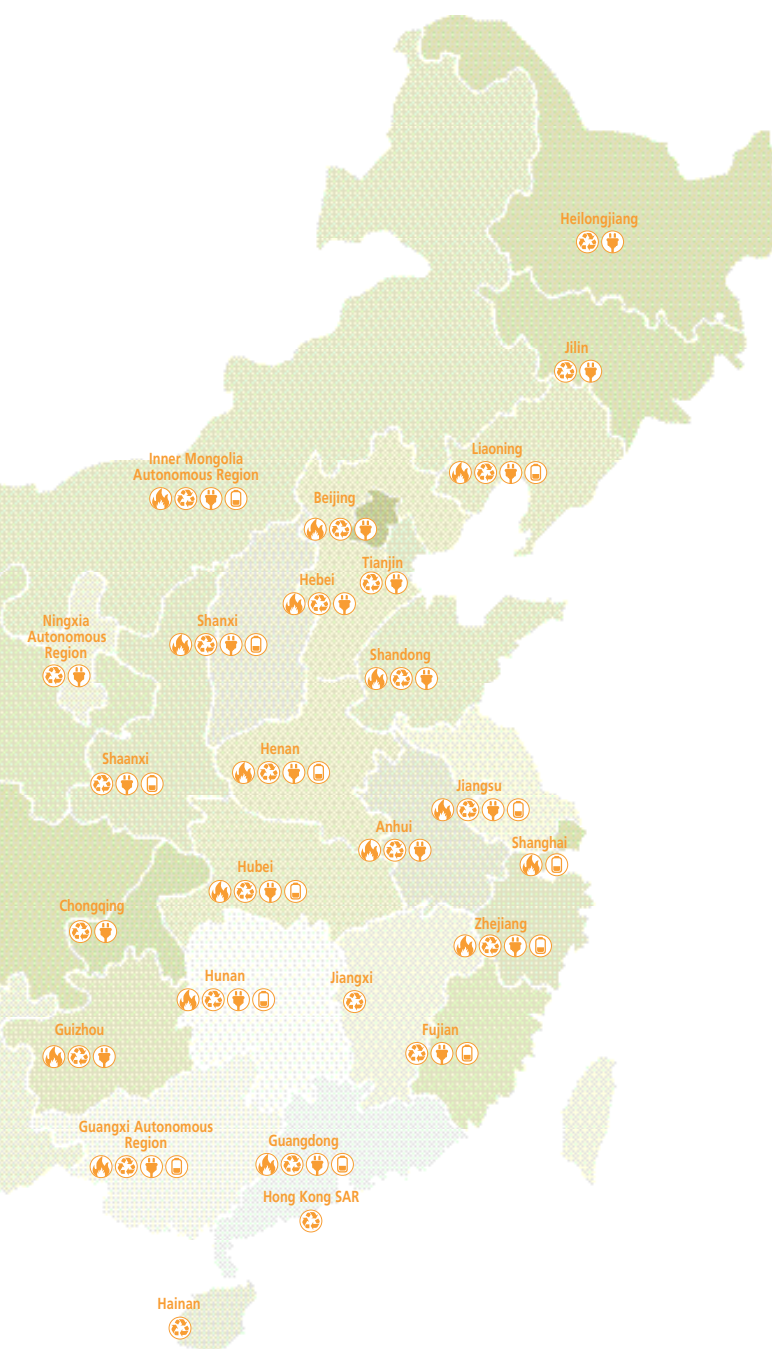


Power sales



Integrated energy services





Liaoning

Panjin (700.0MW)
Jinzhou Thermal (1,320.0MW)
Shenhai Thermal (600.0MW)
Beipiao Wind (240.1MW)
Fuxin Wind (99.0MW)
Fuxin Wind Phase II (97.5MW)
Jianping Wind (99.0MW)
Jinzhou Wind (48.0MW)
Linghai Wind (90.0MW)

Guangxi Autonomous Region

Hezhou (2,000.0MW)
Beiliu Wind (46.2MW)
Cangwu Wind (50.0MW)
Hezhou Wind (80.0MW)
Nanning Wind (20.0MW)
Rongxian Wind (130.0MW)
Tiangong Wind (100.0MW)
Xiangzhou Wind (50.0MW)
Yulin Wind (84.0MW)
Hezhou Photovoltaic (13.6MW)

Zhejiang

Cangnan (2,030.0MW)
Wenzhou Telluride (660.0MW)
Wenzhou Photovoltaic (12.1MW)
Zhejiang Photovoltaic (6.1MW)

Guizhou

Guizhou Liuzhi (1,320.0MW)
Jianhe Wind (182.0MW)
Jinping Wind (35.1MW)
Kaili Wind (50.0MW)
Liping Wind (339.1MW)

Shanxi

Ningwu (350.0MW)
Datong Guangling Wind (99.0MW)
Datong Wind (198.0MW)
Datong Yanggao Wind (129.0MW)
Guxian Wind (19.5MW)
Linfen Wind (114.4MW)
Taiyuan Wind (50.0MW)
Wuzhai Wind (50.0MW)
Xinrong Wind (60.0MW)
Xinzhou Wind (190.0MW)
Zhongyang Wind (220.0MW)
Datong Photovoltaic (20.0MW)
Lanxian Photovoltaic (28.1MW)
Xinrong Photovoltaic (45.9MW)

Hunan

Lianyuan (600.0MW)
Linwu Wind (68.0MW)
Hunan Photovoltaic (2.0MW)

Anhui

Fuyang (1,280.0MW)
Fuyang Phase II (660.0MW)
Dingyuan Wind (25.0MW)
Fengyang Wind (30.8MW)
Mengcheng Wind (50.0MW)
Mingguang Wind Phase I (50.0MW)
Suixi Wind (50.0MW)
Huaibei Photovoltaic (5.8MW)
Huoshan Photovoltaic (16.5MW)

Ningxia Autonomous Region

Haiyuan Wind (710.0MW)
Zhongwei City Wind (50.0MW)
Haiyuan Photovoltaic (107.4MW)
Shizuishan City Photovoltaic (18.8MW)
Yuanguang Photovoltaic (42.1MW)
Zhongningxian Photovoltaic (451.3MW)

Gansu

Changle (2,000.0MW)
Guazhou Wind (301.0MW)
Huanxian Wind (50.0MW)
Subei Wind (200.0MW)
Guazhou Photovoltaic (50.0MW)

Heilongjiang

Fujin Wind (50.0MW)
Jiamusi Wind (43.5MW)
Anda Photovoltaic (120.0MW)
Tailai Photovoltaic (20.0MW)

Shaanxi

Baoji Wind (100.0MW)
Tongguan Wind (69.4MW)
Yan'an Wind (100.0MW)

Yunnan

Honghe Hydro (210.0MW)
Midu Photovoltaic (20.0MW)
Yiliang Photovoltaic (2.0MW)
Yimen Photovoltaic (4.2MW)
Zhaotong Photovoltaic (20.0MW)

Sichuan

Yazuihe Hydro (260.0MW)
Heishui Photovoltaic (30.0MW)
Yuexi Wind (106.1MW)

Jiangxi

De'an Wind (48.0MW)
Dingnan Wind (70.0MW)
Ganzhou Nankang Wind (64.0MW)
Ruichang Wind (36.0MW)
Xiajiang Wind (82.0MW)

Fujian

Changting Wind (46.0MW)
Longyan Wind (48.0MW)
Minqing Wind (30.0MW)
Fujian Photovoltaic (14.3MW)
Fuzhou Photovoltaic (8.1MW)
Fuqing Photovoltaic (7.0MW)

Beijing

Beijing Thermal (150.0MW)
CR Logistics Park Photovoltaic (0.5MW)
Xiexin Photovoltaic (1.7MW)

Qinghai

Dachaidan Wind (50.0MW)
Gonghe Wind (100.0MW)
Delingha Photovoltaic (20.0MW)
Jipin Photovoltaic (92.4MW)

Tibet Autonomous Region

Jiangzi Photovoltaic (20.5MW)

Jilin

Nong'an Wind (40.0MW)

Hainan

Haikou Photovoltaic (1.1MW)

Shanghai

Shanghai Gas (2.4MW)

Chongqing

Chongqing Wind (62.5MW)

Tianjin

Baodi Wind (30.0MW)

Hong Kong SAR

Huachuang Photovoltaic (0.7MW)

Top Ten Events in 2022

2022 is a critical year for the implementation of the 14th Five-Year Plan, with important strategic opportunities for CR Power to carry out the “Four Reinventions” strategy and make leaps and breakthroughs. Under the leadership and support of CR Group, CR Power followed the new national energy security strategy, carried out the key tasks of “Four Reinventions,” and made fruitful achievements in pursuing excellence, development, and breakthroughs.

01

CR Power obtained approvals for 16.79 million kW wind and solar energy projects

In 2022, CR Power focused on expanding its new energy business, obtaining approvals for a recording high of 16.79 million kW wind and solar energy projects despite the increasingly competitive market. As the 14th Five-Year Plan period is crucial for CR Power’s wind and solar energy expansion, these projects would help the Company increase installed capacity and optimize energy mix, paving the way for fulfilling its 14th Five-Year Plan targets.



Obtaining approvals for 16.79 million kW wind and solar projects in 2022

02

CR Power invested in Chongqing Energy through reorganization

In 2022, CR Power, CR Group, and the related profit centers had several rounds of consultations with the government authorities of Chongqing, assisting units, and bankruptcy court regarding the restructuring of Chongqing Energy Investment Group. On December 23, the plan for the substantive consolidation and restructuring of 16 companies including Chongqing Energy was approved, which terminated the previous proceedings. The restructuring prepared CR Power to further expand its power base network, and transfer electricity from other regions to Chongqing.



Signing ceremony of the strategic investment agreement between CR Group and Chongqing Energy Group

03

CR Power continued to stabilize growth in 2022

Under the guiding principle of CR Group on stabilizing the market and maintaining growth, CR Power held the “Stabilizing Growth” mobilization meeting on June 6, and set up the leading group of quality and efficiency improvement, and 12 supervision teams headed by managers, which completed 16 onsite supervision and investigation tasks. These efforts have more than offset the adverse impact of the persistently high coal prices and lower renewable electricity prices, contributing to increase revenue, income and other financial figures and ensuring to attain the goals of annual result performance.

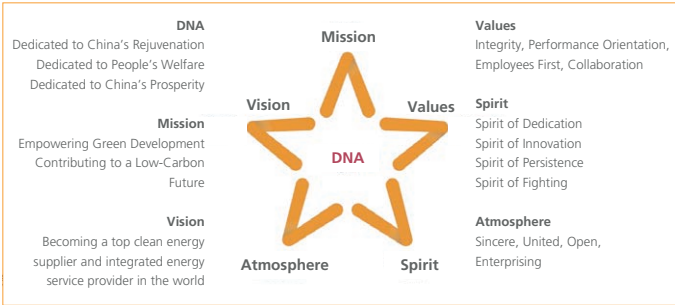


Temperature monitoring and cold-resistance inspection at the Inner Mongolia New Energy Company

04

CR Power announced corporate culture system for the 14th Five-Year Plan period

On August 14, CR Power released its corporate culture system for the 14th Five-Year Plan period. The system defines six cultural elements-DNA, mission, vision, values, spirit, and atmosphere-and four rules of conduct, to guide the operating and management practices and all other activities of the Company towards its ultimate goals for the new period, and motivate the Company to achieve the strategic target and other reform and development objectives.



CR Power's Corporate Culture System for the 14th Five-Year Plan Period

05

CR Power commenced construction of million-kW new energy base in Chibi Rural Revitalization Demonstration Zone

CR Power started the construction of the 2-billion-yuan Riyao 350 MW Fishery-light Complementary Solar Project on March 18, and the 550-million-yuan Chebu 120 MW Fishery-light Complementary Solar Project on May 10, both part of the Million-kW new energy base in the Chibi Rural Revitalization Demonstration Zone. On December 23, phase 1 units of the two projects were connected to the grid. The Riyao project is CR Power's first "PV Plus" project integrating PV power generation with water governance, eco-friendly fish farming, ecological restoration, and eco-friendly agriculture. It also represents a new attempt of CR Power to promote "PV Plus" projects and rural revitalization. The project is expected to contribute to local low-carbon energy transition as well as economic and social development.



Riyao project in the million-kW renewable energy base in Chibi Rural Revitalization Demonstration Zone

06

CR Power was awarded as the 2022 Typical Cases of Carbon Peak and Carbon Neutrality Actions

On December 31, SASAC announced the list of the 2022 Typical Cases of Carbon Peak and Carbon Neutrality Actions. CR Power's circular economy and supply-grid-load-storage integration demonstration project at Hezhou Power Plant took the second prize, and the Multithreading Carbon Capture Test Platform Demonstration Project at the Shenshan Company took the third prize. As a recognition of our low-carbon efforts, these awards encourage us to attain more progress in carbon peak and Carbon Neutrality, and press forward towards a clean energy supplier that contributes to the dual carbon goals.



2022 Typical Cases of Carbon Peak and Carbon Neutrality Actions

07

CR Power was approved to lead two national research projects

On October 20, CR Power's *Research on the Key Technology of Offshore Floating Photovoltaic Generation* was approved by the National Energy Administration. This was the first national research project led by CR Power in the energy sector. On December 19, the *Key Technologies of Wind Turbine Main Control System and Applications* was approved as a national key research program, and one of the sub-projects was led by CR Power Technology Research Institute. Such honor well reflected the technological strength of CR Power, and motivated the Company to build core competencies and research and development capacity, so as to create continuous commercial value while promoting industry development.



Offshore floating PV power system

08

CR Power Xinjiang Company commenced 1,400 MW new energy projects

In July, CR Power Xinjiang Company launched the Santanghu 1,000 MW wind farm, and the Luopu 400 MW solar project after approval. With an investment of about RMB 8 billion, the two projects were estimated to generate 3.87 billion kWh of green electricity every year which would reduce 1.339 million tonnes of standard coal consumption, creating remarkable economic and environmental benefits. As an important milestone in the history of CR Power in Xinjiang, the 1,400 MW projects marked not only a historic breakthrough of the Company, but also an important step in serving the national strategy and implementing the strategic agreement between CR Group and the Xinjiang government. CR Power would contribute to the economic and social development in Xinjiang.



Launching ceremony of Santanghu 1,000 MW wind farm

09

CR Power kicked off Chaoyang 1,000 MW Wind Power Project

On December 29, CR Power Renewable Energy kicked off the Chaoyang 1,000 MW Wind Power Project. Located in Jianping County, the 7.18-billion-yuan project was designed with two hundred 5 MW wind turbines, four 220 kV booster stations, and corresponding electrochemical energy storage facilities. The project will be connected to the grid at full capacity by the end of 2024, offering more than 3.4 billion kWh of green electricity every year. As an example of central-local collaboration and businesses integration, the project was CR Power's first million-kW new energy base project that commenced construction, and played an important role in transmitting clean electricity from Northeast China to the Beijing-Tianjin-Hebei Region and promoting local economic and social development.



Launching ceremony of the 1,000 MW Chaoyang Wind Power Project

10

CR Power expanded onshore and offshore wind power business to Hainan Province

On March 22, CR Power obtained the approval to develop a 600,000 kW offshore wind farm in Hainan Province. On September 23, an aggregate 600,000 kW onshore wind measurement agreement was signed. CR Power successfully expanded wind power business to Hainan Province. This breakthrough will drive the Company's renewable energy business in Hainan and promote the green development of local economy and society, contributing to the dual carbon goals of the province.

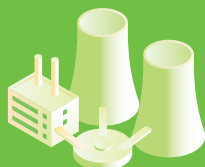


Anemometer tower of Hainan Ledong 600 MW offshore wind farm

Key Performances in 2022

Environmental Performance

Net generation standard coal consumption rate (subsidiary coal-fired power plants):



297.2
g/kWh

Sulfur dioxide emission rate:



0.07
g/kWh

Particulate emission rate:



0.01
g/kWh

Social Performance

Safety production investment:



RMB 286.53
million

Total number of employees:



22,340

Charitable donations:



RMB 55.022
million

Economic Performance

Total assets:



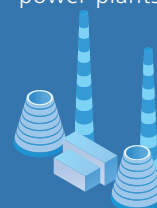
HKD 283.388
billion

Turnover:



HKD 103.31
billion

Net generation volume of subsidiary power plants:



184,604
GWh

Investment in energy efficiency and emission reduction technology upgrades:



RMB **1.041**
billion

NOx emission rate:



0.13
g/kWh

Proportion of attributable operational generation capacity of renewable energy projects:



32.3%

Environmental investment:



RMB **1.352**
billion

New graduates employed:



548

Total tax paid:



RMB **4.42**
billion

Attributable operational generation capacity:



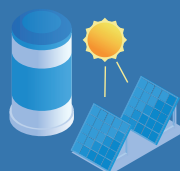
52,581
MW

Profit attributable to owners of the Company



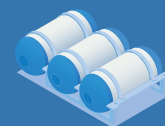
HKD **7.042**
billion

Core profit contribution from renewable energy projects:



HKD **8.645**
billion

Total heat supply:



124.62
kJ

Sustainability Management

CR Power has been improving its sustainability management by increasing its awareness of fulfilling social responsibility and creating social value, establishing a sound and effective sustainability management system, promoting communication with stakeholders, and prioritizing the disclosure of selected material issues.

Sustainability Management System

CR Power has built a four-level social responsibility/sustainability governance structure to promote the stable implementation of its sustainability programs.

Statement of the Board of Directors

The Board of Directors prioritizes sustainability management and assumes overall responsibility for CR Power's ESG programs. The Board supervises the Company's ESG directions and strategies, identifies, evaluates, and manages material business-related ESG risks, hears the regular reports from the Sustainability Committee or other relevant management teams, and reviews the Company's sustainable development reports and other ESG management policies.

The Company has, as required by the *Main Board Listing Rules* of the HKEx, set key ESG targets covering but not limited to greenhouse gas emissions, pollutant emissions, and resource consumption. The Board of Directors has reviewed and discussed the setting of those targets and will regularly examine progress in the achievement of relevant targets.

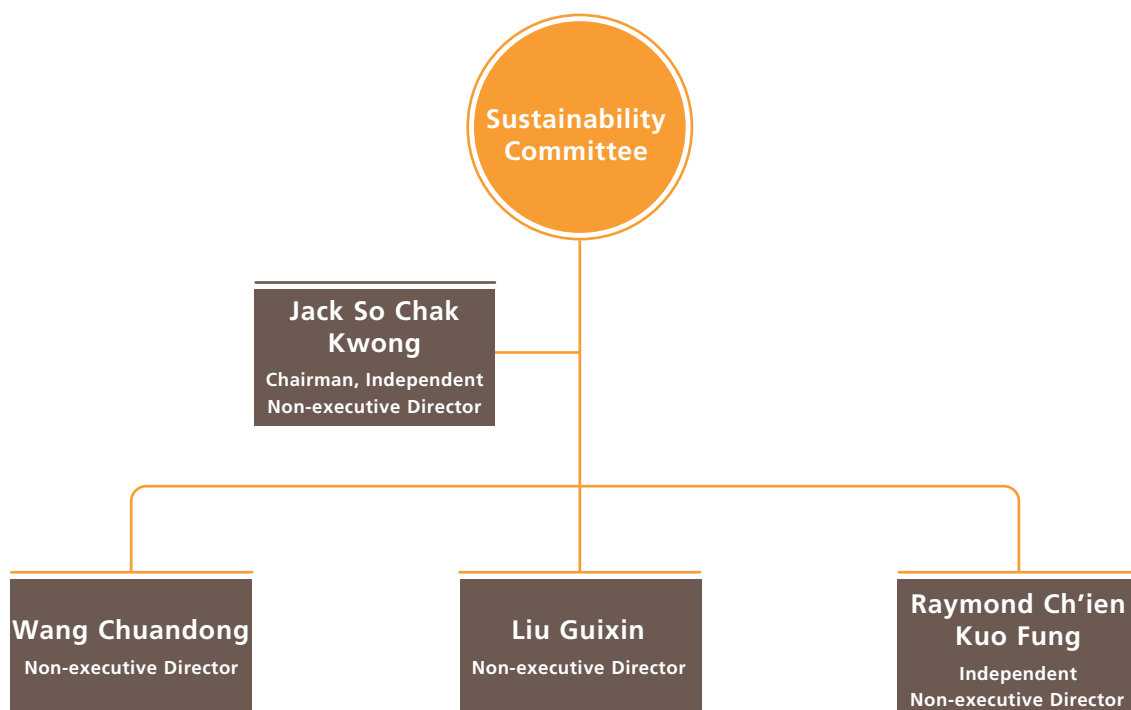
Responsibility Concept

The Company takes its mission of "empowering green development and creating a low-carbon life together" as an important basis for its business mix and strategies. With the goal of maximizing the aggregate economic, social, and environmental benefits, the Company built its social responsibility management model and formulated the Social Responsibility Management Standards, integrating sustainability into its strategic planning, corporate governance, business operation, and other aspects. All of these contributed to the Company's vision of "becoming a world-class clean energy supplier and integrated energy service provider" and its comprehensive, balanced, and sustainable development.

Governance Structure

CR Power has a four-level social responsibility/sustainability governance structure composed of the Leadership Team, the Guidance Team, the Coordination Team, and the Implementation Team, which in practice forms a closed-loop management system covering decision-making, communication, actual implementation, and reporting and assessment.

The Company continued to improve the Terms of Reference of the Sustainability Committee to further define the Sustainability Committee's role, duties, composition, and reporting system and to underscore the Sustainability Committee's supervision and review of sustainability issues. In 2022, we submitted 12 CR Power Monthly Public Sentiment and Social Responsibility Reports to the Board of Directors, and held sustainability communication meetings attended by the Senior Management to reinforce the supervision and governance of sustainability issues.



Governance Structure

Main Responsibilities

Leadership Team	Sustainability Committee	<ul style="list-style-type: none"> ○ Reviewing CR Power's sustainable development goals and plans and overseeing the implementation of such goals and plans; ○ Assessing CR Power's adequacy of resources, compliance, and effectiveness of procedures in environment, health, and safety (EHS); ○ Assessing the risks and opportunities faced by CR Power in fulfilling social responsibility and sustainable development; ○ Reviewing CR Power's performance in EHS, social responsibility, and sustainable development; ○ Assessing how CR Power differs from its domestic and foreign peers in sustainability policies and performance; ○ Assessing the impact of CR Power's business on employees, third parties, local communities, and corporate reputation; and ○ Reviewing CR Power's annual sustainable development reports and causing the Senior Management to take specific actions to ensure the accuracy, completeness, and continuous improvement of such reports.
Guidance Team	Social Responsibility Steering Committee	<ul style="list-style-type: none"> ○ Studying CR Power's strategies on social responsibility programs; ○ Studying and approving CR Power strategic plans, major rules, and annual plans and reports on social responsibility; and ○ Studying and approving CR Power's major issues on social responsibility.
Coordination Team	Administrative Office of Headquarters	<ul style="list-style-type: none"> ○ Preparing CR Power's medium- and long-term plans on social responsibility; and facilitating the implementation of CR Power strategic and annual plans on social responsibility, and major resolutions of the Sustainability Committee under the Board of Directors and the Social Responsibility Steering Committee; ○ Organizing the preparation of CR Power's annual sustainable development reports; ○ Developing sound rules and indicator systems for CR Power's social responsibility programs; conducting performance assessment; and organizing best practice recognition programs; ○ Guiding affiliates' social responsibility efforts and promoting social responsibility initiatives; ○ Organizing studies, training, communications, and other day-to-day management affairs concerning CR Power's social responsibility programs; ○ Overseeing corporate governance, information disclosure, media relations, brand management, poverty alleviation, public welfare, and other work; and ○ Regularly updating the Sustainability Committee under the Board of Directors on CR Power's social responsibility achievements.
Implementation Team	Departments & Offices of Headquarters, Regions, Regional Companies	<ul style="list-style-type: none"> ○ Identifying the heads and points of contact for social responsibility programs and being responsible for supervising and advancing such programs in line with their functions; accepting the guidance and performance evaluation of the Company on social responsibility programs; ○ Making social responsibility plans as delegated by regional companies; promoting responsibility integration; introducing innovative responsibility practices; and enhancing responsibility performance capacity; ○ Submitting information on social responsibility reports as required by the Company; and ○ Broadcasting their social responsibility achievements and performance, and strengthening communication with stakeholders.

Management Performance

To improve the management and dissemination of our social responsibility/sustainability, we developed an overall plan for ESG management and practice under the guidance of the Sustainability Committee, built more robust governance mechanisms, promoted distinctive social responsibility practices, and stepped up communication and dissemination efforts, public sentiment monitoring, and responses to market concerns.

In 2022, by virtue of outstanding social responsibility practices, the Company ranked second among the ESG Pioneer 50 Index constituents under the Central SOE Series selected by the SASAC and the China Social Responsibility 100 Forum (CSR Forum). The Series launched other indexes in 2022, and the Company ranked first among the ESG Governance Pioneer 50 Index constituents, second among the ESG Social Value Pioneer 50 Index constituents, and 15th among the ESG Risk Management Pioneer 50 Index constituents.

Other awards include the CSR Golden Bull Award – Dual Carbon Pioneer from the SASAC and CSR Forum, first among the Listed Power Companies ESG Index constituents selected by the CSR Forum, Excellent ESG Case rated by the Research Group for *Blue Paper on ESG of Listed Central SOEs (2022)*, third among the Greater Bay Area Business Sustainability Index constituents selected by the CUHK Centre for Business Sustainability (CBS), and several Hong Kong Green Awards from the Hong Kong Green Council, including the Environmental, Health and Safety Award – Platinum (the highest award), Green Management Award – Gold, and Corporate Green Governance Award-Environmental Monitoring and Reporting.

In the capital market, the Company has been selected as a constituent of the Hang Seng ESG 50 Index and the Hang Seng Corporate Sustainability Benchmark Index for three consecutive years, with a Dow Jones Sustainability Index (DJSI) score of 45, and an MSCI ESG rating of BBB.

Furthermore, the Company cooperated with all sectors of society on the research of corporate social responsibility and the formulation of industry standards. CR Power worked with the SASAC and the Institute of Economics of Chinese Academy of Social Sciences in the preparation of the *Basic Textbook for Environmental, Social and Governance (ESG)* and the *Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CHINA-ESG 5.0)*. The two books have been published in 2022, providing professional support for China's ESG education and ESG evaluation standard development.



Stakeholder Engagement

CR Power has attached great importance to communications with stakeholders. Through an effective communication mechanism and diverse communication channels, CR Power protected the rights of stakeholders to know and participate and helped them understand and appreciate the Company's actions. In addition, by taking specific actions, CR Power incorporated stakeholders' expectations and concerns in its corporate strategies, operations, and management to boost mutual trust and cooperation as well as sustainability management for win-win results.

Stakeholders	Main Concerns	Engagement Methods	Responses
 Government and regulators	<ul style="list-style-type: none"> ○ Legal and regulatory compliance ○ Work safety and environmental protection ○ Economic development promotion ○ Tax payment ○ Job creation ○ Corporate stability 	<ul style="list-style-type: none"> ○ Formulation of rules and policies ○ Strategic cooperation ○ Information submission ○ Work reports ○ Statistics reports 	<ul style="list-style-type: none"> ○ Carried out a general supervision program as well as special supervision programs on construction, production safety, pandemic prevention and control ○ Responded to integrity suggestions from 867 people ○ Complied with national environmental standards ○ Implemented the <i>CR Power Action Plan for Achieving Carbon Peak and Carbon Neutrality</i> in response to the national's dual carbon goals
 Shareholders and investors	<ul style="list-style-type: none"> ○ Corporate governance ○ ESG performance ○ Performance growth ○ Dividend distribution ○ Investor relations ○ Stock performance ○ Carbon emission reduction goal and plan 	<ul style="list-style-type: none"> ○ Shareholder meetings ○ Information disclosure ○ Email and telephone inquiries ○ On-site visits ○ Roadshows 	<ul style="list-style-type: none"> ○ Disclosed 3 regular reports, 1 <i>Articles of Association</i>, 58 announcements and notifications, 12 monthly statements, 3 circulars, and other documents ○ Held one general meeting of shareholders ○ Communicated with more than 3,000 investors and analysts through roadshows, strategy meetings of securities companies, and ESG workshops
 Employees	<ul style="list-style-type: none"> ○ Legitimate rights and interests ○ Compensation and benefits ○ Career development ○ Training ○ Occupational health and working environment ○ Employee care 	<ul style="list-style-type: none"> ○ Employee representative meetings ○ Employee suggestions ○ Intranet and public-facing websites ○ Seminars, networking, and other activities 	<ul style="list-style-type: none"> ○ Hired 1,496 new employees ○ Ensured an employee training rate of 100% ○ Provided 474,988 hours of safety training for employees ○ Achieved a rectification rate of 100% for identified safety hazards

Stakeholders	Main Concerns	Engagement Methods	Responses
 Customers	<ul style="list-style-type: none"> ○ Supply of safe and stable electricity, heating, and cooling ○ Customer services ○ Clean energy 	<ul style="list-style-type: none"> ○ Agreements/contracts ○ Customer meetings ○ Satisfaction surveys ○ Customer care activities 	<ul style="list-style-type: none"> ○ Provided adequate, reliable, and eco-friendly energy such as power, heat, cooling, and coal, with subsidiary power plants selling 184,604 GWh of electricity ○ Contributed to carbon trading and green power trading ○ Conducted satisfaction surveys to improve customer satisfaction
 Partners	<ul style="list-style-type: none"> ○ Contract compliance and mutual trust ○ Equal and long-term cooperation ○ Mutual benefits 	<ul style="list-style-type: none"> ○ High-level meetings ○ Agreements/contracts ○ Products and services 	<ul style="list-style-type: none"> ○ Ensured an integrity agreement signing rate of 100% among suppliers ○ Achieved a responsible procurement rate of 100% ○ Maintained an economic contract performance rate of 100% ○ Provided 1,139,836 hours of safety training for stakeholders
 Communities and environment	<ul style="list-style-type: none"> ○ Environmental protection ○ Safety and stability ○ Harmonious community ○ Charity programs ○ Public relations 	<ul style="list-style-type: none"> ○ Philanthropic events ○ Community building 	<ul style="list-style-type: none"> ○ Facilitated carbon capture, utilization and storage (CCUS) projects, with 30,000 tonnes of high-purity carbon dioxide being captured ○ Increased the installed capacity of renewable energy projects to 17,004 MW ○ Sold 1.35 billion kWh of green electricity ○ Made a public welfare investment of about RMB 55.022 million ○ Had 1,568 employees participate in volunteer services
 Media and NGOs	<ul style="list-style-type: none"> ○ Information disclosure ○ Interaction with media ○ Contribution to NGOs ○ Impact on sustainable development 	<ul style="list-style-type: none"> ○ Activity organization ○ On-site visits ○ Information disclosure 	<ul style="list-style-type: none"> ○ Organized the "Green Power" open-month event which attracted 1,300 visitors ○ Cooperated with hi-tech companies, universities, research institutes, and local governments

Management of Materiality Issues

Identification Process for Materiality Issues

To inform internal and external stakeholders of CR Power's progress toward sustainability fully and accurately, the Company optimized on an ongoing basis the identification and evaluation processes of sustainability issues from issue identification and stakeholder survey to issue analysis and review. As a result, the Company has developed a materiality issue matrix to respond to the concerns of stakeholders and to disclose the materiality issues. The analysis of materiality issues provided an important reference for the future sustainability management of CR Power.

Step 1 Establishment of a Library of Materiality Issues

By comprehensively considering policy trends, corporate development, disclosure standards, capital market, and peer benchmark and based on the existing list of materiality issues, the Company identified, and classified the current year's materiality issues and built a library of materiality issues.

○ **Policy Trend Analysis:** The Company tracked national macro policies, conducted in-depth research on national and provincial policies and regulations, and in light of policies and regulations governing the energy and power industries, analyzed sustainability trends of such industries.

○ **Corporate Development Plan:** The Company identified key issues significant to CR Power's strategic goals as per the strategic development plans and annual business plans of CR Group and CR Power.

○ **Disclosure Standard Analysis:** The Company analyzed the GRI Standards, UN SDGs, TCFD recommendations, *CASS Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR4.0)*, *Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-ESG 5.0)*, HKEx's *Environmental, Social and Governance Reporting Guide*, and other standards to understand the latest management standards and disclosure requirements for sustainability issues.

○ **Capital Market Analysis:** The Company built a capital market information database and summarize capital market concerns by reference to the MSCI ESG Ratings, Hang Seng Corporate Sustainability Index, Carbon Disclosure Project (CDP) index requirements, Dow Jones Sustainability Indices (DJSI), and Sustainability Accounting Standards Board (SASB) Standards related to the sustainability management of the power sector to form a library of issues.

○ **Peer Benchmark Analysis:** The Company conducted benchmark analysis on sustainable development reports of leading domestic and foreign peers to identify and determine key issues of concern to the power sector and how stakeholders respond to such issues.

Step 2 Stakeholder Survey

Based on the above analyses, the Company identified 27 issues that have a material impact on CR Power, including 10 environmental issues, 11 social issues and 6 governance issues, and invited internal and external stakeholders via an online questionnaire to evaluate the materiality of the 27 issues from their perspective and comment on CR Power's existing sustainability strategies, performance, reporting methods, and disclosure quality.

In 2022, the stakeholder survey covered CR Power's directors, senior managers, employees, investors/shareholders, partners, suppliers, media, the public, government agencies, and regulators.

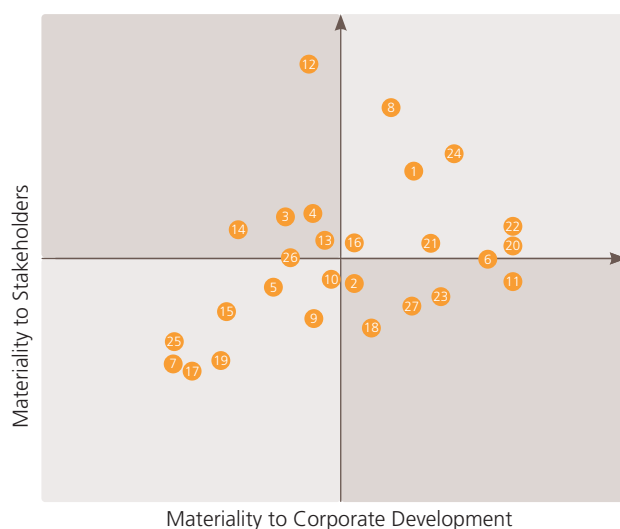
Step 3 Analysis and Review of Materiality Issues

The Company collected and analyzed the scores of the issues and assigned risk-based weightings to the issues, forming a two-dimensional representation of the materiality of each issue to stakeholders and to corporate development. The screening and analysis results were reviewed by internal management and external experts.

Step 4 Responses to and Disclosure of Materiality Issues

The Company formulated and implemented an action plan for material issues, and prioritized responses to and disclosure of such issues in a report.

2022 CR Power ESG Issue Materiality Matrix



Issues with high materiality

24 Responses to National Policies	27 Anti-corruption
8 Responses to Climate Change Risks	13 Employee Rights and Care
22 Sustainable Development Planning	2 Carbon Asset Management
20 Technological Innovations and Transformation	3 Reduction of Exhaust and Pollutant Emissions
12 Employee Training and Development	10 Environment Friendly Technology
1 Carbon Peak and Carbon Neutrality Planning and Targets	18 Protection of Data Privacy and Security
6 Development of Clean Energy	26 Maintenance of Market Environment
11 Safe Production and Occupational Health	14 Supply Chain Management
21 Industry Cooperation and Progress	9 Environmental Governance and Compliance
23 Compliant Operation and Risk Management	5 Comprehensive Utilization of Water Resources
16 Supply of Safe and Stable Electric and Heat Energy	15 Optimization of Customer Services
4 Waste Disposal and Utilization	

Issues with moderate materiality

19 Community Service and Philanthropy	17 Protection of Intellectual Property
25 Protection of the Rights and Interests of Shareholders	7 Biodiversity Conservation

Report Preparation Process

The Company took the *Sustainable Development Report* as an opportunity and a tool to give a comprehensive and objective presentation of its social responsibility/sustainability philosophy, practices, and performance to all stakeholders for more mutual communication and trust. To this end, the Company engaged with management and implementation personnel at all levels in the preparation of its annual sustainable development reports and tasked them with corresponding responsibilities.

Before the preparation of a report, the Guidance Team trained the Coordination Team and Implementation Team according to the requirements, goals and responsibility allocation plan set by the Leadership Team. The Implementation Team then collected and submitted reporting materials, based on which the Coordination Team prepared a report and coordinated data assurance and report rating with an independent third party. Following completion of the report, the Leadership Team reviewed its contents and submitted it to the Board of Directors for final approval. After the report was released, the Coordination Team organized the promotion and dissemination of the report and collected comments from stakeholders, to further improve CR Power's sustainable development programs.

Leadership Team	Objective formulation
Guidance Team & Coordination Team & Implementation Team	Training for report preparation team
Implementation Team	Material collection
Coordination Team	Report preparation
Leadership Team	Report review
Board of Directors	Review
Independent Third Party	Assurance and rating
Coordination Team	Report dissemination, feedback, and improvement



Responsibility Topic

Securing energy supply to promote development

Taking a multi-pronged approach to secure coal supply

As a fundamental energy resource, coal is essential for the national energy security. To secure sufficient energy supply, the Company promoted coal storage and supply. Specifically, it established five coal procurement centers to acquire more quality coal, signed and renewed a number of medium- and long-term coal purchase contracts, and built eight lines together with relevant parties to transport coal, ensuring stable fuel supply.

Establishing five coal procurement centers

Under the guiding principle of stabilizing the market and maintaining growth of the State Council, the SASAC, and CR Group, the Company set up five coal procurement centers in 2022 to procure resources earlier. Now the Company can stay abreast of the market, policies, and suppliers' sales strategies, and acquire more coal resources.

Turning procurement centers into physical companies

The Company gradually turned the procurement centers into brick-and-mortar companies, made procurement earlier, provided corresponding transportation services, and placed large orders, increasing resistance to coal market fluctuations and access to coal resources.

Signing and renewing medium- and long- term coal procurement contracts

Seizing the opportunity that the National Development and Reform Commission (NDRC) required coal companies to sign and renew medium- and long-term contracts, the Company approached the suppliers to ensure that all new contracts were recorded in the system of the National Coal Exchange Center. After that, the Company's long-term contracts accounted for 93.3% in the latter half of the year, solidifying the basis of fuel supply and cost control and mitigating the fuel shortage caused by higher price of imported coal and strain of domestic resources.

Since 2022, China faced coal shortage as a result of low stock, rising international coal prices, and falling supply from other countries. Extreme weather like heatwaves and droughts also weighed down the supply ability of the power system. Several provinces and cities had to ration power supply to narrow the gap.

CR Power responded quickly to these challenges in line with national strategic direction, securing coal supply through internal and external measures, and taking a series of steps to ensure power generation to meet residential and commercial needs. These actions promoted high-quality economic and social development.



29.53 million
tonnes of coal were transported



up
4.44 million tonnes

Participating in the construction of coal reserve bases under the central government

After the CPC Central Committee and the State Council assigned the task of building coal reserve bases under the central government, the Company proposed the 600,000-tonne coal reserve base at Dengkou. Through active engagement with the NDRC and the National Food and Strategic Reserves Administration, the Dengkou project became one of the first seven projects approved by the NDRC and promised to enhance the ability to ensure coal supply.

Opened eight coal transportation lines

Eight lines from Shaanxi Coal Transportation and Sales Group (SCTS) to CR Power were opened to transport coal, which effectively increasing the Company's ability to ensure power supply for residential and commercial use. The sales contract fulfillment rate of SCTS Yuzhong Sales Company increased from 48% in the first half of 2022 to 83% in the second half of the year, bringing the annual supply to 623,000 tonnes. The sufficient coal reduced the Company's fuel cost by RMB 97 million while underpinning its ability of power generation.

Tripartite cooperation on railway transportation to ensure the fulfillment of long-term coal sales contracts

The Company actively coordinated between the NDRC, China Railway, and coal companies for their tripartite cooperation on railway transportation. In 2022, 29.53 million tonnes of coal were transported to CR Power based on such cooperation, up 4.44 million tonnes or 17.7% year on year, ensuring the fulfillment of long-term coal sales contracts.

Taking a range of measures to stabilize production

Facing the stress of ensuring energy supply, the staff of CR Power took measures such as conducting scheduled maintenance, improving equipment reliability, and continuously conducting emergency training to ensure safe production and stable regional energy supply, empowering high-quality economic and social development.

01

Renovating networks and ensuring efficient heat supply

In 2022, the Cangzhou Company invested more than RMB15 million to renovate the secondary heat networks of 26 old residential quarters across about 285,000 square meters. Several teams also visited the residents to learn about and address their problems. In cold weather, the heating plants increased coal and other commodity reserves, all frontline workers stayed at the plants day and night, and maintenance personnel stood by 24 hours and developed emergency plans, all trying to provide heat supply at high standard for the people.

02

Operating in full swing to go through critical period

During the peak demand period in the summer of 2022, Caofeidian Power Plant kept its two million-kw generating units running for 43 consecutive days, playing a key role in filling the power supply gap during the summer peak season. On the other hand, during the bottom demand period in cold weather, the Plant regulated generation through start-stop shaving and deep peak shaving, contributing greatly to regional grid stability through the excellent performance of the power generation units.



03

**Conducting repairs
maintenance to ensure
safe, efficient, and
stable power supply**


Based on the power demand in previous years, the Zhejiang Company conducted maintenance on its two million-kw generating units at the Wenzhou Power Plant and connected them to the grid before summer, to ensure sufficient and stable power supply during the summer peak season. In July 2022, the Wenzhou Power Plant generated 1.238 billion kWh of electricity, the highest monthly generation volume since its first operation in 2014, making prominent contributions to stabilizing the power supply in Zhejiang Province.

04

**Organizing emergency
response training to
ensure safe production**

To prevent emergencies from affecting the electricity generation of the power plant, the Guangzhou Company organized emergency knowledge training and emergency drills to help employees have a thorough mastery of the processes and priorities in handling emergencies, enhanced cross-department cooperation and collaboration, and improved the feasibility and effectiveness of the Company's emergency response plans and mechanisms.






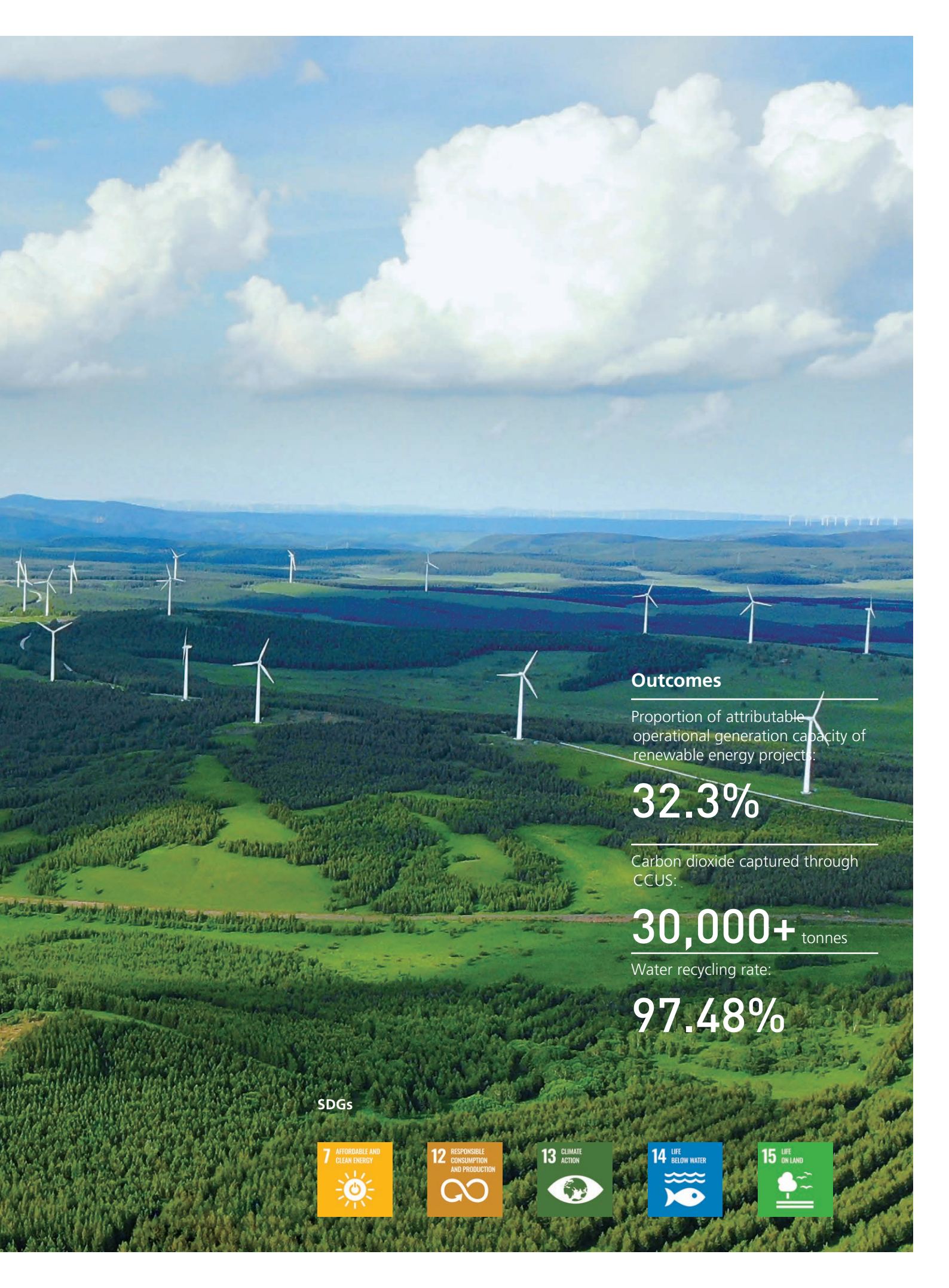
Leading Low-Carbon Transition under the Dual Carbon Goals

Challenges

With the issuance of the *Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy* by the CPC Central Committee and the State Council, and the *Action Plan for Carbon Dioxide Peaking before 2030*, China's 1+N policy system took shape. Critical to the dual carbon goals, the power industry is expected to achieve low-carbon development, energy efficiency, and carbon reduction. In addition, the *Benchmarking and Basic Standards for Key Areas of Clean and Efficient Utilization of Coal* (2022) put forward higher requirements on companies for green transition.

Actions

- Actively developed clean energy such as wind and PV power projects;
 - Enhanced the research and development of core technologies to empower renewable energy business and thermal power business;
 - Led the exploration in cutting-edge technologies, such as CCUS and energy storage;
 - Reduced the consumption of resources and unnecessary waste by improving the comprehensive utilization rate of water, comprehensive wastewater management, and harmless disposal of wastes; and
 - Strengthened environmental governance by renovating equipment to reduce energy consumption and carbon emissions for less discharge of pollutant.
- 



Outcomes

Proportion of attributable operational generation capacity of renewable energy projects:

32.3%

Carbon dioxide captured through CCUS:

30,000+ tonnes

Water recycling rate:

97.48%

SDGs

7 AFFORDABLE AND CLEAN ENERGY

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

Addressing Climate Change

CR Power strictly follows the dual carbon policy of China. According to the plans and applicable requirements of Chinese central government, CR Power set its own dual carbon goals commensurate with its characteristics. To improve its governance performance in climate-related issues, CR Power took actions to identify risks and opportunities in relation to climate change and researched paths to achieve carbon peak and carbon neutrality. With reference to TCFD recommendations, CR Power disclosed climate-related plans and results in terms of governance, strategy, risk management, and targets tracking.

Governance

CR Power’s Board of Directors has set up a Sustainability Committee to assist the Board in supervising, reviewing, and dealing with policies, measures, and performance targets related to sustainability (including climate change). The Sustainability Committee, chaired by an independent non-executive director and mostly consisting of independent non-executive directors, meets at least once a year to discuss issues related to climate change and reports regularly to the Board of Directors. In addition, the Sustainability Committee has established the Guidance Team, the Coordination Team, and the Implementation Team to ensure that policies and measures related to climate change are integrated into CR Power’s day-to-day operations. When necessary, the Sustainability Committee may also consult external experts for professional advice on climate change.

Strategy

Risks associated with climate change primarily include physical risks arising from extreme climate or rising temperature, and transition risks arising from market, regulation and policy changes occurring in response to climate change. As one of the largest energy suppliers in China, CR Power has taken on the important task of promoting energy mix transition and adopted a combination of measures to address risks, opportunities and challenges brought about by climate change.

According to central plans and applicable requirements, CR Power set its own dual carbon goals commensurate with its characteristics, disclosed climate-related work plans and results in terms of governance, strategy, risk management, and metrics and targets, and took actions to identify risks and opportunities in relation to climate change and researched paths to achieve the dual carbon goals. By leveraging internal resources, the Company promoted clean energy, developed low-carbon technologies, boosted carbon asset management, and cooperated with other industries in low-carbon areas, contributing to the national strategic goals for addressing climate change.



Identification of Risks and Opportunities from Climate Change

Identified risk

1

Policy and legal risk

Summary of Potential Risks and Opportunities Related to CR Power

Along with China's progress in achieving the carbon peak and carbon neutrality goals, there will be changes in national policies and requirements, e.g., regional differences in energy consumption and intensity control policies, changes in carbon trading rules and emission quota prices over time, changes in trading rules for green power and development requirements for renewable energy projects, and ecological and environmental constraints on project development. These changes will push up CR Power's compliance cost. In addition, the EU's deal to impose a carbon dioxide tariff, and global progress in setting carbon reduction rules have imposed higher requirements on companies for low-carbon development.

Solutions

Seeking to get in contact with local policy authorities to learn about and understand the details of policies, analyzing major local problems, challenges, and policy trends in each region, identifying potential risks, and mitigating the risks through standardized management practices.

Identified risk

2

Market and technology risk

Summary of Potential Risks and Opportunities Related to CR Power

Given the impact of the dual carbon policy on carbon emissions, thermal power plants step back to play a role of basic supply guarantee and power system regulation with declining utilization hours, driving up the operation cost of coal-fired power plants. According to the released regional policies, renewable energy projects are required to be equipped with a corresponding proportion of energy storage facilities, which means that it is necessary to improve the application of energy storage technology to gain more market opportunities. Also, a possible gradual decrease in emission quotas will mean an increase in carbon trading price, which will impose higher requirements for carbon asset management.

Solutions

A

Strictly controlling the capacity increase of coal-fired power plants, ensuring new plants reach the world-leading standards in coal consumption, performing energy efficiency, heating, and flexibility transformations of coal-fired power plants, and allowing these plants to play a supporting role in ensuring safe substitution of renewable energy for traditional energy;

B

Increasing investment in technological innovation and application of energy storage technologies, and exploring solutions more friendly to the new power system; and

C

Please refer to the section "Carbon asset management" below.

Identified risk

3

Extreme climate risk

Summary of Potential Risks and Opportunities Related to CR Power

Extreme climate events, such as extreme heat, extreme cold, rainstorms, floods, and typhoons, will increase due to global warming and will pose challenges to CR Power’s asset security and ability to protect power system security.

Solutions

A

Utilizing techniques to beef up capabilities in safe management of battery temperature, resistance of offshore wind farms against typhoons, and anti-icing of wind turbines in high-risk areas;

B

Developing emergency response plans for extreme climate and strengthening the identification of hidden hazards based on weather forecast and other information to ensure the safety of power plants and systems; and

C

Taking reasonable measures such as maintaining commercial insurance to reduce potential losses caused by extreme climate.

Identified risk

4

Clean energy development opportunities

Summary of Potential Risks and Opportunities Related to CR Power

China’s efforts to promote carbon peak and carbon neutrality will create a vast potential for the clean energy market.

Solutions

Please refer to the section “Developing clean energy” below.

Developing clean energy

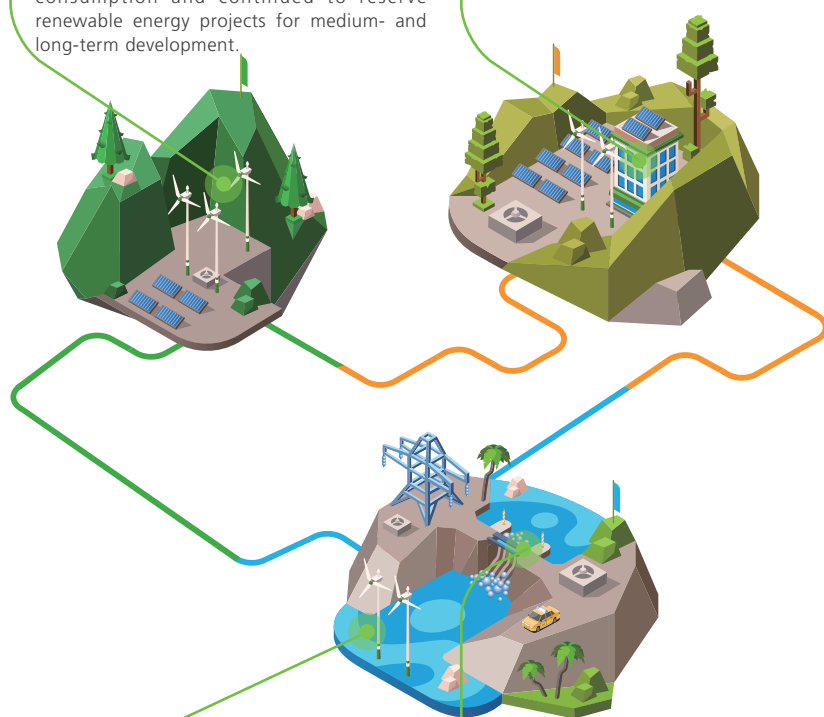
Clean energy is important for energy mix transition, energy security, and ecological civilization. In developing clean energy, CR Power continued to construct wind and PV power projects, with a focus on increasing the installed capacity of renewable energy.



Centralized onshore wind and PV power projects: The Company intensified the development of renewable energy projects across the nation, primarily in Northeast China, Northwest China, North China, and Southwest China where renewable resources are abundant, prioritized the development of renewable energy projects with better consumption and continued to reserve renewable energy projects for medium- and long-term development.



Distributed PV power and dispersed wind power projects: The Company development agriculture, forestry, animal husbandry, fishery, transportation, and eco-governance complementary PV projects in central and Southeast China, and promoted county-wide rooftop PV power projects, and dispersed wind power projects.



Offshore wind farms: By adopting an approach which considers both development of offshore resources and enclosure of open sea resources, the Company focused on China's five major offshore wind power bases and maintained a pipeline of high-quality resources for optimal development.



Hydroelectric power: To maintain the long-term development of conventional hydroelectric power projects, the Company continued to advance the early-stage work for the hydroelectric power projects in the lower reaches of the Yarlung Zangbo River and the Nu River Basin, and sought opportunities for joint development and equity acquisition of large- and medium-hydropower projects. The Company also endeavored to develop a pipeline of pumped hydro storage plants and enhanced cooperation with grid companies to develop renewable energy projects in areas in great need of grid regulation.

Key Performance:



Renewable energy attributable operational generation capacity:

17,004 MW

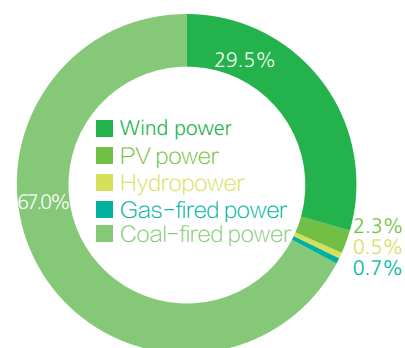
Attributable operational generation capacity of grid-connected wind

power projects: **16,885** MW

Attributable operational generation capacity of grid-connected PV power

projects: **2,225** MW

Proportions of attributable operational generation capacity:





research and development
investment

RMB **290** million



carbon dioxide captured by CCUS
platform more than

30,000 tonnes

Exploring low-carbon technologies

Continuous exploration of low-carbon technologies is crucial for low-carbon development. Taking the technological research and development of innovative business as the starting point, the Company continuously increased the corresponding investment and improved technological innovation and application capabilities. In 2022, CR Power spent RMB 290 million in the research and development of low-carbon technologies.

Creating a system of key CCUS technologies

Carbon capture, usage and storage (CCUS) technologies represent an important path towards low-carbon development for coal-fired power plants. In 2022, CR Power invested heavily in CCUS based on its *Research on Innovative Amine Solvent-Based Carbon Capture System and Energy Efficiency Process Design Package*. Through developing energy-efficient and large-scale carbon capture technologies, optimizing processes, and building an energy-efficient pilot test platform for amine solvent-based CCUS system, the Company created a basic system of key CCUS technologies, in a bid to promote the integration of CCUS processes and helping reduce the carbon emissions of thermal power plants. The 200 Nm³/h Innovative Amine Absorbent Research and Development Pilot Test Platform at the Shenshan Company is currently the best carbon capture platform that supports several kinds of organic amine solutions. By the end of 2022, the platform captured more than 30,000 tonnes of carbon dioxide.

Research and application of key technologies for phase change energy storage system to coupled with condensing units

The technology proposed to couple the phase change energy storage system to steam turbines for the deep peak shaving of units. It can improve the operating flexibility of units, and avoid problems such as insufficient hydrodynamic force, off-limit environmental indicators, and uneven stress at heating surface when the boiler operates at low load.

Research and application of key technologies for efficient thermal power unit denitrification and air-preheater clogging prevention

The technology proposed to use ammonia injection grids for denitrification based on the cross-coupling between sections. It can precisely adjust and control ammonia injection in case of changed working conditions and uneven inflow, thereby significantly reducing ammonia escape rate to improve denitrification efficiency. It can increase denitrification efficiency to 95%, keep the ammonia escape rate at the denitrification outlet below 3 ppm, and maintain the flue gas pressure difference of the air preheater around the designed value without the risk of increase.

Near-zero-carbon park

Controlling carbon dioxide emissions and achieving a balanced carbon cycle are of great significance to addressing global climate change. In response to the call of CR Group for building high-standard zero-carbon demonstration parks commensurate with the group's characteristics, CR Power started to construct the Guanlan Plant Near-Zero-Carbon Demonstration Park, which has realized near-zero carbon emissions.

Case Study: Phase I of CR Sanjiu Guanlan Base Near-Zero-Carbon Park Kicked Off

On December 1, CR Sanjiu held the commencement ceremony of the phase I project of its near-zero-carbon park at Guanlan Base in Shenzhen. The park is expected to provide 2,636,800 kWh of clean electricity every year. Compared with coal-fired power plants, it can save 844 tonnes of standard coal and reduce carbon dioxide by about 2,104 tonnes each year.



Carbon asset management

Creating rules and regulations for standard management. According to the progress of China's carbon market, the Company formulated the *Management Measures for Carbon Assets* to define the power, duties, and processes regarding carbon asset management, and improved internal management on a continuous basis to enhance management standardization. In 2022, the Company rolled out a special program targeting emission data quality, tightening emission data management of thermal power plants through a closed-loop process from onsite problem identification to rectification. The Company also organized three carbon asset management training sessions to develop the expertise of employees.

Building management system and optimizing processes. In 2022, the Company started to build a carbon asset management system and the completed Phase I project included collection of emission data, MRV, preparation of emissions reports, and other basic functionalities. Functionalities like carbon trading will be added in the future to achieve complete information management for carbon asset.

Participating in carbon trading to generate value. The Company took an active part in domestic carbon and green electricity trading, as an opportunity to optimize energy mix and reduce energy consumption, thus contributing to low-carbon transition. In 2022, the Company sold 1.6 million tonnes of carbon quotas for RMB 92 million. As of the end of 2022, the Company traded a cumulative total of 1.35 billion kWh of green electricity in Fujian, Jiangsu, Ningxia, Guangdong, and Shandong.



Risk management

CR Power set up the Law-based Governance, Risk Control, and Compliance Management Committee, and established a sound reporting mechanism for major business risk events, to coordinate and direct the reporting of major business risk events. The Company also developed a risk assessment system covering affiliates at all levels. In addition to annual risk assessment, each affiliate also needed to fill in a major risk monitoring form on a quarterly basis, so that the Company can assess risk changes and work out solutions.

Since 2022, the Company has incorporated policy changes into the risk management process to identify, assess, and manage policy risk. Based on an analysis of policy changes at home and abroad, trends in the power system, and the reality of CR Power, the Company identified five major risks-policy change, fuel management, investment decision-making, production safety and environmental health, and project acquisition.

Target tracking

A

Target breakdown and assignment

CR Power develops a strategic plan at the company level every five years, which lays out its strategic targets. These targets would be broken down into clean energy installation targets for the 7 Regions and 48 regional companies in the annual business plan. Each subordinate company signed a letter of commitment and assumed the tasks and responsibilities corresponding to its target.

B

Annual targets and performance assessment

The annual targets, strategic measures, and action plans of affiliates were formulated based on the Company’s annual target, national energy policies, and local energy development plans. Also, regular operational meetings were held to monitor and analyze the process and results of strategy implementation. On this basis, performance contracts were signed to ensure that the Regions and regional companies carry out their tasks to meet the development targets under the performance assessment mechanism.

C

Benchmarking management and timely review

Under the support and guidance of CR Power headquarters, each Region coordinated the reporting of renewable energy development targets by subordinate regional companies. After the targets were approved, regional companies reviewed the reporting process and details against benchmarks and identified strengths and weaknesses.

D

Information system for process management

The first phase of the project management system was completed to manage the process from contract signing to project construction. Project progress was updated in real time, so that the system showed the whole picture of all projects. Relying on such information, the Company can make management plans early and accelerate project preparation and implementation, ensuring the achievement of development targets.

Improving Environmental Management



heat supply increased by

10.23%
over 2020

CR Power integrated strict environmental protection requirements into the entire life cycle of power plants from planning and construction to renovation and operation, and into the entire process from source to terminal.

Environmental management targets

Highlighting environmental protection, the Company incorporated the environmental protection efforts of affiliates into annual EHS targets and annual performance contracts. In addition to short- and medium-term environmental performance targets, the Company also assigned annual environmental protection and energy conservation targets and tasks, and assessed the performance of affiliates regularly.

In 2022, despite high coal prices and a nation-wide energy shortage, CR Power fulfilled the energy supply tasks assigned by the SASAC, the National Energy Administration, and CR Group, with thermal power supply increasing by 5.23% and heat supply by 10.23% over 2020, a substantial contribution to ensuring energy supply.

Due to increased power generation, high coal prices, and lower coal quality with more sulfur and dust, CR Power failed to meet some of the annual environmental management targets in terms of comprehensive energy consumption rate per RMB 10,000 of industrial added value, sulfur dioxide emissions, nitrogen oxide emissions, particulate emissions, and net generation standard coal consumption rate in the last year.

Indicator	Unit	2020 Base	2022	2023	2022 Performance
			Targets	Targets	
Decrease over 2020 (%)					
Comprehensive energy consumption rate per RMB 10,000 of output value	tce	3.9984	5.00%	10.00%	3.33 (target achieved)
Comprehensive energy consumption rate per RMB 10,000 of industrial added value	tce /RMB 10,000	9.4119	4.00%	7.00%	11.89 (target not achieved)
SO ₂ emissions	t	10,989.1192	4.00%	6.00%	12,182.73 t (target not achieved)
NO ₂ emissions	t	20,387.5227	4.00%	6.00%	22,004.41 t (target not achieved)
Particulate emissions	t	0.13	Decreased over 2020		0.14 t (target not achieved)
COD emissions	t	55.02	Decreased over 2020		47.94 t (target achieved)
Net generation standard coal consumption rate (subsidiary coal-fired power plants)	g/kWh	296.0	Decreased over 2021	Decreased over 2021	297.2 g/kWh (target not achieved)
Pollution incident of major or higher impact	No.	0	0	0	0 (target achieved)

Environmental management system

Improving the system of rules

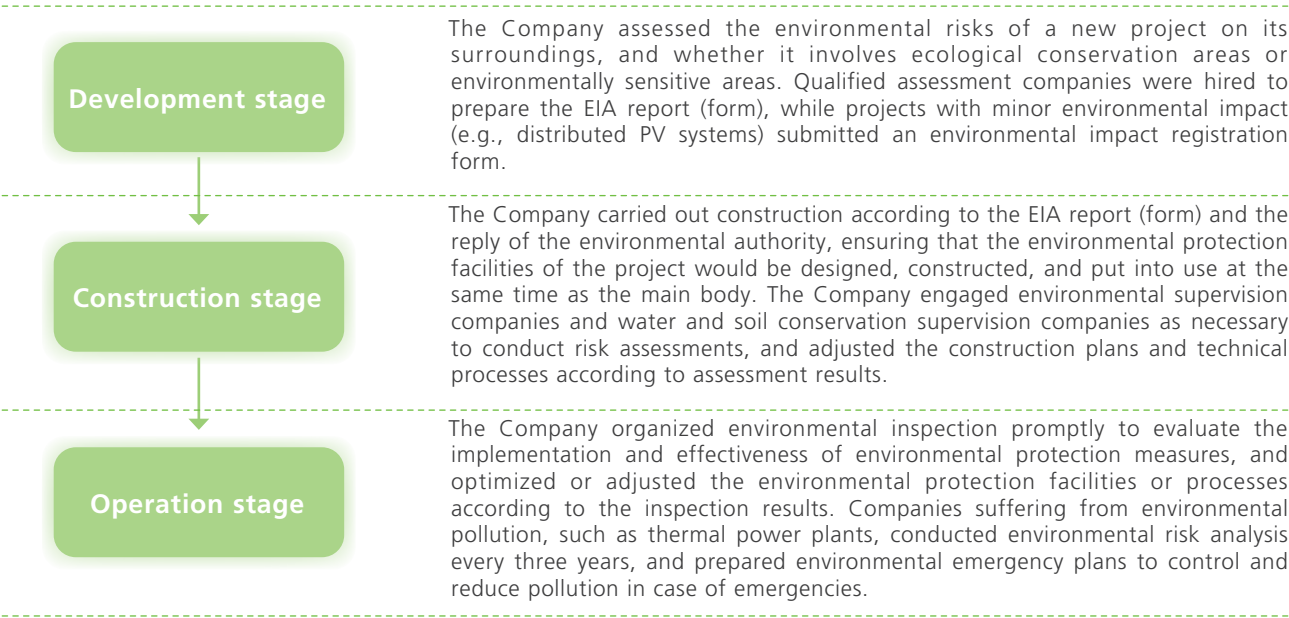
The Company improved the *Management Rules for Ecological and Environmental Protection*, adding or revising provisions on simultaneous design, construction, and operation (“Three Simultaneities”) of soil and water conservation facilities with main projects, prevention and control of hazardous waste pollution, soil pollution and noise pollution, management of pollutant discharge permits, environmental protection tax, and carbon asset management. The Company formulated the *Guidelines for the “Three Simultaneities” Management of Renewable Energy Projects*, specifying the “Three Simultaneous” environmental and water protection requirements in the feasibility study, design, construction, and completion acceptance of renewable energy projects. The Company also released the *Key Inspection Points for Ecological Environment Protection* according to applicable national laws, regulations and standards, providing inspection methods and standards covering 27 items in 9 categories to guide the environmental protection and supervision of affiliates to higher level.

Risk identification and governance

In accordance with the *Key Inspection Points of CR Power for Ecological Environmental Protection*, the Company required regional companies to assess their compliance in pollutant discharge, especially in the prevention of air pollution, water pollution, solid waste and hazardous waste pollution, soil pollution, and noise pollution. Systematic assessments were conducted against the environmental protection measures provided in the environmental impact assessment report, reply of the government authority, and environmental protection requirements specified in the environmental acceptance report and the pollutant discharge permit.

In 2022, the Company conducted three compliance inspections for environmental protection, which covered all projects in operation and under construction, and identified 442 problems. Specifically, the headquarters inspected 11 affiliates and identified 51 problems.

Environmental impact assessment (EIA)



Prevention of environmental incidents

To effectively prevent and address environmental emergencies, the Company released the *Comprehensive Emergency Response Plan* and the *Environmental Emergency Response Plan* in November 2022 in accordance with the *Environmental Protection Law*, the *Emergency Response Law*, the *National Environmental Emergency Response Plan*, and the emergency management requirements of CR Group. Also, the Company conducted discussions, tabletop exercises, and expert reviews for its emergency response plans at CR Power Shandong New Energy Company and the Northeast China Region.

In addressing severe air pollution, the Company customized a severe air pollution emergency response plan for each plant in critical areas such as the Beijing-Tianjin-Hebei Region and the Fenwei Plain in accordance with the *Action Plan on Prevention and Control of Air Pollution*. In such an emergency response, the relevant plant implemented its customized plan strictly, including capping pollutant emissions, managing the entry and exit of heavy-duty diesel vehicles, and properly using non-road mobile machinery.

Case Study: Chenzhou Company and Shenshan Company Conducted 2022 CR Group Environmental Emergency Drill

On July 28, the Chenzhou Company conducted the 2022 CR Group Environmental Emergency Drill. Joined by eight organizations including Zixing Branch of the Chenzhou Environmental Protection Bureau, and the Military Section of the Zixing People's Armed Forces Department, the successful drill simulated a leak from a diesel tank of the Liyujiang power plant to the surroundings.



On November 16, the Shenshan Company and the Shenshan Administration of the Ecology Environment Bureau of Shenzhen Municipality jointly carried out the 2022 Shenzhen Shenshan Special Cooperation Zone Secondary Environmental Pollution Emergency Drill of Hazardous Chemical Leakage, which tested the company's ability to deal with environmental emergencies and served as a valuable experience for the company.



Environmental training

CR Power attaches great importance to environmental training. In 2022, the Company organized training on environmental laws and regulations, environmental standards, environmental protection, and environmental law enforcement case studies, and participated in environmental training organized by local environmental authorities, so as to improve employees' competence and skills of energy conservation and environmental protection.

Biodiversity conservation

The Outline of the 14th Five-Year Plan for Economic and Social Development and Long-Range Objectives through the Year 2035 prioritized improving the quality and stability of the ecosystem through carrying out key biodiversity conservation projects and creating a biodiversity conservation network. In line with the outline, the Company took a range of measures to protect biodiversity from project development to construction and operation.

Biodiversity assessment

In the development stage of a new project, the Company sought a qualified third-party to assess the project's environmental impact, including impact on communities, biodiversity, and the surroundings. Community residents as well as of environmental, land and resources, forestry, and agricultural administrations were also consulted during the assessment to avoid building the project around vulnerable communities and rare animals and plants.

Conservation of terrestrial biodiversity

For projects that would affect the environment and biodiversity to certain extent, the Company took necessary remedies, such as designing ecological flow, fish stocking, and transplanting or breeding rare plants, to minimize or avoid impact on the surroundings.

Case Study: Deshun Wind Farm of the Guizhou Company Recognized as a Provincial Soil and Water Conservation Demonstration Project

Located in Liping County of Guizhou Province, the Deshun Wind Farm was designed to embody green, ecology, and civilization during its three-year construction period, and duly performed soil and water conservation. Specifically, road construction adopted excavation and backfilling. Temporary blocks were placed on the lower parts of slopes to avoid piling of construction waste and soil erosion. The upper parts of slopes were covered by mixed types of local grasses through hydroseeding, and turbine platforms and the lower parts of slopes were also covered by evergreen grass seeds for soil and water conservation. In January 2023, the project was recognized as a Provincial Soil and Water Conservation Demonstration Project by the Water Resources Department of Guizhou Province.





Conservation of marine biodiversity

The Company also implemented marine biodiversity conservation through the life cycle of thermal power plants in coastal areas from feasibility study to design, construction, and operation.

In the feasibility study stage, qualified professional institutions were engaged to conduct EIA, and provide preventive measures according to assessment results.

In the design stage, cutting-edge techniques were adopted as required by the EIA report.

In the construction stage, design requirements were strictly implemented.

In the operation stage, requirements in the EIA report and from relevant government authorities were followed to prevent ocean warming and protect the wider marine ecosystem.

Feasibility
study stage



Design stage



Construction stage



Operation stage

Optimizing the Utilization of Resources

Integrated utilization of resources is a major part of China's sustainability strategy. CR Power practiced circular economy, resource conservation, and pollution prevention in its production and operation, improved resource efficiency, and reduced the negative impact of pollutant on the environment, as part of its efforts to become a resource-efficient and eco-friendly company.

Reducing water stress

Water is a key risk factor for the power industry, and its availability underpins the sustainable operation of a power company. To reduce water consumption, the Company conducted water risk assessment and adopted a series of measures to increase water efficiency.



Recycled

1.9919 million
tonnes more wastewater over
the previous year

water recycling rate

91.73%

Water risk assessment

Before constructing water-consuming projects such as coal-fired and thermal power plants, the Company carried out water risk assessment to determine proper sources of water and water-related technical processes. For example, in southern areas where water resources are abundant, the Company adopted water cooling towers; in water-starved northern areas, dry coolers were used.

Integrated utilization of water

In 2022, the Company's annual new water consumption declined by 6.16% YoY to 183,155,500 tonnes, including 159,095,900 tonnes of new surface water (-5.31% YoY), 5,854,600 tonnes of new groundwater (-1.67% YoY), and 18,205,000 tonnes of new water from other sources (-14.15% YoY).



discharged

1.6846 million tonnes of
wastewater

an increase of

1.97%

Increasing the use of urban reclaimed water:

11 thermal power companies including the Dengkou, Panjin, Fengrun, and Cangzhou companies used 41.4277 million tonnes of new urban reclaimed water, up by 1.46% YoY.

Conducting comprehensive treatment of wastewater:

In 2022, the Company produced 20.3592 million tonnes of wastewater, an increase of 11.04% YoY. Through cascade utilization of water and increasing water recycling efficiency, 18.6746 million tonnes of wastewater was recycled, an increase of 1.9919 million tonnes over the previous year and marking a recycling rate of 91.73%; 1.6846 million tonnes of wastewater was discharged, an increase of 1.97%.

Heightening the awareness of water conservation

The Company organizes events such as June 5 Environment Day and public open day every year to spread knowledge on energy saving, water saving, green operations, and low-carbon development, raising employees' awareness of water conservation. In addition, environmental protection excellence awards are presented every year to affiliates and individuals with outstanding contributions to water conservation.

Case Study: Environment Day on 5 June 2022

To promote eco-culture, improve ecological morality, and showcase the Company's achievements in building an ecological civilization, CR Power planned and held the Environment Day around the theme of "Creating a Clean and Beautiful World", increasing employee's awareness of ecological environment protection.



Reducing pollutant emissions

In July 2022, the Company released the *CR Power Coal Power Three-Renovation Pathway in the 14th Five-Year Plan Period*, providing a renovation pathway to save energy, reduce carbon emissions, improve the heat supply system, and increase the flexibility of units during the 14th Five-Year Plan period. Coal-fired power generation units adopted the ultra-low emission renovation pathway according to local conditions, accelerating the renovations for emission reduction and coal yards enclosure to reduce resource consumption and pollutant emissions. In 2022, the Company renovated 4.05 million kW for energy saving and carbon reduction, 8.46 million kW for heat supply, and 8.77 million kW for flexibility. Since 2016, the Company has spent RMB 11.64 billion on pollution control and energy efficiency technical upgrading.

Increasing investment in technical transformation and realizing equipment upgrade

The Company selected renovation projects against high standards, tracked key project, set up expert teams to provide technical support, and conduct onsite inspections and post-evaluations. All coal-fired units of the Company had completed ultra-low emission renovation by September 2020.

Accelerating the construction of closed coal yards to reduce dust

The Company has enclosed the coal yards of 28 of its 35 coal-fired power plants in operation, slashing secondary particulate pollution and freshening up surrounding air. The remaining coal yards have been equipped with dust control nets to reduce the risk of air pollution.

Integrated utilization of solid wastes

Integrated utilization of solid wastes fuels green development. The Company prioritizes the integrated utilization of solid wastes and the harmless disposal of wastes.



In 2022,

9 local companies

burned

711,700
tonnes of mixed sludge

Gucheng Project burned
26,539.76 tonnes
of mixed residue wastes

Hezhou Project utilized
143,595.34
tonnes of marble slurry

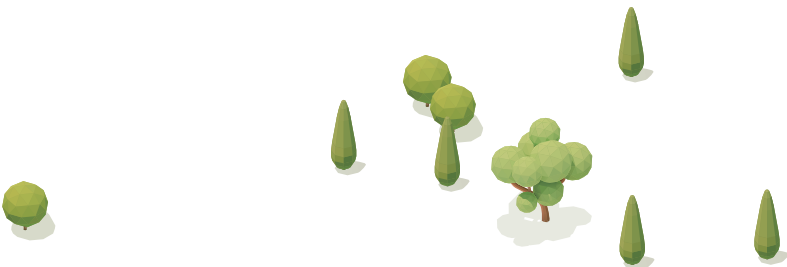
Subordinate companies created a complete set of management rules and records for hazardous wastes to regulate their collection and storage. Collected hazardous wastes were disposed by qualified professional companies under disposal contracts.

Disposal of
Hazardous
Wastes

Disposal of
Solid Wastes

First, the Company enhanced the integrated utilization of solid wastes such as fly ash, slag, and desulfurized gypsum. Thermal power plants looked for qualified companies to recycle by-products such as fly ash, slag, and gypsum. Local companies also developed emergency response plans and built temporary storage facilities to store by-products during off-season to avoid polluting the environment.

Second, the Company strengthened the disposal of urban sludge. Several thermal power plants set about disposing of urban sludge. In 2022, nine local companies burned 711,700 tonnes of mixed sludge; the Gucheng project burned 26,539.76 tonnes of mixed residue wastes; the Hezhou project utilized 143,595.34 tonnes of marble slurry.



Case Study: Jinzhou Project Recycled Calcium Carbide Slag to Desulfurize Other Wastes

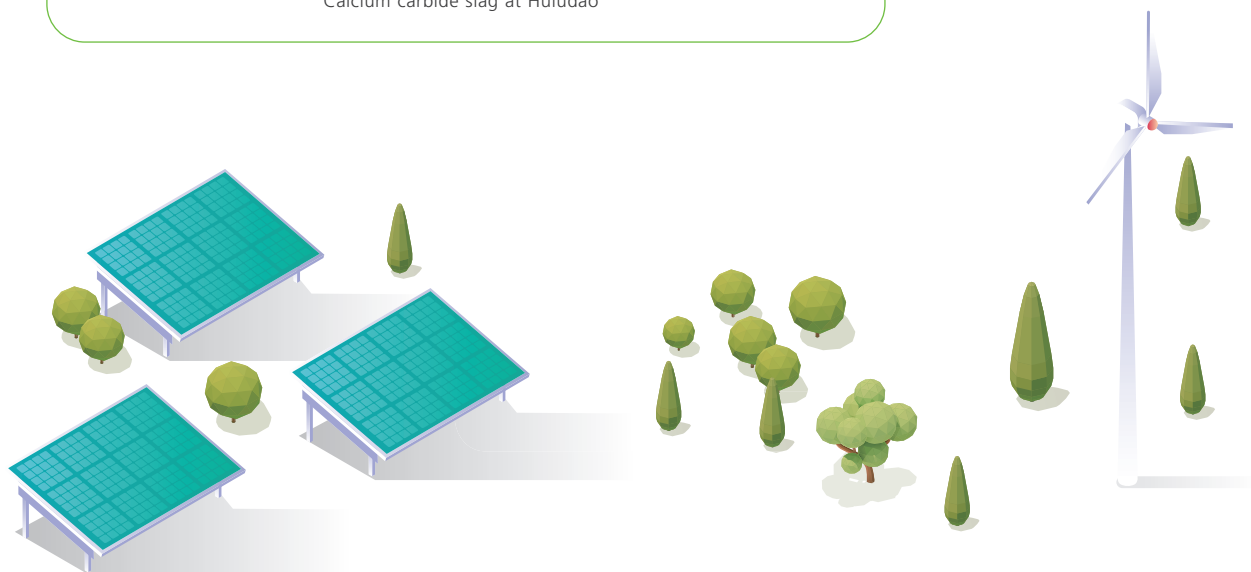
The Jinzhou Project planned the integrated utilization of solid wastes early in its construction stage, and decided to use white mud and calcium carbide slag as desulfurizer after analyzing the solid wastes in the western part of Liaoning province. Since desulfurization with calcium carbide slag does not produce carbon dioxide, 50,000 tonnes of calcium carbide slag can reduce 20,000 tonnes of carbon dioxide emissions every year. Furthermore, the price of calcium carbide slag is only 50% that of limestone powder, saving desulfurizer expenditure by RMB 3 million per year. Finally, calcium carbide slag reduced the power consumption of the slurry circulation pump by 20% thanks to its high activity and rapid desulfurization.



White mud at Paijin



Calcium carbide slag at Huludao



Conducting Compliant Operations as Always

Challenges

As all COVID-19 restrictions are lifted, China's real economy has gradually recovered. Power companies have also accelerated the resumption of operation and production, but still face external changes, such as frequent release of energy policies and fluctuating energy prices. How to understand the connections between energy crisis, energy transition, and the power market, and how to prevent all kinds of compliance risks to ensure sound corporate development in the accelerated energy transition have become challenges facing all companies in the power sector.

Actions

- Maintained Board diversity, improved the system of governance rules, ensured the exercise of functions and powers by the Board, and enhanced the capacity and level of corporate governance;
- Continuously improved the organizational and rules system for compliance management, strengthened legal and operational risks prevention, and increased systematic risk resistance; and
- Conducted business ethics training, optimized audit mechanism, and promoted healthy and sound corporate development.



Outcomes

Total assets:

RMB **283.388** billion

Integrity training:

4,993 sessions

SDGs



Improving Corporate Governance

In 2022, the Company convened:

general meeting of shareholders



meetings of Board of Directors



meetings of Audit and Risk Committee



meetings of Remuneration Committee



meeting of Sustainability Committee



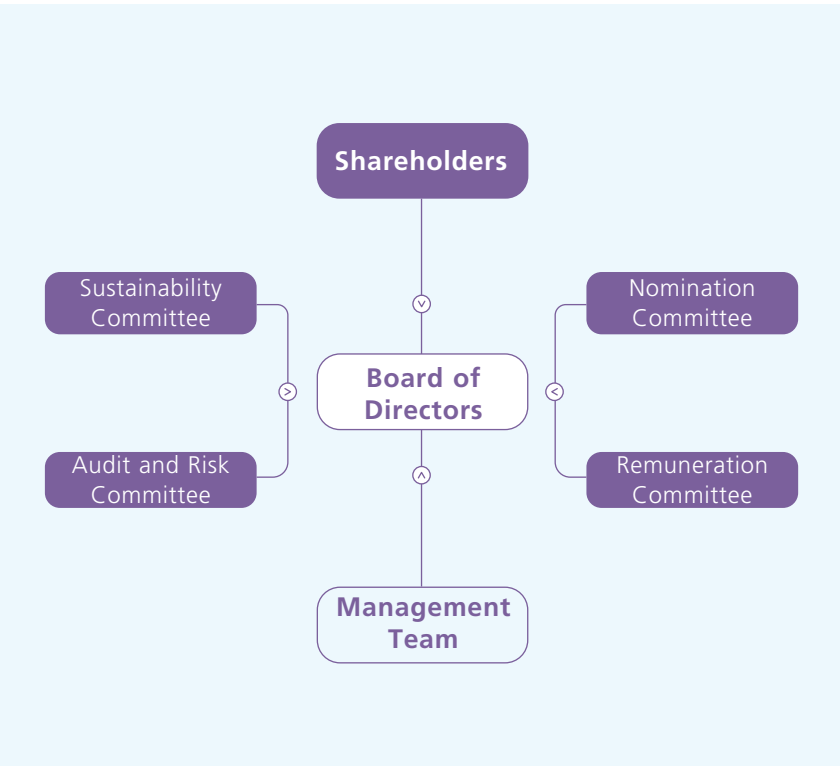
CR Power maintained Board diversity, continuously improved the corporate governance system, promoted the development of a system of governance rules, and optimized the decision-making mechanism to increase operational efficiency.

Board structure

CR Power continued to improve its corporate governance structure and management system according to the requirements of *Appendix 14 Corporate Governance Code* to the *Main Board Listing Rules* of the Hong Kong Stock Exchange. The Company formulated and released the *CR Power Manual on Exercise of Powers and Responsibilities (2022 Edition)* to define the powers and responsibilities of the Shareholders' Meeting, the Board of Directors, the Party Committee, the management team, and other governing bodies, as part of its efforts to create a corporate governance structure in which different bodies coordinate and fulfill their roles and responsibilities with effective checks and balances.

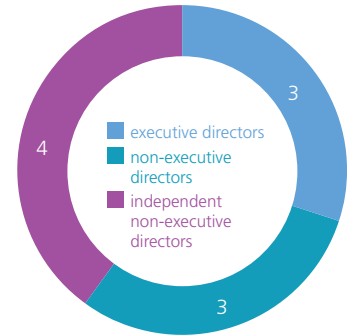
The main functions of the Board of Directors include determining the overall strategic direction, setting long-term performance and management goals, formulating policies and supervising their implementation, monitoring management performance, and ensuring that the Company's operating activities comply with laws, regulations, and business ethics.

In strict accordance with the relevant requirements of the *Plan for Ensuring Exercise of Functions and Powers by the Board of Directors*, the Company (1) clarified the scope of responsibilities and powers of the Board of Directors and managers; (2) developed the *CR Power Management Rules for Board of Directors Authorization*, which set forth relevant requirements for the authorization by the Board and guaranteed compliant authorization; and (3) implemented important plans and rules upon approval by the Board, ensuring that the Board exercised its functions and powers.

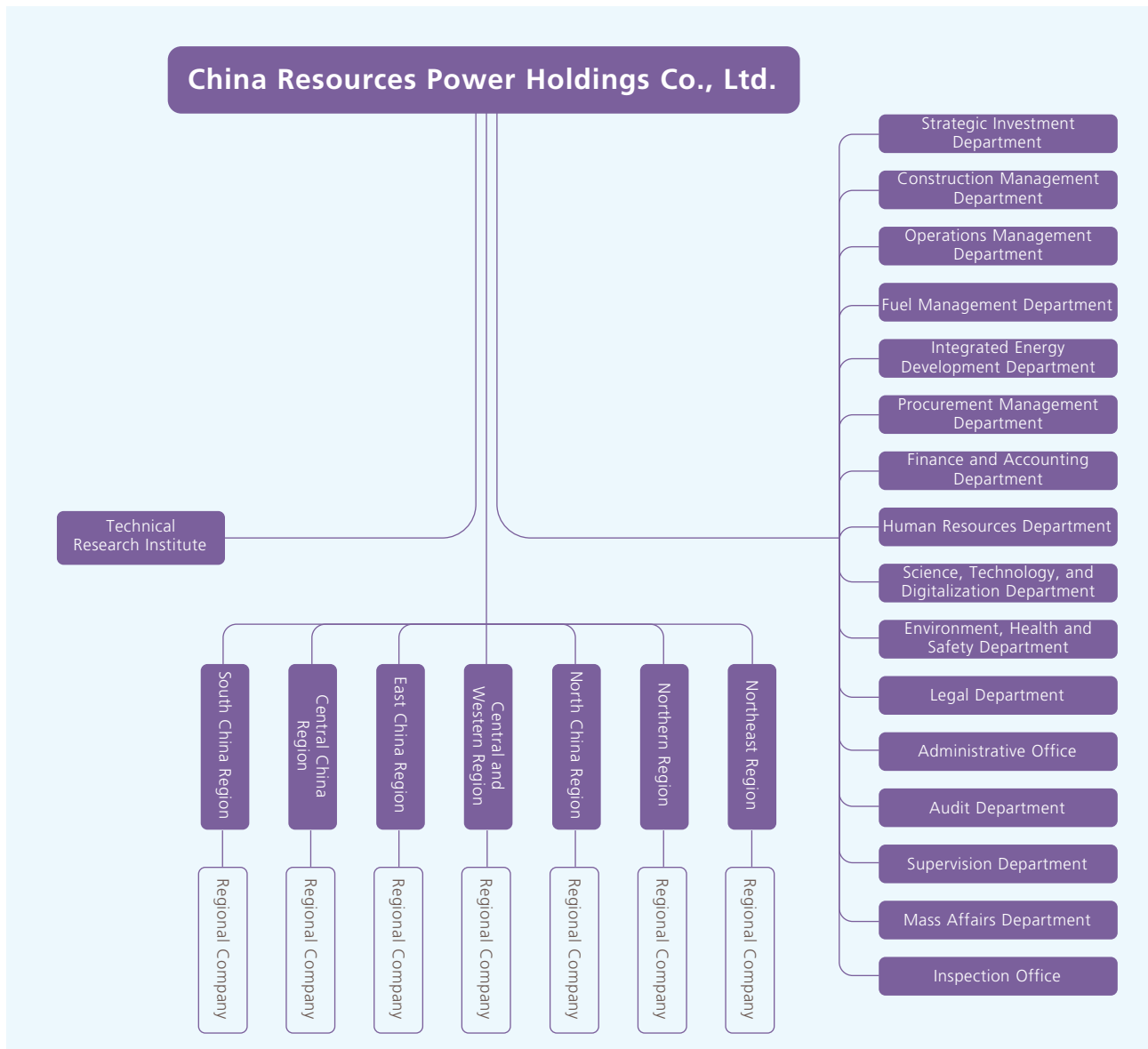


Governance structure of CR Power

Board diversity has been a key factor in enhancing the corporate governance and decision-making capacity of CR Power. In reviewing the Board structure and director selection criteria and searching for qualified candidates, the Nomination Committee took into account the diversity requirements in the nomination policy and the diversity policy, including but not limited to gender, age, cultural and educational background, race, nationality, religion, socio-economic status, and physical ability. By the end of December 2022, CR Power had a total of 10 directors (including 2 female directors), i.e., 3 executive directors, 3 non-executive directors, and 4 independent non-executive directors.



Organizational structure



Carrying Out Compliant Operations

In strict accordance with applicable national and industry laws and regulations, CR Power further promoted the building of compliance management system, tightened compliance risk control, created a culture of compliance, and optimized compliance audit mechanism so as to underpin the Company's high-quality development with efficient compliance management.

Compliance management

According to the *Compliance Management Procedures (Tentative)*, CR Power established a compliance management system comprising the decision-making, management, execution, and supervision levels to boost compliance efforts from the top down. CR Power developed the *Guidelines for the Management of Compliance Complaints and Reports*, which provided that compliance management should be comprehensive and independent, target important matters, and make continuous improvement.

Compliance Management System

Roles	Responsible Parties	Main Responsibilities
Making decisions, offering guidance, and granting approvals	Board of Directors (the highest governing and decision-making body)	<ul style="list-style-type: none"> Reviewing and approving a general plan for the compliance management system Promoting the improvement of the compliance management system
	Governance, Risk Control, and Compliance Management Committee	<ul style="list-style-type: none"> Considering and deciding on major compliance management issues Guiding, overseeing, and evaluating compliance management efforts Reviewing and approving specific compliance matters such as related-party transactions
Granting approvals and promoting execution	Management team	<ul style="list-style-type: none"> Reviewing and approving annual compliance management work plans, annual compliance management report, response plans for major compliance risk, and evaluation reports on the compliance management system, among others Promoting the development of a compliance culture
Organizing, coordinating, and overseeing	Legal Department	<ul style="list-style-type: none"> Organizing, coordinating, and overseeing the compliance management of CR Power and providing compliance support to other departments
Implementing	Other business and functional departments	<ul style="list-style-type: none"> Implementing compliance management in their own departments
Exercising independent oversight	Audit Department	<ul style="list-style-type: none"> Independently overseeing the compliance management system
	Supervision Department	<ul style="list-style-type: none"> Performing the oversight duties within its authority

The Company also formulated and released the *Management Rules for Internal Control*, evaluated the development and oversight of internal control system across the Company, and identified the internal control deficiencies. In 2022, the Company corrected all identified deficiencies.

In strict accordance with the *Management Measures for Related-Party (Connected) Transactions of Managers (Tentative)* and the *Interim Measures for Regulating Managers and Key Employees in Investing, Running, and Establishing Other Businesses*, the Company rectified the related-party transactions and non-compliant shareholding of employees after identifying such activities by, among others, requiring employees to report, conducting on-site spot checks, and screening with digital means. The compliance rules have thus been effectively implemented.

Risk control

CR Power continuously strengthened its risk prevention and control system by establishing the Laws-Based Governance, Risk Control, and Compliance Management Committee, which is responsible for planning and promoting the Company's risk management and system development and sending risk management personnel to special risk management training sessions of the CR Group to improve their expertise and acumen. By the end of 2022 the Company had 7 non-executive directors with the professional knowledge of risk management.

Prevention of legal risks

CR Power established the *Management Standards for Legal Dispute Cases* and the *Management Measures for External Lawyers* and other rules to set forth the requirements for the handling of various legal disputes and the performance of duties by external lawyers. The Company also released the *Notice on Further Strengthening the Management of Legal Dispute Cases and External Lawyers*, imposing honesty and integrity requirements for affiliates at all levels of the Company. In 2022, the Company accepted 167 legal cases and closed 183 cases.

Prevention of operating risks

In 2022, the Company adopted the COSO model to identify major risks that may affect its business development. Key risks such as policy risks, investment decision-making risks, safe production risks, and environmental and health risks were evaluated in a quantitative way based on the assessment criteria from two dimensions-degree of impact and probability of occurrence. The Company also developed major indicators to monitor key business risks on a quarterly basis, in a bid to improve its systematic risk resistance.

Risk Control



Number of non-executive directors with the professional knowledge of risk management

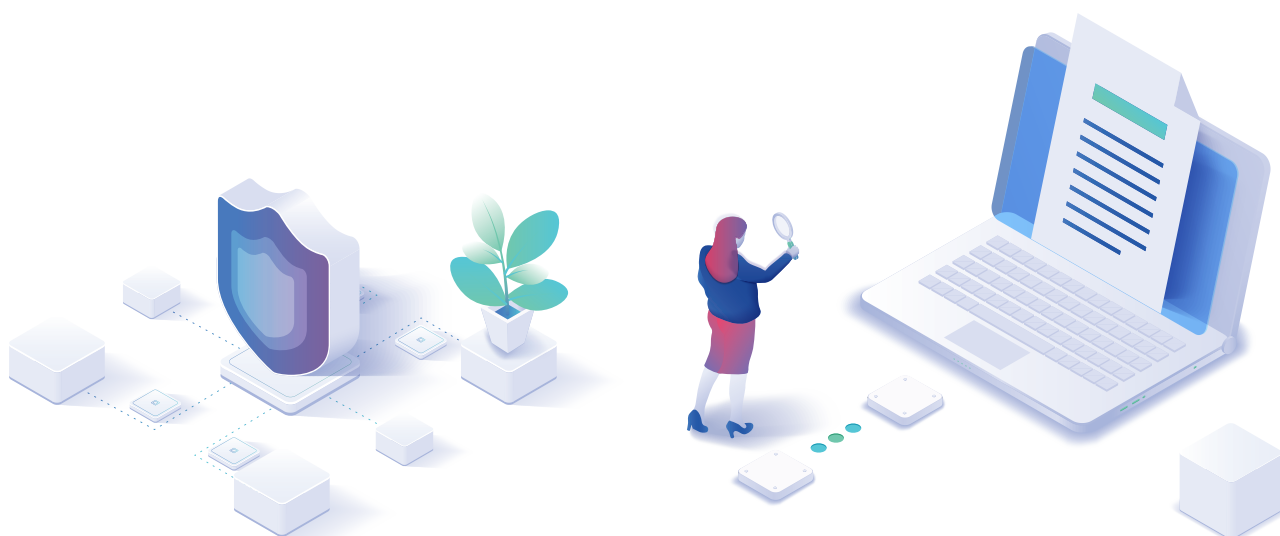
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Company accepted

167 legal cases

closed

183 cases



Business ethics

To maintain high standards of business ethics in operation and development, the Company formulated the *Guidelines for Anti-Monopoly Compliance*, the *Management Measures for Trade Secrets*, the *Management Measures for Secret-Related Personnel*, and other normative rules, prepared a *Special Issue on the Protection of Trade Secrets*, and organized special training sessions on, among others, anti-monopoly, anti-unfair competition, anti-commercial bribery and anti-money laundering, and trade secret protection. These efforts strengthened the Company’s rule of law culture and raised the business ethics awareness of all employees.



2022 Training Session on Trade Secret Protection

Anti-corruption

The Company continued to develop its anti-corruption mechanism that takes away the audacity, ability, and desire to corrupt. In accordance with normative documents such as the *Provisions on the Handling of Employees’ Violations and the List of Exemptions from Liabilities upon Fulfillment of Duties and Compliance in Operation and Investment (Tentative)*, the Company properly handled employees’ violations and strengthened integrity and supervision, ensuring the steady development of the Company on the basis of efficient supervision and governance.

Conducting strict supervision

The Company carried out general supervision to identify the integrity risks in key areas, phases, and positions of electricity sales, procurement, and construction, and particularly oversaw the construction, production safety, epidemic prevention and control processes to prevent and mitigate integrity risks.

Controlling integrity risks

The supervisory activities identified problems and risks as non-compliance in project tendering and seeking personal profits. The Company hence strengthened the party conduct and integrity review of candidates, checked the related party transactions of all employees, and required each employee to sign an *Integrity Commitment Letter*, promoting integrity awareness and practice. In 2022, the Company issued 867 opinions on party conduct and integrity.



the Company issued
867 opinions on
integrity issues

Handling reports of bribes and corruption

The Company established a sound report management and handling mechanism, which ensures that employees and other related parties can report suspected violations involving the Company via the integrity hotline, mailbox, website, and other channels without their information being disclosed. The Company was also dedicated to keeping confidential the reporters' information and identity and protecting their rights and interests, and undertook that employees will not be unfairly dismissed, harmed, or subject to improper disciplinary punishment for their reporting.

Punishing violations severely

In strict accordance with applicable national laws and regulations and internal management rules, the Company handled employees' violations of disciplines, rules, and laws. In 2022, four employees committed corruption-related violations, among whom one committed the crime of accepting bribes and was sentenced to eight years in prison and three suspected of corruption are currently under investigation. The Company terminated employment with them according to relevant rules, and established a case review mechanism to prevent the recurrence of such cases. These cases had no significant impact on the Company's business.

Promoting integrity education

The Company released the *CR Power Violation Case Book*, which recorded typical cases as a warning against future violations. It also organized regular integrity education meetings and a series of integrity themed training, totaling 4,993 education sessions throughout the year and covering 124,134 persons, and organized talks on integrity, covering 6,965 persons.

Audit and supervision

The Company established and released the *Management Rules for Internal Audit*, which clarified among others, the audit principles, audit organizations and staffing, and audit responsibilities, aiming to mitigate business risks through standard audit procedures. In addition, the Company continued to optimize the audit system, improved the quality and level of internal audit and supervision through several initiatives, and utilized internal audit to better promote the high-quality development of the Company.



integrity education sessions

4,993

organized talks on integrity, covering

6,965 persons

Establishing an audit center	Supervising bidding and tendering	Rectifying problems identified in audit	Strengthening interactions and communication	Conducting economic responsibility audit
The Company established an audit center for regional companies, which can provide audit resources to these companies and increase audit independence and the credibility of audit system.	To ensure the compliance of bidding and tendering, the Company's auditors supervised the bid opening and evaluation processes and issued reports thereon. In 2022, the auditors supervised 40 bidding and bid evaluation programs.	The Company made efficient rectifications by releasing regular reports on rectification benchmarking, pressing affiliates that delayed rectifications, including rectification rate as a key indicator of performance contracts, and other measures.	The Company established real-time reporting and communication with CR Group and horizontal communication between various departments of the Company to help implement the audit and rectification tasks.	The Company built an economic responsibility audit system and identified key audit areas in a scientific and systematic way to define a standard audit scope.

Fostering Innovation through Value-added Empowerment

Challenges

Energy supply is the top priority of national energy security, and ensuring energy supply is destined to be a long-term challenge and inevitably puts higher standard and requirement for power companies. Secondly, as the power industry becomes increasingly interconnected, cyber-security risk will persist in the power energy information systems. The current energy transition also demands immediate breakthroughs in key technologies, such as energy storage and offshore wind farms.

Actions

- Conducted responsible marketing and optimized customer services with higher quality and level; enhanced the information security system as a defense of cyber-security.
- Continued to improve the system of technological innovation through faster digital transition and proper technical management, facilitated the productization of innovations such as energy storage systems, and created new benchmarks for integrated energy services.
- Developed the standard for supplier management, optimized procurement mechanisms, and encouraged the fulfillment of vendor responsibilities to create a responsible supply chain; promoted exchanges and cooperation in all forms to support the development of the industry.





Outcomes

Total R&D investment:

419million

Cyber-security training: more than

50sessions

SDGs

9

INDUSTRY, INNOVATION
AND INFRASTRUCTURE

11

SUSTAINABLE CITIES
AND COMMUNITIES

12

RESPONSIBLE
CONSUMPTION
AND PRODUCTION

Offering Quality Services

CR Power has always been serving customers in a swift, customized, and warm manner to win their satisfaction. The Company conducted responsible marketing, improved customer service quality, enhanced customer stickiness, and created more value for users.

Responsible marketing

The Company observed the trading order of the power market, protected the interests of consumers, and promoted rational consumption. Specifically, the Company formulated the *Management Measures for 106 SMS Platform of Electricity Sales* to monitor the content, quality, and use of marketing SMS, and conducted regular in-house training on sales skills, compliance marketing, and other topics to enhance the professional skills and sense of responsibility of marketing staff. In 2022, the Company conducted 86 training sessions on fair marketing.



customer satisfaction rate

94.1 %



the Company conducted

86 training sessions on fair marketing

Efficient services

By holding the first receptionist accountable, the Company established a closed-loop customer service process, under which the responsible person will provide "7 × 24 hours" service. In addition, the interactive voice response and call routing policies of the customer service hotline were adjusted. Correspondingly, all electricity sales subsidiaries increased full-time and part-time customer service staff to answer calls during working hours, while the headquarters staff answer calls during non-working hours. The new response model solved customer issues quickly and efficiently.

Winning customer satisfaction

In 2022, the Company surveyed customers who had participated in its offline marketing campaigns on their business interests, electricity demand, and service satisfaction, among others. The findings were analyzed and suggestions were made for the problems identified. The survey had an overall participation rate of 61.6% and a customer satisfaction rate of 94.1%.

Optimizing complaint management

The Company divided the entire process of complaint handling into accepting complaint, understanding customer concerns, analyzing causes, processing, and following up. As a result, the Company addressed complaints and resolved related issues in a timely manner to the satisfaction of customers. In 2022 the Company received no complaints from customers.

Enhancing interaction

The Company conducted a series of marketing campaigns to enhance interactions with customers, deepen their understanding of CR Power's business, maintain better relationships with them, and increase their stickiness.

Case Study: Walking into CR Power

From July to August 2022, the Company hosted a series of marketing events themed Pursuing Green Development from the Heart – Walking into CR Power. Based on customer feedback from the previous survey, the events included green power plant touring, power generation watching, corporate culture presentation, special training on spot electricity trading, carbon trading, and green power trading, as well as interactive Q&A sessions to address customers' concerns, which enhanced customers' understanding of green power and awareness of power saving in daily life. A total of six events were held, with approximately 300 persons participating in person and approximately 3,000 joining online via webcast.



Cyber and information security

The Company set up a cyber-security and information leading group, headed by the President. The group is responsible for the top-level design, overall planning, holistic coordination, promotion, and oversight of major tasks in cyber-security and information. The Company also advanced the building of information security systems in terms of rules formulation, risk prevention and control, information security protection and training, paving the way for cyber and information security management.

Improving the system of rules

The Company continuously improved cyber and information security management rules, developing documents such as the Guidelines for Cyber-Security of Industrial Control Systems to define the standard cyber-security management and other processes of industrial control systems, in a bid to guarantee the safe and stable operation of the Company's information systems.

Preventing cyber-security risks

The Company continued to promote cyber-security and risk prevention by improving the defense capabilities of the information systems to ensure data security. In 2022, no cyber-security incidents or IT system incidents occurred.

Developing anti-ransomware solutions

The Company developed the organization and management mechanism for cyber-security emergencies, strengthened the holistic management of anti-ransomware attack responses, and conducted special anti-ransomware emergency drills to improve cyber-security capabilities in practice;



Tightening up cyber-security and protection

The Company tightened up cyber-security by identifying and eliminating cyber-security risks and updating patches for loopholes in systems, software, and hardware in a timely manner;



Storing and backing up data

The Company stored files and data by category and class, and backed up data regularly to ensure data security.



Information security and protection

The Company continued to cause its staff, customers, and suppliers to sign cyber-security liability letters and confidentiality agreements, which define the scope of confidentiality and the responsibilities and obligations of all parties involved to protect their information security.

To protect customer information security in accordance with the *Management Measures for 106 SMS Platform of Electricity Sales* and other customer information management rules, the Company clarified information confidentiality and security regulations and accountability, implemented consistent management for the user authorization at electricity sales cloud platform, and hid key information on customers and contracts to ensure the confidentiality of customer information. In 2022, no security incidents occurred with respect to customer information.

Cyber-security training

The Company reinforced the awareness of cyber and information security through week-long cyber-security campaign and training programs for the staff. In 2022, the Company and its affiliates conducted more than 50 training sessions on cyber-security in various forms, covering more than 20,000 persons.



more than

50 training sessions on
cyber-security in various forms



17,000

employees participated in the
studies and examinations

Case Study: Improving Cyber-Protection Skills

From September 5 to 11, 2022, the Company and its affiliates launched a range of cyber-security publicity activities themed Cyber-Security for the People and by the People. To be specific, the Company conducted the Enhancement Class on Anti-Social Engineering and Anti-Phishing to strengthen cyber-security education, and more than 17,000 employees participated in the studies and examinations. Special cyber-security training on tiered protection and phishing attack prevention was provided to improve cyber-security skills. Offline cyber-security knowledge competitions were also held to make the activities more interesting. After these activities, the staff obtained higher cyber-security awareness and capability, as well as greater information security.



Unleashing the Potential of Technological Innovation



technical reviews

338

Focusing on technological innovation, CR Power continuously improved its innovation system, accelerated digital transition, introduced technology management standard, strengthened intellectual property management, promoted the translation of innovations, and created a new business model that integrates energy services, developing the hard power of the Company from all aspects.

Technological innovation system

To reinforce the management of technological innovation, the Company established the Science, Technology, and Digitalization Department at the headquarters level, which is responsible for managing innovations, organizing strategic seminars on energy science and technology, and developing the overall strategies for energy science and technology. The Company also continuously improved the rules for technological innovation by releasing three new rules, including the *Management Measures for Technological R&D Projects (Tentative)*. These rules laid out the management process of research projects and the statistical standards and assessment guidelines for technological innovation tasks.

The Company also promoted the development of the technical management system. It issued eight management rules and technical standards, including the *Charter of the Technical Committee*, the *Management Measures for the Professional Committee*, and the *Guide for the Design of Photovoltaic Power Stations*, to develop the energy business in a regulated way. It held five technical committee chairman meetings to promote the efficient operation of the technical management decision-making mechanism. It also conducted 338 technical reviews throughout the year to strengthen energy development and operation, and saved about RMB 280 million of investment by optimizing technical plans.

Digital transition

To facilitate digital transition, the Company established the CR Power Intelligent and Digital Development Committee to coordinate related efforts. The Company also set up cross-department working groups focusing on four areas, i.e., the digitalization of development and construction, digitalization of production and operations, digitalization of energy services, and digitalization of corporate governance. The working groups promoted digital power trading and renewable energy businesses, reshaping business models and boosting industrial innovation.

In 2022, the Company continued with digital transition and upgrading surrounding the digitalization of services, businesses, and management to achieve digital management and intelligent businesses.

Digitalization of services

With a focus on better customer experience, the Company provided customers with one-stop technical services, demonstrating its digitalized service capabilities.

Digitalization of businesses

The Company established a “cloud + edge” digital operation system to enable the digitization of power businesses such as smart power plants and renewable energy smart operations, further accelerating the digital transition of businesses.

Digitalization of management

To achieve efficient, digital management, the Company optimized the management information system and established an integrated system that is data driven and smart.



The Digitalization of Renewable Energy Smart Operations

Application of technological innovations

The Company strengthened the management of intellectual property by releasing the *Management Measures for Research Projects (Tentative)*, which defines the scope and requirements for the life-cycle management of intellectual property. In addition, the Company hired professional agencies to operate its intellectual property throughout the life cycles to ensure professional management. In 2022, the Company filed 203 patent applications and had 326 patents licensed, bringing the total number of licensed patents to 2,361.

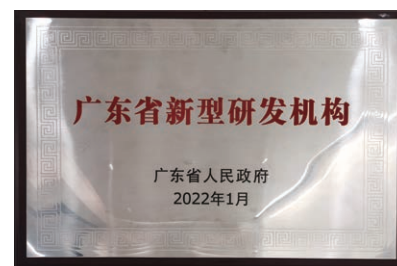
The Company continued to promote the application of its technological innovations and increase innovation capabilities. In 2022, the Technical Research Institute was recognized as a Pioneering Research and Development Institute in Guangdong Province; annual investment in research and development reached RMB 419 million, with three provincial and ministerial platforms for research and development.

Energy storage management system

The Company completed the systematic and theoretical research on controlling and improving the energy storage management system, and developed core products and technologies such as the energy management system for 100 MW independent energy storage power stations and the data cloud solution for independent energy storage power stations. Related research findings were applied to projects such as thermal power storage and frequency regulation, wind energy storage, solar energy storage, independent energy storage, and user-side microgrids. With a total installed capacity of 233MW/356.8MWh, the energy storage system realized sales of over RMB 10 million.

Integrated transformation and test technology for rapid frequency regulation of wind farms

Focusing on the primary frequency regulation of wind farms in the renewable energy sector, the Company conducted research and development on key technologies and equipment related to control scheme design, integrated system transformation and commissioning, and performance testing. As a result, the Company developed a data mining system to analyze data from primary regulation. Related research results were applied to regulate the renewable energy primary frequency of over 80 power plants with a total installed capacity of about 4.8GW under the operation of the State Power Investment Group and the Three Gorges Group.



CR Power Technical Research Institute recognized as a Pioneering Research and Development Institute in Guangdong Province

Integrated energy services

As a strategic, emerging service sector, integrated energy services can extend the Company's industry and value chain and become new growth drivers. In 2022, the Company established the Integrated Energy Development Department to manage the integrated energy services in a holistic way, organized business strategy seminars to develop CR Power's integrated energy business strategy, and formulated an integrated energy "8422" development plan, which envisioned leapfrog growth during the 14th Five-Year Plan period.

Energy management platform

Internally, the Company implemented the management model of 1 Platform + N Projects, connecting the integrated energy projects of regional companies to the energy management platform for remote management. Externally, the Company helped customers with granular energy consumption management by combining energy consumption data, distributed clean energy data, production data, and financial metrics.

Case Study: Smart Energy Management Enables the Sustainable Development of China Resources Sanjiu

December 2022 saw the completion of the Sanjiu Lean Energy Management Platform, a joint initiative between the Company and China Resources Sanjiu, which features information monitoring, systematic computing, quantitative analysis of metrics, and automated assisted decision making, among others. It enables China Resources Sanjiu to optimize its energy management model and facilitate smart energy management toward the goal of a sustainable future. The platform was connected to seven pharmaceutical factories and helped China Resources Sanjiu pass the formal evaluation of Level 4 Maturity of Smart Manufacturing Capability.



Note: Data for demonstration only.

Virtual power plant

Virtual power plants utilized communication and control technologies to integrate distributed power supply, energy storage, user controllable load, charging piles, and other flexible resources and became part of the power market and grid. These power plants facilitated supply and demand balance and green low-carbon transition while enabling two-way interaction between users and the power grid.

Energy storage application

Featuring rapid power regulation, energy storage technology can supplement the insufficient regulation capacity of the electricity system caused by renewable energy connection. Unbalanced power in the system can be quickly balanced and energy can be transmitted in an instant, so that the system can provide high-quality regulation. In 2022, CR Power's Changshu 24MW energy storage frequency regulation project was formally put into operation.

Promoting Cooperation

CR Power always values open exchange and cooperation. It continued to promote the standard management of suppliers, pushed suppliers to perform their social responsibilities, strengthened interaction and cooperation with ecosystem partners, and increased collaboration across the industry in promoting renewable energy development and technological progress in the industry.

Responsible supply chain

The Company strengthened the management of its supply chain system. Firstly, it reinforced supplier management by revising the *Management Measures for Suppliers* to include such measures as managing the supplier pool, conducting annual supplier performance reviews, and penalizing dishonest suppliers together with the subsidiaries. The Company also revised the *Management Rules for Procurement* to introduce systematic procurement supervision, self-inspection, and analysis methods, which can identify and rectify existing problems in a timely manner and hence prevent procurement risks.

In 2022, the Company reviewed 9,861 suppliers, achieving 100% responsible procurement and 100% equipment localization. All of these suppliers have passed the quality management system certification, environmental management system certification, and occupational health and safety management system certification.

Honest procurement

In accordance with industry practices and business ethics, the Company made honest and compliant procurement. Internally, employees were required to observe the *Code of Integrity* in procurement. Externally, suppliers were required to sign the *Sunshine Declaration*, which clarifies both parties' integrity responsibilities and penalties and promotes honest performance by suppliers.

Performance review

Each contract performer evaluated the corresponding supplier for each order. The evaluation formed the basis of the annual supplier review, which further informed the management of qualified suppliers by grade and category, while delinquent suppliers will be subject to exit, restrictions in concluding purchase contracts, or other punishments.

Promoting compliance

The Company required each supplier to sign an EHS (Environmental, Health, and Safety) management agreement that incorporates requirements for the timely payment of migrant workers' wages, proper and safe construction, and environmental protection, pushing supplier to perform social responsibilities. The Company also held regular training such as the "Procurement Lecture" to increase the compliance awareness of procurement personnel and suppliers.

Number of Suppliers by Region

Jiangsu	1,350	Shanxi	219	Beijing	471
Henan	1,181	Hunan	298	Qinghai	39
Guangdong	871	Anhui	326	Tibet	3
Hubei	556	Ningxia	78	Jilin	59
Hebei	754	Gansu	170	Shanghai	313
Shandong	598	Heilongjiang	96	Xinjiang	22
Inner Mongolia	345	Shaanxi	223	Hainan	13
Liaoning	576	Yunnan	110	Tianjin	159
Guangxi	202	Sichuan	196	Overseas	36
Zhejiang	288	Jiangxi	92		
Guizhou	124	Fujian	93		

Industry cooperation

As one of the initiators of the China Smart Energy Industry Alliance, the Company actively assisted in the formulation of national standards and specifications for the smart energy industry, the development of Internet platforms for the energy industry, and the generation and sharing of relevant data. The Company also held fruitful, high-level exchanges such as Smart E School with Huawei, Chint New Energy, and the Institute of Engineering Thermophysics of the Chinese Academy of Sciences.

The Company actively cooperated with hi-tech companies, universities, research institutes, and local governments to advance technological frontiers of the industry such as renewable energy development and energy storage.

Strengthening cooperation

The Company continued to expand cooperation in the industry, signing strategic cooperation agreements with Huawei Digital Energy and Sany Heavy Energy with the purpose of leveraging their complementary strengths in the renewable energy sector to achieve common development. The Company also stepped up strategic cooperation with customers including China National Grain Storage Corporation and Haier Group to promote scale development of integrated energy businesses.

Case Study: CR Power and Huawei Digital Energy Signed a Framework Agreement on Strategic Cooperation

In January 2022, CR Power and Huawei Digital Energy signed a strategic cooperation framework agreement in Dongguan. Riding on their advantages in the energy and power sectors, information and communication technology industries, they would cooperate on energy projects, smart big data platforms for photovoltaic power stations, smart power plants, digital transition, energy storage systems and integrated solutions, joint innovation and intelligent security and communications. They would contribute to the carbon neutrality goal through the development of clean energy and the promotion of digital and smart energy.



Promoting cooperation with industry partners, universities, and research institutes

The Company valued exchanges and collaborations with industry partners, universities, and research institutes. It invited industry partners such as Roland Berger and Huawei Digital Energy to its strategic seminar on energy technology to discuss the overall strategies for the energy technology business. It deepened cooperation with universities such as Hong Kong Polytechnic University and Tianjin University of Technology in the areas of technological innovation, translation of achievements, and student exchange and training, and jointly promoted research and innovation in the renewable energy sector. It has also joined institutes such as Nanjing Branch of China Electric Power Research Institute and Qinghai Electric Power Research Institute of State Grid Qinghai Electric Power Company to conduct researches on the performance of solar power storage systems, providing technical support for the safe and stable operation of the new power systems.



Strategic Seminar on Energy Technology
Hosted by CR Power



Exchange between CR Power and Tianjin
University of Technology



Deepening cooperation with government

The Company stepped up exchanges and cooperation with local governments, signing strategic cooperation agreements with the Liangshan government, the Weidu district government at Xuchang of Henan province, the Heze municipal government in Shandong province and the Baodi district government in Tianjin on the renewable energy sector and the construction of renewable energy projects. Leveraging years of experience in green energy, the Company also assisted Jiangxi, Zhejiang, and Shanghai in carrying out carbon emission verification projects, and signed a strategic cooperation framework agreement with the Qingliu government of Fujian province on developing forest carbon sinks. In a word, the Company has joined hands with governments at all levels to meet the dual carbon goals.



Project cooperation agreement between CR
Power and the Liangshan government



Project cooperation agreement between CR
Power and the Weidu district government at
Xuchang

Outcomes

22,340 employees

65 hours of training per capita

1,648,244 hours of safety training in total

SDGs

3 GOOD HEALTH AND WELL-BEING



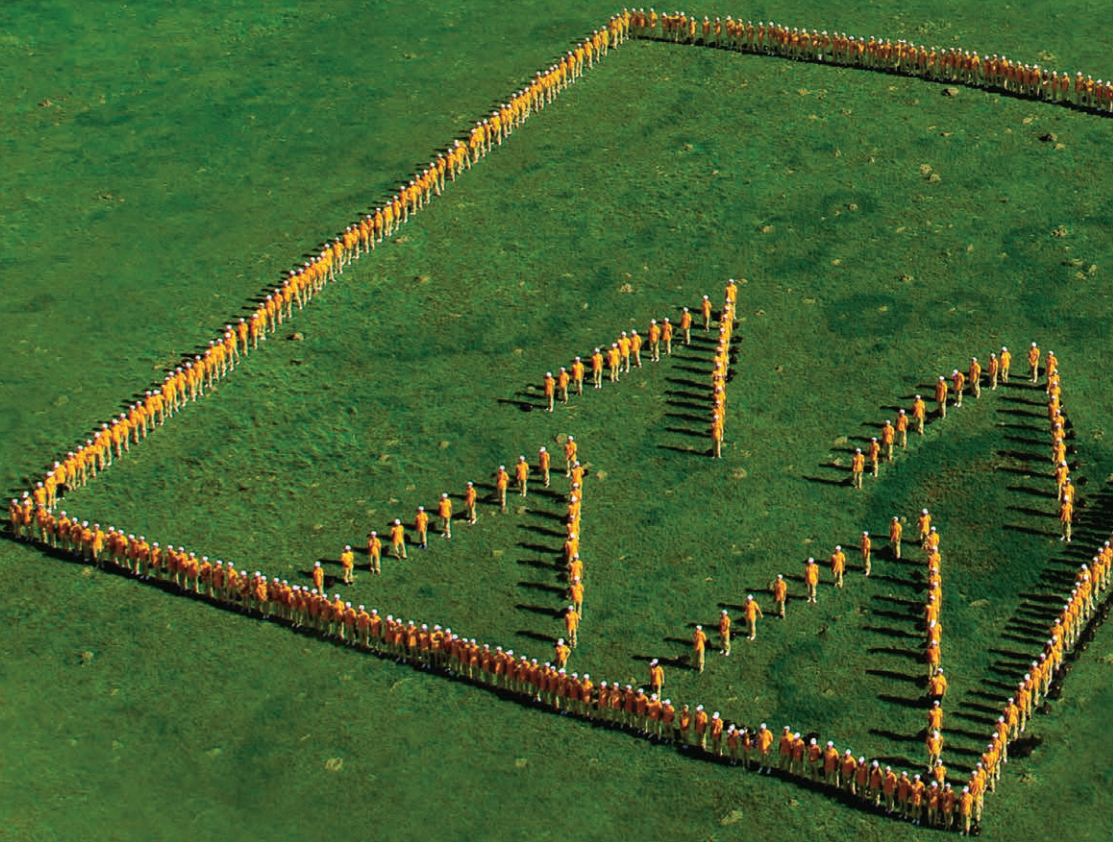
4 QUALITY EDUCATION



5 GENDER EQUALITY



8 DECENT WORK AND ECONOMIC GROWTH



Respecting and Thriving with Employees

Challenges

In October 2022, General Secretary Xi Jinping pointed out at the 20th National Party Congress that we must regard talent as our primary resource and implement the workforce development strategy, and that cultivating a large workforce of high-quality talent who have both integrity and professional competence is of critical importance to the long-term development of China and the Chinese nation. Likewise, CR Power considers employees as the major driver and source of its sustainable growth. Meeting their needs, protecting their rights and interests, and training them into skilled workers have a significant bearing on shaping corporate culture, achieving strategic goals, and facilitating corporate transformation.

Actions

- Protected employees' rights and interests in accordance with law, provided equal employment opportunity and competitive remuneration and benefits, established internal communication platforms, and preserved personal privacy;
- Built a "3+1" workforce, improved employee training system, and opened promotion channels to help employees develop;
- Intensified management of occupational health and safety, helped employees in difficulty, cared for female employees, and carried out interesting cultural and sports activities to balance work and life for employees.

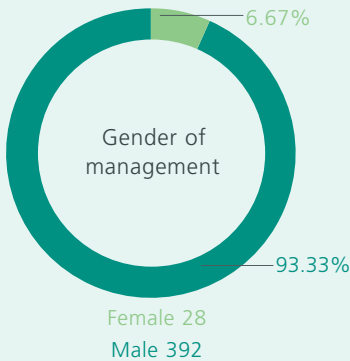
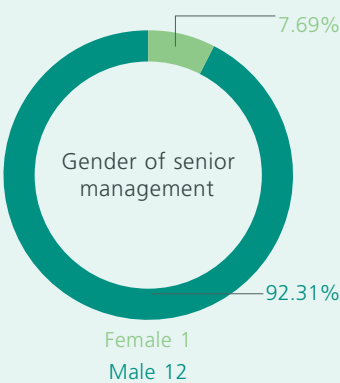
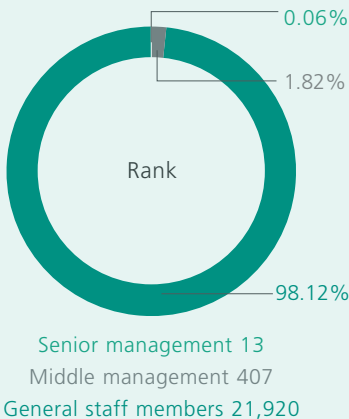
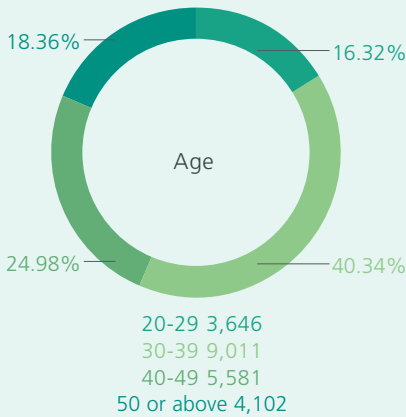
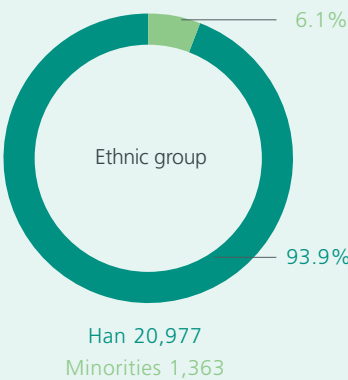
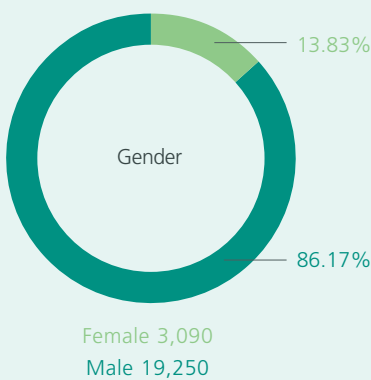


Respecting Employees' Rights and Interests

Always putting employees first, the Company provided fair and impartial employment opportunities, protected the legitimate rights and interests of employees according to law, created more jobs through several initiatives, offered competitive remuneration and benefits, broadened democratic communication channels, created an inclusive and open training environment, and built harmonious and stable employment relations, so that the Company can thrive with employees.

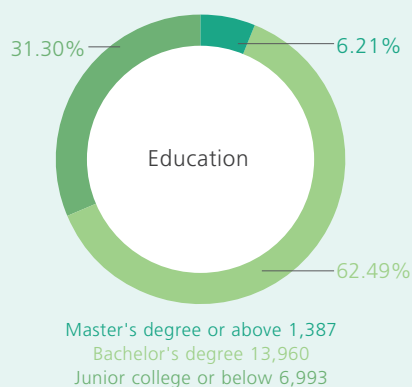
Always recruiting according to law

The Company strictly complied with the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, and other applicable laws and regulations, supported the *Universal Declaration of Human Rights* and the *International Bill of Human Rights*, respected the human rights provisions of the International Labor Organization and the United Nations Global Compact. Specifically, the Company advocated for diversity and equal opportunity, prohibited all forms of discrimination, opposed all forms of forced labor,

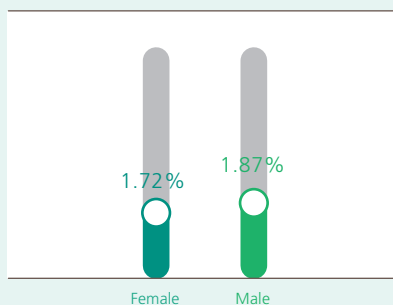


harassment, and abuse, refused to recruit children, and equally treated employees of different nationalities, races, genders, religions, and cultural backgrounds. In 2022, the Company registered no complaints about human rights, no major labor disputes, and no child labor.

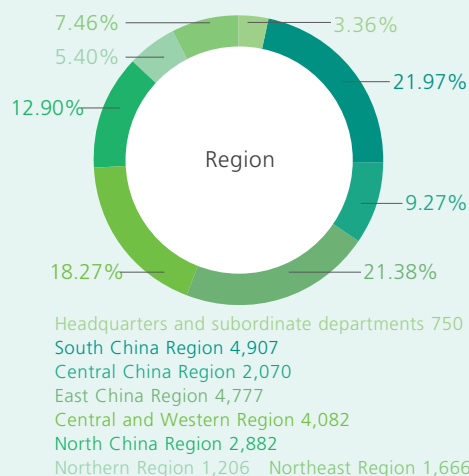
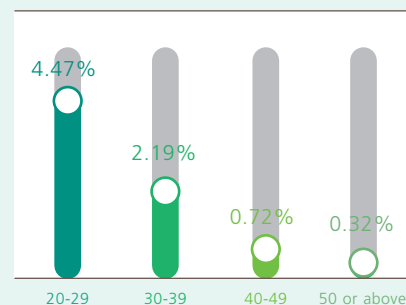
The Company formulated the *Management Measures for Recruitment*, which lays out the management of recruitment activities, including keeping confidential employees' information such as biography, family, remuneration, and health condition that may be required for recruitment, assessment, remuneration negotiation, and other processes, signing labor contracts with employees pursuant to law, and providing agreed working conditions and remuneration. In accordance with the *Management Provisions on the Selection and Appointment of Managers* and other applicable provisions, the Company took more measures to prevent internal employees from recruiting their families, in order to create a fair, impartial, and open environment. In 2022, the Company signed labor contracts with 100% of its employees.



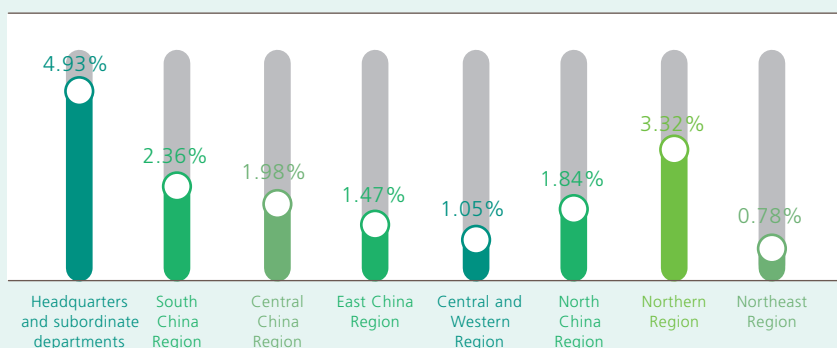
Turnover rate by Gender



Turnover rate by Age



Turnover rate by Region





Promoting stable employment and creating more jobs

In implementing the national policy for stabilizing and expanding employment, the Company tried its best to offer jobs to vulnerable groups, and brought in talents to develop its key and innovative businesses through the official website, official Weibo account, job-hunting websites, social media, government recruitment platforms, and other channels. The Company also met the employment, training, internship, and social practice needs of Hong Kong undergraduates through more channels. In 2022, the Company hired 1,496 employees, including 548 campus hires and 948 professional hires.

Attracting top talents

The Company explored flexible workforce, sought the dividend of top talents in the energy industry, created a larger pool of skilled frontline workers, and attracted talents through campus hiring, professional hiring, recruitment programs, and other channels. In 2022, the Company carried out spring, summer, and autumn hiring sessions, the Pioneer Program, and similar campaigns, in a bid to promote high-quality development.

Contributing to the employment of Hong Kong youth

The Company rolled out the Takeoff Program together with the Guangdong Provincial Communist Youth League Committee, which was designed to provide summer internships to Hong Kong university students, making easier their graduation and employment—two of the four challenges facing them. The Company also offered a platform for the employment and growth of Hong Kong youth, and provided them with employment and development opportunities in the Chinese mainland, which will enable them to become part of the country's development.



Summer internships for Hong Kong undergraduates

Offering jobs to vulnerable groups

The Company provided job opportunities for undergraduates, ex-servicemen, migrant workers, and other vulnerable groups. To support the national strategy of strengthening the military through reform, the Company reserved some vacancies for ex-servicemen every year. In 2022, the employers under the Company took active part in the outplacement interviews for ex-servicemen, and offered them jobs according to the requirements of relevant outplacement agencies. A total of 21 jobs were provided, 13 of which were already assumed.

Optimizing the remuneration and benefits system

In line with the strategies of the 14th Five-Year Plan and its own business and management characteristics, the Company optimized its remuneration and benefits packages to create a compliant, fair, incentive, flexible, and robust system. Employee performance assessments were strongly promoted across the Company to stimulate vitality and sustained and sound development. In 2022, the Company purchased social insurance for 100% of its employees, and provided 8 days of paid leave for each of them.

Remuneration package	Performance assessment	Incentive scheme	Benefits policy
The Company made a plan to develop consistent remuneration packages that focus on employees and businesses. To be specific, it set forth consistent items and standards for the subsidies and allowances/benefits of all affiliates, increased the share of regular salary for frontline workers, and changed the basis for determining total bonuses to annual performance to encourage value creation, control size, and stimulate vitality.	The Company assessed the performance of all staff members and set up an incentive and constraint system as well as a communication and feedback mechanism for the assessment results. Managers were subject to contract-based management as well as annual assessment and three-year tenure assessment. Their assessment results were more closely linked to their remuneration incentive, which was also influenced by the sustainability performance, such as renewable energy market size.	The Company implemented a comprehensive scheme covering cash and non-cash, short-term and long-term, material and immaterial compensation, and tied short-term employee incentive to organizational and personal performances. Under the overall guidance of CR Group, the Company formulated a tenure-based incentive scheme that motivates key employees by linking their income with the Company's business performance and progress toward strategic goals.	The Company formulated the <i>Guidelines of the Headquarters for Attendance Management</i> to protect employees' rights to rest and leave. In addition to social insurance and housing fund contributions, it also maintained supplementary pension insurance and commercial insurance for employees. It guaranteed that pregnant employees can enjoy maternity leaves and that female employees have equal access to remuneration, benefits, and career opportunities as their male peers.

Facilitating democratic management

Respecting employees' right to know and supervise, the Company set up a labor union at its Headquarters, and directed subsidiaries to establish their labor unions. It created exchange platforms and communication channels, such as forums, leader's mailbox, and annual reporting interview, to hear the voice of employees. The culture of affiliates was evaluated from such dimensions as consistent goals, dedication, collaboration, performance, and team efficiency. A talent assessment system was also developed based on comprehensive performance to bring out the career ambitions of managers and general staff members. By the end of 2022, the Company had 167 labor unions.



The 3rd congress of the labor union of the Yichang Company

Motivating Employees to Progress



In 2022, the Company spent

RMB **18.78** million

on staff training for a total of

1,414,900 hours

Carrying out the 14th Five-Year Talent Plan of the CR Group, the Company strengthened its employee training system, opened up the career paths, and turned human resources into innovation, competition, and development advantages, thus lending solid organizational and manpower support for growing into a top clean energy supplier and integrated energy service provider in the world.

Improving capabilities and qualities

To promote staff growth, the Company drew up the *CR Power 14th Five-Year Talent Plan*, which specifies the guidelines, basic principles, and major objectives of human resource development. The Company also formulated the *Rules for Sending Headquarters Employees to Training*, the *Management Measures for Internal Trainers*, the *Guidelines for the Three-Year Training of Fresh Graduates*, and other rules, which intend to empower employees across their career life by designing differentiated and customized training programs for managers, technical professionals, and skilled workers at various levels.

The Company encouraged the staff to pursue academic degrees and take tests for professional titles or qualifications, as a way to invigorate them to create more value. In 2022, the Company spent RMB 18.78 million on staff training for a total of 1,414,900 hours. The staff training, leadership training, and skill training covered 100% of the relevant employees.

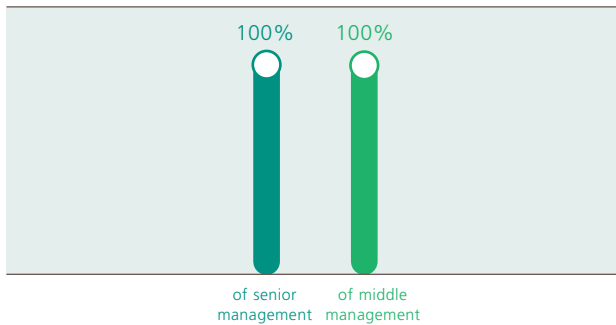
Training key employees: The Company conducted staff training by level and category, focusing particularly on key employees such as managers, high potentials, and business leaders. Each Region also joined hands with regional companies in training middle-level and frontline leaders and skilled workers. This encouraged top-down collaboration to develop a qualified, well-structured, and vigorous workforce with sufficient numbers of skilled workers, technological professionals, and outstanding managers.

Optimizing training system: The Company built an interconnected employee training system that launches training programs by combining development tools such as comprehensive evaluation, employee assessment, and professional title appraisal with facilitators, internal trainers, practice bases, and online platforms.

CR Power Staff Training Programs in 2022 (Non-Exhaustive)

Programs	Trainees	Figures
Juneng Training Course for High Potentials	57 reserve heads from regional companies	3 sessions of face-to-face training
Juli Training Course for HR Heads	88 HR heads from Regions and regional companies	4 days of face-to-face training
Jucai Training Course for Finance Heads	52 finance heads from Regions and regional companies	1 session of face-to-face training
Juxing Training Course for Graduates with 3-5 Years of Working Experience	80 outstanding graduates with 3-5 years of working experience	2 sessions (6 days) of face-to-face training
Training Course for "Rising Stars"	531 fresh graduates	2 months of intensive training
Training Course for "Shining Stars" from Central and Western Region – Upskilling Program for Renewable Energy Operators	106 key employees in renewable energy sector	21 days of intensive training
Training Program for North Xinjiang Constructors from Northern Region	120 constructors	2 sessions of face-to-face training

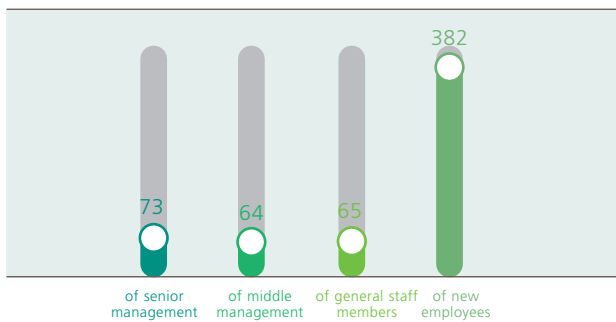
Training coverage of managers



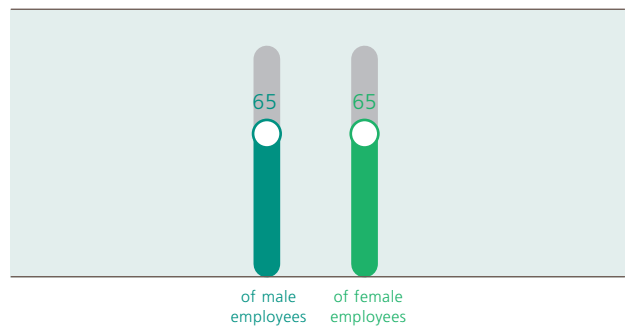
Training coverage of ordinary employees



Per capita training hours by rank and category of employee



Per capita training hours by gender



Opening ceremony of Juneng Training Course for High Potentials & training course on Strategic Planning



Opening ceremony of CR Power North China Region third camp (power camp) training course for Rising Stars in 2022

Contributing to career development

In order to develop a better workforce and talent pool that can ensure the implementation of the Company's 14th Five-Year Plan, the Company has been optimizing its role-based hierarchy since 2021. To be specific, the Company revised the *CR Power Hierarchy Chart* to map job titles to ranks, facilitated staff exchanges between headquarters, Region, and regional companies, set the eligibility criteria for promotion, and conducted regular assessments each year. These efforts have enabled horizontal and vertical job rotations between headquarters, Regions, and regional companies.

Caring for Employees



the Company invested over
RMB 286.53
million in production safety,
and registered no production
accidents and no casualties

CR Power cared for the work and life of employees. It created a harmonious and inspiring culture and strengthened the management of production safety to promote the physical and mental health of staff members, especially minority groups. It also held interesting events after work to relieve occupational stress. Employees have enjoyed happier work and healthier life and felt a stronger sense of engagement, contentment, identity, and happiness.

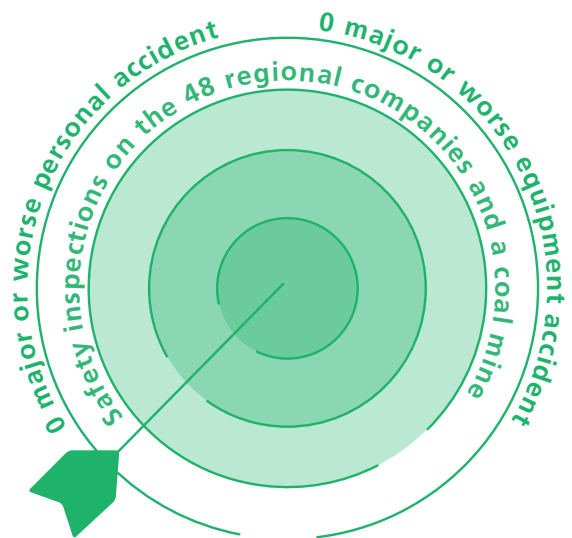
Ensuring production safety

Adopting a safety first, prevention first, and comprehensive management policy, the Company carried out special programs to ensure production safety, improved its capability to deal with emergencies, and heightened awareness of production safety, so as to create a safe and stable environment for its high-quality development. In 2022, the Company invested over RMB 286.53 million in production safety, and registered no production accidents and no casualties. During the year, the number of working days lost due to workplace injury caused by accidents in commuting and non-production activities was 401.

	2020	2021	2022
Number of work-related deaths	0	0	0
Work-related death ratio	0	0	0

Safety management

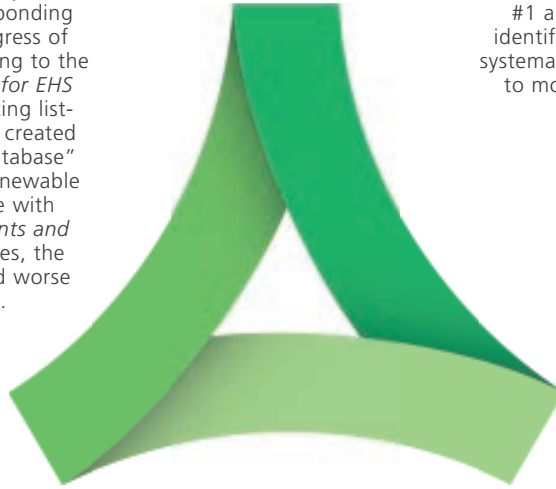
The Company updated and issued production safety rules including the *Management Measures for Production Safety Objectives and Responsibilities*, the *Accountability for EHS Accidents and Incidents*, the *Management Measures for EHS Information Transmission and Reporting*, the *Guidelines for Safety Risk Classification and Control*, and the *Guidelines for the Management of EHS Stakeholders*, which specify production safety objectives and the responsibilities of each affiliate for production safety management. Each affiliate set up an EHS committee, chaired by its head and with an EHS committee office responsible for routine tasks.



CR Power production safety objectives

Fulfilling safety responsibilities

The Company held all employees accountable for production safety and required them to sign a letter of commitment on EHS objectives, which clarified their responsibilities for production safety. The Company also developed a corresponding control system, assessing the progress of production safety objectives according to the *CR Power Management Measures for EHS Performance Evaluation*. In promoting list-based management, the Company created “three cards, two lists, and one database” covering the thermal power and renewable energy businesses. In accordance with the *Accountability for EHS Accidents and Incidents* and other applicable rules, the Company investigated general and worse EHS accidents and incidents.



Starting safety inspection

The Company set up “1+10” safety indicators according to the EHS risk profile of existing businesses, and trained and certified 1,446 inspectors in two batches to inspect the 48 regional companies and west mine #1 and follow up on the rectification of identified problems. Inspection results were systematically analyzed with the scores ranked to motivate the affiliates to improve their management level.

Maintaining two drivers

The Company further integrated Party building with its businesses by giving full play to the exemplary and crucial role of Party members in safety management and launching pioneering campaigns such as Party members breaking no rules and Party members setting models. In 2022, the Jinzhou Company created a “Boat of Splendor”— a benchmark Party building brand, which brought business breakthroughs through Party building and EHS management; the Shenshan Company promoted the “Party Members Revealing Identity, Duties, and Undertakings” campaign, which improved the routine maintenance of units; the Hezhou power plant set up a temporary Party branch for 205B service, allowing party members to play their exemplary role.



CR Power ceremony for signing letters of commitment on EHS objectives in 2022



Communist party members participating in the 205B overhaul at Hezhou Power Plant

Emergency support

The Company carried out special campaigns to rectify production safety problems, identified and eliminated hidden hazards, and made a comprehensive plan that clarified emergency management and response procedures, minimizing casualties, property losses, environmental damage, and social impact.

Conducting special rectification

The affiliates at all levels carried out the 12 special rectification programs developed by the Production safety Committee of the State Council, the National Energy Administration, the State-owned Assets Supervision and Administration Commission, and the CR Group, held 3 special meetings, made and implemented 9 action plans, and identified 3,640 hidden hazards, 3,367 or 92.50% of which were rectified.



Identifying and eliminating hidden hazards

The EHS Department of the Company helped regional companies identify their hidden hazards and deep-seated management problems, and guided them to make rectification plans and enhance EHS management. The affiliates at all levels identified and eliminated hidden hazards through special inspections for typhoon and flood prevention, seasonal safety inspections, and general inspections for production safety. In 2022, they identified 28,872 hidden hazards through EHS supervision and inspections, 99.40% of which were rectified.



Enhancing emergency capacity

The Company released the *CR Power Integrated EHS Emergency Response Plan* and 7 special plans as part of its emergency planning system. It performed emergency drills to test and build up the emergency capacity of the affiliates at all levels. It also delivered special training on typhoon and flood prevention and on disaster prevention and mitigation, and implemented the "zero" reporting mechanism during flood seasons to increase the abilities of the affiliates to prevent typhoons and floods. In 2022, the regional companies conducted 2,110 emergency drills with 32,532 participants.



Experts invited to deliver special training on disaster prevention and mitigation



Joint environmental emergency drill of the CR Group and Zixing Municipal People's Government for 2022 conducted by the Chenzhou Company

Safety culture

The Company rewarded outstanding production teams for promoting safety, and created a culture of learning from model teams by making safety plans, holding sharing sessions, and assigning star ratings. By the end of 2022, three-star or above teams accounted for over 70%, including 41 five-star ones. In response to business needs, the Company also carried out safety training on construction projects of offshore wind power plant, renewable energy plant, and coal mine. The safety training time amounted to 1,648,244 hours, including 474,988 hours for internal employees, and 1,139,836 hours for employees of stakeholders.



3-2-1 training by regional companies

Complying with safe production laws and assuming safety responsibilities, the Company conducted the Safe Production Month program, and gathered its employees to watch the educational film *Life Is beyond Everything Else*, in order to raise safety awareness across the Company. Joining hands with regional companies, the Company filmed 98 safety educational videos, in which safety accidents and incidents, and dangerous behaviors were analyzed and reflected upon once again, so that the Company and its employees can take warnings and lessons from any accident in any factory. In 2022, the Company run 36 production safety knowledge and skill contests, and 798 training sessions for 18,908 participants.



Educational video about production safety



Safety training

1,648,244 hours



798 training sessions

18,908 participants

Ensuring occupational health

In accordance with the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases* as well as other applicable laws and regulations, the Company formulated the *Management Standards for Occupational Health* to advocate a healthy work and life style. Through strengthening pandemic prevention and control, improving working environment, and launching educational programs on occupational health, the Company guided its employees to maintain occupational health, increased their health literacy, and attempted to create a safe, sound, and comfortable working environment. In 2022, the Company created an occupational health record for 100% of its employees, and saw no occupational diseases.



It delivered comprehensive training on occupational health protection via video conferencing to over

2,000 terminals

Strengthening pandemic prevention and control: The Company drew up the *CR Power Headquarters Special Emergency Response Plan for COVID-19 (2022 Edition)*, flexibly adjusted measures for pandemic prevention and control, undertook production in a reasonable and orderly manner, organized regular swab testing, distributed emergency drugs in time, and maintained stable and orderly business operations. In 2022, the Company published 165 issues of *Pandemic Prevention and Control Information Daily*, submitted 365 Pandemic Data reports, and recorded a voluntary vaccination rate of 100%.

Improving working environment: The Company upgraded dormitory furnishings, put in place clinics, health corners, and staff canteens, purchased air cleaners, and built simple fitness facilities, basketball courts, and badminton fields in living areas for sporting activities.

Valuing occupational health: The Company set up psychological counseling rooms, and held a series of lectures on health to increase healthcare awareness. It delivered comprehensive training on occupational health protection via video conferencing to over 2,000 terminals. It also worked with 3M in conducting training programs and examinations on the Occupational Health Knowledge Promoter platform, which were completed by 11,348 employees.



Lecture on how to stay healthy using traditional Chinese medicine at the East China Region

Running health roadshows: Six occupational health roadshows were organized in the Middle China Region, Central and Western Region, and Northern Region, giving employees hands-on experience of properly using personal protective equipment, and thus increasing their awareness and skills of safety protection.

Caring for employees

The Company continued to show its care for employees by giving greater support to employees in difficulty, paying consolatory visits to retired employees, protecting the legitimate rights and interests of pregnant and lactating employees, ensuring work-life balance, and developing harmonious and amicable working environment.

Supporting employees in need: The Company developed the *Management Measures for the Support Fund* as part of a long-term support mechanism that helps employees overcome difficulties in life. In 2022, the Company granted RMB 200,000 to employees in disease-induced predicaments, supported 5 employees, helped 3 employees in difficulty, gave financial aid to 2 children of employees in difficulty, and helped 5 employees suffering from diseases.

Caring for female employees: In the interest of its female employees, the Company gave a special care leave, set up a special care room, and provided psychological consulting services and exchange activities. Physical examinations that covered gynecological and breast checks were arranged for females, and lectures on premarital, pre-pregnancy, and prenatal care were also conducted from time to time. Outstanding female employees were recognized as role models.



Talent training and show at the Northeast Region on International Women's Day



Flower arrangement event at the Northern Region on International Women's Day

Enriching employees' spare-time life: For greater internal cohesion and a stronger sense of belonging, the Company held a rich variety of activities, allowing its employees to appreciate the charm of life and develop a positive mentality towards work and life.



Thematic activity celebrating the New Year



Badminton club activity

Outcomes

RMB **39.482** million of
investments in rural revitalization

1,568 employees
participated in volunteer programs

RMB **55.022** million
of charity spending



SDGs



Building Better Life through Joint Efforts

Challenges

In 2022, the National Energy Administration, the Ministry of Agriculture and Rural Affairs, and the National Rural Revitalization Administration jointly issued the *Implementation Opinions on Accelerating Rural Energy Transformation to Boost Rural Revitalization*. That presented a challenge before CR Power in supporting industry development in rural areas—how could the Company utilize resources to promote rural revitalization and agricultural modernization in line with China’s “dual carbon” goals. Another challenge was how to build a distinctive charity brand that helps improve corporate culture and facilitate corporate development.

Actions

- Utilized energy technologies and industrial advantages to drive modern agriculture, healthcare, and eco-cultural tourism development in local rural communities, making them demonstration bases of high-quality industries and models of rural revitalization; and
- Took an active part in charity activities for environmental protection, student assistance, electric literacy, and poverty alleviation, helping people pursue a better life.



Promoting Rural Revitalization



In 2022, the Company invested

RMB **39.482**

million in rural revitalization,
benefiting more than

110,000 people

Electricity is essential for rural revitalization. CR Power duly implemented China's rural revitalization strategy, empowering rural communities through paired assistance, electric infrastructure donation, free assistance to farmers, and other measures that suit local development reality. In 2022, the Company invested RMB 39.482 million in rural revitalization, benefiting more than 110,000 people.

Accelerating energy transition and industrial upgrading

As a company dedicated to wind, thermal, solar, and hydro power, we accelerated energy transition and industrial restructuring for higher quality and efficiency, promoting rural development and farmers' income in a way that generates economic, environmental, and social benefits.

Central China Region: The Xianning Company built large thermal power plants, "Integrated Wind-Solar-Thermal Power Generation + Battery Storage" systems, and "PV Plus" energy bases to power the synergetic development of several industries, including modern planting, modern breeding, green mining and further mineral processing, shipping logistics, cultural tourism, and healthcare. These facilities offered a solution for the Three Rural Issues, creating a new model of green development that revitalizes rural areas through large energy bases.

South China Region: The China Resources Power New Energy Investment Limited signed an agreement with the Shijiao Township People's Government for local revitalization through a PV project. The project will combine power generation with fish farming by building a PV station above a fish pond.

Case Study: Fishery-light Solar Farm propels rural revitalization

In 2022, the phase 1 unit of the 350 MW CR Power Chibi Riyao Complementary Solar Farm was connected to the grid, becoming the largest of its kind in Hubei Province. The solar farm also represented CR Power's first "PV Plus" project integrating PV power generation with water governance, eco-friendly fish farming, ecological restoration, and eco-friendly agriculture. It adopted industrial development models, ecological governance solutions, land transfer, and other measures to improve land use efficiency and create a better ecosystem, bringing both economic and social benefits. The project is expected to set an example in the Central China Region and even the whole country, providing a "Chibi Model" for CR Power's high-quality development during the 14th Five-Year Plan period.



Riyao Fishpond Solar Farm

Contributing to environmental protection

Based on local resources, we developed solar and wind projects to empower rural ecological progress and economic development with clean energy.

Northeastern Region: The Shenyang Company promoted the “Green Energy” development model. It launched the Faku rooftop distributed PV system (Phase I) project across the whole county and the 200 MW Faku wind farm phase I project, in a bid to revitalize rural areas with green energy.

South China Region: Utilizing idle land and idle plant rooftops, the 60 MW Niubeiling PV Power Project in Fuchuan Yao Autonomous County and the 15.2 MW distributed PV project in the Hezhou CR Circular Recycling Economy Industry Demonstration Zone effectively reduced coal consumption and carbon emissions, transforming ecological value into the advantages of urban sustainable development.



Faku PV Power Project



60 MW Niubeiling PV Power Project in Fuchuan Yao Autonomous County



15.2 MW distributed PV project in the Hezhou CR Circular Recycling Economy Industry Demonstration Zone

Providing stable investment

We pioneered government ownership and charity donations to ensure and improve people's wellbeing while achieving self-development. Specifically, the China Resources Power New Energy (Tanghe) Company Limited established a joint venture with Tanghe County Poverty Alleviation and Development Investment Company Limited. The state-owned company has given out all its dividends received from the joint venture as rural revitalization funds to improve local living standard and economy. A total of RMB 8.16 million was distributed in 2022.



Engaging in Charity



In 2022, **1,568**
employees participated in
296 volunteer activities

Aligning with its culture of “Making Money in the Right Way and Spending Money for Society”, CR Power has been engaging in charity activities and drafted the *Management Measures for External Donation*. It practiced philanthropy in the society through programs of environmental protection, student assistance, electric literacy, poverty alleviation, and epidemic control assistance. In 2022, 1,568 employees participated in 296 volunteer activities; the charity spending totaled RMB 55.022 million.

Advancing non-profit afforestation programs

In support of the green development concept, we rolled out non-profit afforestation programs to conserve water, maintain fertilizer, reinforce soil, capture carbon, produce oxygen, and purify the air.

In Haiyuan county of Ningxia, trees planted by us have become an important water conservation area and ecology support area that improves local environment and prevents soil erosion. People there now live among lucid waters and lush mountains. By the end of 2022, we had spent RMB 28.4 million to build 1,686 mu of forests.



Haiyuan CR Power Forest

Assisting students in need

As part of our efforts in communities and education, we built energy classrooms and donated school and home supplies to students in need, helping them to achieve academic success.

Under our Energy Action program, we have spent RMB 600,000 to build three energy classrooms in Guangxi, Sichuan, and Henan provinces. In South China Region, the Guangxi Company launched the “Your Dream, My Dream” student assistance program, subsidizing 17 college freshmen from 9 villages; the Chenzhou Company conducted the “Love in Books” donation campaign, which gave more than 1,000 children’s books, filled with love and best wishes, to kids from the Baishu Village.



“Your Dream, My Dream” student assistance program by the Guangxi Company



“Love in Books” donation campaign by the Chenzhou Company



Promoting electric safety

We disseminated the knowledge of safe, economical, and proper use of electricity to the public through a series of measures, such as public open days, education classes, and electric safety consultations, so as to improve people's awareness and ability of electric safety.

On the 7th public open month themed "Green Power," about 1,300 guests from all walks of life visited the subsidiaries of CR Power, having a glimpse into the Company's green development. At the "Electricity Classes," our volunteers shared electric safety knowledge and skills with kids, contributing to a society of electric safety.



about

1,300

guests from all walks of life visited the subsidiaries of CR Power, having a glimpse into the Company's green development



Public Open Day at Hezhou Power Plant



Families of employees from the Dengfeng Company visiting the green power plant

Caring for people

The top priority of our efforts has always been helping the needy, particularly elders in welfare homes, left-behind children, and the poorest, thus to create a happy and harmonious community.

We visited old people's homes in Hong Kong, donating living supplies to the elders and delivering them online performances by young employees, as a way of showing the kindness and greetings from a state-controlled company. The Xianning Company in Central China Region carried out the "Little Wishes" campaign for the fourth consecutive year, sending holiday gifts and the warmth of CR Power to 43 disadvantaged children in the Pufang Industrial Park in Chibi City.



A visit to the Helping Hand Father Sean Burke Care Home for the Elderly



Assistance from the Xianning Company in Central China Region to disadvantaged children

Fighting against COVID-19

We adjusted pandemic prevention and control requirements flexibly and issued the *COVID-19 Contingency Plan*, fighting against the pandemic by implementing regular control measures, volunteering on the frontline, donating supplies, and launching online programs to assist rural areas. In 2022, the Company donated RMB 1.034 million to areas overwhelmed by the virus.

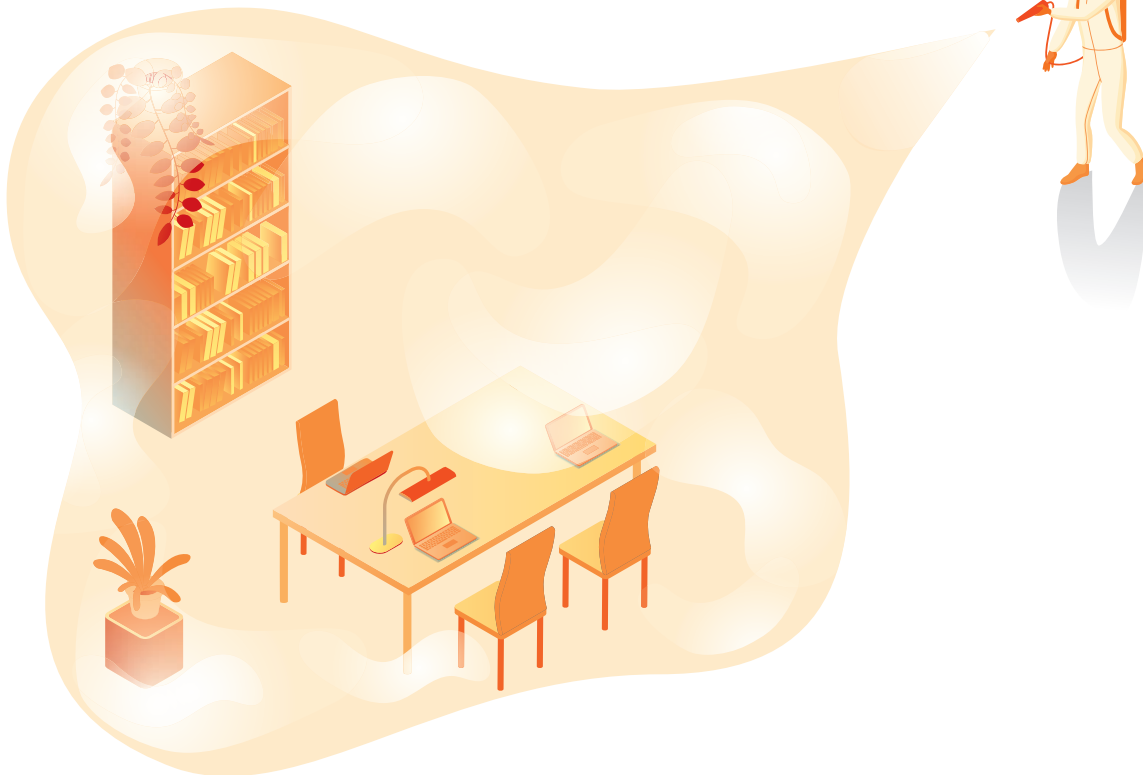
The Inner Mongolia New Energy Company in North China Region established a COVID-19 leading team consisting of Party members to join the prevention and control of two neighborhoods in Baolian Community, an effort that help expedite the restoration of normal work and life in Xilinhot City. The Yunnan Company in South China Region donated 30 bags of rice, 30 barrels of rapeseed oil, 72 bags of noodles, and 100 boxes of C'estbon mineral water to the Red Cross Society of Mengla County, demonstrating its social responsibility.



Volunteers from the Inner Mongolia New Energy Company in North China Region on the pandemic frontline in Baolian Community



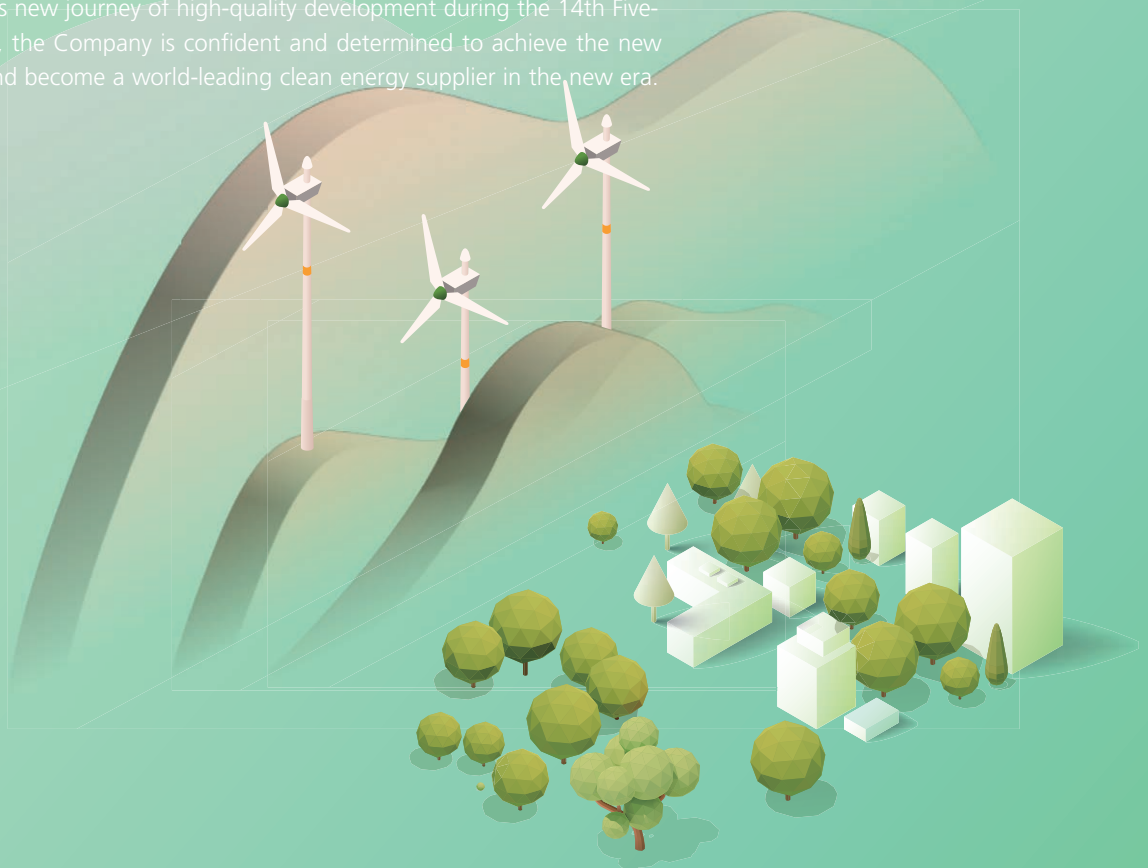
Donations from the Yunnan Company in South China Region to the Red Cross Society of Mengla County



A Glance at the Future

The year 2023 marks a critical juncture for the implementation of the 14th Five-Year Plan. Facing new situations, new opportunities, and new challenges, CR Power will continue the clean and low-carbon transition, promote intelligence and innovation, and focus on renewable energy, trying to increase renewable capacity of 40 GW by the end of the 14th Five-Year Plan period or earlier. To this end, the Company will further improve quality and efficiency, speed up innovation and transition, increase research and development investment, and focus on the development of hydrogen energy, energy storage, carbon reduction, and CCUS. With the help of innovative technologies, the Company will provide more integrated energy services, such as distributed energy, virtual power plants, smart heat supply, integrated wind-PV power generation with hydrogen production, and zero-carbon industrial parks. In addition, the Company will further improve the corporate governance system, and share resources and cooperate more closely with partners to create an interconnected business environment. Pursuing breakthroughs in the transition and ever-higher quality and efficiency, the Company will move steadily towards a world-class clean energy supplier and integrated energy service provider.

Embarking on this new journey of high-quality development during the 14th Five-Year Plan period, the Company is confident and determined to achieve the new strategic goals and become a world-leading clean energy supplier in the new era.



Appendix

Major Social Responsibility Awards

Awards	Conferred by	Recipients	Date
Ranked Second in the Central SOE Pioneer 50 Index Rated a Five-Star Company	SASAC China Social Responsibility 100 Forum	China Resources Power Holdings Co., Ltd.	Nov. 2022
Included as an excellent case in the Blue Paper	Research Group for the <i>Blue Paper on ESG of Listed Central SOEs (2022)</i>	China Resources Power Holdings Co., Ltd.	Nov. 2022
Dual Carbon Pioneer Award under the CSR Golden Bull Award	SASAC China Social Responsibility 100 Forum	China Resources Power Holdings Co., Ltd.	Nov. 2022
Included to Hang Seng ESG 50 Index for three consecutive years Included to Hang Seng Corporate Sustainability Benchmark Index for three consecutive years	Hang Seng Indexes Company Limited	China Resources Power Holdings Co., Ltd.	Aug. 2022
Ranked 3rd in the Greater Bay Area Business Sustainability Index	CUHK Centre for Business Sustainability (CBS) CUHK SGS Hong Kong	China Resources Power Holdings Co., Ltd.	Sep. 2022
Environmental, Health and Safety Award – Platinum Green Management Award – Gold Corporate Green Governance Award – Environmental Monitoring and Reporting	Hong Kong Green Council	China Resources Power Holdings Co., Ltd.	Dec. 2022
Low-Carbon, Innovative, Responsible Company	China Energy News	China Resources Power Holdings Co., Ltd.	Jan. 2022
Healthy Company of Jiangsu Province	Jiangsu Commission of Health Office of Jiangsu Provincial Patriotic Health Campaign Committee	Jiangsu Zhenjiang Power Generation Co., Ltd.	Feb. 2022
2021 Excellent Company for Power Production Safety in Hunan Province	Hunan Supervision Office of National Energy Administration	China Resources Power (Hunan) Co., Ltd.	Mar. 2022
First prize in the 28th Jiangsu Province Business Management Modernization Innovations Award	Review Committee of Jiangsu Province Business Management Modernization Innovations	China Resources Power (Xuzhou) Co., Ltd. China Resources Power (Tongshan) Co., Ltd.	Apr. 2022
AAA-Grade Generator in 600 MW-Class Supercritical Pure Condensing Liquid-Cooled Generators (2021)	China Electricity Council	China Resources Power (Changshu) Co., Ltd.	May 2022
2021 Responsible Company of the Year in Henan Province	Stateowned Assets Supervision and Administration Commission of Henan Provincial People's Government	China Resources Power Central and Western Region Branch Company	May 2022
2021 Advanced Green Development Company in Henan Province	Department of Ecology and Environment of Henan Province	Henan China Resources Power Shouyangshan Co., Ltd.	May 2022
#1 unit rated as 5A-Grade Generator in 600 MW- Class Supercritical Heat Supply Liquid-Cooled Generators	China Electricity Council	Henan China Resources Power Shouyangshan Co., Ltd.	May 2022
#2 unit rated as 4A-Grade Generator in 600 MW- Class Supercritical Heat Supply Liquid-Cooled Generators	China Electricity Council	Henan China Resources Power Shouyangshan Co., Ltd.	May 2022
Included in the Second List of Best Practice Cases of Corporate Safety Culture	Ministry of Emergency Management	China Resources Power (Jiaozuo) Co., Ltd.	May 2022
Second prize in the 5th National Plant Engineering and Technology Innovations Award	China Association of Plant Engineering	Nanjing Chemical Industrial Park Thermal Power Co., Ltd.	Jun. 2022
Healthy Company	Department of Occupational Health of the National Health Commission	China Resources Power (Tangshan Fengrun) Co., Ltd.	Jun. 2022
Application of Phased Array Solution in Wind Turbine High-Performance Bolts Detection won second prize in the National Plant Engineering and Technology Innovations award	China Association of Plant Engineering	China Resources New Energy (Linfen) Wind Power Co., Ltd.	Jun. 2022

Awards	Conferred by	Recipients	Date
Outstanding Contributor to Pollution and Carbon Reduction in Guangdong Province	Department of Ecology and Environment of Guangdong Province	Shenzhen Shenshan Special Cooperation Zone China Resources Power Co., Ltd.	Jun. 2022
Benchmark Laboratory in the Power Industry	National Technical Committee on Chemistry in the Power Industry	China Resources Power (Bohai New Area) Co., Ltd.	Jul. 2022
Second prize in the Power Science and Technology Forum Paper Award	China Electricity Technology Market Association	China Resources Power (Zhumadian) Co., Ltd.	Jul. 2022
2022 Benchmark Laboratory in the Power Industry of the National Technical Committee on Chemistry in the Power Industry	National Technical Committee on Chemistry in the Power Industry	China Resources Power (Jiaozuo) Co., Ltd.	Jul. 2022
#1 unit rated as AAAA-Grade Generator in 600 MW-Class Ultra Supercritical Liquid-Cooled Generators	China Electricity Council	China Resources Power (Jiaozuo) Co., Ltd.	Aug. 2022
#2 unit rated as AAAA-Grade Generator in 600 MW-Class Ultra Supercritical Liquid-Cooled Generators	China Electricity Council	China Resources Power (Jiaozuo) Co., Ltd.	Aug. 2022
AAAAA Rating, National Wind Farm Production and Operation Indicator – Henan Province in Central China (2021)	Technology Development Service Center of the China Electricity Council	China Resources Wind Power (Shangqiu) Co., Ltd.	Sep. 2022
AAAAA Rating, National Wind Farm Production and Operation Indicators – Henan Province in Central China (2021)	Technology Development Service Center of the China Electricity Council	China Resources Wind Power (Zhoukou) Co., Ltd.	Sep. 2022
AAA Rating, National Wind Farm Production and Operation Indicators – Henan Province in Central China (2021)	Technology Development Service Center of the China Electricity Council	China Resources Wind Power (Yucheng) Co., Ltd.	Sep. 2022
“Red Flag” Project of Zhejiang Provincial Development and Reform Commission in Q2 2022	Zhejiang Provincial Development and Reform Commission	China Resources Offshore Wind Power (Cangnan) Co., Ltd.	Sep. 2022
AAAAA Rating, National Wind Farm Production and Operation Statistical Indicators – Shandong Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Lingcheng Wind Farm (Phase I)	Sep. 2022
AAAA Rating, National Wind Farm Production and Operation Statistical Indicators – Shandong Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Junan Wind Farm (Phase I)	Sep. 2022
AAAA Rating, National Wind Farm Production and Operation Statistical Indicators – Shandong Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Jiaozhou Wind Farm	Sep. 2022
AAAA Rating, National Wind Farm Production and Operation Statistical Indicators – Shandong Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Kenli Wind Farm	Sep. 2022
AAA Rating, National Wind Farm Production and Operation Statistical Indicators – Shandong Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Jiaozhou Wind Farm (Phase III)	Sep. 2022
AAA Rating, National Wind Farm Production and Operation Statistical Indicators – Shandong Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Yiyuan Wind Farm	Sep. 2022
AAA Rating, National Wind Farm Production and Operation Statistical Indicators – Shandong Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Zijiang Wind Farm	Sep. 2022
4A-Grade Excellent Wind Farm, National Wind Farm Production and Operation Statistical Indicators – Shanxi Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Mingfengling Wind Farm (Phase I)	Sep. 2022
5A-Grade Excellent Wind Farm, National Wind Farm Production and Operation Statistical Indicators – Shanxi Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Mingfengling Wind Farm (Phase II)	Sep. 2022
5A-Grade Excellent Wind Farm, National Wind Farm Production and Operation Statistical Indicators – Shanxi Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Mingfengling Wind Farm (Phase III)	Sep. 2022
4A-Grade Excellent Wind Farm, National Wind Farm Production and Operation Statistical Indicators – Shanxi Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Jinfengling Wind Farm	Sep. 2022
3A-Grade Excellent Wind Farm, National Wind Farm Production and Operation Statistical Indicators – Shanxi Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Fufengling Wind Farm (Phase 4)	Sep. 2022

Awards	Conferred by	Recipients	Date
3A-Grade Rating Excellent PV Station, National Wind Farm Production and Operation Statistical Indicators – Shanxi Province in North China (2021)	China Electricity Council	China Resources Power Holdings Co., Ltd. Chunhui PV Station	Sep. 2022
Third prize at the 6th Forum of Thermal Fuel Intelligent Management Technology in 2022	China Electricity Technology Market Association	China Resources Electrical Maintenance (Henan) Co., Ltd.	Oct. 2022
Contract-Honoring and Credit-Worthy Company	Administration for Market Regulation of Hubei Province	China Resources Power (Hubei) Co., Ltd.	Oct. 2022
Application of Integrated Circuit Lightning Protection Device for Wind Farms in Lightning Prone Areas won the third prize in the China Electricity Technology Market Association Award	China Electricity Technology Market Association	China Resources New Energy (Xinzhou) Wind Power Co., Ltd.	Oct. 2022
Application of Integrated Wind Turbine Generator Vibration Monitoring System won the third prize in the China Electricity Technology Market Association Award	China Electricity Technology Market Association	China Resources New Energy (Datong Guangling) Wind Power Co., Ltd.	Oct. 2022
Integrated PV Safety and Fire Protection System Based on Highly-Integrated DSP Algorithm won the third prize in the China Electricity Technology Market Association Award	China Electricity Technology Market Association	China Resources New Energy (Xinrong) Co., Ltd.	Oct. 2022
A Protective Device for the Sheet Radiators of Power Transformer won the third prize in the China Electricity Technology Market Association Award	China Electricity Technology Market Association	China Resources New Energy (Datong Guangling) Wind Power Co., Ltd.	Oct. 2022
Innovative Application of the PV Station AVC Profit Maximization Model won the third prize in the China Electricity Technology Market Association Award	China Electricity Technology Market Association	China Resources New Energy (Datong Yanggao) Wind Power Co., Ltd.	Oct. 2022
Application of Intelligent Power Generation (wind turbine internet + full coverage of intelligent terminals)	China Electricity Technology Market Association	China Resources Power Shanxi New Energy Co., Ltd.	Oct. 2022
AAA rating for power sales company services in Shanxi Province	Energy Administration of Shanxi Province	China Resources Power (Shanxi) Sales Co., Ltd.	Nov. 2022
National Technical Expert	Ministry of Human Resources and Social Security	China Resources Power (Xuzhou) Co., Ltd.	Dec. 2022
Second prize in the 2022 Typical Cases of Carbon Peak and Neutralization Actions Award	China Business Executives Academy, Dalian under SASAC	China Resources Power (Hezhou) Co., Ltd.	Dec. 2022
Hong Kong Green Awards – Green Management Award – Silver	Hong Kong Green Council	China Resources Power (Cangzhou Yundong) Co., Ltd.	Dec. 2022
Third prize in 2022 Innovation Award for Electrical Workers of China Electricity Council Technology	China Electricity Council	China Resources Power (Jiaozuo) Co., Ltd.	Dec. 2022
Third prize of Science and Technology	China Electrotechnical Society	CR Power Energy Science and Technology Co. Ltd.	Dec. 2022
Second prize in Electrical Science and Technology Innovations Award	China Electricity Council	CR Power Energy Science and Technology Co. Ltd.	Dec. 2022
2022 Hong Kong Green Awards – Environmental, Health and Safety Award – Bronze	Hong Kong Green Council	China Resources Power (Jiaozuo) Co., Ltd.	Dec. 2022
Provincial Corporate Technical Center	Department of Industry and Information Technology of Liaoning Province Liaoning Provincial Development and Reform Commission Department of Science and Technology of Liaoning Province Department of Finance of Liaoning Province Liaoning Provincial Tax Service, State Taxation Administration	China Resources Power (Jinzhou) Co., Ltd.	Dec. 2022
Hong Kong Green Awards – Environmental, Health and Safety Award – Bronze	Hong Kong Green Council	China Resources New Energy (Nong'an) Co., Ltd.	Dec. 2022

Key Performance Indicators¹

Development Performance

	Unit	2018	2019	2020	2021	2022
Total assets	HKD bn	208.223	215.736	259.632	287.967	283.388
Net generation volume of subsidiary power plants	GWh	157,019	149,186	154,944	177,300	184,604
Total heat supply	KTJ	92.04	102.48	112.00	115.24	124.62
Attributable operational generation capacity	MW	37,438	40,392	43,365	47,997	52,581

Economic performance²

	Unit	2018	2019	2020	2021	2022
Turnover	HKD bn	76.94	67.76	69.55	90.41	103.31
Operating profit	HKD bn	11.35	12.89	14.09	6.03	13.55
Net profit ³	HKD bn	3.95	6.59	7.58	2.14	7.04
Return on invested capital (ROIC)	%	6.0	6.9	6.8	1.9	3.6
Return on equity (ROE)	%	9.5	12.7	12.3	3.4	7.1
Asset-liability ratio	%	62.9	59.8	59.2	62.6	64.5
Debt to capitalization ratio	%	55.6	52.1	50.5	55.6	57.9
Value appreciation of state-owned assets	%	103.6	109.1	112.7	104.0	106.2
Net cash flows from operating activities	HKD bn	18.10	20.51	20.70	7.97	24.17
New patent licenses	Licenses	198	225	132	346	326

Environmental performance

	Unit	2018	2019	2020	2021	2022
Proportion of installed attributable operational generation capacity of renewable energy projects ⁴	%	20.1	23.3	25.9	32.2	32.3
Total environmental investment	RMB bn	1.518	1.828	1.499	1.477	1.352
Investment in efficiency and emission upgrade	RMB bn	1.283	1.511	1.270	1.096	1.041
Energy consumption per RMB 10,000 industrial added value	tce	11.04	8.90	8.57	13.13	11.89
Water consumption per RMB 10,000 industrial added value	t	90.56	67.98	56.88	85.19	72.71

1. Data marked with “*” have been assured by a third party. Please refer to pages 4-5 for the third-party assurance report. The scope of assurance is CR Power controlled affiliate power plants.
2. Due to changes in accounting policies, economic performance indicators for 2021 have changed from those contained in the last Sustainable Development Report.
3. Refers to net profit attributable to owners of the Company.
4. Renewable energy include wind power, photovoltaic power, and hydropower.

	Unit	2018	2019	2020	2021	2022
Total GHG emissions ⁵	Mt	133.30	134.02	140.71	153.08	152.61*
Direct GHG emissions (Scope 1)	kt	/	/	/	153,037	152,570
Indirect GHG emissions (Scope 2)	kt	/	/	/	43	45
Carbon emission intensity of power generation ⁶	g/kWh	755	728	726	692	680*
Carbon emission intensity of thermal power generation ⁷	g/kWh	834	834	834	837	841*
Comprehensive energy consumption	k tce	29,064.1	27,251.6	27,233.7	30,094.3	29,952.7
Net generation standard coal consumption rate (subsidiary coal-fired power plants) ⁸	g/kWh	299.5	296.6	296.0	296.8	297.2*
Natural gas consumption ⁹	Mm ³	193.64	259.88	285.72	281.27	356.04*
Diesel consumption ⁹	kt	11.0	11.2	12.9	15.1	24.1*
Coal consumption ⁹	kt	77,589.1	73,489.0	74,813.7	83,795.9	88,260.6*
Purchased electricity ¹⁰	MWh	92,117.60	79,682.09	104,513.67	78,080.11	81,054.00*
Oil consumption for power generation	g/MWh	59.10	62.90	69.70	71.05	136.76
Power consumption rate of power plants	%	4.97	4.93	4.85	5.01	5.09
Power consumption rate of factories	%	5.82	5.88	5.85	5.98	6.01
Comprehensive water consumption for power generation	kt	238,433.9	208,088.7	180,671.2	195,185.1	183,155.5
Comprehensive water consumption rate for power generation	t/MWh	1.42	1.32	1.12	1.11	1.05
Wastewater discharge	kt	4,855.9	4,770.6	3,195.0	1,652.0	1,684.6
Wastewater discharge rate ¹¹	g/kWh	28.82	30.06	17.53	9.36	9.61
Chemical oxygen demand (COD)	t	138.03	118.53	55.02	50.86	47.94
Nitrogen oxide emissions	kt	22.6	19.6	19.7	22.0	22.4*
Nitrogen oxide emission rate ¹¹	g/kWh	0.13	0.12	0.12	0.13	0.13*
Sulfur dioxide emissions	kt	13.6	11.2	10.6	12.3	12.4*
Sulfur dioxide emission rate ¹¹	g/kWh	0.08	0.07	0.07	0.07	0.07*
Particulate emissions	kt	1.8	1.4	1.3	1.4	1.5*
Particulate emission rate ¹¹	g/kWh	0.01	0.01	0.01	0.01	0.01*

5. According to the *Enterprise Greenhouse Gas Emissions Accounting and Reporting Guidelines for Power Generation Facilities (2022 Revision)* issued by the Ministry of Ecology and Environment (MEE) (Huanbanqihou [2022] No.111), the greenhouse gas (GHG) emissions in the power generation sector mainly include direct emissions (from burning fossil fuels) and indirect emissions (from purchased electricity). Specifically, the former equals the product of fuel consumption, elemental carbon content, oxidation rate, molecular conversion ratio, and other parameters; the latter equals the product of the amount of purchased electricity and the grid emission factor, which was adjusted from 0.5810 tCO₂/MWh to 0.5703 tCO₂/MWh by MEE in the *Notice on Proper Management of Greenhouse Gas Emission Reporting in the Power Generation Sector from 2023 to 2025* issued on March 2, 2023. The GHG emissions are the sum of the CO₂ emissions from power generation by burning fossil fuels by and those from purchased electricity of CR Power-controlled affiliate power plants. As Taizhou Power Plant, Zhuhai Power Plant, Xiantao Power Plant, and Shanghai Power Plant are not yet on the List of Key Emission Entities Included in the Management of National Carbon Emission Right Quotas Trading for the Power Generation Industry, their emissions are not included in the calculation of GHG emissions in 2022. In the future, we will extend the scope of GHG emission calculation and improve efforts in GHG emission reduction.
6. Carbon emission intensity of power supply = carbon emissions from power supply/total power supply.
7. Carbon emission intensity of thermal power supply = carbon emissions from power supply/total thermal power supply.
8. Refers to the amount of standard coal consumed per unit of power generation, calculated according to the *Calculation Method of Technical and Economic Indicators for Thermal Power Plants* (DL/T 904-2015).
9. Refers to the total amount of energy actually consumed by the Company in production and non-production processes, calculated based on the *Calculation Method of Technical and Economic Indicators for Thermal Power Plants* (DL/T 904-2015).
10. Purchased electricity refers to electricity purchased by the Company from the grid or other power companies.
11. Wastewater discharge rate = wastewater discharge/thermal power generation; nitrogen oxide emission rate = total nitrogen oxide emissions/thermal power generation; sulfur dioxide emission rate = total sulfur dioxide emissions/thermal power generation; particulate emission rate = total particulate emissions/thermal power generation.

	Unit	2018	2019	2020	2021	2022
Installation rate of desulfurization equipment in coal-fired power plants ¹²	%	100	100	100	100	100*
Installation rate of denitrification equipment in coal-fired power plants ¹³	%	100	100	100	100	100*
Total amount of hazardous waste created	kt	3.1	4.5	4.0	5.9	4.9
Density of hazardous waste created	g/MWh	18	25	22	28	23
Total amount of non-hazardous waste created	kt	19,544.7	19,227.6	19,552.5	23,502.3	26,615.4
Density of non-hazardous waste created	t/MWh	0.12	0.12	0.12	0.11	0.12
Comprehensive ash and slag utilization	kt	17,589.7	14,802.8	14,201.7	17,962.3	20,540.3
Comprehensive ash and slag utilization rate	%	95.91	96.46	88.96	92.81	92.56

Social performance

	Unit	2018	2019	2020	2021	2022
Total tax paid	RMB bn	7.040	6.334	6.137	4.570	4.420
Major equipment incident(s)	Incident(s)	0	0	0	0	0
General equipment incident(s)	Incident(s)	0	0	0	0	0
Employee personal injury and fatality incident(s)	Incident(s)	0	2	0	0	0*
Unplanned outage	Times	20	19	19	21	20
Equivalent availability factor	%	91.62	92.28	91.78	92.25	91.94
Certified safety engineers	Person	173	287	366	403	421
Total headcounts	Person	21,629	21,746	21,611	21,252	22,340*
Female employees	Person	4,161	3,987	3,710	3,548	3,090*
Ethnic minority employees	Person	909	901	959	1,008	1,363*
Social security coverage	%	100	100	100	100	100
Total expenditure for employee training	RMB mn	12.80	15.25	4.39	10.30	18.78
Training coverage	%	100	100	100	100	100
Physical examination coverage	%	100	100	100	100	100
Paid holidays per person	Days	8	8	8	8	8
New graduates employed	Person	489	331	319	235	548
Newly added employees	Person	1,639	855	790	933	1,496
Charitable donations	RMB mn	6.07	117.40	175.40	15.43	55.02
Volunteer activities	Participants	6,109	4,315	2,793	1,260	1,568

12. Installation rate of desulfurization equipment in coal-fired power plants = the number of coal-fired thermal power units with desulfurization equipment/the number of coal-fired thermal power units.

13. Installation rate of denitrification equipment in coal-fired power plants = the number of coal-fired thermal power units with denitrification equipment/the number of coal-fired thermal power units.

Key Policy List

ESG Indicator	Key Policy
A1 Emissions	<i>Management Rules for Ecological and Environmental Protection</i> <i>Environmental Protection Technology Supervision Standards for Coal-Fired Units of Thermal Power Plants</i>
A2 Energy Consumption	<i>Energy Conservation Management Standards</i> <i>Energy Conservation Technology Supervision Standards for Coal-Fired Units of Thermal Power Plants</i> <i>Technical Guidelines for the Disposal and Regeneration of Denitrification Catalysts</i>
A3 Environment and Natural Resources	<i>Management Measures for Carbon Assets</i> <i>Guidelines for the "Three Simultaneities" Management of Renewable Energy Projects</i> <i>Management Rules for Ecological and Environmental Protection</i>
A4 Climate Change	<i>Research Report on CR Power Action Plan for Achieving Carbon Peak and Carbon Neutrality</i> <i>Management Measures for Carbon Assets</i>
B1 Employment	<i>Management Measures for Employment Contract</i> <i>Guidelines of the Headquarters for Attendance Management</i> <i>Management Standards for Recruitment</i> <i>Management Standards for Organizational Performance</i> <i>Management Standards of the Headquarters for Individual Performance</i> <i>Management Standards of the Regions for Staff Performance</i> <i>Management Rules for Remuneration and Benefits</i> <i>Guidelines for Remuneration and Benefits Management of Fresh Graduate Employees</i> <i>Management Measures for the Performance of Managers</i> <i>Management Measures for the Remuneration and Benefits of Managers</i>
B2 Health and Safety	<i>Management Measures for EHS Accidents and Incidents</i> <i>Guidelines for the Management of Production Safety Education and Training</i> <i>Management Measures for Occupational Health</i> <i>Management Measures for EHS Supervision</i> <i>Rules on EHS Post Responsibility</i> <i>Integrated EHS Emergency Response Plan</i> <i>Guidelines for Safety Risk Classification and Control</i> <i>Management Standards for Overseas Emergency</i> <i>EHS Risk Assessment Criteria for Thermal Power Companies (Tentative)</i> <i>EHS Risk Assessment Criteria for Wind Power Companies (Tentative)</i> <i>EHS Risk Assessment Criteria for PV Power Companies</i> <i>EHS Risk Assessment Criteria for Hydropower Companies (Tentative)</i> <i>Management Measures for EHS Performance Evaluation</i> <i>Management Measures for EHS Rewards</i> <i>Guidelines for the Management of Safe Isolation and Control of Hazardous Energy</i> <i>Violation Management Guidelines (2021)</i>

ESG Indicator	Key Policy
	<i>Accountability for EHS Accidents and Incidents</i> <i>Management Measures for EHS Supervision</i> <i>Management Measures for EHS Accidents and Incidents</i> <i>Production Safety Provisions</i> <i>Management Measures for Production Safety Objective and Responsibility</i> <i>Management Measures for Fire Protection</i>
B3 Development and Training	<i>Guidelines of the Headquarters for External Training Management</i> <i>Management Standards for Headquarters Employee Rank Adjustment</i> <i>Management Measures for Internal Trainers</i> <i>Guidelines for the Development of Fresh Graduate Employees</i> <i>Hierarchy Chart (2021 Tentative)</i>
B4 Labor Principles	<i>Management Measures for Employment Contract</i> <i>Management Standards for Recruitment</i>
B5 Supply Chain Management	<i>Guidelines for the Management of EHS Stakeholders</i> <i>Management Measures for the Recording, Announcement, and Accountability of Managers that Interfere in Bidding Procedures and Projects</i> <i>Guidelines for Handling Objections and Complaints in Procurement Bidding</i> <i>Management Measures for Suppliers (Tentative)</i> <i>Management Rules for Procurement</i>
B6 Product Liability	<i>Rules on Inspection and Evaluation of Construction Project Quality Assurance System</i> <i>Power Quality Technology Supervision Standards for Power Plants</i> <i>Management Standards for Knowledge</i> <i>Management Standards for Information Security</i> <i>Management Specifications for Information System Security</i> <i>Management Specifications for Cybersecurity Incidents</i> <i>Guidelines for the Cybersecurity Management of Industrial Control Systems</i> <i>Management Rules for Legal Dispute Cases</i> <i>Guidelines for Risk Management in Electricity Sales</i> <i>Management Measures for Reporting of Major Operational Risks and Incidents</i> <i>Management Measures for Consultation with Technology Experts</i>

ESG Indicator	Key Policy
B7 Anti-Corruption	<i>Management Measures for Audits and Rectifications</i> <i>Management Standards for State-Owned Assets Supervision</i> <i>Management Measures for the Integrity and Self-Discipline Information of Managers and Key Employees</i> <i>Implementation Measures for Integrity Talks</i> <i>Management Rules for Internal Audit</i> <i>Risk Management Manual</i> <i>Management Measures for the Reporting of Major Business Risk Events</i> <i>Guidelines for Internal Control Evaluation</i> <i>Management Rules for Procurement</i> <i>Code of Integrity</i> <i>Sunshine Declaration</i> <i>Management Measures for Chief Financial Officers</i> <i>Management Measures for Chief Financial Officers from Corporate Shareholders</i> <i>Guidelines for the Evaluation of Chief Financial Officers of Affiliate Companies (Tentative)</i> <i>General Supervision Handbook</i> <i>Management Measures for Related-Party Transactions by Managers</i> <i>Interim Measures for Regulating Managers and Key Employees in Investing, Running, and Establishing Other Businesses,</i> <i>Management Rules for Compliance</i>
B8 Investment in Communities	<i>Management Measures for Donations</i> <i>Management Standards for Social Responsibility Programs</i> <i>Guidelines for Poverty Alleviation through Wind Power Projects</i>



中国企业社会责任报告
评级专家委员会
Chinese Expert Committee on CSR Report Rating

Rating Report

Rating Report of Sustainable Development Report 2022 of China Resources Power Holdings Co., Ltd.

Entrusted by China Resources Power Holdings Co., Ltd., the Chinese Expert Committee on CSR Report Rating selected experts to form a rating team to rate *Sustainable Development Report 2022 of China Resources Power Holdings Co., Ltd.* (hereinafter referred to as "the Report").

I. Rating Criteria

Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-ESG 5.0) of the Chinese Academy of Social Sciences and *China Corporate Social Responsibility Report Rating Standards (2023)* of "Corporate Social Responsibility Report Rating Expert Committee of Chinese Enterprises".

II. Rating Process

1. The rating team reviews and confirms the *Process Data Confirmation of Corporate Social Responsibility Report* submitted by the report writing group and relevant supporting materials;
2. The rating team conducts evaluation on the preparation process and the content disclosed by the Report, and then drafts the rating report;
3. The Vice Chairman of the Rating Expert Committee, the leader of the rating team, and the experts of the rating team jointly sign the rating report.

III. Rating Results

Process (★★★★★)

The Company's sustainable development committee has led the establishment of report preparation work group in which the independent non-executive director serves as the chairman of the committee to controls the overall direction of the Report. The board of directors is responsible for the final review of the Report; the Report, with definite function value position, is taken as an important tool for compliantly disclosing responsibility performance, improving ESG management, responding to capital market requirements, strengthening the communication between stakeholders and enhancing brand image; substantive issues are identified based on the national macro policies, international and domestic social responsibility standards, company development planning and stakeholder investigation, to build a social responsibility index system with characteristics of China Resources Power; the affiliated Guangxi Branch of China Resources Power is promoted to prepare the social responsibility report, with excellent performance in process.

Materiality (★★★★★)

The Report systematically discloses the key industrial issues such as ESG governance improvement, servicing national strategy, product technology innovation, product quality management, saving resources and energy, reduction of emission of "three wastes", addressing climate change, protection of intellectual property, safety production, employee health and safety, staff development and training, and sustainable supply chain, with detailed and full description and excellent performance in materiality.

Integrity (★★★★★)

The main body of the Report discloses 90.20% of the core indicators of the industry from the perspectives of "leading low-carbon transition under the dual carbon goal", "conducting compliant operations as always", "fostering win-win innovation through value-added empowerment", "respecting and thriving with employees", and "building better life through joint efforts", with excellent performance in integrity.

Balance (★★★★★)

The Report reveals the negative data such as "employee turnover rate", "major equipment incidents", "general equipment incidents", "employee personal injury and fatality incidents", and "unplanned outage", and describes in detail the progress and results of the handling of disciplinary violations, with excellent performance in balance.

Comparability (★★★★★)

The Report discloses the comparative data of 69 key indicators such as "investment in efficiency and emission upgrade", "comprehensive ash and slag utilization rate", "newly added employees", "charitable donations", "new patent licenses", and "attributable operational generation capacity" for three consecutive years, emphasizes the use of consistent disclosure statistics, explained in detail the statistical caliber of core indicators such as "total greenhouse gas emissions", "carbon emission intensity in power generation" and "purchased electricity", and makes a horizontal comparison on the data such as "No. 187 place among Top 250 Global Energy Companies Rated by Platts" and "No.1,305 place in Forbes Global 2,000", with excellent performance in comparability.

Readability (★★★★★)

Taking "securing energy supply to promote development" as the responsibility topic, the Report highlights the enterprises' practices in securing energy supply, demonstrating the responsibility of a central state-owned enterprise; the Report fully displays the company's responsibility performance and results in environmental protection, corporate management, innovation and cooperation, employee empowerment, and community development in five chapters, with a clear framework structure and prominent topics; each chapter starts with "challenges to be faced", "our actions" and "main performance" with well-organized outline and strong



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leading role, which can help the related parties to grasp the key information rapidly; the cover design adopts cartoon illustration style and integrates corporate landmarks, main business elements and characteristic logos, enhancing the identification and vividness of the *Report*; the *Report* presents a simple design style, with visual comparison charts to highlight the effectiveness of the company's responsibility performance, significantly enhancing the readability of the *Report*, with excellent performance in readability.

Accessibility (★★★★★)

The publication date of the *Report* is aligned with the Annual Report's, allowing stakeholders to grasp the information on corporate governance, environmental protection, and fulfillment of social responsibility at an early stage; the *Report* is planned to be published on the official website of the Company and Hong Kong Stock Exchange, and be disseminated through social channels such as the official account; the *Report* is allowed to be accessed by searching online and mailing, with excellent performance in accessibility.

Overall Rating (★★★★★+)

According to the rating team's assessment, *Sustainable Development Report 2022 of China Resources Power Holdings Co., Ltd.* is of five-star plus rating and is the model of corporate social responsibility (CSR) report.



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The Sustainable Development Report of China Resources Power Holdings Co., Ltd. had been rated five stars for four consecutive years and was rated five-star plus for the fourth year in succession.

IV. Improvement Suggestions

Enhance the disclosure of the core indicators of the industry and improve the integrity of the Report.

Vice President of Chinese Expert Committee on
CSR Report Rating

Leader of the Rating Team

Expert of the Rating Team



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Report Index 1 – HKEx’s Environmental, Social and Governance Reporting Guide

Subject Areas, Aspects, General Disclosures and KPIs		Mapping Chapters
A. Environmental		
Aspect A1: Emissions	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	<ul style="list-style-type: none"> Improving Environmental Management Optimizing the Utilization of Resources
KPI A1.1	The types of emissions and respective emissions data	<ul style="list-style-type: none"> Key Performance Indicators
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<ul style="list-style-type: none"> Key Performance Indicators
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<ul style="list-style-type: none"> Key Performance Indicators
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<ul style="list-style-type: none"> Key Performance Indicators
KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	<ul style="list-style-type: none"> Improving Environmental Management
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	<ul style="list-style-type: none"> Optimizing the Utilization of Resources
Aspect A2: Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials.	<ul style="list-style-type: none"> Optimizing the Utilization of Resources
KPI A2.1	Direct and / or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	<ul style="list-style-type: none"> Key Performance Indicators
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	<ul style="list-style-type: none"> Optimizing the Utilization of Resources Key Performance Indicators
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	<ul style="list-style-type: none"> Improving Environmental Management Optimizing the Utilization of Resources
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	<ul style="list-style-type: none"> Optimizing the Utilization of Resources
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	<ul style="list-style-type: none"> N/A
Aspect A3: The Environment and Natural Resources	General Disclosure Policies on minimizing the issuer's significant impact on the environment and natural resources.	<ul style="list-style-type: none"> Leading Low-Carbon Transition under the Dual Carbon Goals
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	<ul style="list-style-type: none"> Leading Low-Carbon Transition under the Dual Carbon Goals

Subject Areas, Aspects, General Disclosures and KPIs			Mapping Chapters
Aspect A4: Climate Change	General Disclosure: Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.		<ul style="list-style-type: none"> Addressing Climate Change
	KPI A4.1 Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.		<ul style="list-style-type: none"> Addressing Climate Change
B. Social			
Employment and Labour Practices			
Aspect B1: Employment	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.		<ul style="list-style-type: none"> Respecting Employees' Rights and Interests Key Policy List
	KPI B1.1 Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.		<ul style="list-style-type: none"> Respecting Employees' Rights and Interests
	KPI B1.2 Employee turnover rate by gender, age group and geographical region.		<ul style="list-style-type: none"> Respecting Employees' Rights and Interests
Aspect B2: Health and Safety	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.		<ul style="list-style-type: none"> Caring for Employees
	KPI B2.1 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.		<ul style="list-style-type: none"> Caring for Employees
	KPI B2.2 Lost days due to work injury.		<ul style="list-style-type: none"> Caring for Employees
	KPI B2.3 Description of occupational health and safety measures adopted, and how they are implemented and monitored.		<ul style="list-style-type: none"> Caring for Employees
Aspect B3: Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.		<ul style="list-style-type: none"> Motivating Employees to Move Forward
	KPI B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).		<ul style="list-style-type: none"> Motivating Employees to Move Forward
	KPI B3.2 The average training hours completed per employee by gender and employee category		<ul style="list-style-type: none"> Motivating Employees to Move Forward
Aspect B4: Labour Standards	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.		<ul style="list-style-type: none"> Respecting Employees' Rights and Interests Key Policy List
	KPI B4.1 Description of measures to review employment practices to avoid child and forced labour.		<ul style="list-style-type: none"> Respecting Employees' Rights and Interests
	KPI B4.2 Description of steps taken to eliminate such practices when discovered.		<ul style="list-style-type: none"> Respecting Employees' Rights and Interests

Subject Areas, Aspects, General Disclosures and KPIs			Mapping Chapters
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Aspect B5: Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain.		<ul style="list-style-type: none"> Promoting Open Cooperation
	KPI B5.1	Number of suppliers by geographical region.	<ul style="list-style-type: none"> Promoting Open Cooperation
	KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	<ul style="list-style-type: none"> Promoting Open Cooperation
	KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	<ul style="list-style-type: none"> Promoting Open Cooperation
	KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	<ul style="list-style-type: none"> Promoting Open Cooperation
Aspect B6: Product Responsibility	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labeling and privacy matters relating to products and services provided and methods of redress.		<ul style="list-style-type: none"> Offering Quality Services
	KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	<ul style="list-style-type: none"> N/A
	KPI B6.2	Number of products and service related complaints received and how they are dealt with.	<ul style="list-style-type: none"> Offering Quality Services
	KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	<ul style="list-style-type: none"> Unleashing the Potential of Technological Innovation
	KPI B6.4	Description of quality assurance process and recall procedures.	<ul style="list-style-type: none"> NA
	KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	<ul style="list-style-type: none"> Unleashing the Potential of Technological Innovation
Aspect B7: Anticorruption	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.		<ul style="list-style-type: none"> Carrying out Compliant Operations
	KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	<ul style="list-style-type: none"> Carrying out Compliant Operations
	KPI B7.2	Description of preventive measures and whistleblowing procedures, and how they are implemented and monitored.	<ul style="list-style-type: none"> Carrying out Compliant Operations
	KPI B7.3	Description of anti-corruption training provided to directors and staff.	<ul style="list-style-type: none"> Carrying out Compliant Operations
Community			
Aspect B8: Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.		<ul style="list-style-type: none"> Engaging in Charity
	KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	<ul style="list-style-type: none"> Building Better Life through Joint Efforts
	KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	<ul style="list-style-type: none"> Building Better Life through Joint Efforts Key Performance Indicators

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